A Grammar of Kunbarlang

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Abstract

This thesis is a comprehensive description of Kunbarlang, an Aboriginal language from northern Australia. The description and analysis are based on my original field work, as well as build on the preceding body of work by other scholars. Between 2015 and 2018 I have done field work in Warruwi (South Goulburn Island), Maningrida, and Darwin. The data elicited in those trips and the recordings of narratives and semi-spontaneous conversation constitute the foundation of the present grammar. However, I was fortunate in that I was not working from scratch. Carolin Coleman did foundational work on Kunbarlang in central-western Arnhem Land from 1981, which resulted in the first grammar of the language (Coleman 1982). In her subsequent work in the area in the 1990’s, she carried on with lexicographic research in Kunbarlang, Mawng and Maningrida languages. More recently, Dr. Aung Si (Universität zu Köln), Dr. Isabel O’Keeffe (University of Sydney), and Dr. Ruth Singer (University of Melbourne / Australian National University) made a number of recordings of Kunbarlang speakers at Maningrida, Warruwi, Minjilang and Darwin. These recordings provided an invaluable extension to the empirical basis of this grammar.

Kunbarlang is a nominative-accusative language with secundative indexing of objects. It belongs to the non-Pama-Nyungan Gunwinyguan language family, and like all Gunwinyguan languages is highly polysynthetic. This means that it has very rich verbal morphology: the morphosyntax of the verbal word is at the heart of the Kunbarlang structure. In fact, the verbs are so self-sufficient that any well-formed verb can be a full utterance in Kunbarlang. In the nominal domain, on the other hand, morphology is very economical — probably more so than in any other Gunwinyguan language.

However, there is much more to the Kunbarlang grammar than its polysynthetic nature and the contrasts in the morphosyntax of the verbal and the nominal domain. Kunbarlang is nowhere short of interesting properties, both from the Australianist perspective and from the broader typological point of view. In the sound system there is — unusually for an Australian language — retention of retroflexion in heterorganic clusters. Kunbarlang is agglutinating with little morphophonology, yet one finds interaction in nasal–nasal clusters that stands out against what is known as the norm of harmonic cluster resolution across Australian languages.
In the area of nominal morphosyntax, Kunbarlang has a system of four noun classes (grammatical genders), which on par with Kunwinjku is the largest retained noun class system in the Gunwinyguan family (inherited from the proto-Gunwinyguan five-class system). Kunbarlang also has a system of three cases. Although nouns do not have any case morphology of their own, there is an unusual construction with case-marked pronouns that allows nouns to be case-marked analytically. In the course of my work I took care to investigate certain topics that do not traditionally receive close attention in grammar writing, such as the quantificational expressions.

The verb, and more broadly, verbal constructions in Kunbarlang offer a wealth of interesting topics both in inflection and in derivation. Polypersonal agreement morphology of the verb presents exuberant paradigmatic complexity, at the same time standing out within the Gunwinyguan family in terms of its agglutinating separability of the subject and object prefixes. This inflectional system appears to be in a transitioning phase, perhaps starting to fuse certain prefix combinations into portmanteaux, but currently individual morphemes are still divisible with barely any exceptions. This complexity is further increased by the fact that subject prefixes coordinate with verbal stems in so-called composite tense and mood encoding. Valency-changing derivations and their interaction is an area of interesting micro-variation in a single morphosyntactic domain within a genetic group of languages.

Another aspect of predicate formation that distinguishes Kunbarlang from the other Gunwinyguan languages is the coverb construction: a particular bipartite verbal structure that is clearly related to other predicate formation options found within the family, yet is formally distinct from constructions in those other languages. Interestingly, the Kunbarlang coverb construction is formally very similar to the one found in Mawng, an Iwaidjan language which has been in especially close contact with Kunbarlang for the last hundred years. One more Kunbarlang construction that has a close correspondence in Mawng is the typologically rare analytical reciprocal construction with contrastive pronouns, probably developed from a biclausal structure.

Word order in Kunbarlang is constrained by information structure, rather than grammatical function of the constituents in the clause. It shows similarity to other Australian languages where there are particular prominent positions in the clause, viz. its edges. Moreover, Kunbarlang shows a strong tendency for the subject–verb–object order. There are no infinitives in Kunbarlang, but it has a small array of subordinate structures of various types: complement, relative, and adverbal clauses. Since morphological (or lexical) marking of these subordinate constructions is sparse, it is interesting to investigate the formal means signalling subordination and diagnostics that can be used for it.

The grammar concludes with a selection of three texts in different genres: a narrative, a procedural text, and a fragment of a dialogue.
Declaration

This is to certify that

1. the thesis comprises only my original work towards the PhD,
2. due acknowledgement has been made in the text to all other material used,
3. the thesis is less than 100,000 words in length, exclusive of tables, maps, bibliographies and appendices.

Ivan Kapitonov
ORCID: 0000-0002-1603-6265, July 2019
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# Contents

## Abbreviations

xxiii

## Guide to recordings

xxv

### 1 Language and its speakers

1.1 The Kunbarlang people: background ........................................ 1

1.1.1 Social organization ........................................... 3

1.1.1.1 Kinship .............................................. 5

1.1.1.2 Language and land ........................................... 5

1.1.1.3 Subsections and moieties ........................................... 6

1.2 Kunbarlang among the Gunwinjguan languages .......................... 7

1.3 Fieldwork: consultants and methodology ................................. 10

1.4 Previous work and the contribution of this thesis ...................... 12

1.5 Overview of the grammar .............................................. 13

### 2 Phonetics and phonology

2.1 Segmental units: an overview ........................................... 15

2.2 Practical orthography .............................................. 16

2.3 Vowels .............................................. 17

2.4 Consonants .............................................. 18

2.4.1 Phonetic description and allophonic distribution of consonants 19

2.4.2 Phonemic oppositions: consonants ...................................... 21

2.4.2.1 Place of articulation contrasts ...................................... 21

2.4.2.1.1 Lenis stops: b, d, rd, dj, k ...................................... 21

2.4.2.1.2 Nasals: m, n, rn, nj, ng ...................................... 22

2.4.2.1.3 Laterals: l, rl ...................................... 22

2.4.2.1.4 Semivowels: w, y ...................................... 22

2.4.2.2 Manner of articulation contrasts ...................................... 22

2.4.2.2.1 Labials: p, bb, m, w ...................................... 22

2.4.2.2.2 Alveolars: d, dd, n, l, rr ...................................... 23

2.4.2.2.3 Retroflexes: rd, rdd, rn, rl, r ...................................... 23
2.4.2.4 Palatals: dj, ddj, nj, y ........................................ 23
2.4.2.5 Velars: k, kk, ng .................................................. 23

2.5 Phonotactics ................................................................. 24
2.5.1 Syllables with simple/empty codas ................................. 26
2.5.2 Syllables with consonant cluster codas ............................ 26
2.5.3 Morpheme-initial position ......................................... 27
2.5.3.1 Retroflexion retention following heterorganic conso-
nants ........................................................................... 29
2.5.4 Morpheme-final position .............................................. 30

2.6 Stress ............................................................................. 32

2.7 Morphophonology ............................................................. 35
2.7.1 Lenition of the initial segment of -buk ‘person’ ............... 36
2.7.2 Mid vowel raising between palatal segments ................ 36
2.7.3 Nasal cluster simplification ....................................... 37
2.7.4 Manner assimilation of nasals .................................... 40

2.8 Reduplication ................................................................. 41
2.8.1 Non-verbal reduplication ......................................... 42
2.8.2 Verbal reduplication .................................................. 42

3 Grammatical overview ......................................................... 45
3.1 Typological features and grammatical functions ................. 45
3.2 Parts of speech ................................................................. 47
3.2.1 Nouns ....................................................................... 49
3.2.2 Adjectives ................................................................. 50
3.2.3 Adverbs .................................................................... 54
3.2.4 Verbs ........................................................................ 55
3.2.4.1 Kinship verbs ....................................................... 58
3.2.5 Coverbs and preverbs ............................................... 59
3.2.5.1 Coverbs ............................................................... 60
3.2.5.2 Preverbs .............................................................. 63
3.2.6 Noun markers ........................................................... 65
3.2.7 Pronouns .................................................................. 67
3.2.7.1 Personal pronouns ............................................... 67
3.2.7.2 Demonstrative pronouns ..................................... 68
3.2.7.3 Interrogative pronouns ......................................... 68
3.2.8 Numerals and other quantifiers .................................. 69
3.2.9 Prepositions ............................................................... 69
3.2.10 Connectives ............................................................. 70
3.2.11 Particles and interjections ....................................... 71
3.3 Wordhood, clitics, and affixes ........................................ 72
4 Nominals

4.1 Noun class ................................................. 75
  4.1.1 Background ......................................... 75
  4.1.2 Noun class membership ............................. 76
  4.1.3 Morphosyntax ...................................... 78
4.2 Case ...................................................... 83
4.3 Noun phrase .............................................. 85
  4.3.1 Word order ........................................... 86
  4.3.2 Analytic case marking and determining pronouns .... 87
  4.3.3 Noun phrase discontinuity ......................... 90
4.4 Pronominals .............................................. 91
  4.4.1 Personal pronouns .................................. 91
     4.4.1.1 The human pronoun -buk .................... 98
     4.4.1.2 Contrastive -ma .............................. 100
     4.4.1.3 The ‘turn’ construction .................... 101
     4.4.1.4 Dual pronouns: asyndetic coordinate construction . 102
  4.4.2 Inclusory constructions ........................... 103
  4.4.3 Demonstrative pronouns ............................ 105
     4.4.3.1 Discourse functions of the demonstrative ngorro . 109
  4.4.4 Interrogative pronouns ............................. 110
  4.4.5 Indefinite and ignorantive pronouns ............... 113
4.5 Possession ............................................... 116
  4.5.1 Alienable possession ............................... 117
  4.5.2 Inalienable possession ............................ 118
     4.5.2.1 Proprietary and other extended usage .... 121
  4.5.3 Typological remarks ................................ 123
4.6 Quantifiers .............................................. 125
  4.6.1 Terminological and methodological preliminaries .... 125
     4.6.1.1 Quantifiers: a definition .................. 126
     4.6.1.2 Quantifiers: a methodology ............... 126
  4.6.2 Generalized Existential (Intersective) Quantifiers .. 129
     4.6.2.1 D-Quantifiers ................................ 129
        4.6.2.1.1 Cardinal numerals ...................... 130
     4.6.2.2 A-Quantifiers ................................ 131
  4.6.3 Generalized Universal (Co-intersective) Quantifiers .. 132
     4.6.3.1 D-Quantifiers ................................ 132
     4.6.3.2 A-Quantifiers ................................ 134
        4.6.3.2.1 Quantifier munguy ‘a long time’ .... 135
4.7 Noun markers ............................................ 136
6.4.2 *kaburrk*- ‘collectively’ .............................. 224
6.4.3 *mulmul*- ‘many’ ...................................... 225
6.4.4 *nganj*- ‘hither’ ....................................... 225
6.4.5 *mun*- ‘thither’ ......................................... 226
6.4.6 *rnak*- ‘just’ ........................................... 227
6.4.7 *warribo*- ‘inadvertive’ ............................... 228
6.4.8 *woh*- ‘incompletely’ .................................. 229

6.5 Coverb constructions ...................................... 230
6.5.1 Structural parallels ..................................... 234
6.5.2 Etymology .............................................. 237
6.5.2.1 Mawng coverb constructions ...................... 237
6.5.2.2 Lexical correspondence ............................. 238

7 Clause structure ............................................. 243
7.1 Word order and information structure ................... 244
7.1.1 Subject–Verb–Object as the default word order ...... 247
7.1.2 The initial position .................................... 249
7.1.3 Afterthoughts ........................................... 253
7.1.4 Word order in the noun phrase ....................... 255
7.2 Aspectual constructions .................................. 258
7.2.1 The imperfective auxiliary construction .......... 258
7.2.2 Stylistic lengthening .................................. 262
7.3 Negation .................................................... 264
7.4 Questions .................................................. 267
7.4.1 Polar questions ......................................... 267
7.4.2 Constituent questions .................................. 268
7.5 Imperatives ................................................ 270
7.6 Directionals .............................................. 271
7.7 Stative clause types ....................................... 275
7.7.1 Ascriptive clauses ...................................... 275
7.7.2 Possessive clauses .................................... 276
7.7.2.1 Indefinite possessum ............................. 277
7.7.2.2 Definite possessum ............................... 278
7.7.3 Locative and existential clauses ..................... 279
7.7.3.1 The form of locative and existential clauses .... 279
7.7.3.2 Choice of the copula ............................. 281
7.7.4 Comparative and superlative clauses ................. 282
7.7.4.1 Comparative clauses ............................. 283
7.7.4.2 Superlative clauses .............................. 285
7.8 Anaphora and reference maintenance .................... 286
8 Complex syntax
  8.1 Clausal coordination ........................................... 289
  8.2 Subordination: preliminaries ................................ 291
  8.3 Complement clauses ............................................. 294
    8.3.1 Causatives ................................................... 297
    8.3.2 Elements functioning as complementizers ............... 299
    8.3.3 Tense and mood forms in the expressions of desires ... 300
  8.4 Relativisation .................................................. 304
    8.4.1 Types of Kunbarlang relative clauses .................. 306
      8.4.1.1 Headed relative clauses .............................. 306
      8.4.1.2 Free relative clauses ............................... 311
    8.4.2 Arguments for relativisation in Kunbarlang .......... 314
    8.4.3 Accessibility hierarchy ................................... 317
      8.4.3.1 Headed relative clauses .............................. 317
      8.4.3.2 Free relative clauses ............................... 319
  8.5 Adverbial clauses ............................................... 320
    8.5.1 Purpose and cause clauses ............................... 321
    8.5.2 Locative clauses ........................................... 324
    8.5.3 Time clauses ................................................ 324
    8.5.4 Conditional adverbial clauses ............................ 326
      8.5.4.1 Real conditionals .................................... 326
      8.5.4.2 Counterfactual conditionals ......................... 327

9 Conclusion .......................................................... 329

A Texts ......................................................................... 333
  A.1 Trip to the mainland ............................................... 333
  A.2 Making damper ..................................................... 338
  A.3 Spot-the-Difference game dialogue ............................ 340

Bibliography .............................................................. 347
# List of Figures

1.1 Kunbarlang land and surrounding languages ........................................ 3  
1.2 “The Pama-Nyungan offshoot model”, after Evans (2003b: 10) ............... 7  
1.3 The Gunwinyguan language family ......................................................... 8  
2.1 Pitch and intensity contours of *nganjrukkume* ........................................ 33  
4.1 Materials: quantifier elicitation .............................................................. 127  
4.2 Materials: quantifier elicitation .............................................................. 128  
5.1 Gunwinyguan TAM categories ................................................................. 172  
5.2 Kunbarlang TAM categories ................................................................. 173  
7.1 Pitch contour of an afterthought .......................................................... 254  
7.2 Pitch contour of the IAC [20060814IB03/01:00] ...................................... 262  
7.3 Waveform of *ka-bardi-djarrang* [20060606IB02/09:49] .......................... 263  
7.4 Stylistic lengthening: *ka-bun-djarra:ng* ............................................. 264
List of Tables

1 List of spontaneous discourse recordings ........................................ xxvi
2.1 Consonant phonemic inventory of Kunbarlang ............................. 15
2.2 Vowel phonemic inventory of Kunbarlang ................................. 16
2.3 Kunbarlang orthography ......................................................... 17
2.4 Kunbarlang vocalic phoneme frequencies .................................. 17
2.5 Kunbarlang consonantal phoneme frequencies ............................ 18
2.6 Vowel-initial words in Kunbarlang ........................................... 28
2.7 Occurrence of consonants in morpheme-initial position ............... 29
2.8 Occurrence of consonants in morpheme-final position ................. 31
2.9 Occurrence of vowels in word-final position .............................. 32
3.1 Adjectival paradigm (for -mak ‘good’) ..................................... 52
3.2 A sample of Kunbarlang adverbs ............................................. 56
3.3 Kunbarlang kinship verbs ....................................................... 59
4.1 Noun class paradigms ............................................................ 79
4.2 Personal pronoun paradigm: Direct forms ................................ 92
4.3 Personal pronoun paradigm: Oblique forms ............................... 95
4.4 Coordinate and inclusory dual pronouns ................................... 103
4.5 Kunbarlang demonstrative pronouns noun class paradigm .......... 106
4.6 Kunbarlang locative demonstrative pronouns paradigm ............. 106
5.1 Verbal template in Kunbarlang .................................................. 142
5.2 Verbal template in Bininj Kunwok .......................................... 143
5.3 Classification of Kunbarlang objects ....................................... 145
5.4 Intransitive subjects: Realis Non-Future ................................ 152
5.5 Intransitive subjects: Realis Future ......................................... 152
5.6 Intransitive subjects: Irrealis Non-Past .................................... 153
5.7 Intransitive subjects: Irrealis Past ............................................ 154
5.8 Basic object prefixes ............................................................. 154
5.9 Transitive paradigms: Realis Non-Future ................................. 156
5.10 Transitive paradigms: Realis Future ........................................ 157
5.11 Transitive paradigms: Irrealis Non-Past ................................. 158
5.12 Transitive paradigms: Irrealis Past ........................................ 159
5.13 Kunbarlang conjugational classes ......................................... 170
5.14 Posture verb forms in Kunbarlang ....................................... 171
5.15 Irregular conjugation verb stems in Kunbarlang ..................... 172
5.16 Paradigms of *pu- .......................................................... 174
5.17 Class iv IrrNonPast ......................................................... 175
5.18 Tense/mood morphological combinations ............................. 176
5.19 Example tense/mood paradigm ........................................... 176
5.20 Combinations of subject prefixes and status endings (Coleman 1982) . 180

6.1 Incorporating nominal roots ............................................... 215
6.2 Verbal template in Kunbarlang ........................................... 222
6.3 Kunbarlang incorporating adverbs ....................................... 222
6.4 Light verbs of the coverb constructions ................................ 231
6.5 Kunbarlang coverbs with correspondence in Mawng .............. 238
6.6 Kunbarlang coverbs with correspondence in Bininj Kunwok ...... 239
6.7 Kunbarlang coverbs with correspondence in Dalabon .............. 240
6.8 Kunbarlang coverbs with correspondence in Ngandi ............... 240
6.9 Kunbarlang coverbs without established correspondence ........ 241

8.1 Combinations of predicates with subordinate markers ............ 300
Abbreviations

1 first person IGNOR ignorative
2 second person II class II
3 third person III class III
A agent INADV inadvertitive
ALL aforementioned INCH inchoative
ANIM animate INCP inclusive
AUX auxiliary INDF indefinite
BEN benefactive INTJ interjection
CAUS causative IRR irrealis
COLL collectively IV class IV
COM comitative LIM delimitative
COMP complementizer LL land gender
CONJ conjunction LNK linker
CONTR contrastive LOC locative
DAT dative M masculine
DEM demonstrative MA masculine gender
DIST distal MED medial
DISTR distributive NEG negative
DU dual NEUT neuter class
ELA elative NF non-future
EMPH emphatic NM noun marker
ENG English NMA non-masculine
ERG ergative NP non-past
EXCL exclusive NSG non-singular
FUT future OBJ object
FV final vowel OBL oblique
GEN genitive PC past continuous
GEN genitive PI past imperfect
HITH hither PL plural
I class I PLURAC pluractionality

xxiii
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Meaning</th>
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<tr>
<td>POSS</td>
<td>possessive</td>
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<td>RDP</td>
<td>reduplication</td>
</tr>
<tr>
<td>REFL</td>
<td>reflexive</td>
</tr>
<tr>
<td>REL</td>
<td>relative</td>
</tr>
<tr>
<td>SG</td>
<td>singular</td>
</tr>
<tr>
<td>SUBJ</td>
<td>subjunctive</td>
</tr>
<tr>
<td>THITH</td>
<td>thither</td>
</tr>
<tr>
<td>TOP</td>
<td>topic</td>
</tr>
<tr>
<td>VEG</td>
<td>vegetable gender</td>
</tr>
</tbody>
</table>

Within examples:

- the parentheses around some element indicate its optionality in the given context
- the asterisk * denotes an ungrammatical form of a word or sentence (except when used in context of historical reconstruction, where it denotes the reconstructed proto-form). The combination of parenthesis and asterisk reads as follows
  - \( a \ (\ast x) \ b \) indicates that the form \( x \) cannot be used in the context of \( a \) and \( b \) (with \( a \ b \) being grammatical otherwise)
  - \( a \ \ast (x) \ b \) indicates that the form \( x \) cannot be omitted in the context of \( a \) and \( b \) (that is: \( a \ x \ b \) is good, but \( a \ b \) is not)
- the hash-mark # denotes a form that is grammatical, but semantically anomalous in the given context (or inherently semantically inconsistent)
- the examples are given in the practical orthography (see §2.2) and separated into morphemes with hyphens (-); clitics are separated by the equals sign (=)
- audibly long pauses may be indicated in examples by a double pipe symbol (||)
- free translation line ends with a pointer to the source of the example, i.e. the archival collection, in the format \([\text{rec}/\text{time}]\), where \( \text{rec} \) is the name of the archival item (from which fuller detail can be found out via the list of recordings), and the \( \text{time} \) is the location of the fragment in the recording as (HH:MM:SS)

An extra line above the example line is added in one of two cases: (i) when a phonetic transcription is in order, in which case the top line includes a transcription in the International Phonetic Alphabet (IPA); or (ii) when I wish to show the division of a longer example into clauses, in which case the practical orthography is used, but no morpheme breaks are made, and the clauses are separated by the pipeline symbol with upper indices (e.g., |^1|).
Guide to recordings

This is the guide to recordings that have been used in this thesis. There are two major sets of such recordings: those that I made between 2015 and 2018, and those made by Isabel O’Keeffe between 2006 and 2015. Moreover, there are four recordings made by Aung Si and two by Ruth Singer.

The recordings that are of the format IK1-YYMMDD_XXX-NN are made by myself in the course of my field work. They are to be found archived in PARADISEC at http://catalog.paradisec.org.au/collections/IK1. The YYMMDD field indicates the date when the recording has been made. The XXX field distinguishes different sessions within the day, typically with different speakers. Finally, the NN part indicates different files, e.g. in the situation where several files were produced in a single recording session. There are 192 recordings from my field work, made with 24 speakers of Kunbarlang. The audio files range from several lexical items to some very long (over an hour) elicitation sessions. Elicitations make up the majority of this part of my corpus; there are 11 narratives and dialogues in this collection, which are listed in Table 1 below.

The recordings that are of the format YYYYMMDDIBNN (e.g. 20060901IB03) and YYYYMMDDIOvNN (e.g. 20150413IOv01) are made by Isabel O’Keeffe. They are archived with ELAR in two deposits: https://elar.soas.ac.uk/Collection/MPI192275 and https://elar.soas.ac.uk/Collection/MPI1032014. There are 114 items in this collection, and they likewise include both grammatical elicitation and free narratives. The proportion is the opposite to my collection, i.e. narratives prevail.

All recordings are subject to the speakers’ discretion. They may be temporarily unavailable to public access.
Table 1: List of spontaneous discourse recordings

<table>
<thead>
<tr>
<th>Item</th>
<th>Topic</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>IK1-160510_000-01</td>
<td>Shipwreck</td>
<td>†George Djidurinjmak</td>
</tr>
<tr>
<td>IK1-160513_001-01</td>
<td>Feeding Fluffy</td>
<td>Sandra Makurlngu</td>
</tr>
<tr>
<td>IK1-160525_000-01</td>
<td>Speaker’s youth</td>
<td>Peter Waralak</td>
</tr>
<tr>
<td>IK1-160525_001-01</td>
<td>Speaker’s youth</td>
<td>Peter Waralak</td>
</tr>
<tr>
<td>IK1-160624_000-01</td>
<td>Mission Centennial</td>
<td>Rita Djitmu and Linda Najinga</td>
</tr>
<tr>
<td>IK1-160624_002-01</td>
<td>Outstation camping</td>
<td>Rita Djitmu and Linda Najinga</td>
</tr>
<tr>
<td>IK1-160719_000-01</td>
<td>Mission Centennial</td>
<td>Sandra Makurlngu</td>
</tr>
<tr>
<td>IK1-160726_001-01</td>
<td>Making damper</td>
<td>Sandra Makurlngu</td>
</tr>
<tr>
<td>IK1-160726_002-01</td>
<td>Making damper</td>
<td>Sandra Makurlngu</td>
</tr>
<tr>
<td>IK1-170610_2SM-01</td>
<td>Spot-the-Difference</td>
<td>S. Makurlngu and George Manmurulk</td>
</tr>
<tr>
<td>IK1-170615_1SY-01</td>
<td>Feeding Fluffy</td>
<td>Solomon Yalbarr</td>
</tr>
</tbody>
</table>
Chapter 1
Language and its speakers

This thesis is a comprehensive description of Kunbarlang, an Aboriginal language from northern Australia. The description and analysis are based on my original field work, as well as build on the preceding body of work by other scholars. Between 2015 and 2018 I have done field work in Warruwi (South Goulburn Island), Maningrida, and Darwin. The data elicited in those trips and the recordings of narratives and semi-spontaneous conversation constitute the foundation of the present grammar. However, I was fortunate in that I was not working from scratch. Carolin Coleman was doing foundational work on Kunbarlang in central-western Arnhem Land from 1981, which resulted in the first grammar of the language (Coleman 1982). In her subsequent work in the area in the 1990’s, she carried on with lexicographic research in Kunbarlang, Mawng and Maningrida languages. More recently, Dr. Aung Si (Universität zu Köln), Dr. Isabel O’Keeffe (University of Sydney), and Dr. Ruth Singer (University of Melbourne / Australian National University) made a number of recordings of Kunbarlang speakers at Maningrida, Warruwi, Minjilang and Darwin. These recordings provided an invaluable extension to the empirical basis of this grammar.

Kunbarlang is a nominative-accusative language with secundative indexing of objects. It belongs to the non-Pama-Nyungan Gunwinyguan language family, and like all Gunwinyguan languages is highly polysynthetic. This means that it has very rich verbal morphology: the morphosyntax of the verbal word is at the heart of the Kunbarlang structure. In fact, the verbs are so self-sufficient that any well-formed verb can be a full utterance in Kunbarlang. In the nominal domain, on the other hand, morphology is very economical—probably more so than in any other Gunwinyguan language.

However, there is much more to the Kunbarlang grammar than its polysynthetic nature and the contrasts in the morphosyntax of the verbal and the nominal domain. Kunbarlang is nowhere short of interesting properties, both from the Australianist perspective and from the broader typological point of view. In the sound system there is an unusual for an Australian language retention of retroflexion in heterorganic clusters (§2.5.3.1). Kunbarlang is agglutinating with little morphophonology, yet one
finds interaction in nasal–nasal clusters that stands out against what is known as the norm of harmonic cluster resolution across Australian languages (§2.7.3).

In the area of nominal morphosyntax, Kunbarlang has a system of four noun classes (grammatical genders), which on par with Kunwinjku is the largest retained noun class system in the Gunwinyguan family (inherited from the proto-Gunwinyguan five-class system). Kunbarlang also has a system of three cases. Although nouns do not have any case morphology of their own, there is an unusual construction with case-marked pronouns that allows nouns to be case-marked analytically (§4.2). In the course of my work I took care to investigate certain topics that do not traditionally receive close attention in grammar writing. For instance, in §4.6 I present a documentation of the wealth of quantificational devices, informed by semantic typology and theory.

The verb, and more broadly, verbal constructions in Kunbarlang offer a wealth of interesting topics both in inflection and in derivation. Polypersonal agreement morphology of the verb presents exuberant paradigmatic complexity, at the same time standing out within the Gunwinyguan family in terms of its agglutinating separability of the subject and object prefixes (§5.2.1). This inflectional system appears to be in a transitioning phase, perhaps starting to fuse certain prefix combinations into portmanteaux, but currently individual morphemes are still divisible with barely any exceptions. This complexity is further increased by the fact that subject prefixes coordinate with verbal stems in so-called composite tense and mood encoding (§5.4). Valency-changing derivations and their interaction is an area of interesting micro-variation in a single morphosyntactic domain within a genetic group of languages.

Another aspect of predicate building that makes Kunbarlang different from the other Gunwinyguan languages is the coverb construction: a particular bipartite verbal structure that is clearly related to other predicate formation options found within the family, yet is formally distinct from constructions in those other languages (§6.5.1). Interestingly, the Kunbarlang coverb construction is formally very similar to the one found in Mawng, an Iwaidjan language which has been in especially close contact with Kunbarlang for the last hundred years. One more Kunbarlang construction that has a close correspondence in Mawng is the typologically rare analytical reciprocal construction with contrastive pronouns, probably developed from a biclausal structure (§6.1.3.2).

Word order in Kunbarlang is constrained by information structure, rather than grammatical function of the constituents in the clause. It shows similarity to other Australian languages where there are particular prominent positions in the clause, viz. its edges. Moreover, Kunbarlang shows a strong tendency for the subject–verb–object order. There are no infinitives in Kunbarlang, but it has a small array of subordinate structures of various types: complement, relative, and adverbial clauses. Since morphological (or lexical) marking of these subordinate constructions is sparse, it is interesting to investigate the formal means signalling subordination (§§8.3.2–8.3.3) and diagnostics that can be used for it (e.g. §8.4.2 on relativisation diagnostics).
The grammar concludes with an appendix that presents a selection of three texts in different genres: a narrative, a procedural text, and a fragment of a (semi-spontaneous) dialogue.

The present chapter serves as a general introduction to the Kunbarlang people and their language. In what follows, I first briefly give some ethnographic background of the Kunbarlang society (§1.1). Then in §1.2 I situate Kunbarlang within the Gunwinyguan family of languages and discuss some of its typological properties. My data collection is described in §1.3. In §1.4, I overview the previous work and motivate the extended coverage and elaboration of analysis which this thesis offers in comparison. Finally, §1.5 concisely outlines the topics covered in the present grammar.

1.1 The Kunbarlang people: background

The traditional lands of the Kunbarlang people are in central Arnhem Land in the area stretching along the coast of the Arafura sea from the Goomadeer river in the West to the Liverpool river delta in the East. See map 1.1. On those lands, they had bordered Mawng people in the West, Ndjébbana people in the East, and Bininj Kunwok speakers (specifically, speakers of the Eastern dialects Kune and Kuninjku) in the South.

The autonym, their own name for the people and the language, is Barlang, in isolation pronounced more often like Warlang due to the initial consonant lenition. Because of the grammatical structure of the language, it must take one of a number of prefixes, forming a more specific concept that refers to a Kunbarlang person (nabarlang for a male, kinbarlang for a female), or a group of people (kinbaddabarlang, indicating a plurality of people), or the language (ipse: Kunbarlang). In everyday English conversation
people would normally refer to themselves as *Kunbarlang people*, and throughout this thesis I shall use the word *Kunbarlang* as both the glottonym and ethnonym, i.e. to refer to the language and the people. In other sources, slightly different spellings may be found, and even the name without the prefix: Gunbalang, Gunbarlang, Warlang. The ISO639-3 code for Kunbarlang is *wlg*.

In the course of the 20th century, the Kunbarlang people have moved off their traditional lands and spread in two primary directions: West and East. The movement westwards began with the establishment of a Methodist mission on traditional Mawng lands in South Goulburn island (Warruwi) in 1916, which attracted a large number of Kunbarlang people. The eastwards trajectory formed with the establishment, across the Liverpool river, of the trade post of Maningrida (Manayangkanirra) after World War II, which in 1957 became a government-run settlement. This settlement grew rapidly and also attracted a number of Kunbarlang people. Moving off of their traditional lands has probably been a factor accelerating linguistic assimilation, foremost by Ndjébbana speakers.

The exact number of speakers is not possible to establish,1 but my best estimate is that today there are approximately 30 Kunbarlang speakers living in Warruwi and in the order of a dozen speakers in Maningrida. There is a fair amount of migration and marriage between people in Warruwi and Minjilang (Crocker island, located West of S. Goulburn, near the Cobourg peninsula), and I know of at least two speakers who live in Minjilang. The city of Darwin is the major attracting hub in the area, providing access to healthcare, nursing homes etc., and at the moment of writing I know of three people who permanently live in Darwin. The 2011 census reports 20 speakers of Kunbarlang in Australia, 19 of them in Warruwi.2 In 1982, Coleman (1982: ii) reported an estimate of “probably fewer than one hundred first-language speakers” living primarily in Warruwi, Gunbalanya (Oenpelli) and Maningrida.

The ages of speakers range between late 20-s and early 70-s. As far as I can tell, no children are acquiring Kunbarlang at the moment. Likewise, not all Kunbarlang people speak the language. All speakers of Kunbarlang are fluent in Mawng: even the Kunbarlang of Maningrida have childhood or other family connections to Warruwi. The Kunbarlang who live in Maningrida also speak Ndjébbana. Most adults are also fluent in Bininj Kunwok, and individual repertoires may include other Australian Aboriginal languages as well. All the speakers that I know of speak Aboriginal English, with somewhat varying degree of fluency. In the course of my work with Kunbarlang speakers I heavily relied on their competence in English, which I discuss in more detail in the methodology section (§1.3).

1. Evans (2001) discusses the difficulties in determining the exact extent of speakers in a language with small numbers, from the point of view of how a given social system determines one’s rights to count as a speaker.

1.1.1 Social organization

1.1.1.1 Kinship

As in all Australian Aboriginal societies, kinship is the central organisational principle of social relations among the Kunbarlang people. Kin relations determine interpersonal behaviour models, and these kinship relations are extended beyond one’s biological family to their entire social universe, with the potential to include strangers. This is known as ‘classificatory kinship’ or ‘universal kinship’, i.e. a system of relations where everyone in the social universe is classified as kin (see McConvell 2018 and references therein, as well as other papers in that volume). For instance, one’s biological mother’s sisters are classified as one’s mothers, — and further, by extension, their children (i.e., cousins, from the English-language point of view) are classified as one’s siblings.

1.1.1.2 Language and land

The basic unit of social grouping and organisation is a patrilineal clan, or patriclan, like elsewhere in western Arnhem Land (cf. Evans 2003a: 40 ff). In Kunbarlang they are called nguya (cf. Kune kun-nguya). These patriclans have names and their own territories within the broader Kunbarlang country. One’s ownership of a language is effectively mediated by their nguya in the following way: the language is directly associated with the land, and thus an individual inherits the rights to their father’s language through their affiliation with the patrilineal clan’s territory. When speaking English, my consultants would refer to the nguya as “mobs” or “tribes”.

These are the patriclans that I have heard of (with the name of their land when it is known): Djindibi (Mawuludja), Djumbilirri, Kamulkbn (Nakalarramba), Ku-mungkurdu (Mayirri and Bat island), Kurduwala (Kubarnbangku), Kurikuri, Mandjurlngunj (Mirrankangku / King River), Mardbardjiiyi (Mayirri), Marrabandja (Karrabbu), Marrabangku, Mayirrkuilij. Additionally, the dictionary mentions Marranumbu and Murruwarn patriclans (Coleman 2010: 66,78).

Although I have little to say about dialectal variation in Kunbarlang, it does appear that these patriclans are associated with some characteristic linguistic differences, i.e. patrilects. The only known differences are lexical. Thus, for instance, the word for ‘dog’ is durduk ([duɖuk]) in Kun-kurduwala, but nakarrken ([naharken]) in Kun-kamulkbn;

3. A recent description of these topics with reference to western Arnhem Land can also be found in O’Keeffe 2016: §3.1
4. Also spelt Nagalarramba, this is the land where the photographer Axel Poignant took the celebrated series of shots in 1952.
5. My understanding is that this clan connects Kunbarlang and Mawng people, since King River is west of the Kunbarlang traditional lands, in Mawng territory.
the Kun-kamulkbarn word for ‘rain’ is *marnki* ([maɳgi]), while in other dialects it is *balmad* ([balmart]). While referring to members of a patriclan or to their patrilects, some of the clan names may take on class prefixes, according to the standard rules of noun class assignment: classes i/ii for men and women, respectively, and class iv for the language (as in *Kun-kurduwala* earlier in this paragraph). Interestingly, it seems that not all clan names allow this. I do not have the exhaustive picture, but to the best of my knowledge, prefixes can be attached to Kamulkbarn, Kurduwala, Mardbarradjyi, Marrabandja and Marrabangku, and may not be attached to Mandjurlngunj.

It is hard to tell if there are any differences in the sociolinguistic status of these different patrilects, and more generally what the speakers’ perception of the lects is. My impression is that *Kun-kurduwala* is often singled out for some reason. People will refer to it as the ‘hard’ (*kunayek*) or ‘real’ (*djininj*) Kunbarlang, and often furnish it along the lines of “there are two tongues: Kurduwala and the other/plain one”, also pointing out they are “different, but still the same” — which I interpret as acknowledging dialectal difference within one language, intelligible for everybody regardless of their nguya. The metaphor typically offered for the division between Kun-kurduwala and other varieties of Kunbarlang is the goanna’s (*nadjanarr*) split tongue. Besides the Kun-kurduwala, in one of Isabel O’Keeffe’s recordings (ID: 20060831IB03), a speaker also refers to Mandjurlngunj as *kunayek* ‘hard’.

### 1.1.1.3 Subsections and moieties

The extension of kinship to the individuals outside of one’s immediate family, and further still, outside of one’s usual social network, is enabled by a more abstract overarching system of subsections, commonly known in Australia as ‘skins’. In this part of Australia there are eight subsections, which determine marriageability, avoidance, terms of address and other aspects of social behaviour. One’s subsection is determined based on that of one’s mother, and in this way they form two disjoint matrilineal succession cycles (*Mardku* and *Ngarradjku*). These succession cycles form the binary system of *matrimoieties*. There is also a patrilineal counterpart to it, the *patrimoieties Duwa* and *Yirriddja*. While the matrimoiety system is ancient in western Arnhem Land, the patrimoiety system has been spreading as a borrowing from the Yolŋu in eastern Arnhem Land (*Evans 2003a*: 47–8).

The subsection system spread across northern Australia — the system which Kunbarlang also is a part of — includes eight named units (‘skins’) of people. This system is a product of amalgamation of two independent section systems (i.e. ones that have four named units) that came into contact, and in this combined state spread into Arnhem Land (*McConvell 1985*).
1.2 Kunbarlang among the Gunwinyguan languages

Kunbarlang genetically belongs to the Gunwinyguan family, which is a non-Pama-Nyungan family of Australian languages spoken across Arnhem Land. Its similarity to “Gunwinggu” was already recognized by Capell (1940).

The placement of the Gunwinyguan languages within the higher-level Australian family, according to the so-called "Pama-Nyungan offshoot model", is shown in figure 1.2.

I adapt a number of sources to illustrate the further subdivision of the Gunwinyguan family. This is primarily based on Alpher, Evans & Harvey (2003: 309), but also includes elaborations in B. Baker 2004 and van Egmond (2012: ch.9) concerning the Eastern/bak group. B. Baker (2004) also argues against the unity of the "bak"-group and against inclusion of Dalabon in the Central group; figure 1.3 presents Alpher, Evans & Harvey’s (2003) analysis in these respects. The dashed lines reflect the tentative inclusion of Kungarakany and Mangarayi in the Gunwinyguan family. See Merlan 2003 for an argument that Mangarayi belongs to the Marra-Alawic family.

Kunbarlang is a fairly representative member of the family, sharing a number of characteristic typological traits with the other Gunwinyguan languages. They include:

• prevalence of head marking

• high degree of polysynthesis, in particular
noun and adverb incorporation
polypersonal agreement
valency-changing derivations

- templatic organisation of the verbal word
- noun class system
- discourse-configurationality

Polysynthesis is one of the striking features of many non-Pama-Nyungan language families, the Gunwinyguan languages among them (Evans 2017). The elaboration of the verbal word is such that it allows one to express a full proposition with a fair amount of modifying details in a single phonological word. This is possible mainly due to the polypersonal agreement and incorporation. The former means that the person and number features of subject and (in case of the polyvalent verbs) an object are indexed in the verb (1.1a). The latter refers to the option of incorporation into the verb of a number of other lexical roots, both of nominal and of adverbial nature (1.1b).

(1.1) a. Ngunda ngay-buddu-wuni.
   not 1SG.IRR.PST-3PL.OBJ-give.IRR.PST
   ‘I didn’t give it to them.’ [IK1-160729_1SY-01]

b. Ka-nganj-kanak-bingki.
   3SG.NF-HITH-sun-exit.NP
   ‘The sun is rising.’ [IK1-160612_001-01]
In (1.1a) the agent and the recipient of the giving event are encoded by prefixes on the verb. In (1.1b) there is a directional adverbial and the subject of the verb, both contained within the verbal word. Moreover, some further argument relations can be encoded via verbal morphology, in particular the benefactive/implied (1.2) and the comitative participants.

(1.2) Ka-\textit{ngan-marnanj-yawanj djurra}.
\hspace{1cm} 3SG.NF-1SG.OBJ-BEN-\textit{seek} NP paper
\hspace{1cm} ‘S/he’s looking for a book for me.’ \hspace{1cm} [IK1-170602经济社会-02]

On the other hand, there also are some important differences between Kunbarlang and the other Gunwinyguan languages. These include:

- different organisation of the TAM system
- coverb constructions
- minimal nominal morphology

Gunwinyguan languages feature rather complex TAM systems. They differ in whether there are any mood/modality distinctions in the agreement prefixes: Enindhilyakwa, Kunbarlang, Mangarayi, Warray, Wubuy do have at least a realis/irrealis distinction, while Bininj Kunwok, Ngalkgan and Ngandi use suffixes instead (Verstraete 2005 via van Egmond (2012: 134)). Dalabon marks realis with a dedicated morpheme -\textit{h} that immediately follows the subject prefix (Evans 2006: 37). The specific inventory of TAM categories varies between languages, Kunbarlang’s being one of the smallest and organized in a way different from others (§5.3 and also §5.4).

Kunbarlang has a type of complex predicate called coverb construction, which is a bipartite verbal construction. In (1.3), for example, there is a complex predicate that means ‘to acquire’, which is built from an inflecting verb -\textit{rna} ‘to sit’, which inflects for tense, and an uninflecting element \textit{bard}. Although it is related to the ways of forming complex predicates in the other Gunwinyguan languages, it is formally quite distinct and has a closer resemblance to the Iwaidjan language Mawng than any of the Gunwinyguan (§6.5).

(1.3) Neyang ka-\textit{rninganj=bard kandidjawa}.
\hspace{1cm} \textit{food} 3SG.NF-SIT.PST=\textit{acquire} \textit{bread}
\hspace{1cm} ‘He bought food, flour.’ \hspace{1cm} [20060620IB04/11:59–12:03]

Although a number of inflectional categories are relevant for the Kunbarlang noun phrase, the nouns have scarcely any morphology, in stark contrast to the rich Kunbarlang verbs. Chapter 4 covers a variety of topics in the noun phrase, showing how much information can be expressed via syntactic means.
1.3 Fieldwork: consultants and methodology

Most of the present description is based on original field work carried out by the author in Darwin, Maningrida and Warruwi in 2015–2018. This work was done in four trips:

- July–August 2015 (two weeks, Warruwi and Darwin)
- April–August 2016 (four months, Warruwi, Maningrida and Darwin)
- May–June 2017 (six weeks, Warruwi and Darwin)
- May–June 2018 (six weeks, Warruwi and Darwin)

Additional invaluable data come from the recordings made by Dr. Isabel O’Keeffe, Dr. Aung Si and Dr. Ruth Singer in the period from 2006 to 2015 in Warruwi, Darwin, Maningrida and Minjilang. They generously made these recordings and the existing transcriptions available to me, which expanded considerably the amount of data, especially from the spontaneous production. These sources are outlined in the list of recordings below.

I have had a chance to work, at least briefly, with the majority of the present-day Kunbarlang speakers. At the same time, there was a small group of people who I worked with particularly intensively. Nakangila Solomon Yalbarr and Nakangila Paul Naragoidj have been tireless and patient teachers for me, and Kunbarlang data as they speak it constitute a considerable part of the empirical basis of this grammar. The wealth of linguistic repertoire of Ngalwamud Rita Djitmu is another major constituent in the recordings both of my own and by others. Ngalngarridj Sandra Makurlngu and Nakangila Douglas Djalanbahave been sharing invaluable insights into the intricacies of meaning and use of Kunbarlang expressions. I cannot name every speaker individually here, but refer the reader the acknowledgements.

My recordings have taken place in diverse settings, depending on the circumstances. Although I have always aimed to record indoors (e.g. at the Warruwi Language centre) for the best possible quality, some recordings have been made in people’s front yards, or other outdoor settings. Thus, the text about making damper (bush bread) in appendix A.2 was recorded during a short bush trip.

My main method was elicitation, which was extensively complemented by the analysis of recordings of different genres (primarily narrative). The elicitation involved direct translation of English prompts into Kunbarlang and elicitation from non-verbal prompts (pictures, videos, construction blocks set-ups), as well as grammaticality judgements of word forms and sentences constructed by myself in order to test specific hypotheses in the process of work. Thus, the forms that were judged ungrammatical in the language constitute an important part of the analytical material in this thesis, and are used throughout the thesis to illustrate specific grammatical restrictions. The notation used is customary in the field (see the list of abbreviations and conventions
on page xxiv ff.). Another note is in order about glossing of examples. I choose to use consistent glosses for polysemous morphemes, rather than contextually appropriate ones. For instance, the verbal root -djin ‘to consume’ can be used to mean ‘to eat’, ‘to burn’ or ‘to bake’ on different occasions. Instead of using different glosses, I consistently gloss it with the concise ‘eat’. Another verb where the gloss may not always be entirely transparent is -ngundje ‘to say/do’. It is highly polyfunctional, with such meanings as ‘to do’, ‘to be’, ‘to say’, or ‘to think’, depending on the context, collocation, or its own morphological make-up. However, it is consistently glossed as ‘do’.

When working on the matters crucially involving fine semantic judgements, I often employed the truth-value judgement task (TVJT; Crain & Thornton 1998). This method involves constructing a model of a particular state of affairs in the real world, against which the target sentence is evaluated for acceptability. The model can be constructed via presenting a speaker with a verbal context, or a picture/video representation of the target situation. Then the speaker can be asked to describe the stimulus, but also, crucially, a particular form can be offered for the speaker to judge its appropriateness in that context. Thus aspects of semantics can be studied in a controlled fashion and without reliance on the analytical intuitions of the speaker or their competence in the intermediary language. A more detailed discussion of the TVJT with specific illustrations can be found in the section on quantifiers (§4.6).

The elicitation and the analysis of spontaneous speech recordings (narratives, dialogues, and storyboards) were employed in a complementary fashion. Direct elicitation was used to probe specific aspects of the Kunbarlang grammar in the minute detail, while text analysis helped broaden the scope of language constructions that may have been overlooked in elicitation for various reasons. Moreover, text analysis made it possible to estimate the actual rate of use of particular constructions, as well as the relative frequency in cases when competing forms of expression were available.

All samples of spontaneous production and all elicitation sessions were recorded in .wav format with the minimum sample rate of 44100Hz and the minimum bitrate of 16 bit. The texts were also filmed with a digital camera (raw format .MTS, subsequently converted to MP4 v2). All of the recordings are (to be) archived with PARADISEC.

The time-aligned transcriptions of the recordings (full in case of texts, partial in case of elicitations) were created with the help of ELAN (ver. 4.8–5.3), and archived together with the audio files. Plain text files typed in the course of elicitation (or created later based on the notebook notes) also accompany the recordings in the archive. Acoustic analyses, i.e. the spectrograms and waveforms presented here, were done in Praat (Boersma & Weenink 2016).

I have used a range of materials to aid both text collection and elicitation of particular grammatical topics. These were:

6. Sometimes the speakers would hesitate to be recorded at the outset of a session, and in those cases I had to work only with text files or pen and paper until they were comfortable with the recorder on.
• MPI videos on reciprocal situations (Evans et al. (2004); see http://fieldmanuals.mpi.nl/volumes/2004/reciprocals/)
• storyboards from the Totem Storyboards Project (see http://totemfieldstoryboards.org/; esp. TFS Working Group (2012))
• Nordlinger & Kidd’s (2018) materials for word order production in picture description
• Kyuseva’s (2019) Spot-the-Difference materials, which I used as a task to record dialogue
• Bruening’s (2008) quantifier scope stimuli

These materials are mentioned in those sections where relevant for the data presented.

1.4 Previous work and the contribution of this thesis

As mentioned above, Capell (1940: 271–2) gave the earliest characterisation of Kunbarlang. He noted that the “general structure of the Gunbalang language is similar to that of Gunwinggu”, provided about 25 lexical items, and mentioned that there is incorporation and “a system of tenses and a negative indicated by variable suffixes, while the prefixes remain the same”.

Harris (1969) carried out the first large-scope analysis of Kunbarlang and is the only published work on the language to date (other than publications related to the present project). This paper is a 40-page tagmemic grammar of the language, which covers the basics of the verbal and nominal morphology, as well as a range of phrasal and clausal level constructions. Most of the generalisations are presented as formal statement of tagmemes, i.e. rewrite rules, which — supplied by a dictionary of the relevant elements — is supposed to yield a generative grammar of the language.

The fullest description, going into the detail of many core grammatical topics, is Carolyn Coleman’s unpublished Honours thesis (1982). It has a broad scope, including phonology, morphology and syntax. Its main focus, however, is grammatical relations as manifest both in the verb and in the phrasal level constructions, many of which are given an insightful treatment. Coleman’s analysis is largely informed by Foley and Van Valin’s Role and Reference Grammar, and the presentation frequently follows the logic of that framework, either unifying phenomena that belong to the same layer (nuclear, core, or peripheral), or to the same type of relation. Thus, cosubordinate nexus (Coleman’s §2.3.4), which cross-cuts all layers, includes purposive constructions (at the peripheral layer; see §8.5.1 of the present thesis), viewpoint aspect constructions with
an auxiliary posture verb (at the core layer; §7.2.1 here) and verbal reduplication (at the nucleus layer; §2.8.2 here).

Some of the aspects of Coleman’s (1982) description have been summarised briefly in a manuscript (Coleman n.d.), which also includes more comprehensive paradigm tables and a discussion of various pronominals. Coleman has been compiling a comprehensive dictionary over the course of her work. It has not been published at the moment of writing this, but she kindly made the manuscript available to me, and it will be drawn upon and referred to throughout this thesis as Coleman 2010.

I do not aim to give a summary, let alone a review, of the preceding work here in the introduction. Suffice it to say that despite that very important groundwork, a range of topics remained that were not covered in sufficient detail, or which were not covered at all, and the goal of this current grammatical description is to broaden and deepen those previous ones, as well as verify the existant analyses. In a number of cases my work led me to revise previous analyses significantly. For instance, the area of pronominal prefixes and tense/mood suffixes of the verb has been completely reanalysed. Related to that, I describe pronominal prefix paradigms in transitive verbs that have never been described before (§5.2). I indicate throughout the text where I am building on that preceding work, and where my data or interpretation differ from it.

O’Keeffe (2016) in a recent thesis in musicology investigates ceremony and musical practices in western Arnhem Land, in particular the Kunbarlang song tradition (manyard). Further documentation work is being carried out within an ELDP-funded project O’Keeffe et al. 2017.

1.5 Overview of the grammar

This grammar consists of eight chapters and an appendix. Chapter 1 is the general introduction to the Kunbarlang people and their language, and to the work undertaken in this thesis. Chapter 2 is devoted to the sound inventory of Kunbarlang and its phonological and morphophonological processes. Chapter 3 gives an introductory grammatical overview and describes the Kunbarlang parts of speech. Chapter 4 focuses on the constituents of the noun phrase. That chapter also provides a discussion of the noun phrase constituency and the categories of noun class (grammatical gender) and case in Kunbarlang. Discussion of the verbal morphosyntax is divided between the two following chapters. Agreement and tense and mood, i.e. the inflectional categories, are described in Chapter 5, while Chapter 6 treats derivational morphology and constructions. Chapter 7 discusses the structure of a simple clause and the phenomena relevant at the clause level, such as negation and question formation. Finally, multiclausal constructions made either by coordinating or by subordinating clauses are presented in Chapter 8. Chapter 9 provides a summary of the thesis and indicates directions
for further research. The Appendix gives a selection of glossed Kunbarlang texts in different genres.
Chapter 2
Phonetics and phonology

2.1 Segmental units: an overview

This section identifies the sets of consonantal and vocalic phonemes in Kunbarlang. Their phonetic characteristics and distribution, as well as phonotactics more generally, will be the subject of the following sections.

The 'long and thin' consonant inventory of Kunbarlang is quite typical for an Australian language. Kunbarlang vowel inventory is somewhat larger than the more standard three-vowel set, but is typical for the languages of the north. The distribution of vowels conforms to the standard vowel triangle. The consonant phonemic inventory of Kunbarlang is in table 2.1. Table 2.2 below gives the vowel inventory.

The consonantal inventory of Kunbarlang is similar to those of other Gunwinyguan languages. Kunbarlang lacks dental consonants (t̪, n̪, l̪) found in Ngandi and Wubuy, otherwise having all the consonants present in the maximal inventory of the family Harvey (2003: 206). The fortis/lenis contrast is found in Kunbarlang and in Bininj Kunwok (Stoakes 2013). As is common in Australian languages (e.g. Fletcher & Butcher 2014: 101), there are no contrastive fricatives ([−son, +cont] in Chomsky & Halle 1968 style phonological features) and no phonemic voicing contrast in the stop series, but

<table>
<thead>
<tr>
<th></th>
<th>Labial</th>
<th>Alveolar</th>
<th>Retroflex</th>
<th>Palatal</th>
<th>Velar</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lenis</td>
<td>p</td>
<td>t</td>
<td>ʈ</td>
<td>c</td>
<td>k</td>
<td>ئ</td>
</tr>
<tr>
<td>Fortis</td>
<td>pː</td>
<td>tː</td>
<td>ʈː</td>
<td>cː</td>
<td>kː</td>
<td></td>
</tr>
<tr>
<td>Nasal</td>
<td>m</td>
<td>n</td>
<td>η</td>
<td>ñ</td>
<td>n̄</td>
<td></td>
</tr>
<tr>
<td>Lateral</td>
<td></td>
<td>l</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tap/Trill</td>
<td></td>
<td>ɾ</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approximant</td>
<td>w</td>
<td>ɹ</td>
<td>j</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 2.2: Vowel phonemic inventory of Kunbarlang

<table>
<thead>
<tr>
<th></th>
<th>Front</th>
<th>Central</th>
<th>Back</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>i</td>
<td>u</td>
<td></td>
</tr>
<tr>
<td>Mid</td>
<td>e</td>
<td>o</td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td></td>
<td>a</td>
<td></td>
</tr>
</tbody>
</table>

instead there are multiple places of articulation contrasts. Besides that, there is a corresponding nasal for every place of articulation. Thus, each of the five places of articulation (excluding glottal) shows the three-way stop contrast: lenis–fortis–nasal. There are also a tap (/ɾ/), two glides (/w j/), three liquids (/l ɭ ɻ/).

Kunbarlang has five out of six vowels attested in the Gunwinyguan family (table 2.2), i.e. all except the mid-high central vowel found in Dalabon and Rembarrnga.

To sum up, there are 22 consonant and five vowel phonemes in Kunbarlang. Consonants demonstrate an apical contrast (between alveolar and retroflex) without a laminal one. In terms of manner, there is a phonemic distinction between lenis and fortis stops. Its peripherals include both labial and dorsal consonants.

2.2 Practical orthography

The practical orthography adopted in this grammar is based on the conventions in the previous work by Coleman (1982, 2010) and is fairly standard for Australian linguistics. The orthography for vowels is straightforward and is the same as reflected in table 2.2. As for the consonants, velar fortis and lenis stops are written with the unvoiced series symbols, while stops in all other places of articulation employ voiced series symbols. This achieves a certain phonetic accuracy, as the velar stop’s realisations are phonetically more often voiceless than those of other stops (which are typically closer to the voiced end of continuum). Further practical motivation comes from the need to disambiguate the velar nasal, spelled ng, from the nasal–stop cluster, spelled nk. The spelling of consonants is provided in table 2.3, with the IPA symbols in forward slashes (i.e. “/p/ b” means that the phoneme /p/ is spelled in the orthography as b). Note that the fortis consonants are spelled as the corresponding lenis doubled up, except retroflexion and palatalisation are only marked once, i.e. /ʈː/ is spelled rdd, not rdrd.

Stress is not systematically marked in the orthography, but where needed, primary stress will be indicated by an acute accent and secondary by a grave accent, on the relevant vowels. In what follows, this practical orthography will be used for rendering Kunbarlang, except for discussions of phonological rules and phonetic matters, where IPA symbols are used. These are enclosed in forward slashes (/a/) for phonemic and
Table 2.3: Kunbarlang orthography

<table>
<thead>
<tr>
<th></th>
<th>Labial</th>
<th>Alveolar</th>
<th>Retroflex</th>
<th>Palatal</th>
<th>Velar</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lenis</td>
<td>/p/ b</td>
<td>/t/ d</td>
<td>/ʈ/ rd</td>
<td>/c/ dj</td>
<td>/k/ k</td>
<td>/ʔ/ h</td>
</tr>
<tr>
<td>Fortis</td>
<td>/pː/ bb</td>
<td>/tː/ dd</td>
<td>/ʈː/ rdd</td>
<td>/cː/ ddj</td>
<td>/kː/ kk</td>
<td></td>
</tr>
<tr>
<td>Nasal</td>
<td>/m/ m</td>
<td>/n/ n</td>
<td>/ɳ/ rn</td>
<td>/ɲ/ nj</td>
<td>/ŋ/ ng</td>
<td></td>
</tr>
<tr>
<td>Lateral</td>
<td>/l/ l</td>
<td>/ɭ/ rl</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tap/Trill</td>
<td>/ɾ/ rr</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approximant</td>
<td>/w/ w</td>
<td>/ɻ/ r</td>
<td>/j/ y</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

square brackets ([a]) for phonetic representations, as is customary. The practical orthography in the examples is used phonemically, not reflecting the variable phonetic realisation of the phonemes (see the following two sections), nor the morphophonological processes (see §2.7).

2.3 Vowels

Table 2.4 provides counts of Kunbarlang vowel frequencies based on 1900 entries in the dictionary (Coleman 2010).

Table 2.4: Kunbarlang vocalic phoneme frequencies

<table>
<thead>
<tr>
<th></th>
<th>Front</th>
<th>Central</th>
<th>Back</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>i, 1160</td>
<td>u, 1326</td>
<td></td>
<td>2486</td>
</tr>
<tr>
<td>Mid</td>
<td>e, 689</td>
<td>o, 428</td>
<td></td>
<td>1117</td>
</tr>
<tr>
<td>Low</td>
<td>a, 2226</td>
<td></td>
<td></td>
<td>2226</td>
</tr>
<tr>
<td>Total</td>
<td>1849</td>
<td>2226</td>
<td>1754</td>
<td>5829</td>
</tr>
</tbody>
</table>

The mean vowel frequency is 1165.8, with the high front /i/ being closest to that figure. The vowel with most occurrences in the dictionary is the low central /a/. It can be seen from the table that the vowels are not uniformly distributed, with the mid vowels /e/ and /o/ being noticeably less frequent. While there do not seem to be any categorical restrictions in occurrence of the mid vowels in any position in stems, there is a dispreference against them appearing in stems with the vowels of another height, particularly high ones.

Phonetic realisations of vowels are overall rather straightforward. There is little or no variation in vowel quality depending on metrical strength (such as reduction
or centralisation in unstressed syllables), which is similar to the findings in other Australian languages, in particular other Gunwinyguan languages (Kunjinjku, Bishop 2002: 233; Dalabon, Fletcher & Evans 2002). All vowels appear nasalised after nasal consonants, especially after the velar nasal /ŋ/. There is, however, some variation in the low vowel /a/. While most of the time it is pronounced as a low central [a], there are cases where it is realised as a higher and more front variant, closer to [æ] or [ɛ]. These, however, appear to be variable, rather than well-defined by the context (2.1): it does not occur systematically, but in random tokens.

(2.1) a. [kaˈkiɲyˈaŋ] / [kaˈkiɲyˈɛŋ] 's/he cooked it'
   b. [ˈmæɾık] / [ˈmɛɾık] 'not'
   c. [-dʒalark-] / [-dʒalɛɾk-] 'alive' (bound morpheme)

An experimental phonetic study could reveal more about the vowel space and vowel acoustics in Kunbarlang, but this is outside the scope of the present grammar.

2.4 Consonants

Table 2.5 gives counts of consonantal phonemes frequency based on 1900 entries in the dictionary (Coleman 2010).^1

<table>
<thead>
<tr>
<th></th>
<th>Labial</th>
<th>Alveolar</th>
<th>Retroflex</th>
<th>Palatal</th>
<th>Velar</th>
<th>Glottal</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lenis</td>
<td>p, 894</td>
<td>t, 262</td>
<td>t̂, 250</td>
<td>c, 598</td>
<td>k, 1183</td>
<td>ʔ, 74</td>
<td>3261</td>
</tr>
<tr>
<td>Fortis</td>
<td>pː, 104</td>
<td>tː, 32</td>
<td>t̂ː, 28</td>
<td>cː, 43</td>
<td>kː, 186</td>
<td></td>
<td>393</td>
</tr>
<tr>
<td>Nasal</td>
<td>m, 820</td>
<td>n, 396</td>
<td>n̄, 227</td>
<td>n̄, 336</td>
<td>n̄, 465</td>
<td></td>
<td>2244</td>
</tr>
<tr>
<td>Lateral</td>
<td>l, 557</td>
<td>ɭ, 280</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>837</td>
</tr>
<tr>
<td>Tap/Trill</td>
<td>r, 733</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>733</td>
</tr>
<tr>
<td>Approximant</td>
<td>w, 472</td>
<td>ɻ, 82</td>
<td>j, 363</td>
<td></td>
<td></td>
<td></td>
<td>917</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2290</td>
<td>1980</td>
<td>867</td>
<td>1340</td>
<td>1834</td>
<td>74</td>
<td>8385</td>
</tr>
</tbody>
</table>

With a grand total of 8385 phoneme tokens and 22 types, this gives a mean of 381 token per phoneme. The phonemes /n/ and /j/ are closest to the mean, on the upper and the lower sides, respectively. The most frequent consonant is /k/ (1183 tokens), and the

---

1. Table 2.5 shows counts for individual phonemes and totals for classes based on place and manner of articulation, but not means for phonemes of different classes, which are straightforwardly obtained by appropriate divisions.
least frequent one is /ʈː/ (28) tokens. It can be noticed that the fortis stops are all roughly by an order of magnitude less frequent than the corresponding lenis stops. Another remarkable contrast is between the two rhotics: the tap /ɾ/ is much more heavily used in the lexicon than the retroflex approximant (733 vs. 82 tokens). The glottal stop /ʔ/ in Kunbarlang has a low count and does not form minimal pairs. Overall, in terms of the manner of articulation, lenis stops are the most frequent and fortis stops are the least frequent consonants. In terms of the place of articulation, labials are the most frequent and retroflex consonants are the least frequent ones.

2.4.1 Phonetic description and allophonic distribution of consonants

Since voicing is not a contrastive feature for obstruents, there is noticeable freedom of allophonic variation along that dimension. Just as in Bininj Kunwok (Evans 2003a: 79), oral lenis stops have a tendency to be voiced syllable initially and voiceless syllable finally. However, this differs for different places of articulation: for instance, the velar /k/ is more often voiceless, but the labial /p/ or the alveolar /t/ are more often realised as voiced. For instance, see (2.2a) for the voiced allophones of /k/ and /p/ in the syllable-initial position, and (2.2b) for the voiced allophone of /t/ and the voiceless allophone of /k/, again syllable-initially. A voiceless allophone of /t/ in the syllable-final position is shown in (2.2c).

(2.2) a. /ŋunci-ŋaɲ-kapurk-ka/ → [ŋuɲd͡ʒiŋaɲɡaˈburkːa] ‘you two will come here’
   [IK1-160505_001-01/28:41]

b. /ka-kitap/ → [ˈkakidaɲ] ‘s/he/it went’
   [IK1-150724_1SY-01/16:22]

c. /na-wamut/ → [ˈnawamu] ‘Nawamud [skin name]’
   [IK1-160829_000-01/53:08]

Fortis stops are audibly longer than the lenis ones. They are realised as voiceless, even though they only appear syllable-initially (see §2.5 for more on syllable structure). Stops are usually unreleased word finally, especially the oral ones. Velar lenis and nasal stops often undergo lenition. The context for lenition of /k/ is intervocalic, in which position it is realised as [ɣ]/[x] or as [w] (preceding the high back vowel /u/). An example of each realisation, including an unlenited realisation [k] preceding a high front vowel, is given in (2.3):

(2.3) a. /ka-kitap/ → [ˈkakidaɲ] ‘he/she/it went’

b. /jika/ → [ˈjiɣa] ‘some’

c. /na-kuci/ → [ˈnawud͡ʒi] ‘one’
The velar nasal, on the other hand, lenites primarily in word-initial position, e.g. in personal pronouns and in personal prefixes on verbs, and also intervocically. It may lenite to [ɭ] or to [w̃] or stronger, with only some creaky voice or nasalisation of the following vowel betraying its presence in the phonemic representation (2.4a), or even through to complete phonetic erosion (2.4b).

(2.4)  
   a. /ka-ŋaN-ʈukbaɲciŋ/ → [kaaŋtukˈbaɲ价值观j] ‘s/he showed it to me’
       [IK1-170620_tSY-02/00:36]
   b. /ŋan-putːu-wuɲ/ → [aŋbutːuˈwuɲ] ‘I’ll give it to them’
       [IK1-160505_001-01/33:50]

The palatal nasal tends to have a phonetic off-glide when preceding a [-high,-back] vowel (/a/ or /e/), e.g. /ka-kiɲaŋ/ ‘he/she/it cooks it’ [kaˈkiɲaŋ]. Nasal place of articulation behaviour in heterorganic clusters is variable. Thus, an alveolar nasal /n/ when preceding a palatal stop may retain its place (2.5a–2.5b) or take on palatalisation (2.5c). Notice that (2.5b) and (2.5c) exemplify different realisations of the same subject prefix ngundji–’2DU.IRR’.

(2.5)  
   a. /ka-pun-caɾaŋ/ → [ˌkaɪpʊnˈdaɾaŋ] ‘he/she/it ate him/her’
       [20140703IOv01-ShM/01:06–09]
   b. /ŋunci-ŋaɲ/ → [ˈŋunjʊŋaɲ] ‘you two look [at me]!’
       [IK1-160613_000-01/16:08–11]
   c. /ŋunci-ŋaɲ-kapuɾk-ka/ → [ˈŋunjʊŋaɲɡaˈbuɾkːa] ‘you two will come here’
       [IK1-160505_001-01/28:40–42]

Another characteristic feature of consonant phonetic realisation that is evident in (2.5) is the spirantisation of the laminal alveopalatal stop /c/, resulting in the affricate [dʒ]. This is also a recurring phonetic feature in Australian languages (Fletcher & Butcher 2014: 103). Intramorphemically, there is a phonetic on-glide when the alveopalatal stop follows [a]. Some of the frequent morphemes that show this effect are the interjection adju ‘I don’t know’ (2.6a), the pronoun -ngadju ‘she.gen’ (2.6b) and the noun wadjbud ‘sand’ (the on-glide is absent in careful pronunciation), but this on-glide never appears in this phonetic environment when there is a morphological boundary between [a] and [dʒ], e.g. (2.6c).

(2.6)  
   a. /acu/ → [ˈaɟdʒu] ‘dunno’
   b. /ŋacu/ → [ˈŋaɟdʒu] ‘she.gen’
   c. /ka-cuŋ/ → [ˈkadjʊŋ] ‘s/he chopped it’

20
I have presented the approximant rhotic phoneme as a retroflex /ɻ/, largely out of the systematicity considerations, i.e. because that is the place that has been suggested for the corresponding phoneme in the rest of Gunwinyguan family (see Harvey 2003: 206). However, to the best of my hearing, the phonetic realisation of that phoneme is much closer to an alveolar, quite similar to the English [ɹ]. I do not see any implications for the ensuing description of phonotactics or morphonology, and leave it to future acoustic analysis to adjudicate between /ɻ/ and /ɹ/ for Kunbarlang.

2.4.2 Phonemic oppositions: consonants

Phonemic oppositions for consonants are illustrated with minimal pairs. However, a strict minimal pair cannot be found for all of the phonemic contrasts in Kunbarlang, and a retreat to near-minimal pairs is sometimes necessary. The oppositions are given with regards to the place of articulation (§2.4.2.1) and the manner of articulation (§2.4.2.2).

The glottal stop has low frequency in Kunbarlang and I am not aware of any minimal pairs where it would contrast with other consonants. It is restricted to the syllable-final position. Its distribution, however, is lexically conditioned and cannot be reduced to an environment; thus, it may be present or absent in a morphophonologically similar context, being specified for a given lexeme (2.7):

(2.7)  a. ka-worrhme ‘s/he is kindling something’
     b. ka-karrme ‘s/he/it is holding something’

2.4.2.1 Place of articulation contrasts

Kunbarlang distinguishes five places of articulation for non-continuants (obstruents and nasals), three for central approximants and two for lateral approximants (as there is no palatal lateral). The following sections illustrate the contrasts.

2.4.2.1.1 Lenis stops: b, d, rd, dj, k

1. b ~ rd ~ dj ~ k: kabeye ‘he/she/it bites it’ vs. kardam ‘s/he puts something down’ vs. kadja ‘he/she/it is standing’ vs. kaka ‘he/she/it goes’
2. b ~ rd: babi ‘after’ vs. bardji ‘liquid’ (incorporated nominal)
3. b ~ d ~ dj: barbung ‘fish’ vs. darrbuk ‘possum sp.’ vs. djanarr ‘goanna sp.’
4. d ~ rd: nganjduka ‘I’ll look’ vs. kanganjdukulungale ‘wind is coming’
5. d ~ k: durduk ‘dog’ vs. kurrula ‘sea’ and wadjbud ‘sand’
2.4.2.1.2 Nasals: m, n, rn, nj, ng

1. m ~ n ~ ng: *mayi* vs. *nayi* vs. *ngayi* ‘noun marker of class III / I / II’

2. n ~ rn: *kabunbum* ‘s/he hit him/her/it’ vs. *kaburnbum* ‘s/he finished’

3. n ~ ng: *ninda* ‘I class proximate demonstrative’ vs. *nginda* ‘II class proximate demonstrative’

4. nj ~ m: *kanganjwom* ‘s/he is returning’ vs. *kanganjwom* ‘s/he returned’

5. nj ~ ng: *kanjnganjwonj* [kəɲaɲwoɲ] ‘s/he will return’ vs. *kanganjwom* [kəɲaɲwoɲ] ‘s/he is returning’ (see §2.7.3 for the interaction of adjacent nasals)

6. rn ~ nj: -*barndje* ‘to seal, stick’ vs. -*rdukbunjde* ‘to show, teach’

7. rn ~ ng: *karnadjinj* ‘s/he saw her-/himself’ vs. *kangandjin* ‘s/he’s eating me’

2.4.2.1.3 Laterals: l, rl Both laterals are found intervocally, for instance inside of these verbal stems: *kamabulunj* ‘he/she/it likes it’ vs. *kardenburlume* ‘he/she/it is breaking it’

2.4.2.1.4 Semivowels: w, y The glides, or semivowels, contrast in various positions, including word-initially: *walaya* ‘cliff’ vs. *yalbi* ‘country’

2.4.2.2 Manner of articulation contrasts

Kunbarlang distinguishes six manners of articulation, with maximal subsets of five in alveolar and retroflex consonants. The contrasts are illustrated in the following sections.

2.4.2.2.1 Labials: p, bb, m, w

1. b ~ bb: *ngarrabu* ‘I might hit it’ vs. *Karrabu* (toponym)

2. b ~ m ~ w: *barramimbaj* ‘woman’ vs. *marrakkak* ‘seagull’ vs. *warri* ‘because’

3. b ~ w: *ngawunj* ‘I’m giving it to him/her/it’ vs. *ngabunj* ‘I’m hitting him/her/it’

4. bb ~ m: *dolobbo* ‘stringybark’ vs. *komorlo* ‘white egret’

5. bb ~ w: *naborrongkorlk* ‘rock wallaby’ vs. *kawokdja* ‘s/he/it is talking’
2.4.2.2 Alveolars: d, dd, n, l, rr

1. d ~ dd ~ n ~ l ~ rr: didirna ‘cicada’ vs. kaddikkaddik ‘oyster-catcher’ vs. djininj ‘properly’ vs. marnilikarrng ‘star’ vs. ka-birrinja ‘it’s the same’

2. dd ~ l ~ rr: djaddi ‘come here!’ vs. mayali ‘knowledge’ vs. warri ‘because’

3. dd ~ n: djiddawurr ‘crow’ vs. djawina ‘friend’

2.4.2.3 Retroflexes: rd, rdd, rn, rl, r

1. rd ~ rn ~ rl: kardam ‘s/he puts it down’ vs. karna ‘s/he/it is sitting’ vs. karlakka ‘s/he throws it’

2. rd ~ rdd ~ rn ~ r: djarderre ‘mouth’ vs. karredderre ‘honey in trees’ vs. yimarne ‘like’ vs. narrambareng ‘honey in the ground’

3. rdd ~ rl: kurdduk ‘faeces’ vs. kaburlume ‘s/he is smashing it’

4. rl ~ r: djubirlk ‘whelk’ vs. berk ‘legless lizard’

2.4.2.4 Palatals: dj, ddj, nj, y

1. dj ~ ddj ~ nj ~ y: mabidja ‘fireweed’ vs. middjaba ‘knee’ vs. ka-birrinja ‘it’s the same’ vs. miyarrul ‘fighting stick’

2. dj ~ y: kadjawunj ‘s/he is feeding him/her’ vs. kayawanj ‘s/he searching for something’

3. nj ~ y: njunjuk ‘water’ vs. yuk ‘northern brown bandicoot’

2.4.2.5 Velars: k, kk, ng

1. k ~ ng: korro ‘locative medial demonstrative’ vs. ngorro ‘class iv medial demonstrative’ and many others (e.g., third vs. first person personal prefixes)

2. k ~ kk: beka ‘tree goanna’ vs. bekka ‘arafura file snake’
2.5 Phonotactics

This section deals with Kunbarlang syllable structure and phonotactics more broadly. I begin with a brief review of the word templates, which are the common practice in Australian phonotactics descriptions, but then offer an analysis of Kunbarlang syllable structure via monosyllabic templates (§2.5.1–2.5.2).

It is customary in the Australianist literature to analyse phonotactics in terms of word templates with five distinct consonant positions, rather than in terms of prosodic licensing, i.e. syllable onsets and codas (see Hamilton (1996: ch. 3), Dixon (2002: §12.1.3), B. Baker (2014b: 143ff)). The standard presentation of the template, as given by Hamilton (1996: 75) (after Dixon 1980: 159ff.), is in (2.8):

\[(2.8) \quad C_{\text{init}}VC_{\text{inter}}V(C_{\text{fin}})\]
\[(2.8) \quad C_{\text{init}}VC_1C_2V(C_{\text{fin}})\]

The motivation for that approach comes from a number of factors. One is that monosyllabic words are notoriously infrequent in Australian languages. Another is that consonant clusters are often confined to word-medial, intervocalic positions, but not found word-initially or word-finally. Most importantly, however, in the majority of languages it is the intervocalic position (the \(C_{\text{inter}}\)) where the consonants show the most place of articulation contrasts. Thus, for instance, the apicals—that is, alveo-apical and apico-retroflex consonants in those languages where the distinction is phonemic—typically only contrast in \(C_{\text{inter}}\), with neutralisation in other positions (cf. B. Baker 2014b: 142). The argument, then, is that a mere reference to a syllable onset would not be enough to state this aspect of phonotactics, since \(C_{\text{init}}, C_2\) and \(C_{\text{inter}}\) are all onsets, but the latter has a special status in comparison to the other two.

While Kunbarlang phonotactics can be described with word templates, I find that it can be equally well described in prosodic terms with only minimal qualifications (2.13), and therefore will adhere to that as a simpler option. With respect to the pro-template arguments listed above, Kunbarlang has a fair number of monosyllabic words; there is a range of legal word-final clusters; and the place of articulation contrasts do not seem limited to the intervocalic positions (see especially §2.5.3.1 on lack of apical neutralisation in clusters).

Description of syllable structure is followed by discussion of morpheme-initial (§2.5.3) and morpheme-final (§2.5.4) positions. Here I first begin with the question of the minimal word.

Words in Kunbarlang can be as short as an open monosyllable (CV), although these are very few and clearly are not a preferred word structure. The attested ones are the conjunctions \(ba\) ‘so’ and \(la\) ‘and’ and an interjection \(ke\) ‘oh really?’ No phonetic lengthening of the vowel appears to be necessary for these words. The number of monosyllabic words of the shape CVC, a closed syllable, is however considerable. They
occur in various categories, such as nouns (muk ‘fly; bee’, wam ‘honey’), interjections (bonj ‘alright’), quantifiers (djal ‘only’, ngob ‘all’), and coverbs (ngurr ‘wash’, kerd ‘carry’).

From the point of view of syllable structure, Kunbarlang phonotactics can be captured with a monosyllabic template. The analysis offered here is much in the spirit of Evans’s (2003a: 89 ff.) analysis of Bininj Kunwok syllable structure (although the specific structures are, obviously, different). Essentially, Kunbarlang has a rather small set of admissible complex codas, and the majority of syllables are CV(C), the particular details to follow presently. To capture the variety of syllabic structures found in the data, it is convenient to divide the range of possible syllables into those with simple/empty codas (§2.5.1) and those with cluster codas (§2.5.2). Then, with minimal qualifications (2.13), templates can be given that describe both types. The qualifications all concern word edges and are given below after the description of syllable structures; notice also that the phonotactic word templates discussed above do not make a distinction word-medially between syllable-initial and morpheme-initial positions, and thus are not able to express (2.13a) naturally, i.e. without a similar qualification.

For the reader interested in the quantitative distribution of the various segments and their classes, dictionary counts are provided in the sections below. Thus, a note on the structure of the dictionary currently used (Coleman 2010) is in order. Kunbarlang is a polysynthetic language with an abundance of bound morphology. In the headwords, those nominal roots that are bound are given without the relevant class prefixes and all verbal roots are given without the inflectional morphology, albeit often with several derivational morphemes attached. One consequence is for the word edges: verb-initial segments as they appear in speech are limited to the onsets of bound subject prefixes and thus are only a subset of what is allowed stem-initially. Another is that a number of morphemes will appear in the data repeatedly. Because of that, the present counts should be taken to indicate, not the text frequencies of the segments or frequencies in a complete and non-redundant set of morphemes, but the frequencies of segment occurrences in stems, i.e., nominal roots, uninflected verbs and functional categories.

Sections 2.5.3 and 2.5.4 deal with the morpheme-initial and morpheme-final positions, respectively. One general result is that liquids are very limited (but not completely banned) in these edge positions, which I call here C_{init} and C_{fin} for convenience. Overall, the lexicon frequencies of different place of articulation classes are in accordance with the harmonic scales for onsets and codas proposed by Hamilton (1996), with the notable exception of dorsal/velar stops being the most frequent word-final segments in Kunbarlang (§2.5.4).

2. Originally, these labels have been used by Hamilton (1996: 75) to denote phonotactic positions in the word template. Notice that I use them in reference to onsets and codas, i.e. as prosodic notions.
2.5.1 Syllables with simple/empty codas

Those Kunbarlang syllables that do not end in consonant clusters can be represented by the template in (2.9).

(2.9) \((CV(C_{\text{fin}})),\) where

- \(C\) is any consonant except the glottal stop
- \(C_{\text{fin}}\) is any consonant except fortis stops

The template in (2.9) covers vowel-initial syllables (V(C); 2.10a–b) found in table 2.6, as well as consonant-initial open syllables (CV, 2.10a–h; these can constitute free morphemes or be part of larger structures) and closed syllables that end in a single consonant (CVC; 2.10e–h).

(2.10) a. a.la.bbi.kka ‘flatback turtle’
- b. ang.ba.rdi ‘expert hunter’
- c. la ‘conj’
- d. ba.rda ‘what’
- e. du.rduk ‘dog’
- f. ka.bun.bum ‘he/she/it hit him/her’
- g. kun.mim.ke ‘night’
- h. kun.ba.rlang ‘Kunbarlang’

2.5.2 Syllables with consonant cluster codas

The array of syllables that end in a consonant cluster can be captured with the following (disjunctive) template (2.11). The coda clusters are always biconsonantal, with triconsonantal clusters only arising across syllable boundaries.

(2.11) \((C)VC_1C_2\cup CVC_3C_4\cup CV/wk/,\) where

- \(C\) is any consonant except the glottal stop,
- \(C_1 = [+\text{cons},+\text{cont}] = \{r, rr, l, rl\}\),
- \(C_2 = [-\text{syll},-\text{lab},+\text{back},-\text{long}] = \{k, ng, h\}\),
- \(C_3 = [+\text{approx},+\text{anterior}] = \{l, rr\}\),
- \(C_4 = /d/,\) and
- /wk/ is simply the cluster of labiovelar glide and velar stop (see fn. 3)
As the template in (2.11) shows, clusters allowed in codas in Kunbarlang form a very restricted set. In fact, they can easily be listed: wk, ld, lk, lng, lh, rrd, rrk, rrng, rrh, rlk, rlng, rlh, rk, rng, and rh.3 All these clusters but /wk/ can be described as consisting of a liquid followed by a stop (oral or nasal). In fact, most of the time that stop is a peripheral one, since the clusters with the second /d/ are extremely rare, only attested in kingarduld ‘venus clam’ and burrdbarrk ‘venomous sea urchin’.

\[(2.12)\]

\begin{itemize}
  \item a. ma.rawk ‘friarbird’
  \item b. ki.nga.rduld ‘venus clam’
  \item c. kun.djolk ‘creek’
  \item d. walng.ka.walng.ka ‘king tide’
  \item e. wurrd.barrk ‘sea urchin’
  \item f. kun.kurrng ‘Mother-in-Law language’
  \item g. ka.worh.meng ‘he/she/it lit something up’
  \item h. dju.birlk ‘whelk’
  \item i. man.korlng ‘carpentaria palm’
  \item j. berk ‘legless lizard’
  \item k. -burr.berh.bunj ‘to burp’
\end{itemize}

As mentioned above, there are several statements that need to be made about word edges in addition to the syllable templates in (2.9) and (2.11):

\[(2.13)\]

\begin{itemize}
  \item a. fortis consonants are allowed syllable-initially, but not word-initially
  \item b. vowel-initial syllables are only found word-initially
\end{itemize}

In what follows I discuss the distribution of consonants with regards to morphological structure, i.e. in morpheme-initial and -final positions.

### 2.5.3 Morpheme-initial position

Although there are vowel-initial morphemes in Kunbarlang, these are very few and their striking majority begin with /a/. The words containing vowel-initial morphemes are listed in table 2.6. These words are primarily monomorphemic, only alidjalidj ‘harpoon’

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3. There is only one instance of the coda wk: marawk ‘friarbird’. The coda rng is ruled in by (2.11), but is not found in the data. At present I believe this to be an accidental gap.
being a clear reduplication. Vowel hiatus is prohibited, and the only vowel-initial syllables are also the word-initial ones.

Table 2.6: Vowel-initial words in Kunbarlang

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>adjak</td>
</tr>
<tr>
<td></td>
<td>adju</td>
</tr>
<tr>
<td></td>
<td>alabbikka</td>
</tr>
<tr>
<td></td>
<td>alidalidj</td>
</tr>
<tr>
<td></td>
<td>Alkarn Ka-yuwa</td>
</tr>
<tr>
<td></td>
<td>andawulmurra</td>
</tr>
<tr>
<td></td>
<td>angbardi</td>
</tr>
<tr>
<td></td>
<td>arladjirr</td>
</tr>
<tr>
<td></td>
<td>arriwawanj</td>
</tr>
<tr>
<td></td>
<td>Ayinkudji</td>
</tr>
<tr>
<td>e</td>
<td>eh</td>
</tr>
<tr>
<td>i</td>
<td>ilurrk</td>
</tr>
<tr>
<td></td>
<td>Indjalkkudji</td>
</tr>
<tr>
<td>o</td>
<td>obobo</td>
</tr>
</tbody>
</table>

Turning to consonants, the frequency distribution of the place of articulation classes in Kunbarlang word onsets conforms fully with Hamilton’s (1996: 213 ff.) generalisation that the preference for a given consonant in the onset decreases along the continual harmonic ordering of places in $C_{\text{init}}$ (2.14). The scale is expressed in terms of the active articulator, thus lumping together alveolar and retroflex consonants under the label apical.

(2.14) **LABIAL, DORSAL > LAMINAL > APICAL**

That is, labials are the best possible onsets, and they’re the most frequent class in Kunbarlang onsets (counting 779 out of 1862). Apicals are the least optimal onsets, and indeed, they are the least frequent class in Kunbarlang, alveolar and retroflex apicals together making up for 273 onsets in the used dataset.

Table 2.7 presents counts of occurrence of consonants in the morpheme-initial position in Kunbarlang in a dataset of 1862 items.

It can be seen from table 2.7 that all consonants are permitted in $C_{\text{init}}$, but the fortis series is extremely restricted. Some other consonants are highly restricted in this position, too, most notably the two rhotics and the palatal nasal. These are especially scarce word-initially. B. Baker (2014b: 143) points out that in Australia “there are clear

4. With the variant kalabbikka.
5. Typically realised with an initial glottal stop.
asymmetries in the manner of articulation of consonants permitted in initial position… [l]iquids are very commonly highly restricted in this position” and “[o]nly a small number of Australian languages allow the tap/trill /ɾ/ in word-initial position.” Indeed, in Kunbarlang not only the rhotics but also the lateral liquids show very low counts compared to stops, nasals and the glides /w/ and /j/.

2.5.3.1 Retroflexion retention following heterorganic consonants

It must be pointed out that the apical contrast is retained in the morpheme-initial position in Kunbarlang (although word-initially the contrast is neutralised in favour of the alveolar realisation). That is, retroflex apicals are phonologically realised as retroflex in word-medial, morpheme-initial position, even when preceded by a non-retroflex consonant. Examples of that are in (2.15): in (2.15a) audible retroflexion is retained after an apical nasal and in (2.15b), after a palatal nasal. Note that the nasals do not show anticipatory assimilation of their place of articulation either.

(2.15) a. /ka-ɾaŋ-ɾukbaŋciŋ/ → [kaˈɾaŋɾukˌbaŋɟiŋ]  
3SG.NF-1SG.OBJ-show.PST  
‘[He] taught me.’ [lit. ‘He showed it to me.’]  [20150413OV01/07:10–11]

b. /ɾa-maɾaŋ-ɭakwaŋ/ → [ɾaɾaməɾaŋɭakwaŋ]  
1SG.NF-BEN-throw.PST  

I have recorded a variety of word-medial clusters where a retroflex consonant follows one with another place of articulation in the best acoustic conditions I could create in the field. To the best of my hearing, retroflexion on the C₂ is retained in the majority of cases, with only a few exceptions. The first exception is that nasal–nasal
clusters are simplified to a single nasal, chosen in accordance with the nasal hierarchy (n > η > n > η), which is discussed in detail in §2.7.3. Second, variation is more pronounced if C₁ is /n/ or /l/, suggesting that alveo-apicals have a stronger effect on realisation of the following retroflex. Specifically, /nd/ comes out varying between [nd] and [nd̠] (IK1-170620_SY-02: 00:31–37 and 03:28–33, resp.; cf. (2.15a)); and /ld/ → [ld] (ibid./05:42–47), /l/ → [l] (ibid./05:24–30). Finally, while the velar nasal does not affect the following retroflex, in most cases the velar oral stop does. However, this is not uniform either, and appears contingent on the broader context: the retroflex is neutralised to the alveolar realisation when it follows /ɾk/; but when /k/ itself followed a vowel — /…pakɖu…/ — retroflexion was not lost and the velar stop was significantly lenited. This further suggests a particular effect of a preceding alveo-apical on the retroflex neutralisation. In the remaining pairs the retroflexion on the second consonant is rather distinct; these are [ml nd lnl nd nl].

This dataset under discussion is not large enough for any quantitative measurements, as the controlled low-noise environment recordings come from a single speaker. Most of the clusters in the same word forms were recorded from another speaker as well, but in a significantly noisier setting. Moreover, it must be noted that I am relying on my own perception of the acoustic qualities of the consonants under discussion. 6 Visual inspection of spectrograms does not reveal any clear patterns in F3 of the neighbouring vowels for Kunbarlang retroflexes, 7 whether as C₂ or elsewhere, even when they are heard distinctively. An experimental study of acoustic and articulatory properties of Kunbarlang consonant clusters would be instrumental for better understanding of phonotactics in this language.

This retention of retroflexion appears rather unusual in Australia, where "[m]ost languages are reported to have apico-retroflex realisations of [the] neutralised segments in phrase-medial context, following a vowel, but apico-alveolar realisations otherwise (i.e., utterance-initially, and following consonants other than retroflex)" (B. Baker 2014b: 142). On the other hand, the behaviour of the nasals, which do not assimilate, is quite typical among the Australian languages (see, e.g., Fletcher & Butcher (2014: 107–8) on resistance to anticipatory place of articulation assimilation in Australian languages), although apicals appear more prone to coarticulation effects, which is also consistent with the behaviour of alveolar + retroflex clusters in Kunbarlang.

2.5.4 Morpheme-final position

Fortis consonants are the only consonants prohibited in the morpheme-final position (as they do not occur syllable-finally in Kunbarlang). All three central approximants are

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6. I have also played some samples to two colleagues, who confirmed my impressions.
7. Sharp decline of F3 of the preceding vowel is the most distinctive feature of retroflexes in spectrography (Ladefoged 2003: 159–168).
attested, albeit with very low frequency: there are four morphemes that end in /ɻ/ (one of them a monosyllabic coverb), six that end in /w/, and 20 that end in /j/. As a group, these approximants thus make up roughly 1.58% of the morpheme-final segments. The velar stop /k/ is the most frequent consonant in the morpheme-final position in Kunbarlang. The second most frequent consonant in that position is the palatal nasal /ɲ/; this contrasts interestingly with its very low frequency in morpheme-initial position. Table 2.8 provides counts for the morpheme-final occurrences of Kunbarlang consonants (including the C₂ of consonant clusters, but omitting the row for fortis stops, as these are unattested in syllable-final position) on the basis of 1893 words from the dictionary (Coleman 2010).

Table 2.8: Occurrence of consonants in morpheme-final position

<table>
<thead>
<tr>
<th></th>
<th>Labial</th>
<th>Alveolar</th>
<th>Retroflex</th>
<th>Palatal</th>
<th>Velar</th>
<th>Glottal</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lenis</td>
<td>p, 26</td>
<td>t, 41</td>
<td>ʈ, 23</td>
<td>c, 57</td>
<td>k, 233</td>
<td>?, 26</td>
<td>406</td>
</tr>
<tr>
<td>Nasal</td>
<td>m, 64</td>
<td>n, 75</td>
<td>ɳ, 20</td>
<td>ɲ, 198</td>
<td>ŋ, 102</td>
<td></td>
<td>459</td>
</tr>
<tr>
<td>Lateral</td>
<td>l, 35</td>
<td>ɭ, 24</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>59</td>
</tr>
<tr>
<td>Tap/Trill</td>
<td>r, 87</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>87</td>
</tr>
<tr>
<td>Approximant</td>
<td>w, 6</td>
<td>l, 4</td>
<td>j, 20</td>
<td></td>
<td></td>
<td></td>
<td>30</td>
</tr>
<tr>
<td>Total</td>
<td>96</td>
<td>238</td>
<td>71</td>
<td>275</td>
<td>335</td>
<td>26</td>
<td>1041</td>
</tr>
</tbody>
</table>

In terms of the frequency in the lexicon, morpheme-final position in Kunbarlang does not as neatly correspond to Hamilton’s (1996) generalisation as the morpheme-initial position. The harmonic scale for C<sub>fin</sub> (2.16; Hamilton 1996: 228) is a near-reverse of that for C<sub>init</sub> (2.14).<sup>8</sup> Again, the preference for a consonant in the morpheme-final position decreases rightwards along the scale:

(2.16) APICAL > LAMINAL > DORSAL > LABIAL

In Kunbarlang, however, we find that the two dorsal consonants — the velar stop and the velar nasal — are more frequent than the two classes of apicals taken together (335 vs. 302). The remaining three place of articulation classes in their respective ranking conform to the scale (2.16), labials being the least frequent ones.

Finally, I give some counts for vowels; however, I only provide them for the word-final position, i.e. not including the word-medial syllable-final occurrences. The low central vowel /a/ is the most frequent Kunbarlang phoneme to occur in word-final position (285 words out of 1893). Other vowels also appear at the end of words rather frequently, as is shown in table 2.9. The only vowel which does not occur in the word-final position very often is /o/, with only 37 instances.

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<sup>8</sup> Hamilton’s (1996) scale for C<sub>fin</sub> is totally ordered, while the one for C<sub>init</sub> is only partially ordered, as
Table 2.9: Occurrence of vowels in word-final position

<table>
<thead>
<tr>
<th></th>
<th>Front</th>
<th>Central</th>
<th>Back</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>i, 267</td>
<td>u, 111</td>
<td></td>
<td>378</td>
</tr>
<tr>
<td>Mid</td>
<td>e, 159</td>
<td>o, 37</td>
<td></td>
<td>196</td>
</tr>
<tr>
<td>Low</td>
<td>a, 285</td>
<td></td>
<td></td>
<td>285</td>
</tr>
<tr>
<td>Total</td>
<td>426</td>
<td>285</td>
<td>148</td>
<td>859</td>
</tr>
</tbody>
</table>

A comparison of tables 2.8 and 2.9 gives a rough idea of the relative proportion of closed and open syllables in Kunbarlang. One finds that they are almost equally frequent, with open ones constituting 45.4% of the total.

### 2.6 Stress

Within the Gunwinyguan family, the two languages with the most thoroughly studied metrical structure are Bininj Kunwok and Ngalakgan. Both languages show metrical systems that are intricately connected to the morphological make-up of words. Interestingly, according to the analyses, footing operates differently in these two languages. In Bininj Kunwok feet are unbounded and (usually) aligned with morphemes (Evans 2003a: 99; Bishop 2002: 120). This means that there is no secondary stress in morphemes that are longer than two syllables. In contrast to that, in Ngalakgan feet are binary (specifically, bimoraic trochees; B. Baker 2008b: 71ff.). Therefore, a morpheme consisting of four open syllables (for instance) receives a primary and a secondary stress on its first and third syllables (with some variation as to which is which).  

This section presents some preliminary observations on stress in Kunbarlang; a quantitative, instrumental study needs to be carried out in order to verify the claims made here and for a fuller understanding of the metrical structure of Kunbarlang. The examples discussed here are from a range of contexts, some recorded in isolation and some taken from connected speech. To the best of my knowledge, there is very little variation in stress placement across variable contexts, and thus there should not be any confounds when word tokens are taken from narratives.

Acoustic correlates of metrical strength are not straightforward in Gunwinyguan languages, cf. the following quote from Bishop (2002: 240): “it needs to be emphasised that the relative magnitudes of duration, intensity and F0 in accented/stressed vs unac-

---

9. Considering other languages of the area, Nakkara has a rather intricate system of stress placement rules (Eather 2011: 35–42).
cented/unstressed syllables do not always (or unambiguously) indicate the metrically strong syllable in a foot in BGW. For example, the accent-related F0 peak occurs on the unaccented, post-stress syllable in delayed or late peak accents.” The general picture, however, seems to be that intensity (in Dalabon (Fletcher & Evans 2002), and, with caveats, in Kuninjku) and pitch accent (in Kuninjku and probably Ngalakgan) are the most reliable exponents of lexical stress in these languages, while vowel length varies independently of stress and there are no systematic changes in vowel quality (although see B. Baker 1999 for Ngalakgan).

Stress in Kunbarlang is not contrastive, i.e. it does not serve the differentiating function. It is signalled primarily by higher pitch of the stressed syllable vowel and also by greater intensity (in dB). Vowel length does not seem to pattern together with these metrics, and where there is a mismatch, I find identification of primary stress placement rather challenging. Figure 2.1 below shows the spikes of both pitch (specks) and intensity (contour line) on the stressed antepenultimate syllable in the verbal word *nganjrdudkume ‘I’ll cut it’, realised as [ãɲˈɖukːume].

![Figure 2.1: Pitch and intensity contours of *nganjrdudkume*](IK1-170620_1SY-02/09:08)

The stressed antepenult in figure 2.1 notwithstanding, the most robust pattern is for the primary stress to fall on the penultimate syllable, if the word is longer than one syllable. In monosyllables the stress will fall on the only syllable. Examples of words of different length and varied morphological structure are given in (2.17): two syllables (2.17a–c), three syllables (2.17d–f), four syllables (2.17g–j), five syllables (2.17k–m), six syllables (2.17n).

(2.17)  
\[\begin{align*}
\text{a. ká-ka ‘s/he goes’} \\
\text{b. ná-wuk ‘male person’} \\
\text{c. kédjurr ‘mud’} \\
\text{d. yiwárrudj ‘church’} \\
\text{e. ka-ngúnda ‘s/he says/does’}
\end{align*}\]
f. na-wúk=bonj ‘(that) male person’
g. bàrramímbanj ~ bárramimbanj ‘woman’
h. ngàdda-rdáyinj ‘we entered’
i. kà-bukáyinj ‘s/he got out [e.g. of the boat]’
j. man-kuk-káryung ‘long [class IV]’
k. ka-birr~birrinja ‘[it’s] the same’
l. kàdda-nganj-kánginj ‘they brought [him] over here’
m. ngàrrk-buddu-yákbum ‘our kids’ [lit. ‘we dropped them / gave birth to them’]
n. kàdda-bàba-rnékbe ‘they’re dancing separately’

However, frequently there are exceptions. Let us focus on verbs, which can get very long and also offer complex morphological structures. As stated above, probably the most frequent pattern is for the primary stress to be penultimate (2.18).

(2.18) ngaddá-rdam ‘we are putting it down’

Notice that in (2.18) stress is on the personal prefix, not the (monosyllabic) stem (likewise in (2.17a)). Example (2.19) shows that the prefix may be stressed even if the stem is disyllabic.

(2.19) ká-kidanj ‘s/he/it went’

Other examples of the primary stress falling on non-penultimate syllables are the antepenultimate on the stem (2.20a), final (also on the stem; 2.20b), or both (primary on the final and secondary on the antepenultimate syllable; 2.20c):

(2.20) a. ngà-bak-rdúkkume ‘I’m cutting it lengthwise’
b. ngàdda-djarráng ‘we ate’
c. kidda-nganj-rlàkwaní ‘they would throw it down’

Sometimes it appears to me that the prefix has the primary stress and the stem — the secondary (2.21):

(2.21) ngadda-ngánj-mayinj ‘we came across’
The antepenultimate stress, as in (2.20a), does not systematically originate in stress shifting off from a light syllable. Example (2.22) shows that it does not have to even when the next one left is potentially heavier (CVC vs. CV):

(2.22)  kaddæ-karmi ‘they would get them’

Clash of the primary and the secondary stress appears possible sometimes, albeit not at all often; (2.23) is one example. Notice that this one is an adjective (\textit{-burrinj} ‘pleasant’) with a noun incorporate (\textit{wurrng} ‘blade”).

(2.23)  man-rdawûrrng-bûrrinj ‘the one with a sharp blade’

In what concerns the secondary stress placement, it tends to go leftwards on alternating syllables from wherever the primary stress is placed, as in (2.20a) or (2.22), but in longer words gaps get larger, as in (2.24). I am not aware of any words with more than three audibly stressed syllables.

(2.24)  ngâdda-makårmijdjânganj ‘we sang’

This variation does not seem to betray any systematically organised metrical structure. At the present stage of research, I find that Kunbarlang primary stress is fixed lexical, with a tendency towards penultimate. This means that all morphemes are inherently specified for stress location (no-stress specification being one possibility), with some limited variation possible in discourse (the limits of which variation would be a matter for future prosodic work). Furthermore, from the current data it appears plausible that stems take precedence over affixes, so that the primary stress falls on the stem, and affixes receive secondary stress. Stems must be allowed the no-stress specification, in which case an affix receives the primary stress, as in (2.19). In §2.7.1 below I discuss a special case of systematic stress variation along with changes in the morphological structure in the pronominal \textit{-buk} ‘person’.

\section*{2.7 Morphophonology}

The surface realisation of phonemes and morphemes in Kunbarlang is relatively straightforward and does not involve many complex rules. This degree of agglutination is similar to Bininj Kunwok, cf. Evans’s remark that Bininj Kunwok “morphology is almost lego-like” (2003a: 106). Some of the alternations described in this section are exceptional and morpheme-specific (the lenition in \textit{-buk} ‘person’, §2.7.1, and nasal hardening, §2.7.4),

\footnote{Evans (2003a: 103–4) describes occasional retraction of stress leftwards from light syllables in Bininj Kunwok.}
while others appear to be manifestations of the general phonological preferences in Kunbarlang that however only become obvious on morpheme boundaries (mid vowel raising, §2.7.2, and nasal cluster simplification, §2.7.3).

2.7.1 Lenition of the initial segment of -buk ‘person’

There is a pronominal root -buk in Kunbarlang that is used for human referents only (§4.4.1.1). It carries an obligatory gender prefix, viz. na- for masculine and ngal- for feminine referents. The stress in the standalone (citation) form is on the prefix (2.25a–2.25b). However, this pronoun can also attach information-structural morphemes, namely the enclitic bonj ‘exactly’ or the contrastive suffix -ma (§4.4.1.2). Both of these morphemes shift stress from the gender prefix onto the root -buk. That leads to morphophonemic lenition of the stem-initial /p/ from the clear stop realisation [b] to [w], which in the feminine form is further eroded after /l/ up to inaudibility (2.25a–b vs. 2.25c–d). Such a stark contrast between post-tonic and pre-tonic realisation of consonants — /p/ in particular — is not attested elsewhere.

(2.25) a. /na-puk/ → [ˈnəbuk]  
   b. /ŋal-puk/ → [ˈŋalbuk]  
   c. /na-puk-poŋ/ → [naˈwukpoŋ]  
   d. /ŋal-puk-ma/ → [ŋalˈukma]  

In the feminine form this is lenition (just like in the masculine), rather than categorical deletion: there are instances where the labiovelar glide realisation of the /p/ is clearly audible, such as (2.26):

(2.26) [ŋalˈwukma]  

The same speaker in the same recording session has produced multiple tokens of [ŋalˈukma] and [ŋalˈukpoŋ] with complete erosion of the /p/.

2.7.2 Mid vowel raising between palatal segments

The unrounded mid vowel /e/ in Kunbarlang has a wide distribution, occurring before and after consonants of all classes. In particular, it is found following palatals (2.27a) and preceding them (2.27b). As a reminder, the palatal consonants in Kunbarlang include /c/, /cː/, /ɲ/ and /j/.
(2.27)  

\[
\begin{align*}
\text{a.} & /\text{kapurunma}^{\text{e}}/ & \rightarrow & [\text{kapurunma}^{\text{e}}] \\
& 3\text{PL.NF} + 3\text{DU.OBJ} + \text{pierce.NP} & & \text{[IK1-170530_iSY-01/12:24]} \\
& \text{‘It’s attacking them two.’} & & \\
\text{b.} & /\text{kat}:\text{ænemejiŋ}/ & \rightarrow & [\text{kat}:\text{ænemejiŋ}] \\
& 3\text{PL.NF} + \text{smear} + \text{REFL.PST} & & \text{[IK1-160624_000-01/03:38]} \\
& \text{‘They painted themselves [with clay].’} & & \\
\end{align*}
\]

However if /e/ has a palatal immediately on each side, it is realised as the high front allophone [i]. The typical context for this is in the reflexive/reciprocal forms, where the palatal-initial suffix -yi attaches after the verbal root (2.28):

(2.28)  

\[
\begin{align*}
& /\text{ŋark--nil-mace-ji}/ & \rightarrow & [\text{ark}^{\text{e}}\text{ŋilmaji}^{\text{e}}] \\
& 1\text{.INCL.NF} - \text{eye} - \text{pierce-REFL.NP} & & \text{[IK1-160816_000-01/29:32]} \\
& \text{‘glasses [lit. what we put around the eyes]’} & & \\
\end{align*}
\]

Notice that although it may appear as regressive assimilation of the vowel height before the high vowel in the suffix, this is unlikely so, as no assimilation is found in (2.27b) in a similar context. A context with a different following vowel is difficult to construct given the morphological inventory of Kunbarlang. A lexicon search reveals that there are no tokens of [e] between two palatals elsewhere in the words, which suggests that this raising alternation reflects a general dispreference in Kunbarlang against the [e] between two palatal consonants.

2.7.3 Nasal cluster simplification

Kunbarlang shows an interesting pattern in simplifying heterorganic nasal clusters. While there is a scale similar to the harmonic scale of Hamilton 1996, the Kunbarlang one operates on a different principle, being position-independent. In terms of description, I report a more complex simplification pattern than in the previous work by Coleman.

Coleman (1982: 15–16) makes two observations regarding the nasals:

1. nasals do not assimilate in the place of articulation to the adjacent consonants
2. normally, two adjacent heterorganic nasals are retained, but in personal prefix combinations, the second of two juxtaposed nasals is deleted

My findings are similar regarding the place of articulation retention in nasals, see remarks on that in §2.5.3 and see Fletcher & Butcher (2014: 107–8) on resistance to anticipatory place of articulation assimilation in Australian languages more generally.\textsuperscript{11}

\textsuperscript{11} There are, however, manner of articulation sandhi in Kunbarlang coverb constructions, namely hardening (§2.7.4).
Example (2.29) shows retroflex and apical nasals not assimilating to the following labial stop, either intramorphemically (2.29a) or intermorphemically (2.29b).

(2.29) a. [gaˈbunbum]  
Ka-burnbum.  
3SG.NF-stop.PST  
‘S/he stopped.’  

b. [gaˈbunbum]  
Ka-bun-bum.  
3SG.NF-3SG.OBJ-hit.PST  
‘S/he hit someone.’

Concerning the simplification of heterorganic nasal clusters, here I describe a slightly more complicated pattern than Coleman (1982) does. The main domain of this process is indeed the personal prefixes (i.e. the inflectional morphology), partly because they offer most of the opportunities to create such clusters. However, there are a few other combinations involving incorporated nominals, and this process is strikingly evident in possessive pronouns with the prefix *kin-* ‘i/ii’. The interactions seem to be restricted to the [-labial] nasals, as the [m] is found in a variety of contexts (at least, following [n], [ɲ], [ŋ] and preceding [ŋ]). The remaining four nasals, however, seem to form a hierarchy as in (2.30):

(2.30) n > ɲ > ɲ > ŋ where > means ‘wins over’

The hierarchy in (2.30), rather than recourse to the linear order of the segments, is motivated by the cases where the first nasal is deleted and the second, kept (2.31).

(2.31) [ŋaŋaŋaŋaŋaŋaŋ]  
Nganj-rna-rna-rnanj bi-rnungu.  
1SG.FUT-look_after.NP DAT-he.GEN  
‘I’ll look after him/her/it.’

Thus, in (2.31) the root-initial retroflex nasal overrides the preceding palatal nasal, which is the coda of the monosyllabic personal prefix. The root/affix relation does not play a role here: if the personal prefix ends in a “stronger” consonant than the initial of the stem (i.e. the root and, optionally, derivational affixes), then the cluster is simplified to the detriment of the stem-initial consonant (2.32).
The hierarchy (2.30) is reminiscent of Hamilton’s (1989) place markedness scale for Australian languages (2.33):

The place scale (Hamilton 1989, cited in Hamilton 1996: 110):
Labial > Dorsal > Laminal > Apical

The work on the scale (2.33), such as Hamilton (1993, 1996), regards this scale as crucially position-dependent. Features to the right on the scale are less marked than features to the left if the segment occurs as the first consonant in the cluster (C₁) or in syllable-final position (C-fin). Markedness relation is reversed for the second consonant in the cluster (C₂) and the syllable-initial position (C-init) and: features to the right in (2.33) are more marked in these positions. Importantly, in Kunbarlang the hierarchy (2.30) is position-independent. This means that the relation (2.30) between the nasals holds regardless of the order they come in, and the resolution of the cluster is not made according to the markedness as in (2.33). Consider example (2.31), where the nasal cluster contains a lamino-palatal /ɲ/ as the C₁ and an apico-retroflex /ɳ/ as the C₂. According to (2.33), the C₁ in this cluster is relatively unmarked, but the C₂ is, on the contrary, marked. However, the cluster is resolved in favour of the more marked apico-retroflex C₂. The pattern cannot be explained by saying that the more marked segment is selected, because (2.32a) shows the opposite pattern, with the less marked segment selected.

The nasal clusters between derivational morphemes, however, are not simplified, even though the resulting clusters sometimes violate the Australian-wide harmonic generalisations (Hamilton 1996: 109 ff.). This is the case with nasal clusters occurring both between two derivational prefixes (2.34a) and between a derivational prefix and the root (2.34b).

(2.32) a. [kabunaj]
Ka-bun-rnay.
3SG.NF-3SG.OBJ-see.PST
‘He saw her.’

(2.34) a. [kadːaŋaɲŋoɭŋkidaɲ]
Kadda-ngaɲ-ngorling-kidan.
3PL.NF-HITH-group-go.PST
‘They were coming in a bunch.’
b. [kadaŋoɭŋɳa]
Kadda-ngorling-rna.
3PL.NF-group-sit.NP
‘They are sitting in a group.’ [IK1-170608_1SY-01/08:38]

In example (2.34b), the cluster is very marked according to Hamilton’s (1996) generalisations, discussed above and reflected in the scale (2.33). That is, both a dorsal in the C₁ and an apical in the C₂ are highly marked. The cluster, however, is not simplified.¹² This might be connected to the exceptional abundance of dorsals on the C₁ in Kunbarlang, cf. §2.5.4.

2.7.4 Manner of articulation assimilation in the coverb constructions

There is sandhi in Kunbarlang that appears specific to the coverb constructions (i.e. complex predicate constructions where a coverb is encliticised to an inflected verb; see §6.5). In this sandhi, the final nasal of the verb hardens preceding a stop (2.35):

(2.35) [kabu bdol]
Ka-bum=dol.
3SG.NF-hit.PST=obstruct
‘It was closed.’ [IK1-170615_1SY-01/31:03]

Only a subset of nasals are affected, and only a subset of stops trigger the hardening. The nasals are the palatal /ɲ/ and the labial /m/ (hardening to [ɟ] and [b], respectively).¹³ The stops are the alveolar /t/ and the velar /k/ (2.36).

(2.36) [kaˈdjaŋa djəkolk]
Ka-djanganj=kolk.
3SG.NF-stand.PST=cut
‘S/he was chopping [them].’ [IK1-160504_000-01/01:03:05]

¹² The quality of the recording is borderline: both the dorsal and some apical articulation immediately following it are audible, but having more examples with better sound quality would be beneficial for further analysis.

¹³ The dictionary (Coleman 2010) cites forms like -buddob (<-/puɲ=top/) ‘burst smth.’, where the palatal nasal appears to harden to an alveolar, rather than palatal, stop. I have not heard such forms as of yet, but it is quite possible that there is variation.
It is interesting to note that with the exception of the combination [ɲd], all three other combinations are found elsewhere in the language, and thus the hardening does not seem to reflect a phonotactic restriction:

md mimdom ‘old person’

mk kunmimke ‘night time’

ɲk nga-nganj-kidanj ‘I came’

B. Baker (2014b: 147–8) points out that in coverb constructions “there can be special phonological rules applicable to the boundary between... the coverb, and... the inflected finite verb”. He cites Marra, where there is manner dissimilation between two nasals on the coverb/verb boundary.

Furthermore, in Kunbarlang the hardening seems to be the typical realisation, but not an obligatory one, because there are occasional exceptions, such as (2.37):

(2.37) -[ŋaleɲked]
Ka-nganj-ngalenj=kerd-kerd.
3SG.NF-HITH-spread.PST=RDP-carry
‘She carried [something].’ [20060814IB01/01:42]

The fact that the hardening is the normal realisation of the relevant nasals in the coverb constructions, testifies to the tightness of their nexus. One may hypothesise that this sandhi has developed as a morphophonemic by-product of this special morphosyntactic construction. Another possibility is that this is a case of a (morpho-)phonological pattern borrowing, which could come from Mawng, which also has both coverb constructions and a hardening pattern (see Capell & Hinch 1970: 41–42).

2.8 Reduplication

This section outlines reduplication patterns found in Kunbarlang, their form and meaning.

In Kunbarlang there is a divide between predicative (coverbs and verbal morphemes) and all other morphemes with respect to reduplication. Firstly, only for verbs and coverbs is reduplication somewhat productive. Second, the patterns differ slightly, with only the non-verbal morphemes showing full reduplication. I therefore discuss them separately.
2.8.1 Non-verbal reduplication

There is a considerable number of non-verbal morphemes in Kunbarlang that have reduplicated form. They can be nouns (kodjkodj ‘head’), adverbs (bonj~bonj ‘still; too’), or numerals (kudji~kudji ‘one each’). For the absolute majority of these, only the reduplicated form exists, so the process is not productive. There are five exceptions that I am aware of:

1. the particle bonj ‘right; exactly; enough’ is reduplicated to bonj~bonj ‘still; too’
2. the numeral -kudji ‘one’ is reduplicated for a distributive reading
3. the noun mimdom ‘elder’ is reduplicated to yield a plural term (the only noun to do so)
4. the adverb munguy ‘a lot’ is reduplicated for emphasis
5. the adverb rlobberl ‘outside’ can be reduplicated without any discernible difference in meaning; some speakers say that “you don’t need to say it twice”

In terms of the form, the reduplicant is copied to the left of the base. With all of these elements reduplication is always full (i.e. the reduplicant is a full copy of the base) up to the final vowel (see below). All bases are either monosyllabic (kekkek ‘bone’) or disyllabic (karlurrk karlurrk ‘kookaburra’).

When a disyllabic base ends in an open syllable and the two vowels differ, the final vowel of the reduplicant undergoes assimilation to the initial vowel of the base, e.g. welewela ‘mosquito’ (cf. rlobberl rlobberl, where the base ends in a consonant and hence the second vowel of the reduplicant does not change).

2.8.2 Verbal reduplication

Verbs and coverbs are similar to the rest of the reduplicating morphemes with respect to the directionality — the reduplicant is copied to the left of the base. However, only coverbs show full reduplication (kerdkerd ‘carry’; munumunu ‘squash’). The only monosyllabic verb that I know to undergo copying always retriplicates: -rnanj ‘to see’ → -rnanj rnanj rnanj ‘to look after’. All the other verbs are di- and trisyllabic.

The major pattern with the polysyllabic verbs is that the reduplicant consists of a copy of the first syllable and the initial CV of the second syllable.\(^\text{14}\) Similarly to

\(^\text{14}\) The same pattern is reported in Diyari, Ngiyambaa, and Yugambah-Bandjalang by Parnutt (2015). In fact, there may be a further similarity between Kunbarlang and Ngiyambaa: as I have noticed above, there is only one monosyllabic verb in Kunbarlang known to retriplicate; in Ngiyambaa, monosyllabic roots are prohibited from copying, because verbal reduplicants must be disyllabic (Donaldson 1980: 198~9).
what has been said above about the non-verbal reduplication, the final vowel of the reduplicant usually assimilates to the first vowel of the base, although exceptions will be pointed out. Consider examples in (2.38) and (2.39):

(2.38)  
   a. -kinje-kinje 'to cook habitually, always' (< -kinje 'to cook')
   b. -ngibi-ngibunj 'to call names of places, one after the other' (< -ngibunj 'to call a name')
   c. -rleme-rlemang 'knocked on something a lot' (< -rlemang 'knocked')

(2.39)  
   a. -bili-bilayi 'to sway a lot' (< -bilayi 'to sway')
   b. -rdukku-rdukkume 'to cut a lot of something' (< -rdukkume 'to cut')
   c. -yakbi-yakbiyinj '[many teeth] fell out' (< -yakbiyinj 'fell out')
   d. -barra-barrkenrdam 'to load a lot of something somewhere' (< -barrkenrdam 'to load something somewhere')

Examples in (2.38) show reduplication of disyllabic bases and examples in (2.39)—of trisyllabic bases. I have included some forms with exceptions. In (2.38a) the mid vowel /e/ does not assimilate to the following high /i/. I do not have a different verb with a similar phonemic composition to cross-check. In (2.39c) the high front vowel /i/ does not assimilate to /a/, perhaps because of the intervening glide /y/, which is articulatory close to /i/. Finally, in example (2.39d) we see lenition of /ɾk/ to /ɾ/. This lenition seems to be regular (cf. -barra-barrkidbe 'all the different ones').

It will be apparent from the above examples that reduplication of verbal stems has a distinct function of encoding pluractionality, i.e. event plurality. It can be due to multiple participants (2.39c), repetitive/iterative action (2.38c) or habitual action (2.38a).
Chapter 3
Grammatical overview

In this chapter I discuss two fundamental topics of Kunbarlang grammar, which also facilitate reading of individual chapters. The first of these is a short introduction to the grammatical functions and the general grammatical features of Kunbarlang. The grammatical functions receive a fuller treatment in §5.1, but a brief overview here will give the reader the necessary definitions of terms used throughout the grammar. That is followed by a classification of Kunbarlang lexicon into parts of speech, with a general overview of their properties and classification criteria. In the short concluding section 3.3 I build on the presentation of the parts of speech to make explicit the criteria I used for wordhood and to distinguish clitics from words, on the one hand, and from affixes, on the other hand.

3.1 Typological features and grammatical functions

The clause in Kunbarlang is heavily polysynthetic (for general background on polysynthesis see Murasugi 2014, Fortescue, Mithun & Evans 2017; for specific reference to northern Australia, see Evans 2017). The verb (§3.2.4) carries enough information about the event and argument structure to express a full proposition, if it is the only element in the clause (see chapter 7 on the basic clause structure). Other words, such as nominals and adverbials, may add extra specification to the event descriptions, but they are never obligatory. When they are present, they are ordered with respect to each other and the predicate with a significant degree of freedom (although the preference for SVO is evident). That is to say, word order does not encode grammatical relations. Nor are grammatical relations systematically indicated by cases: the case system of Kunbarlang is reduced to the nominative/genitive/dative distinction in the personal pronouns (§4.4.1), but full NP core arguments are not marked for case. The pair of examples in (3.1) shows that the word *kirdimarrk* ‘man’ is the same whether it is agent or patient (and the demonstrative pronoun *ninda* that modifies it does not vary either).
The rich verbal morphology partially contributes to argument structure representation. Certain referential characteristics of up to two core arguments are encoded by the personal prefixes on the verb (namely, person and number). Unlike the majority of Gunwinyguan languages, Kunbarlang does not extensively use subject-object portmanteaux in the personal prefixes, combining subjects and objects in an agglutinating way (§5.2). Syntactic alignment is nominative-accusative, and with respect to objects it is secundative (§5.1). Nominative-accusative means that the single argument of an intransitive predicate is indexed in the verb similarly to the agent (and differently from the patient) of a transitive predicate. Secundative means that the patient of a transitive predicate is indexed in the same way as the recipient (rather than the patient) of a ditransitive predicate (Haspelmath 2005). This is illustrated in (3.2), where the third person plural object is indexed by the prefix *buddu*- whether it is the theme (3.2a) or the recipient (3.2b).

(3.1) a. Ninda kirdimarrk ka-karlangwanj pikipiki.
   DEM.PROX.I man 3SG.NF-chase.NP pig
   'This man is chasing a pig.' [IK1-170609_2SM-01/01:00:18–24]

   b. Nginda barramimbanj ka-bun-rnay ninda
   DEM.PROX.II woman 3SG.NF-3SG.OBJ-see.PST DEM.PROX.I
   kirdimarrk.
   man
   'This woman saw this man.' [sy150724]

In what follows I call patients of transitives and recipients of ditransitives (i.e. the objects indexed in the object slot) PRIMARY objects, and the patients of ditransitives—SECONDARY objects. The argument derivation morphology (§6.1) can change the valency of the verb, increasing it (the benefactive and the comitative) or decreasing it (the reflexive/reciprocal).

Reflexivisation only targets the patient-like argument. Thus, even though the recipient argument of a ditransitive verb overrides the patient for the purpose of agreement, reflexivisation will only bind the patient and not the recipient, as (3.3) shows. The reflexive/reciprocal suffix has only been found to bind the recipient on the reciprocal reading. These patterns are discussed in detail in §6.1.3.
A wide array of grammatical roles can be relativised in Kunbarlang, even up to the possessor (§8.4).

The following section elaborates the brief grammatical sketch through discussing form and function of the various word classes I distinguish in Kunbarlang.

### 3.2 Parts of speech

There are a number of categories (parts of speech) that can be distinguished in Kunbarlang, among them ADJECTIVES, ADVERBS, CONNECTIVES, COVERBS (LEXICAL CLITICS), NOUN MARKERS (DETERMINERS), NOUNS, NUMERALS, PARTICLES, PREPOSITIONS, PREVERBS, PRONOUNS, QUANTIFIERS and VERBS. They are exclusive, in the sense that each word normally only belongs to one category. There is only one derivational morpheme that changes part of speech of the base, the inchoative -mi, which turns adjectives into verbs (see more on this in §3.2.2). No other means of conversion between categories have been found.

The parts of speech can be classified into open and closed class ones:

**open** adjectives, adverbs, connectives, nouns, numerals, and preverbs

**closed** covers, noun markers, prepositions, pronouns, quantifiers, and verbs

This distinction refers to the ability of a given category to acquire new members, either via productive rules or via lexical borrowing (as is nearly always the case in Kunbarlang). It does not, however, refer to the absolute size of the category, nor is it intended to coincide with that between content and function words. Indeed, both classes include content as well as function words — in other words, some functional categories are open class and can be borrowed. I find the open-closed class distinction to be more useful of the two and adhere to it in this description.

Open class parts of speech can acquire new members, e.g. through borrowing. Closed class ones are so called because their list is not expandable. Among the closed class categories, covers (§6.5) are exceptional in that they are best analysed as lexical clitics and not free words. This accounts for their strict placement and the sandhi unique to the coverb construction (§2.7.4), and is in accord with their being a closed class. There are a few probable loans from e.g. Iwaidjan languages, but it is not possible to establish the timeline of the borrowing — it could have happened just as the construction arose
in Kunbarlang. Even though they are not a word class in the proper sense, they are still included in this section because of their lexical semantics, their contribution to complex predicate formation, and certain formal similarities to adverbs and preverbs (from which they must thus be delineated).

The verbs are also a closed class (albeit a large one, in the order of 450 members), which is a common feature of the Gunwinyguan languages (cf. Harvey 2003: 206–7). New verbal words are not borrowed into Kunbarlang with the same status as the native roots, but rather with the aid of a construction with preverbs (somewhat similar to the coverb construction): usually the root form of the loaned English verb is placed left-adjacent to the inflected Kunbarlang verb -ngundje ‘to do’ (3.4).\(^1\) There are, however, some variations, discussed in §3.2.5.2.

\[(3.4) \text{Ngorro ngadda-djin, } \text{share ngadda-ngundje.} \]
\[
\text{DEM.MED.IV 1PL.EXCL.NF-eat.NP share 1PL.EXCL.NF-do.NP}
\]

‘Then we eat it, we share it.’ [IK1-160726_002-01/01:15–19]

Adjectives (3.5a) and nouns (3.5b) are loaned readily.

\[(3.5)\]
\[
a. \text{Badjubadju nayi yellow, blue and white.}
\]
\[
\text{shirt NM.I ENG ENG ENG ENG ENG}
\]

‘A shirt that is yellow, blue and white.’ [IK1-160624_000-01/06:47–51]

\[
b. \text{Picture ninda ngorro ka-dja.}
\]
\[
\text{ENG DEM.PROX.I DEM.MED.IV 3SG.NF-stand.NP}
\]

‘He is on the [t-shirt] print [lit. ‘stands in the picture’].’

[ibid./06:59–07:02]

Connectives and numerals are quite often borrowed from English, especially in those cases when English makes finer lexical distinctions than Kunbarlang. For instance, where English speakers use and and but,\(^2\) Kunbarlang speakers have only one lexeme la ‘conj’. Thus, the loan but (3.6a) is quite frequent in Kunbarlang speech (perhaps because but is more specific than and, and Kunbarlang la is more strongly associated with the latter). Another connective, or, and the particle only are seen in (3.6b). Similarly, since the numeral system of Kunbarlang is small, English numerals are readily borrowed when large precise numbers need to be expressed (3.6b).

---

1. An interesting question concerns the possible sources of such preverb borrowing. I am not aware of any instances of preverb constructions where the preverb is from another indigenous language.
2. Abstracting somewhat, the same logical connector with different pragmatic shades.
In the following sections I discuss the diagnostics for the different parts of speech in Kunbarlang.

### 3.2.1 Nouns

The main distinguishing property of nouns in Kunbarlang is their inherent specification for noun class (or grammatical gender; see §4.1). This is easy to use because nouns head noun phrases, triggering noun class agreement on all modifiers (see examples (3.10) and (3.11) in §3.2.2), as well as on the adjectival predicates (3.7). The class I and IV nouns (kirdimarrk ‘man’ and lakamurrng ‘night’, respectively) govern the appropriate class agreement on the adjective -kukkarlyung ‘long’ in the predicative function in (3.7).

![Image of a page from a document with text](image_url)

(3.6) a. Yimarne kadda-ngunda barr na-bareng, **but** nukka ngorro like 3PL.NF-do.PST open I-dangerous ENG he DEM.MED.IV karlu, nukka ngorro na-mak, Christian man.

  NEG.PRED he DEM.MED.IV I-good ENG ENG

  ‘They thought he was dangerous, but he wasn’t, he was good, a Christian man.’ [IK-160624._000-01/03:12–19]

b. Ngana-kalng **only three hundred or two hundred.**

  1DU.EXCL.NF-get.PST ENG ENG ENG ENG

  ‘We bought it for only $300 or $200.’ [20060901IBo3/02:30–33]

Nouns are the main part of speech modified by adjectives (§3.2.2) and possessor phrases (§4.5), and this is a useful practical diagnostic, but it is not absolutely reliable as the only test, since (i) it is possible that not all nouns can be easily construed as possessed, and (ii) in the absence of an overt noun a possessive phrase could appear to modify another modifier, such as an adjective. Thus, even though in (3.8) it may seem as though bingaybu ‘mine’ is modifying the word mayi, that is in fact a noun marker and not a noun.
3.2.2 Adjectives

Adjectives constitute a distinct part of speech in Kunbarlang (cf. Dixon (1980: 271–5) on weak noun/adjective distinction in many Australian languages). The criteria that can be used to distinguish Kunbarlang adjectives from nouns include the following:

(i) nouns function in an NP as referential heads, while adjectives function as attributive modifiers (cf. Louagie 2017: 65)

(ii) nouns belong to a particular noun class (or, rarely, two classes), and do not appear as the target of agreement (but instead control agreement on the modifiers), while adjectives obligatorily agree (as targets) in noun class with a head noun (3.10–3.11)

(iii) inchoative -mi combines with adjectives but not nouns (3.13) vs. (3.14)

(iv) nouns may be incorporated into adjectives, but not into nouns, and not vice versa (3.15)

The category of noun class (§4.1) permeates the whole of the noun phase, being an agreement category defined on all nominals (i.e. constituents of the noun phrase; see Chapter 4). There is a clear asymmetry, however, in that only nouns are inherently specified for the noun class, and all3 of the modifiers of the head noun agree with it. As

3. The universal quantifier ngob is an exception in that it does not decline (§4.6).
a special case, the head noun can be elided. Adjectives do not have an inherent noun class and can inflect for all classes of the head noun (3.10–3.11).

(3.10) Third person singular forms of -mak ‘good’
   a. na-mak ‘good (e.g. man)’
   b. kin-mak ‘good (e.g. woman)’
   c. man-mak ‘good (e.g. food)’
   d. kun-mak ‘good (e.g. liquid)’

   Most adjectives have a paradigm like -mak ‘good’ in (3.10), i.e. classes II–IV prefixes end in the alveolar nasal. However, a few adjectives that do not seem to form any natural class have a paradigm where those prefixes end in a vowel, without the nasal (3.11). See §4.1.3 for some more detail.

(3.11) Third person singular forms of buke ‘old’ (Coleman 2010: 20)
   a. banikkin ki-buke
      dish/vessel[II] II-old
      ‘an old billy-can’
   b. mandjawak ma-buke
      knife[III] III-old
      ‘an old knife’
   c. kuyi ku-buke
      NM.IV IV-old
      ‘in olden times; long ago’

   Noun class is a feature of the third person. Adjectives, however, are not limited to description of third person referents. In predicative function, for instance, they can have any person/number combination. Interestingly, the first and second person forms take prefixes from the irrealis non-past verbal subparadigm (table 5.6 in §5.2.1). Third dual and plural have prefixes similar to the irrealis ones, but slightly distinct. No other verbal prefixes are possible on adjectives (or any other nominals). Table 3.1 gives the full set of forms for the adjective -mak ‘good’. Third person non-singular forms, distinct from the verbal paradigm, are in boldface. Examples of the first person inclusive and the second person singular forms are given in (3.12).
Table 3.1: Adjectival paradigm (for -mak 'good')

<table>
<thead>
<tr>
<th></th>
<th>Singular</th>
<th>Dual</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>ngarra-mak</td>
<td>ngana-mak</td>
<td>ngadda-mak</td>
</tr>
<tr>
<td>Inclusive</td>
<td>ngarrak-mak</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Second</td>
<td>kirri-mak</td>
<td>ngunu-mak</td>
<td>nguddu-mak</td>
</tr>
<tr>
<td>Third</td>
<td>see (3.10)</td>
<td>kinbarra-mak</td>
<td>kinbadda-mak</td>
</tr>
</tbody>
</table>

(3.12)  a. **Ngarrak-mak.**

1.incl-good

'We (incl. you) are good, kind.' [IK1-160704_iSY-01:01:00]

b. Ngudda **kirri-ngongokwarri** la kinj-ма-dji karra

you.sg 2sg-dirty CONJ 2SG.FUT-see-REFL.NP DEM.MED.LOC

'You are soiled, look at yourself in the mirror!' [IK1-180521_iSY-01:01/26:30]

While derivation in the Kunbarlang nominal domain is extremely limited, adjectives can productively combine with the inchoative morpheme -mi to form inchoative verbs (3.13).

(3.13)  a. **Kun-mak ngob ka-mak-minj.**

iv-good all 3SG.NF-good-INCH.PST

'S/he’s got well (again).’ [IK1-160704_iSY-01]

b. Manda kandiddjawa **ka-rayek-minj.**

dem.prox.iii bread 3SG.NF-hard-INCH.PST

'This bread has dried.' [speaker’s comment: "It’s like frozen"]

[IK1-160704_iSY-01]

Nouns cannot attach this morpheme (3.14a). Instead, the inchoative meaning has to be expressed periphrastically; one possibility is (3.14b).


boy 3PL.NF-MAN-INCH.PST 3PL-MAN-INCH.PST

intended: ‘Boys became men.’ [in the context of initiation]

[IK1-170525_1JW-01/54:58–55:18]

b. Djarrangalanj kadda-warre kadda-kalbi-yi kirdimarrk.

boy 3PL.NF-occur.NP 3PL.NF-get-REFL.NP man

'Boys become men.' [IK1-170525_1JW-01/57:44–58:03]
In Kunbarlang nouns can incorporate into predicative categories, viz. adjectives and verbs (3.15; see further in §6.3). Adjectives, however, do not incorporate into nouns.\footnote{Body part and generic nominals can be incorporated into adjectives in other Gunwinyguan languages, too; see, for instance, \textit{Baker \& Nordlinger 2008} on Ngalakgan, Wubuy and Bininj Kunwok.}

(3.15) a. Na-\textit{rnil-mak}.  
1-eye-good  
'[He has got] good eyes.' \[IK1-160715_000-01/28:21–23\]

b. Na-buk na-\textit{karlmu-warri}.  
1-person 1-ear-bad  
'He is bad in the ears, hard of hearing.' \[Coleman 2010: 51; glosses mine — IK\]

c. Kenda \textit{kun-ngundek-burrinj}.  
DEM.PROX.LOC IV-country-pleasant  
'This is beautiful country.' \[IK1-170606_1SY-01\]

This set of morphosyntactic properties clearly delineates adjectives as a category distinct from nouns.

Kunbarlang adjectives are also consistent with traditional understanding of adjectival semantics, as they denote qualities (size, age, perceptual and evaluative characteristics). Some interesting outliers are quantificational adjectives (e.g. -\textit{kudji} ‘one’, -\textit{rleng} ‘much’, -\textit{worrbam} ‘few’; §4.6, esp. §4.6.2) and the adjective -\textit{kang} ‘from’ (3.16), which is used to talk about provenance of objects or people.

1SG.FUT-go.NP 1SG.FUT-get.NP ground[IV] IV-from [toponym]  
'I'll go get sand/soil from Bottle Rock.' \[IK1-170525_2SY-01/41:20–28\]

b. Ngayi \textit{ngarra-kang} Karrabbu.  
1SG-from [toponym]  
'I'm from Karrabbu.' \[djurdddjurd_2016_transcript-298569/00:48–55\]

Accordingly, typical adjectival meanings are usually expressed in Kunbarlang by lexemes in the category of adjectives. A prominent exception is colour: there are no dedicated adjectival expressions for concepts in this domain. The closest ones are -\textit{karrkeyang} ‘clean; white’ and -\textit{ngongokwarrri} meaning ‘dirty; dark; blackened’ (3.17), which are not dedicated colour adjectives.
The concept ‘white’ is lexicalised as the verb -walarrbunj ‘to be white’ (3.18).

All other colours are expressed in a phrasal construction with the similitative yi-marne(k) ‘like’ and a reference object: e.g. yimarnek mulubin ‘red’ (lit. ‘like blood’), yimarnek maworord (or mirlak) ‘green’ (lit. ‘like leaf/grass’), yimarnek kuyunu ‘blue’ (lit. ‘like cloud’).

### 3.2.3 Adverbs

Adverbs, like nouns, are morphologically inert (except for the derivational limitative suffix -wu that both nouns and adverbs can attach; see example 3.19a). However, unlike nouns, adverbs don’t have an inherent noun class (to be precise, noun class as a grammatical category is not defined on adverbs at all). They fulfil functions typically associated with the category of adverbials, i.e. adjuncts that modify the verb or verbal phrase. Semantically, there are primarily adverbs of manner (morrehmorre in 3.19a) and adverbs of time, i.e. temporal location (balkkime in 3.19a), as well as frequency and duration (3.19b).
There are also adverbs that speakers can use to encode their estimation of probability of some event, i.e. an epistemic meaning (3.20).

(3.20) Nguddu-yung **mandjang** ki-nguddu-bu.  
2PL.IRR.NP-lie.IRR.NP perhaps 3SG.IRR.NP-2PL.OBJ-hit.IRR.NP

‘If you sleep [in the house] you might get hurt.’  
[20060614IB/00:30–33; translation mine — IK]

Adverbs enjoy considerable freedom of placement. When modifying a verb, they can be linearly separated from it and can appear on either side of it; cf. the temporal adverb *balkkime* in (3.21) and further examples in section 3.2.5.1 below, e.g. (3.35).

(3.21) a. And ngarrk-warre ngorro **balkkime** kenda.  
ENG 1.INCL.NF-occur.NP DEM.MED.IV now DEM.PROX.LOC

‘And we who are here now.’  
[IK1-160424_000-01/01:27–29]

b. And **balkkime** kenda ngarrk-dja.  
ENG now DEM.PROX.LOC 1.INCL.NF-stand.NP

‘And today we are here.’  
[ibid./01:58–02:00]

Adverbs most typically modify verbs, as in (3.19), but can also associate with nominals (3.22) — but even in that case they do not take noun class morphology.

(3.22) Kinj-ka kinj-kali [mayi kundulk **djini**].  
2SG.FUT-go.NP 2SG.FUT-get.NP NM.III tree properly

‘Go get the proper tree [e.g. for making fire]!’  
[IK1-170531_1YF-01]

A sample of Kunbarlang adverbs of different semantic classes is given in table 3.2.

There is another class of uninflecting items in Kunbarlang which combine with verbs, viz. coverbs (see §3.2.5.1). However, coverbs are lexical clitics with a fixed position, and this restriction provides an operational test for distinguishing between adverbs and coverbs.

### 3.2.4 Verbs

The verbs in Kunbarlang are the part of speech that is easiest to recognize. They carry obligatory personal prefixes which are very distinctive and which no other part of speech carries.5 The full paradigms can be found in §5.2.1, and the rich template for the

5. Adjectives agreeing with first and second person pronouns have the agreement prefixes that are formally identical to one of the verbal subject paradigms, the one I call irrealis non-past (see table 5.6 in §5.2.1). However, the remaining three subject prefix paradigms are not available for adjectives.
## Table 3.2: A sample of Kunbarlang adverbs

<table>
<thead>
<tr>
<th>Class</th>
<th>Adverb</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Temporal</strong></td>
<td>babi</td>
<td>later</td>
</tr>
<tr>
<td></td>
<td>benbe</td>
<td>yesterday</td>
</tr>
<tr>
<td></td>
<td>malayi</td>
<td>tomorrow</td>
</tr>
<tr>
<td></td>
<td>ngulamngulam</td>
<td>morning</td>
</tr>
<tr>
<td></td>
<td>wularrud</td>
<td>already</td>
</tr>
<tr>
<td></td>
<td>yiwanj</td>
<td>later</td>
</tr>
<tr>
<td><strong>Manner</strong></td>
<td>bidkumbel</td>
<td>by hand</td>
</tr>
<tr>
<td></td>
<td>burudjang</td>
<td>pointlessly</td>
</tr>
<tr>
<td></td>
<td>morrehmorre</td>
<td>slowly</td>
</tr>
<tr>
<td></td>
<td>mungu</td>
<td>accidentally</td>
</tr>
<tr>
<td></td>
<td>nimirnimi</td>
<td>backwards</td>
</tr>
<tr>
<td></td>
<td>werrk</td>
<td>immediately</td>
</tr>
<tr>
<td><strong>Locative</strong></td>
<td>djingakab</td>
<td>far away</td>
</tr>
<tr>
<td></td>
<td>kaddum</td>
<td>above</td>
</tr>
<tr>
<td></td>
<td>rlobberl</td>
<td>outside</td>
</tr>
<tr>
<td><strong>Probability</strong></td>
<td>badjuk</td>
<td>suppose</td>
</tr>
<tr>
<td></td>
<td>kukkangundje</td>
<td>perhaps</td>
</tr>
</tbody>
</table>
verbal word in the beginning of chapter 5. The personal prefixes can have a complex polysyllabic structure as in (3.23a) or be as short as a CV syllable (3.23b).

(3.23) a. Nganjidda-ka.
   1PL.EXCL.FUT-go.NP
   ‘We [without you] shall go.’ [20060620IB04/13:55–56]

b. Ka-ka.
   3SG.NF-go.NP
   ‘S/he/it is going.’ [IK1-170610_2SM-01/10:25–26]

The verbs are prototypical predicates, they have full propositional force and often are the only element in the clause (as for instance in (3.23) above). Verbs denote states and activities. They provide tense and mood information for the clause (§5.5). They can be semantically rather specific, such as -burrdjuwa ‘to tell; divulge’ (3.24), or, on the contrary, very general, like -ngundje, which by and large means ‘to perform’ (3.25).

(3.24) Ngondo nganj-burrdjuwa...
   DEM.PROX.IV 1SG.FUT-divulge.NP
   ‘Now I’m going to tell [a story]…’ [20150413IOv01/00:11–13]

   like 1SG.IRR.PST-go.IRR.PST boat CONJ 1SG.NF-do.PST INTJ
   ‘I was like, maybe I’ll go on the boat, but then I was like, nope.’
   [20060620IB05/02:26–30; translation mine — IK]

b. Ngayi kodbarre korro kaddum, barninda, ka-ngundje yimarne
   I house DEM.MED.LOC top IGNOR 3SG.NF-do.NP like
   mulubin.
   blood
   ‘In my picture, the roof of the house is red [lit. ‘it does like blood’].’
   [IK1-170610_2SM-01/01:44–02:00]

Kunbarlang verbs can have between one and four argument positions. The different valency classes (both underived and derived) are extensively exemplified in §6.2. Another internal subdivision of verbs is in terms of the multiple conjugational classes, discussed in §5.3. In the following section (§3.2.4.1) I present a particular subset of Kunbarlang verbs, used to express kinship relations.
3.2.4.1 Kinship verbs

Kunbarlang, similarly to Bininj Kunwok, Dalabon, and some Iwaidjan languages, has a set of kinship verbs, i.e. lexical items that are morphologically verbs but have the meaning of 'be K to', where K stands for a variety of kinship relations (e.g. -kalng 'be a mother to'; 3.26). See Evans 2000 (esp. §3.5) for a typology and a comparison of the Iwaidjan and Gunwinyguan languages to the Amerindian ones, where kinship verbs are also widespread.

(3.26) ngayi ka-ngan-kalng
   I 3SG.NF-1SG.OBJ-get.PST
   ‘my mother’ [copybook notes, SY 2016-04-27]

Similar to what one finds in Bininj Kunwok (e.g. 3.27), all Kunbarlang kinship verbs are metaphorical extensions of verbs with other, more basic meanings. In Evans’s (2000) terms, these verbs have etymologies relating to "kinship defining events" (e.g. p. 140).

(3.27) Bininj Kunwok (Evans 2000: 140, ex. (62a))
   ngan-yawme-y
   3/First-conceive-PP
   1. '(the one that) she conceived me.’
   2. ‘my mother’

One sign of high specialisation of these Kunbarlang forms in the kinship function is that they all are fixed to a particular tense. Most of them are realis past form, except for -rna 'spouse’ is realis present.6 The correct tense forms is how I cite them in table 3.3.

Examples in (3.28) show that prefixes can have any person/number combination.7

(3.28) a. ki-ngan-karrmeng
   2SG.NF-1SG.OBJ-hold.PST
   ‘you are my father’ [copybook notes, PN 2016-04-24]

b. ki-(‘bun)-karrmeng
   2SG.NF-(3SG.OBJ)-hold.PST
   ‘you are his father’ [copybook notes, PN 2016-04-24]

6. This probably relates to their etymology stemming from the “kinship defining events”, where parental relations are defined by the event of birth, which for a living person lies in the past, but spousal relations are defined as ongoing. However, on such an interpretation the relations of siblings (also encoded by the past tense verb) would need extra explanation. Perhaps further etymological study could shed light on this.

7. The verb kakarlmukarrmeng in (3.28d) is a neologism for ‘drove a car’; literally ‘he held [its] ears’, where “ears” is a metaphor for the steering wheel.
<table>
<thead>
<tr>
<th>Kinship verb</th>
<th>Meaning</th>
<th>Corresponding nominal term</th>
</tr>
</thead>
<tbody>
<tr>
<td>-djanganj  `stood’</td>
<td>siblings</td>
<td>yabok 'EZ', kokok 'EB', mabidj 'YB' etc.</td>
</tr>
<tr>
<td>-kalng  `got’</td>
<td>mother</td>
<td>karrard or ngayingana 'M'</td>
</tr>
<tr>
<td>-karrmeng  `held’</td>
<td>father</td>
<td>ngabbard 'F'</td>
</tr>
<tr>
<td>-rna  `sit’</td>
<td>spouse</td>
<td>ngalbininjkobeng 'wife' etc.</td>
</tr>
<tr>
<td>-yakbum  `dropped’</td>
<td>parent</td>
<td>karrard 'M', ngabbard 'F'</td>
</tr>
</tbody>
</table>

Table 3.3: Kunbarlang kinship verbs

c. ngadda-karrmeng
   1PL.EXCL.NF-hold.PST
   ‘we are his fathers’
   [copybook notes, PN 2016-04-24]

   3SG.NF-1SG.OBJ-hold.PST 3SG.NF-ear-hold.PST 3SG.NF-go.PST
   ‘My father [lit. ‘the one who held me’] drove (away).’
   [copybook notes, SY 2016-04-27]

Examples (3.28d) and (3.29) show the kinship verbs used in context, in argumental positions, available to them because they are free relative clauses (see §8.4.1.2).

(3.29) Nginda ngayi ngana-rna kikka Mirrangkangu.
   DEM.PROX.II I 1DU.EXCL.NF-sit.NP she M
   ‘My wife, she is of the Mirrangkangu patriclan.’ [20150413lOv01/02:26–29]

In (3.29), for instance, the free relative means roughly ‘who I sit with’, and is the subject of the sentence. This is an inclusory construction (§4.4.2) and it is not immediately clear what grammatical role is relativised: I classify this as subject relativisation, but note that the free relative refers only to one of the pair of referents. Example (3.30) shows the kinship verb for ‘be siblings’.

(3.30) Kabarra-djanganj Naragoidj.
   3DU.NF-stand.PST N
   ‘(She is) sister of Naragoidj.’ [IK1-170610_2SM-01/19:51]

### 3.2.5 Coverbs and preverbs

Both coverbs and preverbs are uninflecting elements that only occur in construction with the verb. In such a construction they form a kind of a complex predicate, i.e.
a predicate whose semantics and argument structure are built jointly from multiple lexical morphemes, or, in other words, “the information normally associated with the [lexical — IK] head of a verbal predicate is spread over several parts of the predicate” (Bowern 2014: 264); see also Baker & Harvey (2010). Consider an example of a preverb (3.31a) and a coverb (3.31b) construction in Kunbarlang:

(3.31) a. Ngal-buk=bonj ka-kidanj ngorro married ka-ngunda
    ii-person=exactly 3sg.NF-go.PST DEM.MED.IV married 3sg.NF-do.PST
    Nganeyokkarrama.
    N
    ‘She went and got married to a man called Nganeyokkarrama.’
    [20150206AS03/06:37–40]

b. Ka-bum-ngurr badjubadju.
    3 sg . NF - hit . NP = wash shirt
    ‘She washed a shirt.’
    [IK1-150724_1SY-01]

Despite the functional and formal similarity between the two classes, there are also a number of important formal differences that motivate keeping them separate.

• coverbs only occur in the postverbal position, while preverbs occur on either side with a preference for preverbal position

• preverbs are, effectively, an open class category for borrowing English verbs, while the coverbs are a closed class of morphemes that either are retained from the proto-Gunwinyguan stage or were borrowed from other indigenous languages during some previous contact (the judgment about this is usually made based on occurrence of similar forms in other languages from the Gunwinyguan family or elsewhere; §6.5)

• coverbs are best analyzed as lexical clitics, while preverbs can be considered a word class

3.2.5.1 Coverbs

Coverbs are a closed class in the order of a hundred members. They are morphologically inert and only appear in a particular construction (i.e. the coverb construction, §6.5), where they encliticise to an inflected verb. As mentioned in section §3.2.3, coverbs are prone to confusion with adverbs.8 This is because they combine with verbs (all of

8. In fact, this is how they are classified in Coleman’s (2010) dictionary: “adverb:bound.”
which are also attested independently) and the apparent semantics often resembles that of adverbials. Consider example (3.32):

(3.32)  

a. Merlbedj ka-\textit{dja}=\textit{bokob}.
   seaweed  3SG.NF-stand.NP=float
   ‘Seaweed is [‘stands’] underwater.’  [IK1-160615_1IK-01]

b. Ka-\textit{yuwa}=\textit{bokob}.
   3SG.NF-lie.NP=float
   ‘He’s lying (floating) on the water.’  [list_cvc.xls]

The word \textit{bokob} seems to have an adverbial-like semantics ‘in the water’, combining freely with predicates and contributing to their meaning compositionally. However, unlike adverbs, the coverbs are not free words but rather enclitics, and as such are not freely placed. They must always follow the verb immediately, and thus cannot be separated by an adverb, for instance. This test is shown for \textit{bokob} in (3.33) and for another coverb, \textit{kulkkulk} ‘run’, in (3.34).

(3.33)  

   1SG.NF-sit.NP=float RDP-exactly
   ‘I’m still sitting in the water.’  [IK1-180522_1PG-01/12:22–25]

b. *Nga-rna bonj-bonj \textit{bokob}.
   1SG.NF-sit.NP RDP-exactly float
   intended ‘I’m still sitting in the water.’  [ibid./12:15–20]

(3.34)  

a. Ka-ka=\textit{kulkkulk} karra wadjbud.
   3SG.NF-go.NP=run DEM.MED.LOC beach
   ‘He/she/it is running to the beach.’  [IK1-180522_3SY-01/01:45–48]

b. *Ka-ka karra wadjbud \textit{kulkkulk}.
   3SG.NF-go.NP DEM.MED.LOC beach run
   intended: ‘He/she/it is running to the beach.’  [ibid./01:49–54]

This contrasts with the greater placement freedom of adverbs, illustrated in section §3.2.3 above and in (3.35) with \textit{morrehmorre} ‘slowly’. This adverb is shown to be separated from the verb by another adverb (3.35b) or by a coverb (3.35c).
(3.35)  a. Nukka ka-ka **morrehmorre**.
he 3SG.NF-go.NP slowly
‘He’s walking slowly.’  [IK1-180522_3SY-01/11:36–39]

b. Ka-yambi-burrdje baldkime-wu **morrehmorre**.
3SG.NF-swag-wrap.NP now-LIM slow-slowly
‘S/he’s packing slowly just today.’  [ibid./15:33–36]

c. Ka-ka=kulkkulk **morrehmorre**.
3SG.NF-go.NP=run slow-slowly
‘He/she/it is running slowly.’  [ibid./16:20–22]

Notice also that coverb constructions, such as -ka=kulkkulk ‘to run’ in (3.34a), are
distinct from verb-noun idioms, such as -ka *mamukunbid* ‘to go fishing’ (lit. ‘to go
fishing line’), as shown by the same position test in (3.36): the adverb *baldkime* can be
placed between the verb and the noun in an idiom.

(3.36)  **Nga-ka baldkime mamukunbid.**
1SG.NF-go.NP now fishing.line
‘I’m going fishing now.’  [list_cvc.xls]

The semantics of the coverb can be relatively transparent, as in the case of *bokob
‘float’, or very little so. The situation is exacerbated in cases when there is only one
inflected verb available for a given coverb and there are no cross-combinations; for
instance, the coverb *kolk* ‘cut’ can only be analysed given one construction, that is with
the verb -*dja* ‘to stand’ (3.37). In the constructions above the semantics of the whole is
a narrowing of the semantics of the inflecting verb: -*yuwa=bokob* [‘lie’ + *bokob*] ‘to
lie floating’ is a type of lying, and -*ka=kulkkulk* [‘go’ + *kulkkulk*] ‘to run’ is a kind of
directed motion. On the other hand, -*dja=kolk* [‘stand’ + *kolk*] ‘to cut’ is not a type of
standing.

(3.37)  [kaˈŋanategorical]
Ka-djanganj=**kolk**.
3SG.NF-stand.PST=cut
‘S/he chopped it [e.g. a tree down].’  [IK1-170623_cPN-01]

Given that the base inflecting verb in (3.37) simply means ‘stood’, the semantics
of *kolk* — or indeed the whole construction — is non-compositional. This example also
demonstrates the high degree of nexus between the verb and the coverb, showing in
the sandhi between them (the final palatal nasal of the verb hardens before the initial
stop of the coverb); this is not a frequent morphophonemic alternation in Kunbarlang
(see §2.7.4).
Finally, we notice here the formal diversity within the coverbs: they range from monosyllabic, such as *kolk* (3.37), to rather large polysyllabic ones, such as *burdubburdubemini* 'forget' (3.38):

\[(3.38)\] Mandjang ngarra-kalng=*burdubburdubemini* mayi neyang.
perhaps 1SG.IRR.NP-get.IRR.NP=forget NM.III food
‘I might forget [to buy] that food.’ [IK1-160729_tSY-01]

To summarise, coverbs are lexical enclitics, and their fixed position offers a reliable metric to distinguish them both from adverbs and from preverbs, to which I turn now.

### 3.2.5.2 Preverbs

**Preverb** here is a descriptive term for how English verbal lexemes are borrowed into Kunbarlang; all Kunbarlang preverbs are English loans. Since the class of the verb roots in Kunbarlang is small and closed, i.e. does not admit new members, the borrowing proceeds via a phrasal **preverb construction** (3.4). In this construction, which essentially is a type of complex predicate,\(^9\) the verb *-ngundje* 'do' provides the verbal predicate scaffolding and the loan, placed adjacent to it, provides the semantics. Unlike the coverbs, the preverbs can appear on either side of the verb (3.39), but have a preference for preverbal position—unlike the coverbs, which are restricted to the postverbal position. Notice also that the verb *-ngundje* 'do' is used in coverb constructions as well, such as for instance *-ngundje=marrmarr* ‘be happy’, illustrated in (3.40) below.

\[(3.39)\] a. Some dry ngadda-djarrang, sometime
\[\text{ENG ENG 1PL.EXCL.NF-eat.PST ENG}\]
\[\text{njunjuk mix ngadda-ngundjang.}\]
\[\text{water mix 1PL.EXCL.NF-do.IRR.NP}\]
‘Some (times?) we consumed it straight, sometimes we mixed it with water.’
[20060830IB08/01:15–19; translation mine — IK]

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\(^9\) There is ample literature on the light verb / complex predicate construction as a means to loan verbs in typologically diverse languages. In the Australian context, it is often the coverb constructions, and it has been observed that coverbs are freely borrowed (Bowern 2014: 288). McConvell (2010) discusses the scenario where coverb constructions are developed to accommodate the loans, specifically in some Pama-Nyungan languages (e.g., Gurindji) for borrowings from non-Pama-Nyungan ones. See Mansfield (2016: §2) for an overview of the idea that some light verb constructions arise to provide syntactic structure for loans. More historical work is required to determine how Kunbarlang coverb and preverb constructions may have arisen, but see some more discussion in §6.5.
b. Nga-ngundje mix with coffee, sometime coffee nga-bardi-djin
1SG.NF-do.NP ENG ENG ENG ENG ENG 1SG.NF-liquid-eat.NP
nga-mabulunj milk.
1SG.NF-like.NP ENG

‘I mix [milk] with coffee, sometimes I drink coffee and I want milk.’

[200701081Bo1/26:13–18]

Out of 59 instances observed in naturalistic speech, 34 (which is roughly 58%) occur in preverbal position. Interestingly, 18 out of the 25 postverbal occurrences were contributed by a single speaker with a strong preference for such placement (only one preposed preverb is found in his speech).10

The freedom of placement that distinguishes Kunbarlang preverbs from coverbs is also manifest in their separability. As demonstrated in (3.33) and (3.34) above, coverbs cannot be separated from the verb. Preverbs, on the other hand, allow interruption by other material. The constrast is illustrated in (3.40), where the universal quantifier ngob can intervene between a verb and a preverb, but not between a verb and a coverb:

(3.40) Ngadda-ngunda ngob celebrate, la ngadda-ngunda (*ngob)
1PL.EXCL.NF-do.PST all ENG CONJ 1PL.EXCL.NF-do.PST all
=marrmarr (ngob),
happy all

‘We all were celebrating, we (all) were happy.’

[IK1-180604_1SM-01/10:02–22]

Kunbarlang adverbs, discussed in §3.2.3 above, are also uninflecting and can be arranged freely in the clause. However, preverbs differ from adverbs in three important ways. First and foremost, adverbs are modifiers that do not affect argument structure of the verb. By constrast, in preverb constructions the argument structure is that of the English loan, not of -ngundje, which by itself is used as a speech verb. Consider example (3.41), where the preverb heading licences a goal location.

(3.41) Heading ngarrk-ngunda Kurridja.
ENG 1.INCL.NF-do.PST K

‘We were heading to Kurridja.’

[IK1-160624_000-01/01:13–16]

Second, preverbs only combine with the verb -ngundje, while adverbs do not have restrictions apart from semantic combinability. Thus, in (3.41) above the event is not classified as a type of ‘going’ by using the verb -ka ‘to go’; compare this to the coverb

10. If this speaker is excluded from the counts, the proportion of preverbal position rises to 33/40 (82.5%).
Third, there can be multiple adverbs (3.42), but only one preverb in a clause.

(3.42) **Kukkangundje nganj-kali mayali.**

maybe 1SG.FUT-get.NP tomorrow

‘Maybe I’ll get it tomorrow.’

The verb -ngundje can be both in present and past tense. Most of the time the borrowed verb is in its root form (as in the examples above). However, one speaker used a past tense form married twice, and the gerund is frequently used by a few speakers. The gerund forms encountered are camping, cheating, handling, heading, playing around, repairing, roasting, shopping, waiting and writing. Sometimes particle verbs are borrowed, the other ones being look after, pack up, pass away and rush in. Other instances of multi-part loans are get wild and kick him out, although it becomes difficult to decide whether such fragments are loans or instances of code-switching into English.

A good number of various preverbs used in spontaneous narrative can be found in the text sample in appendix A.1.

### 3.2.6 Noun markers

There is a class of adnominal elements in Kunbarlang whose function is best analysed as determiner. Following Coleman (n.d.), I call this part of speech NOUN MARKERS (NM). They agree with the head noun in number, in the singular, in noun class (3.43). An example of a plural noun marker is in (3.44): 12

(3.43) **Nga-djarrang man-rnungu mayi kandiddjawa.**

1SG.NF-eat.PST III-he.GEN NM.III bread[III]

‘I ate his damper.’

(3.44) **Ngunda kidda-kalbing djininj mayali, ngayi barrayidjidj.**

not 3PL.IRR.NP-get.IRR.NP properly sense NM.PL kids[PL]

‘They don’t hold the knowledge tight, the kids.’

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11. I do not have ungrammatical examples with other verbs, but I have not seen a similar combination of an English verb with any other Kunbarlang verb.

12. The plural NM is homophonous with the class II ‘feminine’ one, which is probably a non-accidental homophony, cf. the similar pattern in the demonstrative pronouns in table 4.5. They are also homophonous with the first person free pronoun ‘I’.
The noun markers do not have a deictic component: unlike demonstrative or personal pronouns, they cannot be uttered accompanied only by a pointing gesture. The noun markers are freely placed within the noun phrase, except being prohibited from the NP-final position.

(3.45) a. Na-buk ka-karmmeng na-warri nayi durduk. Adj-NM-NOUN
    1-person 3sg.nf-hold.pst 1-bad NM.1 dog
    ‘He has a dangerous dog.’ [nancy270715]

    b. djaddi nayi na-wanjak NOUN-NM-ADJ
       frog NM.1 1-little
       ‘a/the little frog’ [pn150720]

    c. nayi djaddi na-wanjak NM-NOUN-ADJ
       NM.1 frog 1-little

    d. ninda djaddi na-wanjak kardawudj NM-ADJ-NOUN
       PROX.1 NM.1 1-little green.turtle
       ‘This is a little green turtle.’ [pn150720]

    e. *na-wanjak djaddi nayi ADJ-NOUN-NM
       1-little frog NM.1

    f. *mankuli na-wanjak nayi NOUN-ADJ-NM
       turtle 1-little NM.1
       ‘a/the little turtle’

A typical function of a noun marker is that of a relativiser, turning a clausal phrase into a nominal one (3.46):

(3.46) Ngayi ngunda ngarra-mabulu [RC mayi ngal-buk=bonj]
    I not 1sg.rr.np-like.np NM.III 1i-person=exactly
    ka-kinje].
    3sg.nf-cook.np
    ‘I don’t like what she cooks.’ [IK1-160628_1RD-01]

By itself, the string ngalukbonj kakinje is a clause that means ‘she cooks [something]’ or ‘she is cooking [something]’. The function of the noun marker in (3.46) is to relativise over the direct object of the verb ‘to cook’, turning that string into an object relative clause (which then occupies the direct object position of the matrix verb -mabulunj ‘to like’). The syntax and semantics of determiners are further discussed in §4.7 and their utility in constructing relative clauses — in §8.4.
3.2.7 Pronouns

Kunbarlang pronouns consist of several subclasses whose members function as arguments, adjuncts and modifiers, and do not have the rich lexical semantics of nouns and adjectives. The pronouns are organised into paradigms, and can be classified into personal, demonstrative and interrogative/indefinite ones according to the set of categories relevant for each paradigm.

3.2.7.1 Personal pronouns

The personal pronouns refer to individuals and objects, like ‘we’, ‘she’ or ‘it’ in English (§4.4.1). The categories of the personal pronouns are: person, number, case, clusivity (only in the first person dual and plural), and noun class (only in the third person). The paradigms are given in tables 4.2 and 4.3 in §4.4.1.

    I 1-skin.name pastor
    ‘I am Nawodjok, Pastor.’ [IK1-160430_000-01/00:20–24]

b. Balkkime bedbe balanda la ngarrka kirdimarrk ngarrk-ngunda
   now they whitefella conj we.incl man 1.incl.nf-do.pst
   join.
   join
   ‘Now they white people and us Aboriginal people, we’ve joined.’
   [20070108IB01/18:29–34]

Personal pronouns are the only part of speech in Kunbarlang for which case is a morphological category (§4.2) and which can host the dative prefix *bi*- (3.48).

(3.48) A: Bi-nganungka kabbala.
    dat-we.du.excl.gen boat
    ‘That’s our (two’s) boat.’ [IK1-170516_2DDj-01]

B: Oh, bi-nungunungka kabbala!
    intj dat-you.du.gen boat
    ‘Oh, it’s your two’s boat!’ [ibid.]
3.2.7.2 Demonstrative pronouns

The demonstrative pronouns are deictic, i.e. they used for ‘pointing’ to real world objects or entities in discourse, like ‘this’ or ‘those’ (§4.4.3). The relevant categories in the paradigm of demonstrative pronouns (see table 4.5) are: distance, number and noun class (only in the singular number).

(3.49) a. Na-buk=bonj narda bonj balanda.  
1-person=exactly DEMDIST.I exactly whitefella[1]  
‘That whitefella.’ [IK1-160624_000-01/04:37–39]

b. Manda mayi welenj ka-ka=kulkkulk.  
DEMPROX.III NM.III road[III] 3SG.NF-GO.NP=run  
‘This road is running along.’ [IK1-170610_2SM-01/14:34–36]

Like with all noun modifiers, noun class is not inherent for demonstratives, but is an agreement category, as seen in (3.49).

3.2.7.3 Interrogative pronouns

The interrogative pronouns are used in constituent questions, where they encode the ontological category of the referent that the question is about, e.g. PERSON, MANNER etc. (§4.4.4). They can also be used, either in the bare form or with the suffix -nuk, as indefinite pronouns (§4.4.5). The question word for ‘who’, -kaybi, agrees with its restrictor in number and noun class (with the default being masculine singular). This means that the person asking about an identity can specify that s/he means a woman or a plurality (3.50a). This resembles adjectival agreement, but the difference is that -kaybi does not ever serve as a noun modifier.

(3.50) a. Kinbadda-kaybi?  
3PL-who  
‘Who are they?’ [jack_160610]

Other question words are non-inflecting (3.51).

(3.51) Barda nguya?  
what patriclan  
‘Which patriclan?’ [IK1-170516_2DDj-01/37:49–50]
3.2.8 Numerals and other quantifiers

As in other languages, expressions of quantification (i.e. expressions dealing with numbers and quantities) in Kunbarlang are very diverse morphosyntactically. Formally they are a somewhat heterogeneous class that consists of adjective-like agreeing words (e.g. -yika ‘some’), uninflecting adverbs (e.g. kirdirrkirdirrk ‘always’), and even affixes (e.g. the prefix mulmul- ‘many’). The semantic and formal diversity of Kunbarlang quantifiers is the subject of §4.6.

However, numerals and quantifiers proper can be individuated as categories in their own right. The class of numerals is open: the inherited numerals system is small, but they are readily loaned from English. The numeral -kudji ‘one’ agrees with the noun head in noun class like an adjective, but unlike adjectives can coordinate with the uninflecting numeral kaburrk ‘two’ (3.52). See §4.6.2.1.1 for more details.

(3.52) Kadda-rna kaburrk la kin-kudji.
   3PL.NF-sit.NP two conj II-one
   ‘There are three females.’

Quantifiers proper are a small and closed class of uninflecting words that can combine with nouns. They are ngob ‘all’ (3.53), ngobbu ‘both’, nunu ‘all’, and yika ‘some’ (the latter can optionally agree with the noun, see §4.6.2.1).

(3.53) Kadda-mulmul-kalng ngob kikakkin.
   3PL.NF-many-get.pst all meat
   ‘They got all the meat.’

Like other nominal modifiers, quantifiers are often found self-standing, i.e. without an overt noun head. See §4.6.

3.2.9 Prepositions

There is only one dedicated preposition in Kunbarlang, walkki ‘with’ (3.54).

(3.54) Kirdimarrk walkki waliman ka-r dulkarrawarribinj.
   man with axe 3SG.NF-tire.pst
   ‘The man with the axe is tired.’

The comitative prefix in Kunbarlang has the same form and function (§6.1.2), and thus I analyse walkki as a preposition that can be incorporated.
(3.55) Ngayi ngabbard ka-ngan-walkki-rnirdam.
I father 3SG.NF-1SG.OBJ-COM-place.PST
‘My father gave me [the language].’ [lit. ‘placed it with me’]
[20070108IB01/02:36–38]

Prepositional phrases headed by *walkki* can modify both nouns (3.54) and verbs (3.56).

(3.56) Na-kudji monkey ka-djarrkrdam norno walkki kundulk.
I-one ENG 3SG.NF-lift.NP snake with tree
‘A monkey is lifting a snake with (i.e. using) a stick.’
[IK1-170530_1SY-01/03:21–34]

### 3.2.10 Connectives

The connectives in Kunbarlang are *la* ‘and; but’, *bala* ‘and’, *warri* ‘because’, and *anu* ‘so that’. They are used to conjoin constituents of various types. The connective *bala* is only used in the composite numerals involving -*kudji* ‘one’, e.g. *kaburrk bala na-kudji* ‘three [lit. two and one]’. The connective *warri* is used to combine clauses where the second one describes the reason and the first one—the consequence (3.57). The most versatile connective is *la*, which can conjoin constituents of diverse types (see (3.58) below).

(3.57) |¹ Nga-rnay |² kunwaral ka-djanganj |³ nga-nganjwom |⁴ warri munun.
Nga-rnay kunwaral ka-djanganj nga-nganjwom
1SG.NF-see.PST spirit 3SG.NF-stand.PST 1SG.NF-HITH-return.PST
warri munun.
because darkness
‘I saw a spirit standing and returned because it was dark.’ [jack_160610]

From the point of view of combining clauses in discourse, (3.57) shows a number of other characteristic properties. Most strikingly evident is the default strategy to juxtapose clauses without any morphosyntactic marking: there is only one connective between the four clauses. The difficulty in deciding whether there is any syntactic subordination shows in the absence of any formal marking between clauses 1 and 2. Finally, clauses in discourse tend to be very short, often consisting of a single predicate (which is all clauses in (3.57) but clause 2). These topics are taken up in greater detail in chapters 7 and 8.
The connective *la* ‘**conJ**’ can coordinate various types of phrases, including nominals (3.58a), verbs (3.58b), and clauses (3.58c).  

(3.58)  

a. *Nadjanal* la *kudjarra* ngadda-kalng.  
   goanna_sp. **conJ** long-neck_turtle **1PL.EXCL.NF-get.pst**  
   ‘We caught goanna and long-neck turtle.’  
   [IK1-160624_002-01/08:11–13]  

b. *Ngandjidda-kinje* neyang la *ngandjidda-djin* babi.  
   **1PL.EXCL.FUT-cook.NP** food **CONJ** **1PL.EXCL.FUT-eat.NP** later  
   ‘We [without you] are going to cook food and eat it afterwards.’  
   [qu_150728dandsandm]  

c. *Bonj* ngorro ka-bun-djin, **man-djorleng**, la  
   **exactly** **DEM.MED.IV** **3SG.NF-3SG.OBJ-eat.NP** **III-ripe** **conJ**  
   ngadda-nguluk-kali.  
   **1PL.EXCL.NF-ash-get.NP**  
   ‘Then it bakes, and when it’s ready, we take it out from the ashes [lit. ‘it is ready and we take it out’].’  
   [IK1-160726_002-01/01:03–11]  

When *la* connects clauses, it can also have a more specialised interpretation than coordination. A frequent use is to connect the reason and the consequence, as in (3.59) (the consequence clause comes first; see more in §8.5.1):

(3.59) *Kinj-worrhme* wirdidj la kunbondjek nga-warr-mi.  
   **2SG.FUT-kindle.NP** **fire** **CONJ** cold **1SG.NF-bad-INCH.NP**  
   ‘Light a fire, because I’m cold!’  
   [IK1-170615_1SY-02/50:06–09]  

### 3.2.11 Particles and interjections

Besides the word classes listed above, there is also an array of interjections and particles in Kunbarlang. The interjections serve a range of communicative functions, such as indicating ignorance (*adju* ‘dunno’), agreement (*ma/yoh* ‘yes’), surprise (*ardu* ‘oh!’), or request the utterance to be repeated (*eh?* ‘huh?’). All of these interjections are

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13. Since every well-formed verb in Kunbarlang can function as a standalone clause, in cases of same-subject verbs it is a complex decision whether one deals with verb or clause coordination.  
14. The verb *kabundjin* in (3.58c) is translated ‘it bakes’, although it literally means ‘it [the heat] consumes it [the damper]’. I made the decision to use a uniform gloss in those cases when the polysemy is reasonably transparent. Here, for instance, I stick with the concise gloss ‘eat’ for the root *-djin*, which can mean ‘eat; consume’, ‘burn’ (as an extension of the idea of consumption), or ‘bake’ (as an extension of the idea of burning).
independent utterances and they are not syntactically integrated with other clausal material.

Unlike interjections, particles are those uninflecting words that are integrated into the clause and cannot form independent utterances (except for bonj in the sense 'enough'). This latter property also sets them apart from adverbs (§3.2.3). Another point of difference is the fact that adverbs are modifiers describing events and probability estimation, whereas particles fulfil grammatical/structure functions (such as negation or question formation, or marking similarity constructions).

There is a range of particles, most of which are discussed in other chapters, based on their function. These include the intensifier bidju, used in emphatic reflexives (§6.1.3.1); the prohibitive particle kanjuwa, used in negative imperatives (§7.5); the negators ngunda and marrek (§7.3); the interrogative particle yidok, used in polar questions (§7.4.1); the simitative yimarne(k) (§8.3); and the particle wali, which combines with an array of nominals to form the 'turn'-construction (§4.4.1.3). There is also the particle bonj 'exactly; right; enough', which has a wide array of functions and can be both uttered independently meaning 'enough' or ‘Thanks, I’m good’, as well as cliticised to pronouns to encode emphasis (3.60).

(3.60) Q: Kenda?
   where
   ‘Where?’

   A: Korro, korro=bonj.
   DEM.MED.LOC DEM.MED.LOC=exactly
   ‘There, right there.’

In addition to that, it can be reduplicated, and then it is used as ‘too’ or ‘again’ (3.61).

(3.61) Kun-barrkkidbe kun-mimke kadda-djarrang bonj-bonj nayi wam.
   iv-other iv-night 3SG.NF-eat.PST RDP-exactly NM.I honey
   ‘They ate the sugar bag the next night too.’

On the use of bonj in analytic reflexive formation, see §6.1.3.1.

### 3.3 Wordhood, clitics, and affixes

In Kunbarlang, there are no strong phonological criteria for delimiting a word: stress is not understood well enough at the present stage of research, and (morpho-)phonological processes are too few to serve as a diagnostic distinguishing words from affixes.
However, two morpho-syntactic criteria appear sufficient to define wordhood for all parts of speech: the ‘stand-alone’ criterion and the free ordering criterion. The former refers to the ability of items in some categories to stand alone as full utterances. These categories are: adjectives, adverbs, nouns, numerals, pronouns, quantifiers, verbs, and interjections. Words in some other categories cannot form full utterances on their own, primarily due to semantic reasons, but they have a certain degree of freedom of placement. Such categories are: connectives, preverbs, and noun markers. Affixes pass neither of these two diagnostics.

In this grammar, I analyse several (classes of) morphemes as clitics. They are defined as such on a variety of grounds, rather than a single uniform criterion. There are the following five types of enclitics in Kunbarlang (vaguely following the order of their appearance in examples in the grammar), with explanations of their clitic status:

1. coverbs, which rigidly follow verbs (§3.2.5.1): they have rich lexical semantics and induce consonantal manner assimilation which is not found with any bound morphemes (§2.7.4)

2. the particle bonj ‘exactly’ (§3.2.11): it can stand alone (unlike any affix), but when encliticised to the pronominal -buk, it triggers a stress shift (§2.7.1; unlike in phrasal constructions

3. oblique personal pronouns (§4.4.1), which have pronominal semantics and are bound roots: they must either encliticise to an inalienable possessum (§4.5.2) or carry a prefix

4. the clitic =wali ‘turn’ (§4.4.1.3): it adjoins to a whole range of nominals and thus can be considered cross-categorial, in contrast to affixes

5. the directional clitics =bi and =way (§7.6): similarly to =wali (and unlike typical affixes), they are cross-categorial, attaching to both demonstratives and verbs

The only Kunbarlang preposition walkki (§3.2.9), according to the outlined criteria, may be classified as a phrasal proclitic, because it immediately precedes the noun phrase. That is, if there is a modifier before the noun, such as a noun marker, the preposition precedes that modifier (3.62). However, for ease of presentation throughout this thesis, I will represent walkki as an independent word rather than a clitic.

(3.62) walkki mayi nguk=rnungu
     with NM.III intestine=he.GEN
     ‘with the guts’ [20140703IOv01-ShM/03:14]
Chapter 4
Nominals

Many Australian languages do not have a clear division between nouns and adjectives as distinct word classes, as they show identical morphological possibilities (Dixon 1980: 272). When they form a single word class, they are usually referred to as “nominals”; Nordlinger (2014: 237–8) further points out that this nominal word class may include pronouns, demonstratives and locational terms. This is not the use of the term that I intend here: as is shown in §3.2, all of these are distinct classes in Kunbarlang. Instead, I use “nominals” as the general term for the syntactic class that includes the constituents of the noun phrase in Kunbarlang, i.e.: nouns, adjectives, noun markers and the various classes of pronouns.

The grammatical categories relevant for the nominals in Kunbarlang are case, noun class, number and person. Both noun class and number manifest themselves in agreement of the modifiers with the head noun. Noun class may or may not be marked on the noun with a prefix; there is no productive morphological marking of number on the nouns.\footnote{Reduplication can sometimes mark plurality, but its scope is restricted.} Person and grammatical case are only defined on personal pronouns. Person and number, but not noun class, are categories in which the verb agrees with its arguments. There is a system of possessive classification, which partitions nominal lexemes into two classes according to their alienability.

4.1 Noun class

4.1.1 Background

Systems of overtly distinguishing subclasses of nouns, collectively referred to as nominal classification, are wide-spread in Aboriginal languages of northern Australia (Harvey & Reid 1997a). The particular types, or systems, of classification are often thought to form...
a scale, with classifier systems being on its “lexical” end and noun classes (also known as grammatical gender) — on its “grammatical” end. The latter kind of systems, noun classes, is a category frequently attested in non-Pama-Nyungan languages (see Louagie 2017: 45–46). Such systems are found in the majority of Gunwinyguan languages, except Dalabon and Rembarrnga (Evans & Merlan 2003: 270). I shall briefly exemplify from Kunbarlang (4.1) before discussing the system in full below.

(4.1) a. Ka-karrme \textit{nayi na-rleng durduk}.  
3SG.NF-hold.NP NM.I I-much dog[I]  
‘[she] has many dogs.’  
IK1-160818_1RD-01

b. Ka-karrme \textit{ma-rleng mayi burru}.  
3SG.NF-hold.NP III-much NM.III arm[III]  
‘[the tree] has many branches.’  
IK1-170522_1SM-01/44:50–53

The two examples in (4.1) show how the modifiers in the noun phrase — the determiner and an adjective — change form based on the noun class of the head noun (class I in (4.1a) and class III in (4.1b)).

There are four noun classes that Kunbarlang nouns can have. These are inherent to the noun and the nouns are distributed on a semantic basis, detailed in §4.1.2 below. The majority of the nouns belong to one class only; roots that allow for cross-classification are rare (see §4.1.2). Morphologically, the noun class is only marked on the modifiers within the noun phrase, but not on the noun (4.1). In the glosses in the rest of this section, I indicate the class of the nouns in a square bracket near the root.

4.1.2 Noun class membership

The distribution of nouns across the four noun classes in Kunbarlang is semantically based, as is typical for Australian noun class systems (Harvey & Reid 1997a, Gaby & Singer 2014).

I ‘masculine’: male humans, most animals, fish and shellfish, some birds, some introduced objects (\textit{badju-badju} ‘shirt’ or \textit{djurra} ‘paper’, both loans from Austronesian languages in the course of contact with Macassans (see Evans 1992 and references therein)), all honey, meat; also the default class assigned to novelty items

II ‘feminine’: female humans, many birds, some shellfish, insects, crabs, snakes, rats, jellyfish, sun and heat

2. See, e.g., McGregor (2002: 4–10); he prefers to call classifier systems category systems.
III ‘vegetable’: plants, plant food and derivatives, blood, woven clothes, tools, weapons and household items, song, custom

IV ‘neuter’: land and places, all liquids, body parts, weather, abstract notions (e.g., burrudjang ‘sorcery type’), language, rocks/stones

Although many birds belong to class II, there is an argument from the grammar that they are prototypically classified as class I, as most animals. The word that means ‘wing’ in Kunbarlang is burru = rnungu, literally ‘his arm’ (see §4.5.2 on the inalienable possession construction). The pronoun rnungu that cliticizes onto the noun burru ‘arm’ has to agree in class with possessor, and in this case we find class I agreement.3 Many languages of northern Australia show a similar pattern, where animals normally belong to the ‘masculine’ class, but a high proportion of birds (and fish, unlike in Kunbarlang) belong to the ‘feminine’ class; see Harvey (1997) on the ‘domain of experience’ principle applied to such ‘anomalous’ patterns of classification (following such classic work on the Dyirbal nominal classification as Dixon 1972 and Lakoff 1986, and extending and generalising it). The general idea behind this principle is that the gender opposition may be used to mark culturally significant domains through assigning them to the opposite, anomalous class. For instance, exceptional classification of birds (and fish) may reflect the opposition of the prototypical ground-dwelling fauna and creatures that inhabit the air or water. Another way in which this opposition may be used is to single out a member of a set that has a salient property compared to other members, e.g. salient ‘harmfulness’.

There are occasional exceptions to the generalisations in the above list. For instance, some artefacts that one might expect to belong to class III are found in other classes: borndok ‘woomera’, class I (through association with men); djerr ‘women’s pubic apron’, class II (perhaps as a women’s attribute). Fauna can sometimes belong to classes other than I/II, cf. mayama ‘itchy caterpillar’, class III (perhaps through association with trees, or to highlight its harmfulness). Novel fruit are class I, rather than III, e.g. nayi lemen na-mak [nm.1 lemon 1-good] ‘tasty lemon’/‘the lemon is tasty’.

Like in other Gunwinyguan languages, there are several lexicalised terms for wallaroos of specific sex, e.g. djukerri ‘female black wallaroo’ (generic for black wallaroo is nadjinem), karrurrken ‘adult female antilopine wallaroo’ (generic for antilopine wallaroo is karn Dakidji), which are class II. These specific female wallaroo names are fixed to class II and do not partake in cross-classification. Overall, roots that allow cross-classification by different prefixes are extremely scarce. Some nouns appear to carry a class prefix, e.g. nadjanarr ‘floodplain goanna’ or kundjorlok ‘creek’ (see the adjectival prefixes in table 4.1). These quasi-prefixes usually match the class of the noun, although there are some rare exceptions, such as kundulk ‘tree’, which is class III, but looks like carrying

3. Incidentally, burru = ngadju [lit. ‘her arm’] means ‘branch’, where we observe superclassing of classes II and III in the oblique pronoun stem. Superclassing is explained in §4.1.3 below.
class IV prefix *kun*-. However, these sequences are at best frozen to the stems, and in other cases are probably coincidental. Cross-classification by prefixes on nouns is virtually non-existent; the few examples are better analysed as conventionalised or lexicalised uses of certain adjectives as head nouns, cf. (4.2):

(4.2)  

a. *na.bareng* [I] ‘policeman; soldier’, *kun.bareng* [IV] ‘alcohol’ — from *-bareng* ‘dangerous’


The only systematic noun class alternation that I am aware of is found with body part terms. While originally, i.e. as body parts, they are class IV (4.3a), they also admit of the construal as a part of an animal intended for food, in which case they govern class I agreement (4.3b). Additionally, those body parts that undergo metaphorical extension receive an appropriate construal in that case as well, e.g. class III when the extension is into the plant domain (4.3c).

(4.3)  

a. *kun-ngaybu djanga*  
   IV-L.GEN foot[IV]  
   ‘my foot’  
   [IK1-170525_2SY-01/06:39]

b. kalakalak *kin-ngaybu* nayi *djanga*  
   chicken I/II-L.GEN NM.I foot[I]  
   ‘my chicken leg(s)’  
   [ibid./07:57]

c. Ka-karrme *ma-rleng* mayi *burru*.  
   3SG.NF-hold.NP III-much NM.III arm[III]  
   ‘[the tree] has many branches.’  
   [IK1-170522_1SM-01/44:50–53]

4.1.3 Morphosyntax

The category of noun class permeates the Kunbarlang noun phrase, being an obligatory agreement feature, i.e. all modifiers must agree with the head noun. Formally, there are a number of sub-paradigms of class prefixes and the choice of the form depends on the given modifier. I analyse this as a single system with some allomorphy, conditioned by the category of the stem. There are also curious cases of syncretism or superclassing. I summarise the prefix system in table 4.1, with examples following it. The semantics of the classes is discussed in §4.1.2.

There are four main categories of stems that select noun class prefixes, called ‘agreement probes’ in table 4.1. They are: adjectives (§3.2.2), possessor genitive pronouns
(where the prefix tracks the noun class of the possessum; §4.5), noun markers (§4.7) and terms for people, such as skin names and the human pronoun -buk (§4.4.1.1). Adjectives are further divided into two groups with respect to presence/absence of an -n at the end of the noun class prefix (see below). Although demonstratives also decline for noun class, their morphology is less regular (in part due to somewhat idiosyncratic vocalism). I therefore describe their declension as synchronic stem suppletion. However, for the classes i–iii the initial formatives are immediately recognizable: n-, ng-, ma-, compare the noun marker row in table 4.1. The paradigm for demonstratives can be found in table 4.5 in §4.4.3.

Table 4.1: Noun class paradigms

<table>
<thead>
<tr>
<th>Agreement probe</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjective</td>
<td>na-</td>
<td>ki(n)-</td>
<td>ma(n)-</td>
<td>ku(n)-</td>
<td>(4.4), (4.5)</td>
</tr>
<tr>
<td>Possessor</td>
<td>kin-</td>
<td>man-</td>
<td>kun-</td>
<td></td>
<td>(4.8)</td>
</tr>
<tr>
<td>Noun marker (sc)</td>
<td>na-</td>
<td>nga-</td>
<td>ma-</td>
<td>ku-</td>
<td>(4.10)</td>
</tr>
<tr>
<td>People’s gender</td>
<td>na-</td>
<td>ngal-</td>
<td>—</td>
<td>—</td>
<td>(4.11)</td>
</tr>
</tbody>
</table>

Evans (2003a: 34–5) proposes that a proto-Gunwinyguan gender prefixation system can be reconstructed with five classes and case-conditioned suppletion. The system includes masculine na- with a genitive suppletive form ki-, feminine ngal- (genitive (k)iny-), vegetable ma- (genitive nga-), and two “neuters”, ku- and ra(k)-. These distinctions have been neutralised to a variable extent in all descendant languages. One may hypothesise that in Kunbarlang the ra(k)- neuter was merged with the ku- neuter. The form ngal- is only preserved in the pair terms like na-buk ‘man’ ~ ngal-buk ‘woman’ and in subsection (skin) names, e.g., Ngal-ngarridj ‘female of the Ngarridj skin’. A recent reconstruction of the class morphology at the proto-Australian level suggests that the Kunbarlang class iii and iv prefixes are reflexes of the proto-Australian forms *ma- and *ku-, respectively (Harvey & Mailhammer 2017).

Here is what noun class morphology looks like on different agreement probes. There are two sets of adjectives that differ in the shape of the prefix they take. Coleman (n.d.) calls them ‘old’ and ‘new’ adjectival paradigms. The prefixes that the ‘old’ ones take are all of the shape cv, i.e. end in a vowel (4.4). The ‘new’ ones have an [n] at the end of the class prefix (and thus a cvc shape) in classes ii, iii and iv (4.5).

(4.4) a. na-rleng dolombo
1-much stringybark[1]
‘a lot of stringybark trees.’ [IK1-180601_SY-01/01:39:20]
b. **ki-r leng** [kindjalarrk]
   ⓡ-much  cockles[II]
   ‘a lot of cockles’  [20060814IB05/00:41]

c. **ma-r leng** kunem
   ⓡ-much  paperbark[III]
   ‘a lot of paperbark trees’  [IK1-180601_tSY-01/01:39:24]

d. **ku-r leng** lerrk.
   ⓢ-much  word[IV]
   ‘a lot of words’  [20150413IOv01/11:54]

(4.5) a. **na-kudji kirdimarrk** ‘one man[II]’  [sy_rc_160811]
  b. **kin-kudji marnilikarrng** ‘one star[II]’  [sy_160824]
  c. **man-kudji kubbunj** ‘one canoe[III]’
  d. **kun-kudji kunmimke** ‘one night[IV]’  [jw_160726]

The choice between the allomorphs is not phonologically conditioned (4.6) and appears to be a matter of lexical conditioning.

(4.6) “Old” vs. “new” adjectives (in Coleman’s (n.d.) terms): Not phonologically conditioned allomorphy
  a. ku-buke ‘old’ vs. kun-burleng ‘dry’
  b. ku-wanjak ‘little’ vs. kun-warri ‘bad’

The adjectives that select for the cv-allomorphs (as in (4.4)) are a very small class: -buke ‘old’, -r leng ‘much’ and its derivatives (such as -r lengbinbin ‘big, grown up’), -ngana ‘big’, and -wanjak ‘little’. Coleman (2010) lists also -lerreburrinj ‘even [of surface]’, -lerrewarri ‘uneven [of surface]’, and -murrbenben ‘fat’ this type, but I do not have examples of the former two, and have encountered forms like *kin-murrbenben* ‘fat [female]’, which is the ‘new’ type.

Possessive constructions in Kunbarlang (§4.5) include an oblique pronoun (§4.4.1) encoding the possessor. This pronoun reflects the noun class of the possessor in the following way: class I -rnungu ‘he.gen’, classes II and III -ngadju ‘she.gen’, and class IV is missing from my data, as I was not able to find a suitable class IV possessor. Class I–III possessors are exemplified in (4.7).
Examples (4.7a) and (4.7b) show the dative possessive construction, in which the prefix on the possessor pronoun is invariable. However, there is another, genitive possessive construction, in which the noun class of the possessum is shown on the pronoun with an noun class prefix. Consider examples in (4.8).

(4.8) a. Ninda nayi djurra kin-ngaybu / *na-ngaybu.
    dem.prox.i nm.i paper[i] i/ii-l.gen i-l.gen
    ‘This is my book.’
    [IK1-170522_1SM-01]

b. kin-ngarrku madj
    i/ii-we.incl.gen octopus[ii]
    ‘our octopus’
    [IK1-170525_1JW-01]

c. Manda mayi neyang man-ngaybu.
    dem.prox.iii nm.iii food[iii] iii-l.gen
    ‘This food is mine.’
    [IK1-170522_1SM-01/24:52–54]

d. Djindibi kun-budbe yalbi.
    dj iv-they.gen country[iv]
    ‘It’s Djindibi country.’
    [20060620IB04/12:20]

Notice that class I and II possessums (as well as plural ones) trigger agreement prefix kin-, as superclassing into class II. The prefix na- used for class I on adjectives is disallowed from these. Superclassing is the phenomenon of systematic ‘disagreement’ between a nominal head and its modifiers, reported in a number of Australian languages with grammatical gender systems (see a recent overview in Meakins & Pensalfini 2016, and an extensive analysis of superclassing in Bininj Kunwok, where it has a broader scope than in Kunbarlang, in Evans, Brown & Corbett 2002). Interestingly, it seems to be a common pattern across these languages for the masculine class to be the default
for animates (i.e. feminine class nouns can have a masculine class-marked modifiers, but not the other way round), while in Kunbarlang it is the opposite. Consider the noun phrase ngayi kin-ngadju nawalak in (4.9). It is semantically plural, as is evident from the verbal agreement, i.e. the plural prefix kadda-. However, this is not marked in the form of the noun, as there is no number morphology on Kunbarlang nouns.

(4.9) Nginda ngayingana ngayi kin-ngadju nawalak kadda-baba-yuwa.
DEM.PROX.Π mother NM.PL 1/II-she.GEN child[Ι] 3PL.NF-DISTR-lie.NP
'Her [lit. ‘this mother’s’] kids live separately.' [IK1-160819_1SY-01]

The modifiers track semantic plurality for human referents, and the plural form is systematically identical to the class Π form (see §4.4.3 for demonstratives and §4.7 for noun markers; personal pronouns also show this pattern, cf. §4.4.1). In demonstratives and noun markers this syncretism is easy to detect, because the masculine class noun is modified by a feminine-like class form (cf. ngayi instead of nayi in (4.9)). In the possessive agreement, with its superclassing of class Ι and Π possessums into the form kin-, I am making an analytic extrapolation. Morphosyntax of possessive constructions is discussed in detail in §4.5.

The form of the noun markers suggests that they are also built with the class prefixes attached to the stem -yi (4.10). Notice that class Π in this case is not ki(n)- but rather nga-, probably related to the form ngal- in people’s gender pairs (4.11), with [I] lost due to the following glide.

(4.10) Noun marker class agreement
a. nayi kirdimarrk ‘the man[Ι]’
b. ngayi barramimbanj ‘the woman[Π]’
c. mayi mankanre ‘the law[ΙΠ]’
d. kuyi njunjuk ‘the water[IV]’

---

4. There is, possibly, a historic explanation for the unusual Kunbarlang pattern. This prefix kin- could be a reflex of the proto-Gunwinyguan genitive masculine form ki-, postulated by Evans (2003a: 34–35), or a merger of that and the proto-Gunwinyguan genitive feminine form (k)iny- (ibid.). Bininj Kunwok does not have a similar form; however, Kunbarlang seems to have a more conservative system of noun class, which speaks in favour of this historical hypothesis. On the other hand, the systematic syncretism of the feminine and the plural forms in Kunbarlang (see page 82) might call for a unified synchronic explanation that would favour the unusual feminine-oriented superclassing. I leave it at this speculative point to a further historical investigation.
(4.11) People’s gender

a. na-bininjkobeng ‘husband’
b. na-wamud ‘male of Wamud skin’
c. ngal-bininjkobeng ‘wife’
d. ngal-wamud ‘female of Wamud skin’

Demonstrative pronouns in Kunbarlang have, in addition to the four noun class series that participate in the regular head–modifier agreement, one more series, the locative. This series bears certain resemblance to the noun class paradigm of the demonstratives, and probably relates to the noun class system historically. However, synchronically the locative demonstratives, unlike the agreeing adnominal ones, do not interact with the noun class of the nouns, and thus I analyse them as a separate locative series, unrelated to the category of noun class. They always have locative semantics, albeit quite broad. The precise choice of meaning between essive, lative or elative depends on context. See §4.4.3 for details and for the full paradigms of the Kunbarlang demonstratives.

4.2 Case

Although Gunwinyguan languages are highly polysynthetic and primarily head-marking, they nevertheless have rather rich case (or case-like) systems. Bininj Kunwok is representative of the family in this respect. In Bininj Kunwok, these cases do not mark grammatical function of the core constituents and are often not obligatory, their foremost use being to mark adjunct roles. Evans calls them in the Bininj Kunwok grammar ‘role affixes’ for that reason (2003a: 136 ff.). However, the array of these role affixes is considerable, including over a dozen affixes.

The category of case plays a relatively minor role in the grammar of Kunbarlang. The case system of Kunbarlang is reduced compared to other Gunwinyguan languages. Case is a morphological category only for personal pronouns. There are three grammatical cases in Kunbarlang, which I label direct,5 genitive and dative. The direct case is the morphologically unmarked form and in syntax it marks core arguments of predicates (4.12); the dative marks benefactive objects (§5.1) and alienable possession (§4.5.1); and genitive is only used in the adnominal function in possessive constructions (§4.5). Nouns can only be case-marked in construction with pronouns, discussed in §4.3.2. I will sometimes refer to the genitive and dative together as oblique cases; this grouping

5. This is the term traditionally used in Indo-Aryan linguistics for the case that marks both subjects and objects — as opposed to the peripheral, or oblique, grammatical cases. Cf. Blake (1994: 34–35).
is made on the morphological grounds, since the two share the oblique pronominal stem (table 4.3 in §4.4.1), as opposed to the direct case, which uses the direct forms (table 4.2 ibidem). There are also two directional clitics in Kunbarlang that attach to verbs and demonstratives (§7.6); due to their idiosyncratic combinatorics I do not analyse them as (locative) cases.

   you 2sg.nf-1pl.obj-give.pst
   'You gave [something to] us.' [IK1-160505_tSM-01]

b. Nga-rnay kikka/*bi-ngadju.
   1sg.nf-see.pst she/dat-she.gen
   'I saw her.' [for-pn_210616]

c. Na-wuk=bonj nga-nuy (*bi-ngaybu).
   1-person=exactly 3sg.nf-1sg.obj-give.pst dat=1.gen
   'He gave it to me.' [IK1-160616_000-01]

d. Ka-ngu-nuy ngayi ngudda=bonj
   3sg.nf-2sg.obj-give.pst I you=exactly
   'She gave me to you.' [IK1-160618_000-01/45:38–40]

Subject (4.12a), primary object (4.12b–c) and secondary object (4.12d) are all core grammatical functions in Kunbarlang (see §5.1 for definitions and discussion), and such arguments must be in the direct case. As (4.12b) shows, only the direct form kikka 'she' is allowed as a free-standing pronominal Theme argument, and not the dative form bi-ngadju 'dat-she.gen'. The contrast between (4.12c) and (4.12d) shows the same effect for the Goal primary objects.

A dative pronoun can occur with an underlying ditransitive verb only if its reference is disjoint from the verb’s core objects (4.13).

   dem.prox.1 Bill 3sg.nf-3sg.obj-give.pst dat-she.gen
   'Bill gave it to him/her1 for her1,' [IK1-160616_000-01]

The interpretation of (4.13) is that the dative personal pronoun bi-ngadju ‘dat-she.gen’ is necessarily disjoint in its reference from the personal prefix bun-: kaj-bunj-wuy bi-ngadjū̺/̄. Notice that the same does not hold of the direct free pronouns, as the examples in (4.12) show. In these examples the person and number information about one participant occurs twice, encoded both within the free pronoun and within the corresponding personal prefix.
From the point of view of the form, oblique pronominal stems are suppletive, e.g., ngudda ‘you’ ~ -nungku ‘you.Gen’. Full paradigms are given in tables 4.2 (p. 92) for direct and 4.3 (p. 95) for genitive pronouns. The oblique stems are bound roots: they must have a prefix or themselves cliticise onto a possessum noun. The dative case is built on the basis of the genitive by adding the prefix bi- ‘DAT’.\(^6\) This is similar to the case containment structures, frequently found in Australian languages (Schweiger 1995). For example, Austin (1995) describes the ‘derivational double case’ in some Western Australian languages (Kanyara and Mantharta groups), whereby some of the local cases (e.g., ablative) are built on the basis of the locative (Jiwarli) or the dative (the Kanyara languages).

There is no case morphology for other nominals (nouns, adjectives and other types of pronouns). A noun phrase in a case position, such as the possessor (4.14a) or the oblique object (4.14b), is case marked through inclusion of a free pronoun (see also §4.3.2).

(4.14) a. Mary ka-rnay nayi djurra korro kunbodme=rnungu
    M 3SG.NF-see.PST NM.1 paper DEM.MED.LOC back=he.Gen
    nawaihak.
    kid
    ‘Mary found the book behind the child’s back.’ [IK1-170606_1SY-01]

b. Ngayi nga-bareng-minj bi-rnungu nukka kirdimarrk.
    I 1SG.NF-dangerous-INCH.PST DAT-he.Gen he man
    ‘I’m angry with him.’ [IK1-160615_1IK-01]

See §5.1 for a discussion of grammatical functions in Kunbarlang, as well as for examples of case marking, in particular (4.12–5.10).

### 4.3 Noun phrase

Phrase structure constituency and even the very existence of noun phrase as a syntactic unit in Australian languages has been under debate since the seminal work on configurationality and constituency in some of these languages (such as Hale 1983, Blake 1983, Heath 1986; see Nordlinger 2014 for an overview of the issues and a comprehensive bibliography). The reasons for this include the freedom of word order often found among the potential constituents of the noun phrase (i.e. the head noun and

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\(^6\) This seems to be a part of a broader tendency: “in Australian languages syncretism of genitive and dative is common” Schweiger (1995: 339). Furthermore, the pattern where dative derives from genitive is also typologically common (Caha 2009: 10).
the modifiers that semantically relate to it), as well as the existence of discontinuous noun phrases, which featured prominently in the (non-)configurationality debate since Hale (1983). Discontinuity is the configuration in which the nominals that semantically belong together are interrupted by other material (such as the verb, for instance).

Recent typological study of these and other aspects of the noun phrase structures by Louagie (2017) has suggested that these structures are in fact more constrained. Louagie surveyed a 100-language sample for criteria dealing with NP constituency from the point of view of its external morphosyntax (i.e. how it functions in larger structures; for instance, the locus of case marking, clausal word order, prosody), as well as its own integrity (foremost, word order within the NP, and discontinuity). Her findings indicate that the majority of languages at least admit of NP construal, and often strongly support it.

The existence of the noun phrase in Kunbarlang is supported by the following considerations:

- word order within the noun phrase is relatively fixed, with some categorical restrictions (§4.3.1)
- case marking in the oblique case positions suggests a phrasal construal (§4.3.2)

4.3.1 Word order

Kunbarlang is a non-configurational language (see references above) in which word order is not constrained by the grammatical function of syntactic constituents, but rather is connected to discourse-pragmatic functions (information structure; this is elaborated in §7.1). Within the Kunbarlang noun phrase, word order is not completely rigid, but there are some clear regularities. First, the noun markers are prohibited at the absolute end of the NP.7

(4.15) IK1-180601_1SY-01/38:21–43:22

   1SG.NF-eat.PST NM.III III-he.GEN bread[III]
   ‘I ate his biscuit.’

7. The grammatical examples in (4.15) differ in their prosodic properties. While the one with the order det–GEN–possessor–noun (4.15a) is clearly within the same prosodic contour, examples (4.15b–d) seem to have a slight pause within the alleged NP, in each case after the first nominal. It raises the possibility that those are combinations of a NP with a following afterthought. Importantly, if it were the case, this would indicate an even more rigid word order within the NP then my analysis here suggests. This issue is hard to resolve without studying Kunbarlang syntax-prosody interface at a level beyond the limits of this grammar.
Second, the various permutations primarily come from elicitations. In spontaneous discourse noun phrases are always short, i.e. do not have more than one or two modifiers, and the order of modifiers conforms to the template in (4.16). NM stands for ‘noun marker’ (§3.2.6).

(4.16) pronoun — demonstrative — adjective | quantifier — NM — gen-possessor — head noun — dat-possessor — bidju 'EMPH'

The existence of a prototypical order of NP constituents (4.16), and especially the rigid restrictions illustrated in (4.15), speak in favour of the NP construal, rather than a flat, appositional analysis (cf. Blake 1983, Heath 1986). Section §7.1.4 goes into the word order within the noun phrase in greater detail. The constituent parts of the noun phrase make up most of the present chapter; for further information on personal and demonstrative pronouns see §4.4, adjectives — §3.2.2, quantifiers — §4.6, noun markers — §4.7, and possessive constructions — §4.5.

### 4.3.2 Analytic case marking and determining pronouns

The other argument for the noun phrase construal comes from the case marking of a nominal group in oblique case positions. There are two such positions, viz. the possessor (4.17a; §4.5) and the oblique object (4.17b; §5.1). Arguments in those functions have to be case-marked, but case is only morphologically present on personal pronouns (§4.4.1). In such cases Kunbarlang employs an analytic construction, whereby a case-marked pronoun (dative in the examples in (4.17)) is combined with the morphologically inert noun:


   1sg.nf-ben-dangerous-incl.np dem.prox.1 dog nm.1  K

   dat-he.gen

   'I’m angry with Kamarrang’s dog.'   [IK1-180605_1SY-01/09:28-35]
1SG.FUT-WORD-COM-RET.NP DAT-he.GEN whitefella
'I'll translate for the whitefella.' [IK1-180601_1SY-01/01:16:32–37]

Such analytically oblique case-marked NPs are always contiguous, and provide support for the NP construal in Kunbarlang: the head noun being able to be case-marked by virtue of associating with the pronoun, forming a constituent with it.⁸

It is likely that this analytic case construction is formally related to the 'determining' use of the personal pronouns within NPs. This is a typologically prominent feature in Australian languages, where personal pronouns may co-occur or compete with other determiner-like elements in the noun phrase (see Hale 1973, Blake 2001 and Louagie (2017: ch.5) for typology and analysis). Across those Australian languages that have them, the adnominal pronouns "are markers of definiteness and/or specificity, or they have a function relating to discourse management" (Louagie 2017: 198). In Kunbarlang they occur in specific noun phrases. However, referential semantics is a very fine matter, and I refrain from stronger claims about their referential/discourse contribution until a further, detailed semantic study. These adnominal pronouns are exemplified with kikka 'she' and mukka 'it' in (4.18) below; further examples can be found in §4.4.1, §4.4.3, and elsewhere throughout the grammar.

(4.18) a. Mamu ka-ngaddu-karlangwang yakarni kikka ngorro
devil 3SG.NF-1PL.EXCL.OBJ-chase.PST magpie_goose she.II DEM.MED.IV
ngadda-walkki-bu-djinj.
1PL.EXCL.NF-COM-hit-REFL.PST
‘Devil was chasing us, we were fighting over those magpie geese.’
[20060620IB04/05:01–06]

b. mukka bonj kurrambalk
it.III exactly house
‘that house [the church]’
[IK1-160719_000-01/00:19]

In this 'determining' use pronouns compete with other elements in the syntactic category of determiners in Kunbarlang: noun markers and demonstratives. As mentioned above, only tentative semantic generalisations can be made at the moment prior to a large scale discourse-semantic study of the referential properties of different noun phrases. The following generalisations can be made based on the occurrence of noun phrases in context:

⁸ This is almost the opposite of what one finds in the languages that have morphological case on each nominal word and few constraints on the order and contiguity of those nominals (like Kalkatungu; see Louagie (2017: ch.4) for a typology), where the case-marking perhaps facilitates interpretation of the dispersed constituents of the nominal group, and constructing the functional representation of the clause in general, through unification (Nordlinger 1998).
1. different determiner classes can cooccur within one noun phrase, but normally do not

2. noun phrases with noun markers often are specific

3. noun phrases with determining pronouns or demonstratives are definite (by virtue of the definite deictic reference of personal and demonstrative pronouns)

4. non-specific noun phrases usually do not have determiners

None of these generalisations is a categorical rule, probably. Although usually a noun phrase that has a determiner will only have one of the personal pronoun, demonstrative or noun marker, occasionally speakers do combine them. All pairwise combinations are attested: pronoun and noun marker (4.19a), demonstrative and noun marker (4.19b), pronoun and demonstrative (4.19c). The noun phrases in all three examples in (4.19) contain either a determining pronoun or a demonstrative and are all definite.

(4.19) a. **Nukka nayi kirdimarrk** kanj-bun-beye nayi nakarlyung.  
   he NM.I man[i] 3SG.FUT-3SG.OBJ-bite.NP NM.I crocodile  
   ‘The crocodile is going to bite the man.’ [ibid./52:46–53]

b. **Manda mayi welenj** ka-ka=kulkkulk.  
   DEM.PROX.III NM.III road[III] 3SG.NF-go.NP=run  
   ‘This road is running along.’ [IK1-170610_2SM-01/14:34–36]

c. **Na-buk=bonj narnda=bonj balanda.**  
   1-person=exactly DEM.DIST.I=exactly whitefella[i]  
   ‘That very whitefella.’ [IK1-160624_000-01/04:38]

Another example of referential definiteness contributed by determining pronouns comes from their use with personal, or rather skin, names (4.20). Skin names, albeit commonly used functionally as proper names, are quite ambiguous in virtue of being a small set, and thus being frequently repeated within a community. The addition of a determining personal pronoun as in (4.20) signals or emphasises definiteness.

(4.20) **Kikka Ngalbangardi** ka-wokdja Kunbarlang kun-mak.  
   she.II N 3SG.NF-speak.NP Kunbarlang IV-good  
   ‘That Ngalbangardi speaks Kunbarlang well.’  
   [20070108IB01/25:22–25; translation mine — IK]

In fact, the direct form pronouns do not only cooccur with full nouns in the determining function. They even co-occur with the case-marking oblique ones, as the
pronominal possessor (4.21). This extensive use of personal pronouns within larger noun phrases may be indicative of their incipient grammaticalisation.

(4.21) Korro ngudda kun-nungku yalbi kadda-bum ninda.
       dem.med.loc you iv-you.gen country 3pl.nf-hit.pst dem.prox.1

   ‘This is your country where they killed this [crocodile].’

[20060620IB04/11:36–45]

It is important to notice that the direct case pronouns, such as the ones in (4.18), contrast with the oblique case marking ones discussed above: the direct case ones are optional and used for semantic/pragmatic purpose, while the oblique ones have the grammatical function of marking a noun phrase for case, and as such are obligatory.

### 4.3.3 Noun phrase discontinuity

Evidence has been mounting both from language-specific (e.g. Schultze-Berndt & Simard 2012 on Jaminjung) and typological work (Louagie & Verstraete 2016) that coreferential discontinuous nominals do not necessarily indicate non-configurationality and/or absence of NP constituency in a language. Schultze-Berndt & Simard 2012, for instance, argue that (i) ‘true’ discontinuity should be distinguished from other constructions that may be similar in appearance (e.g., two separate coreferential NPs), and (ii) this true discontinuity is not random but highly constrained, e.g. by information-structural factors.

Kunbarlang data are in line with this argument. Firstly, nominals that are coreferential but interrupted by other material are infrequent, appearing in the data very occasionally. Second, they all seem to be of one kind, viz. a modifier in right-peripheral apposition, typically an adjective. In this construction (4.22), the right-dislocated modifier is offset by a short pause or pitch reset; I analyse this as two separate coreferential NPs.

(4.22) Bedbe-rema wirdidj kadda-worrhmeng ma-ngana.
       they-contr fire[III] 3sg.nf-kindled.pst III-big

   ‘The others made a fire, a big one.’

[20060606ib02/11:30]

The adjective ma-ngana ‘big’ in (4.22) describes the referent encoded by the noun wirdidj ‘fire’, but they are not adjacent. I analyse this adjective as a separate noun phrase located in the right-peripheral ‘afterthought’ position; see §7.1.3. Thus, under this treatment, the Kunbarlang NP in (4.22) is no more discontinuous than the one in the English translation given. The only difference is that Kunbarlang allows any nominal to constitute a noun phrase without the need for a(n overt) head noun.
Notice that the second noun phrase, consisting of the adjective, adds specification to the description of the referent. In the broader picture, it seems that those Australian languages that freely allow for discontinuous coreferential nominals show a preference for the more general elements (e.g. a determining pronoun or a generic noun) to appear earlier in the clause, and the more specific ones (e.g. an adjective or a specific noun) to occur later, narrowing the description and making it more precise. Blake (2001: 419–20) illustrates this for Kalkatungu and lists references to other languages that exhibit a similar pattern. Kunbarlang appears in agreement with this tendency.

Under the afterthought analysis, there are no discontinuity data in Kunbarlang that compromise postulating the noun phrase. Taking this together with the discussion of word order in §4.3.1 and case marking in §4.3.2 above, I conclude that Kunbarlang does have a noun phrase as a syntactic unit.

### 4.4 Pronominals

#### 4.4.1 Personal pronouns

Kunbarlang personal pronouns encode person, number and case. Besides that, in the first person plural they encode clusivity, and in third person singular — noun class. There are two case forms of the pronoun stems: direct and oblique. The direct ones are used for all core arguments, i.e. subjects and primary and secondary objects, while the oblique ones are used for oblique case functions, i.e. benefactive objects and possessors; see §4.2 for more on Kunbarlang case and §5.1 for a discussion of grammatical roles. The paradigm for the direct forms is given in table 4.2 (after Coleman (n.d.: 1, 10)).

<table>
<thead>
<tr>
<th>Person/Number</th>
<th>direct</th>
<th>oblique</th>
</tr>
</thead>
<tbody>
<tr>
<td>first person singular</td>
<td>ngarrkka</td>
<td>ngarrkka</td>
</tr>
<tr>
<td>first person plural</td>
<td>ngurrkka</td>
<td>ngurrkka</td>
</tr>
<tr>
<td>second person singular</td>
<td>jayi</td>
<td>jayi</td>
</tr>
<tr>
<td>second person plural</td>
<td>jurrkka</td>
<td>jurrkka</td>
</tr>
<tr>
<td>third person singular</td>
<td>kikka</td>
<td>kikka</td>
</tr>
<tr>
<td>third person plural</td>
<td>kurrkka</td>
<td>kurrkka</td>
</tr>
<tr>
<td>third person dual</td>
<td>ngarrkka (optional)</td>
<td>ngarrkka</td>
</tr>
</tbody>
</table>

The forms in parentheses are the allomorphs used with the contrastive suffix -ma (§4.4.1.2). The paradigm for the oblique forms can be found below in table 4.3.

Notice that there is no number distinction for inanimates, as reflected in class III and IV rows. Example (4.23) shows that with a plural ‘vegetable’ referent (ensured by a plural quantifier) the form mukka is used, and the form kikka cannot be. Likewise, the verbal agreement is singular. These facts indicate that inanimates are inherently morphosyntactically singular.\(^{11}\)

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9. These forms differ slightly from those given by Coleman (n.d.). I hear the first person inclusive as ngarrka (instead of ngarrkka), without the fortis consonant, and also I have added the form kikka for the third person dual and plural, which she did not include.

10. Coleman includes the coordinate dual forms into the same paradigm. I discuss them separately in §4.4.1.4 below.

11. An alternative analysis could be that singular, dual and plural forms are merely homophones in classes III and IV.
Table 4.2: Personal pronoun paradigm: Direct forms

<table>
<thead>
<tr>
<th></th>
<th>Singular</th>
<th>Dual</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>Exclusive</td>
<td>Inclusive</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ngayi (nganj-)</td>
<td>nganangka</td>
<td>ngadbe</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ngarrka</td>
<td></td>
</tr>
<tr>
<td>Second</td>
<td></td>
<td>ngudda (nji-)</td>
<td>nungunungka</td>
</tr>
<tr>
<td>Third</td>
<td>Class I</td>
<td>nukka</td>
<td>benengka / kikka</td>
</tr>
<tr>
<td></td>
<td>Class II</td>
<td>kikka</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Class III</td>
<td>mukka</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Class IV</td>
<td>kukka</td>
<td></td>
</tr>
</tbody>
</table>

(4.23) Dolobbo, {mukka / *kikka} ma-rleng ka-warre ka-dja. stringybark it.III they III-much 3SG.NF-occur.NP 3SG.NF-stand.NP ‘There are many stringybarks.’ [IK1-170602_1SY-01]

There is significant formal similarity between some of the free pronouns in table 4.2 and the realis subject personal prefixes in the verb (table 5.4 in §5.2), cf., for instance, the first person exclusive dual in (4.24). This is not true across the board, however — compare the third person plural in (4.25).

(4.24) **Nganangka ngana-**-rninganj bonj-bonj Adelaide ngayi la || we.EXCL.DU 1DU.EXCL.NF-sit.PST RDP~exactly A I CONJ Ngalkodjok. N ‘We were still there at Adelaide, myself and Ngalkodjok.’ [20060901IB03/01:11–15]

(4.25) **Bedbe kadda-**-nganj-wom **kadda-**-nganj-kidanj kenda=bonj. they 3PL.NF-HITH-return.PST 3PL.NF-HITH-go.PST DEM.PROX.LOC=exactly ‘They returned, came back here.’ [20060620IB03/07:32–35]

In third person, the distinction between the use of *kikka* as opposed to *benengka/bedbe* in dual/plural is not a sharp one. It seems that there is no categorical difference between these forms, in fact. My impression is that *benengka/bedbe* (4.25, 4.26) are the preferred forms for humans, and *kikka* for non-humans (provided they admit of plural number expression), as in example (4.27), where the protagonists are a Brahminy Kite and an Osprey. Syncretism of *kikka* between class II singular, on the one hand, and all plurals,
on the other, reflects a systematic syncretism pattern, found also in the demonstratives (§4.4.3) and noun markers (§4.7).12

(4.26)  

a. **Benengka** bi-burnungka.  
they.DU DAT-they.DU.GEN  
‘It belongs to them two.’  

b. **Bedbe** kirnda=bonj kadda-rninganj.  
they.PL DEM.AFOR.LOC=exactly 3PL.NF-sit.PST  
‘They stayed over there.’  

(4.27)  

La **kikka** ngorro kabarra-wandarrkbum.  
CONJ they DEM.MED.IV 3DU.NF-err.PST  
‘And **those two** made a mistake.’  

The personal pronouns in argument positions are usually redundant because of the pronominal prefixes on the verb, and therefore full pronouns can be dropped. Nevertheless, they may also appear overtly: cf. the pair in (4.28), where in the two contiguous fragments of the narrative the first person pronoun is first absent and then overtly present. There does not seem to be any clear motivation for its absence in one case and presence in another. In some pro-drop languages, such as Hungarian, Latin or Polish, the use of full pronouns is a marked option, typically only used under certain conditions, e.g. contrastive focus. Mushin & Simpson 2008 show that it is also the case in a number of Australian languages where there are obligatory bound pronouns which make features of the referent clear. This does not seem to be the case in Kunbarlang, where using free pronouns is not marked.

(4.28)  

1PL.EXCL.NF-put-REFL.PST 1PL.EXCL.NF-eat.PST 1PL.EXCL.NF-sing.PST  
‘We went in, we ate and we sang.’  

b. Ngemek **ngadbe** ngadda-makarninjdjanganj.  
yet we.EXCL.PL 1PL.EXCL.NF-sing.PST  
‘We sang more.’  

The third person singular forms of the direct pronouns can be used for the whole range of referents from human to inanimate ones, as long as the noun class is appropriate. Examples of inanimate or non-human animate reference for class I (**nukka**) and class II

12. And arguably in possessum agreement, see discussion in §4.1.3.
(kikka) are in (4.29). Note that personal pronouns can be in a group with nouns, as in (4.29a). This is the ‘determining’ use of pronouns, discussed in §4.3.2.

(4.29)  
a. **Nukka ngorro cyclone ngorro ka-nganj-kidanj ready.**  
    he.I DEM.MED.IV cyclone DEM.MED.IV 3SG.NF-HITH-GO.PST ready  
    ‘That cyclone was ready and approaching.’  
    [IK1-160624_002-01/02:06–09]  
b. **Na-rrambareng nukka Duwa.**  
    i-ground.honey he.I Duwa  
    ‘Honey in the ground is Duwa (moiety).’  
    [20060620IB03/03:01–05]  
c. **Barninda kikka, bingkibingki.**  
    IGNOR she.II baler.shell  
    ‘What’s her name, baler shell.’  
    [20060620IB04/03:20–22; translation mine — IK]  

The direct personal pronouns serve as the base for emphatic pronoun formation, achieved by adding the particles *bonj* ‘exactly’, *bidju* ‘EMPH’, or their combination to the pronoun (4.30). Such emphatic pronouns are used in (emphatic) reflexives (§6.1.3.1).

(4.30) **Bedbe=bonj bidju kadda-nganj-kidanj.**  
    they.PL=exactly EMPH 3PL.NF-HITH-GO.PST  
    ‘They came by themselves.’  
    [IK1-160513_000-01/53:50]  

The paradigm for the oblique personal pronoun stems is given in table 4.3 (based on Coleman n.d.: 12). The oblique stems are bound. To be realised they may be prefixed by either *bi* - ‘DAT’ or one of the noun class prefixes *kin*- ‘I/II’ / *man*- ‘III’ / *kun*- ‘IV’ (in the situation of alienable possession), which agrees with the possessem head noun (4.31), or else they are right-attached to the inalienable possessum head noun (see §4.1 on the noun classes and §4.5 on possession).

(4.31)  
a. **Manda mayi neyang man-ngaybu.**  
    DEM.PROX.III NM.III food[III] III-LGEN  
    ‘This food is mine.’  
    [IK1-170522_1SM-01/24:52–54]  
b. **Korro kun-nungku yalbi kadda-maddjing.**  
    DEM.MED.LOC IV-YOU.LGEN country[IV] 3PL.NF-Pierce.PST  
    ‘That’s his country where they speared it.’  
    [20060620IB04/11:52–55]  

13. Coleman gives the form -*benengka* as the third person dual, however I hear -*burnungka* in all recordings; the form is exemplified in (4.33). Similarly, for the second plural I consistently hear -*nunugube* instead of Coleman’s variant -*nukudbe*, see (4.34).

14. See §2.7.3 on the simplification of the nasal clusters that affects many of such pronouns.
Table 4.3: Personal pronoun paradigm: Oblique forms

<table>
<thead>
<tr>
<th></th>
<th>Singular</th>
<th>Dual</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exclusive</td>
<td>-ngaybu</td>
<td>-nganungka</td>
<td>-ngadbe</td>
</tr>
<tr>
<td>Inclusive</td>
<td>-ngarrku</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Second</td>
<td>-nungku</td>
<td>-nunungunungka</td>
<td>-nunugude</td>
</tr>
<tr>
<td>Third</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Class I</td>
<td>-rnungu</td>
<td>-burnungka</td>
<td>-budbe</td>
</tr>
<tr>
<td>Class II</td>
<td>-ngadju</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Class III</td>
<td>-ngadju</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Class IV</td>
<td>?</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Notice again that there is no number distinction for inanimates, as the rows for class III and IV show. Example (4.32) shows that when the inanimate referent is non-singular, the singular form of the pronoun is used nevertheless. This is consistent with the verbal patterns of noun marking, where inanimates normally do not trigger non-singular agreement either (see §5.2).

    hair=she.GEN 3SG.NF-3SG.OBJ-eat.PST two NM.III tree
    ‘Foliage of two trees burned down.’ [IK1-170531_1YF-01]

    b'/* Merre=burnungka ka-bun-djarrang kaburrk mayi kundulk.
    hair=they.DU.GEN 3SG.NF-3SG.OBJ-eat.PST two NM.III tree
    intended: ‘Foliage of two trees burned down.’ [IK1-170531_1YF-01]

(4.33) Kun-kudji ngayingana bi-burnungka.
    iv-one mother DAT-they.DU.GEN
    ‘One mother for both of them.’ [IK1-160424_000-01/07:56–58]

(4.34) Kukka ngorro nga-ngunda bi-nungudbe la bonj.
    it.IV DEM.MED.IV 1SG.NF-say.PST DAT-you.PL.GEN CONJ exactly
    ‘That’s what I’ve told you and that’s it.’ [20150413J0v01/12:34–37]

Originally Coleman proposed that there is a distinction between the dual -ngarrku and the plural -ngarrkunungu in the first person inclusive forms. It appears, however, that the latter is not a form in its own right, but rather -ngarrku nunu, i.e. a combination of the only inclusive form with the quantifier nunu ‘all’ (§4.6.3), added to emphasise
plurality. This is in agreement with the observation that there is no dual/plural distinction in the first inclusive throughout the paradigms of personal prefixes in the verb (§5.2.1). As example (4.35) shows, the form -ngarrku may be used with clearly plural (rather than dual) reading:

(4.35) Ngarrka bi-ngarrku history ngorro kanj-yuwa karra we.incl dat-we.incl.gen history dem.med.iv 3sg.iirr-lie.np dem.med.loc djurra. paper 'Our history will be in the book.' [20150413IOv01/09:17–21]

As can be seen from table 4.3, there are only two known oblique forms for the third person singular, -rnungu and -ngadju. The former is only for class i (4.31b), whereas the latter is a syncretic form for classes ii (4.36) and iii (4.32a). I could not find a context to elicit a class iv oblique form, which thus remains a gap in the table.

(4.36) Ninda bi-ngadju nayi banikkin. dem.prox.i dat-she.gen nm.i cup 'This is her cup.' [IK1-170522_1SM-01/22:12–14]

It has been discussed above that direct free pronouns do not contribute emphasis just by virtue of being used as opposed to pro-dropped (see example (4.28)). The same is true for argumental oblique pronouns. Example (4.37) shows the two options used in turn one after the other by the same speaker with the same verb -ngundje 'say/do': first, he uses an oblique free pronoun bi-ngaybu, and after that, a personal prefix introduced by the benefactive derivation (ngan-marnanj-):

(4.37) a. Kadda-ngunjdje bi-ngaybu "kikka Ngal-Bangardi ka-wokdja 3pl.nf-say.np dat-l.gen she.ii N 3sg.nf-speak.np Kunbarlang kun-mak ngadda-ngayinj”. Kunbarlang iv-good 1pl.excl.nf-hear.pst "They tell me: "We heard that Ngal-Bangardi speaks Kunbarlang well."’ [20070108IB01/25:21–26; translation mine — IK]

15. However, recall from §4.3.2 that the oblique pronouns marking a larger noun phrase for case are obligatory. See also examples later in the present section.
b. Yoh, nga-ngunda, ngayi ngorro teach im. 
yes 1SG.NF-SAY.PST I DEM.MED.IV [Kriol]
Ka-ngan-marnanj-ngunda “Ah aku!”
3SG.NF-1SG.OBJ-BEN-SAY.PST ah ok
‘“Yes”, I told them, “I teach her.” They said to me “Ah okay!”’
[ibid./25:26–29; translation mine — IK]

The oblique pronouns are used to mark possessors and oblique arguments, the
latter including beneficiaries and maleficiaries, addressees (4.37a), stimuli (4.38) etc. The
oblique arguments are overviewed in section 5.1; the possessives are discussed in
section 4.5.

(4.38) Kadda-rninganj korro rlobbel-rlobbel kadda-rdukidanj bi-rnungu.
3PL.NF-SIT.PST DEM.MED.LOC RDP~outside 3PL.NF-WAIT.PST DAT-HE.GEN
‘They were sitting outside looking for him/waiting for him.’
[20060620IB06/2:14–2:19]

Since Kunbarlang nouns do not have any case marking whatsoever, the oblique
pronominal forms (genitive and dative) can also be used to mark the whole noun phrase
as an oblique argument or possessor (4.39). Such a pronoun is obligatory (4.39b; see
§4.5 on possessives and §4.3.2 for a discussion of this marking as an argument for NP
constituency in Kunbarlang).

(4.39) a. Mary ka-rnay nayi djurra korro kun-bodme=rnungu
M 3SG.NF-SEE.PST NM.I paper DEM.MED.LOC IV-back=HE.GEN
nawalak. kid
‘Mary found the book behind the child’s back.’
[IK1-170606_1SY-01/30:53–31:28]

b. “Mary ka-rnay nayi djurra korro kun-bodme nawalak.
M 3SG.NF-SEE.PST NM.I paper DEM.MED.LOC IV-back kid
intended: ‘Mary found the book behind the child’s back.’
[IK1-170606_1SY-01/31:19–28]

In the following subsections I discuss a human-only pronominal -buk ‘person’
(§4.4.1.1), the contrastive suffix -ma (§4.4.1.2) and a coordinate pronominal construction
encoding dual referents (§4.4.1.4).
4.4.1.1 The human pronoun -buk

There is another pronominal stem which is dedicated to third person human referents (and Dreamtime story characters) only: -buk ‘person’. This word carries the masculine prefix na- or the feminine prefix ngal-.

   1-person first 3SG.NF-GO.PST
   ‘He went first.’ [IK1-160811_000-01/18:33–36]

b. Ngal-buk ki-rnak-kudji.
   2-person II-LIM-one
   ‘Just she alone.’ [20060621IB01/01:23–25]

It appears somewhat intermediate between nouns and pronouns (see §3.2.1 and §3.2.7, respectively), and the lexical gloss chosen for it is meant to reflect that status. Among its "noun-y" properties are the prefixes that it takes and the somewhat richer semantics. The prototypical pronouns, such as nukka ‘he.1’ and kikka ‘she.2’ only encode the number and class features of the referent, but -buk also specifies that the referent is human, i.e. it has an extra semantic feature compared to those other ones. However, it is analysed here as a pronoun, too, because it does not combine with modifiers typical of nouns (4.41), it is used in the asyndetic pronominal construction (see §4.4.1.4 below) and it takes the pronominal contrastive suffix -ma that nouns do not take (example (4.42) and §4.4.1.2).

(4.41) a. *kaburrk na-buk ‘two men’ [IK1-160523_001-01/09:00–03]

b. *na-buk ngob ‘all men’

c. *nukka ngob ‘all men’

Example (4.41) shows that -buk, just like other singular pronouns (4.41c), cannot combine with quantifiers denoting pluralities. Nouns do not have such restrictions because they are not marked for number and normally allow for both singular and non-singular construal. The following example shows that nouns do not take the contrastive suffix -ma often found on the -buk pronouns:

   1-person-CONTR 3SG.NF-SING.NP  2-person-CONTR 3SG.NF-STEP.NP
   ‘He is singing, she is dancing.’ [IK1-170530_1SY-01]
b. **Djarrang**(-ma) ka-ka kulkkulk, **nakarrken**(-ma) ka-ngokmirdam.  

3SG.NF-go.NP run dog-CONTR

‘The horse is running, the dog is barking.’  

[IK1-170530_1SY-01]

Moreover, there are signs that the forms *nabuk* ‘male person’ and *ngalbuk* ‘female person’, on the one hand, and *nukka* ‘he’ and *kikka* ‘she’, on the other hand, are in competition in a certain sense. Namely, the -*buk* pronouns are used with the clitic *bonj* ‘exactly’ about twice as often as the -*kka* pronouns (4.44), and only the former but not the latter are used with the contrastive suffix -*ma* (§4.4.1.2). At the same time, only the -*kka* forms, but not the -*buk* ones, are used in a determiner-like function in multiword noun phrases (as in 4.44b; see further §4.3.2). Interestingly, both *bonj* and -*ma* shift stress from the class prefix na/-ngal- onto the stem -*buk*. That in turn leads to lenition of the stem-initial /p/ from the clear stop realisation [b] to [w], which is further eroded after /l/ up to inaudibility (2.25a–b vs. 2.25c–d). Such a stark contrast between post-tonic and pre-tonic realisation of consonants, or /p/ in particular, is not attested anywhere else (see §2.7).

(4.43) a. /na-puk/ → [ˈnabuk]  
b. /ŋal-puk/ → [ˈŋalbuk]  
c. /na-puk=poɲ/ → [naˈwukboɲ]  
d. /ŋal-puk-ma/ → [ŋalˈukma]

(4.44) a. **Ngal-buk**=**bonj** ka-bun-merre-rnanj la ngal-buk-ma=wali.  

II-person=exactly 3SG.NF-3SG.OBJ-hair-see.NP CONJ II-person-CONTR=turn  

‘They (two girls) are delousing each other in turn.’ [lit. ‘She is looking at her hair and it’s her turn.’]  

[IK1-160809_000-01/09:32–36]

b. **Mukka**=**bonj** kurrambalk, ka-ngunda turn hundred years old.  

it.III=exactly house 3SG.NF-do.PST turn hundred years old  

‘That house [church], it turned one hundred years old.’  

[IK1-160719_000-01/00:19–25]

Two following subsections discuss constructions characteristic of the -*buk* pronouns, viz. the contrastive use with the suffix -*ma* and the asyndetic dual coordination.
4.4.1.2 Contrastive -ma

Kunbarlang personal pronouns can take a contrastive/emphatic suffix -ma; consider (4.45), where the first person protagonist in the second part (b) contrasts with the third person agent set up in the context (4.45a). This suffix probably is cognate with the Bininj Kunwok formative -man, which occurs in the emphatic pronominal series (Evans 2003a: 263).

(4.45) a. Kun-kudji ngarrki-rnilakka kanj-ka ka-rna kanj-bunj. `We’ll send him back to get more.’
   iv-one 1.INCL.NF-send.NP 3SG.IRR-go.NP 3SG.NF-sit.NP 3SG.IRR-hit.NP
   [djurddjurd_2016_transcript-298569/03:59–04:02]

   b. La ngarrka-ma ngarrki-kali mulurr ngarrki-ka. `And us mob, we’ll get driftwood and we’ll go.’
   conj we.INCL-CONTR 1.INCL.NF-get.NP driftwood 1.INCL.NF-go.NP
   [ibid./04:02–06]

This suffix attaches only to direct forms and never to oblique ones. The suffix has a plural allomorph -rrema (4.46).

(4.46) Ngudbe-rrema la ngadbe-rrema.
   you.PL-CONTR conj we-CONTR
   ‘You guys and we.’
   [20150413I0v01/08:18–21]

It also selects for idiosyncratic stem allomorphs of the first and second person singular pronouns and the second person plural one, not found on any other contexts. The pronoun ngayi ‘I’ has the contrastive allomorph nganj- (4.47), the pronoun ngudda ‘you (sg)’ has the allomorph nji- (4.47b), and nukudbe ‘you (pl)’ – ngudbe- (4.46). The clitic =wali ‘turn’ is discussed in §4.4.1.3.

(4.47) a. Na-buk werrk ka-rdokme babi la nganj-ma=wali
   i-person immediately 3SG.NF-leave.NP later conj I-CONTR=turn
   nganj-rdokme. 1SG.FUT-leave.NP
   ‘He goes first and then it’s my turn to go.’
   [IK1-170525_1SY-01]

   b. Ka-birrinja kuyi ngarrk-burrun-karrme, nji-ma la
   3SG.NF-same.NP NM.IV 1.INCL.NF-3DU.OBJ-get.NP you.SG-CONTR conj
   nganj-ma. I-CONTR
   ‘It is similar what we’ve got [dog-wise], you and I.’
   [IK1-180606_1SM-01/08:14–20]
Kunbarlang has a clitic that yields the meaning ‘X’s turn’. It is most often found with contrastive personal pronouns (4.48a; see §4.4.1.2), but has also been recorded with nouns (4.48b), demonstratives (4.48c; §4.4.3), and ignoratives (4.48d; §4.4.5).

(4.48) a. Kun-kudji kinj-ka kinj-kali nji-ma=wali.
   iv-one 2SG.FUT-go.NP 2SG.FUT-get.NP YOU.SG-CONTR=turn
   ‘Go once again and get [some more fish], it is your turn.’
   [djurdjurd_2016_transcript-298569/05:59–06:01]

b. Na-kangila ka-mangarninjdjanganj ka-burnbum, yirrkbonj
   N 3SG.NF-sing.PST 3SG.NF-finish.PST then
   Na-wamud=wali ka-mangarninjdja.
   N=turn 3SG.NF-sing.NP
   ‘Na-Kangila sang, he stopped, now Na-Wamut is singing in his turn.’
   [IK1-170601_1SY-01/04:27–37]

c. Ka-bun-djinj werrk kaddum babi la kuyi
   3SG.NF-3SG.OBJ-eat.NP immediately above later CONJ NM.IV
   karnda=way=wali ngadda-ngoorrordam ka-bun-djinj
   DEM.DIST.LOC=HITH=turn 1PL.EXCL.NF-turn.NP 3SG.NF-3SG.OBJ-eat.NP
   ngob.
   all
   ‘It [the damper] bakes first on the top and then on the other side in turn, we turn it around and it bakes completely.’
   [IK1-160726_002-01/00:50–01:01]

d. Ngadda-bakdjungi  barninda=wali karrbbere.
   1PL.EXCL.IRR.PST-descend.IRR.PST IGNOR=turn mangrove_worm
   ‘We would go down [to the beach to get] whatsit now, mangrove worms.’
   [20060620IB03/00:51–55; translation mine — IK]

The use with the ignorative in example (4.48d) does not seem to literally relate to the position of the referent in an ordered sequence, but rather appears to be employed to structure the narration. That is, it is used to say something along the lines of “what is the next topic in turn?”, rather than “after doing this and that we’d go down for the mangrove worms”.

This ‘turn’ construction is structurally identical to the Bininj Kunwok ‘turn’-construction, which uses a cognate clitic =wali (Evans 2003a)258. Mawng also has a similar construction, and the particle ali clearly appears related (Singer 2006)39.
4.4.1.4 Dual pronouns: asyndetic coordinate construction

In addition to the dual forms in table 4.2 there is an asyndetic coordinate construction for pronominal expression of the dual referents, listed in table 4.4. When the two referents are of different person, it is in essence juxtaposition of two personal pronominals in the order second–first–third person (4.49).

(4.49) a. Ngayi na-buk ngana-yunganj hospital.
   I 1-person 1DU.EXCL.NF-lie.PST hospital
   ‘He and I slept in hospital.’ [20060620IB03/25:10–12]

b. Babi la ngarrki-rna ngarrki-wokdja lerrk Kunbarlang later CONJ 1.INCL.NF-sit.NP 1.INCL.NF-speak.NP word K
   ngudda ngayi.
   you.sg I
   ‘And then we sit and speak Kunbarlang language, you and I.’ [IK1-160828_1PN-01]

c. Ngudda ngal-buk ngunjdji-nganj-ka.
   you II-person 2DU.IRR-HIT-go.NP
   ‘You and her, you two will come.’ [IK1-170601_1SY-01/53:25–30]

For the case when both referents are of the third person, however, two singular pronouns cannot be juxtaposed. Instead, a dual third person pronoun must be used, either alone (4.50a) or in the inclusory construction (4.50b and §4.4.2; see also Singer 2001). The difference between the asyndetic construction (as in (4.49)) and the inclusory construction (IC; 4.50b) is that the former expresses semantic coordination, whereas the latter combines expressions for a set and its subset. Thus, in (4.50b) the referent of ngalbuk ‘she’ is a (singleton) subset of the dual referent of benengka ‘they two’.

(4.50) a. Benengka-ma wularrud ngorro kabarra-djirrkanginj.
   they.DU-CONTR already DEM.MED.IV 3DU.NF-push.PST
   ‘They two have already pushed off [the driftwood].’
   [djurdddjurd_2016_transcript-298569/04:31–34]

   3DU.NF-sit.NP=lean they.DU II-person
   ‘They two (one of them a woman) are sitting leaning against each other.’
   [IK1-160812_000-01/37:17–20]

Although I analyse these third person dual forms as an inclusory construction, I include them in table 4.4 for reference.
Table 4.4: Coordinate and inclusory dual pronouns

<table>
<thead>
<tr>
<th></th>
<th>First &amp; Second</th>
<th>First &amp; Third</th>
<th>Second &amp; Third</th>
<th>Third &amp; Third</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ngudda ngayi</td>
<td>ngayi nabuk</td>
<td>ngudda nabuk</td>
<td>benengka nabuk</td>
</tr>
<tr>
<td></td>
<td>‘you I’</td>
<td>‘I he’</td>
<td>‘you he’</td>
<td>‘they (two) he’</td>
</tr>
<tr>
<td></td>
<td>ngayi ngalbuk</td>
<td>ngayi ngalbuk</td>
<td>ngudda ngalbuk</td>
<td>benengka ngalbuk</td>
</tr>
<tr>
<td></td>
<td>‘I she’</td>
<td>‘you she’</td>
<td>‘you she’</td>
<td>‘they (two) she’</td>
</tr>
</tbody>
</table>

Coleman (n.d.: 10) lists the form beneka for the third & third combination, but I have encountered only one instance of that variant (see example 4.51 below). When asked about the correct form, my speakers give benengka. It’s not likely to be a dialect difference, as other speakers of the same clan (Kun-kamulkibarn) as the speaker of (4.51) confirm the variant benengka (4.50). Perhaps beneka is an older variant, or one dialectal variant taking over, or even an occasional feature of faster speech.

(4.51) beneka la Ngal-bulanj
      they.DU conj N
      ‘those two [Matt and Ngal-bulanj]’

Notice also that in example (4.51)—unlike the forms cited in table 4.4—there is a free conjunction la. This seems to be unusual in the context of Australian inclusory constructions, as Singer (2001: 48) notes: “The use of free conjunctions in Australian ICs seems to be rare. For example, although these participate in nominal coordination in [Wubuy], Dyrbal, Arrente, Lardil and Warlpiri they do not normally participate in ICs.” The ICs in Kunbarlang are taken up more generally in §4.4.2. Given that this is a one-off example, however, it is more likely to be a ‘sloppy’ occasional use of the conjunction in comitative, rather than additive, sense.

My speakers inform me that when one member of the pair is female and the other male, either of nabuk/ngalbuk is appropriate. Thus, benengka ngal-buk really means something along the lines of ‘these two, including a woman’, and benengka na-buk, conversely, ‘these two, including a man’ (see example (4.54) in section §4.4.2).

### 4.4.2 Inclusory constructions

Similarly to many Australian languages (Singer 2001), Kunbarlang has INCLUSORY CONSTRUCTIONS. Consider example (4.52):
(4.52) Mabidj ngandji-burrk-ka.
yB iDU.EXCL.IRR-COLL-GO.NP
Younger brother and I shall go (together).’ [IK1-160427_1SY-01]

In (4.52) there is only one singular noun phrase mabidj ‘younger brother’, but the
verb shows dual number first person agreement. The use of the inclusory construction
allows the speaker to construe the set of two referents (the speaker and his mabidj,
reflected in the subject prefix), while only using a nominal to refer to a subset of that set.
As (4.52) shows, the superset (expression denoting the maximal set) in Kunbarlang can
be expressed by just an agreeing pronominal, without a free pronominal. Singer (2001)
characterises this type (her Type 2) as the superset being encoded by a bound pronominal.
I have encountered one example where the inclusory construction expresses a possessor
within a noun phrase (4.53).

(4.53) Nayi nawalak ka-kanginj djabirrk bi-burnungka nayi
NM.I child 3SG.NF-take.PST swag DAT-they.DU.GEN NM.I
kabarradjanganj korro manberrk.
sibling DEM.MED.LOC bush
‘The boy took his and his brother’s swags and went to the bush.’ [lit. ‘the swag(s)
of theirs (dual) his sibling’] [IK1-160513_1SM-01]

The oblique pronoun burnungka ‘they.DU’, which marks the noun phrase as pos-
sessive, is showing the actual number of referents as two, although there is only one
overt referential singular noun kabarradjanganj. This example is interesting because
on the first impression it may be classified as Singer’s (2001) Type 1, but in fact the free
pronoun may be analysed as a dative case marker (see §4.3.2), rather than a proper
constituent of an inclusory noun phrase. Since this is the only available example of
such a structure, it is not clear at present whether it can be subsumed under one of
Singer’s (2001) types (her database does not contain adnominal uses of the IC).

Finally, we find cases where both a free pronominal and an agreeing pronominal
encode the superset, as in (4.54):16

(4.54) Ngayi nga-kalng na-worrbam barbung, la benengka na-buk
I 1SG.NF-get.PST 1-few fish conj they.DU 1-person
kabarra-kalng na-rleng.
3DU.NF-get.PST 1-much
‘I caught little fish, and those two guys caught plenty.’ [IK1-160819_000-01]

16. This is the rare Type 3 of Singer 2001.
The superset is expressed by the dual pronoun *benengka* and the dual subject prefix *kabarra*- , and the human pronoun *na-buk* is encoding that one of the referents is male (‘they two, including a man’).

4.4.3 Demonstrative pronouns

According to Coleman (n.d.: 8–9) Kunbarlang demonstratives encode four degrees of referential distance: proximal, medial, distal and aforementioned. The first three have to do with physical proximity, and the last one — with referential proximity. Besides that, the demonstratives in adnominal function agree with the head noun in the noun class (see 4.1). Some examples are given in (4.55) below, illustrating the four referential distance series:

(4.55) a. **Manda** mankarre ngadbe kirdimarrk.  
   DEM.PROX.III law we.EXCL.PL man  
   ‘This is the law for us aboriginal people.’  
   [RS Tape 140 TG interview_v5/05:03–06; translation rendition mine — IK]

b. **Nirra** nayi binana ka-dja korro clinic.  
   DEM.MED.I NML banana 3SG.NF-stand.NP DEM.MED.LOC clinic  
   ‘There are banana trees near the clinic.’  
   [IK1-170516_1SY-01]

c. **Ka-kidanj** korro **narnda** Jimmy ka-yuwa.  
   3SG.NF-go.PST DEM.MED.LOC DEM.DIST.I 3SG.NF-lie.NP  
   ‘S/he went to where that Jimmy is camping.’  
   [IK1-160811_000-01/25:48–52]

d. **Madjarkadj** ngulamngulam ngadda-rlakwang ngirnda=bonj.  
   [toponym] morning 1PL.EXCL.NF-throw.PST DEM.AFOR.PL=exactly  
   ‘In the morning we left Madjarkadj and those [people that I have just mentioned].’  
   [20140709JOv05/03:46–50]

e. **Nginda** karrakenda kabarra-kidanj?  
   DEM.PROX.PL where 3DU.NF-GO.PST  
   ‘Where have those two gone?’  
   [djurddjurd_2016_transcript-298569/05:04–06]

The paradigm of all the noun class forms is in table 4.5. The plural forms are my addition to Coleman’s (n.d.) paradigm (4.55e). The proximal series is the default one. Plural reference of a demonstrative can also be constructed by adding the suffix *-dju* ‘COLL’ on the singular form of a demonstrative (4.56).
Table 4.5: Kunbarlang demonstrative pronouns noun class paradigm

<table>
<thead>
<tr>
<th>Class</th>
<th>Proximal</th>
<th>Medial</th>
<th>Distal</th>
<th>Aforementioned</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>ninda</td>
<td>nirra</td>
<td>narnda</td>
<td>nirnda</td>
</tr>
<tr>
<td>II</td>
<td>nginda</td>
<td>ngirra</td>
<td>ngarnda</td>
<td>ngirnda</td>
</tr>
<tr>
<td>III</td>
<td>manda</td>
<td>marra</td>
<td>marnda</td>
<td>marnda</td>
</tr>
<tr>
<td>IV</td>
<td>ngondo</td>
<td>ngorro</td>
<td>ngarnda</td>
<td>ngornda</td>
</tr>
<tr>
<td>Plural</td>
<td>nginda</td>
<td>?</td>
<td>?</td>
<td>ngirnda</td>
</tr>
</tbody>
</table>

(4.56) **Ninda-dju ngob kadda-rnekbe** (barramimbanj kirdimarrk).

*Nginda* all *ngirnd*, *ngirnd*.

‘They’re all dancing (women and men).’[IK1-170530_1SY-01]

In addition to the four series that agree with the head noun in adnominal function, there is another series of demonstratives in Kunbarlang, viz. the locative demonstratives. This series shows the same four distance gradations as the other demonstratives, and has formal similarities to the noun class series (see table 4.6).

Table 4.6: Kunbarlang locative demonstrative pronouns paradigm

<table>
<thead>
<tr>
<th>Series</th>
<th>Proximal</th>
<th>Medial</th>
<th>Distal</th>
<th>Aforementioned</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOC</td>
<td>kenda</td>
<td>korro</td>
<td>karnda</td>
<td>kirnda</td>
</tr>
</tbody>
</table>

However, the locative demonstratives do not interact with the noun class system: they retain the same form regardless of the class of the noun they occur with (4.57). Thus, the medial locative demonstrative *korro* is used with a class I noun in (4.57a) and a class IV noun in (4.57b). For this reason, I describe the locative series as synchronically separate from the noun class system.

(4.57) a. **Ngarrk-ngundje mawamawa, and korro mawa, ngabbard.**

1.incl.nf-do.nlp 3pl.nf-step.nlp FFF ENG dem.med.loc FF[1] F

‘[From the one that] we call great-grandfather, and to the grandfather and father.’[ik_160424_000/01:02–08]

b. **Nga-ka korro kodbarre.**

1sg.nf-go.nlp dem.med.loc house[IV]

‘I’m going towards the house.’[IK1-180518_1SY-01/12:28–30]

Furthermore, it is only the medial locative demonstrative *korro* which productively combines with a wide range of nouns, as in (4.57). The other ones only combine with place names and inherently locational expressions (4.58).
It is plausible that this series of demonstratives is historically related to the noun class system. Evans (2003a: 34–5) mentions an ancient (at least at the level of proto-Gunwinyguan) gender prefixation system of five classes, which included masculine, feminine, vegetable, and two “neuter” classes, with prefixes ku- and ra(k)-. This system collapsed in several descendant languages, including Kunbarlang, which now only distinguishes four classes of nouns. Perhaps the fifth class, the archaic ra(k)-, collapsed with class four (ku(n)) for all Kunbarlang nominals but the demonstratives. Indeed, Coleman (n.d.: 2) analyses the locative series as class v. Additional corroboration for the view that all demonstratives are things of a same kind may come from the fact that combinations of a locative demonstrative with an agreeing adnominal one do not occur in spontaneous discourse and are dispreferred in elicitation. However, the idiosyncratic non-agreeing behaviour of the purported ‘class loc’ demonstratives, taken together with the absence of any correspondence to that class in Kunbarlang nouns, leads me to treat these demonstratives as a separate, locative series.

Notice that there are two forms for the medial locative demonstrative in table 4.6: korro and karra. This is not regular allophony of /o/ or /a/ (§2.3), and there does not seem to be any semantic difference between the variants; currently the reason why there are these two variants is unclear.

There are certain collocations where demonstratives cooccur with each other or with other pronominals. One such example, kirnda ngorro ‘over there [where I just mentioned]’, was presented above in (4.55d). This occurrence of the medial class iv demonstrative ngorro as the second word in a group of pronouns is a major pattern (4.59). In such combinations, ngorro remains invariant; it does not function as a demonstrative, but rather modifies the other pronoun (see also §4.4.3.1 below on its discourse functions). The first word, which agrees with the head noun, can be either a third person pronoun (one of nukka/kikka/mukka/kukka) (4.59a), or another demonstrative (4.59b).

(4.59) a. Kunkarrnim, yoh, kabarra-walkki-bukayinj mukka ngorro
   K yes 3DU.NF-COM-RISE.PST i.III DEM.MED.IV
   kubbunj.
   canoe[n]
   ‘They landed with that canoe at Kunkarrnim.’
   [IKi-160624_002-01/03:22–26]

b. Ninda ngorro badjubadju ngadda-rda-yinj.
   DEM.PROX.I DEM.MED.IV shirt[1] 1PL.EXCL.NF-ENTER-REFL.PST
   ‘This is the shirt we were wearing.’
   [IKi-160624_000-01/06:29–32]
In both examples in (4.59), the first element in the construction agrees with the head noun in the noun class: *mukka kubbunj “it.[III] canoe[III]”, *ninda badjubadju “this.1 shirt[1]”. On the other hand, *ngorro does not change.

This use of *ngorro appears to indicate givenness of the referent (Chafe 1976, Krifka 2008), and may be related to its discourse functions discussed in §4.4.3.1 below. This is not, however, the recognitional use of the demonstrative, since that by definition is *hearer old, but *discourse new (Himmelmann 1996, Diessel 1999: 106). Recognitional use is not a prominent use of demonstratives in Kunbarlang at all, as far as I can tell; this is perhaps somewhat surprising given that Himmelmann (1996) finds it as an important function across the languages in his sample. Moreover, he points out that a number of Australian languages have special series of recognitional demonstratives 1996: 231–3. Probably the closest to a recognitional use in Kunbarlang would be the distal *narnda in (4.55c); this agrees with Himmelmann’s finding that it is usually the distal series that has this function.

An interesting property of Kunbarlang demonstratives is that when they are used to talk about the location of a referent (e.g., in a response to the question, *Where is X?), they still have to agree with the referent’s noun class, rather than have the locative form. To make a crude parallel, this would be as if in response to *Where is the pen? one said *This (one). The following set of examples (4.61) illustrates the actual pattern of (some) conceivable answers to the question (4.60).

(4.60)  
Korro kenda nayi pencil?  
where nayi pencil  
‘Where is the pencil[1]?’

(4.61) Answers:  

   DEM.PROX.I 3SG.NF-lie.NP
   ‘Here it is.’ [lit. ‘This (class 1) is lying.’]

   DEM.PROX.LOC  DEM.PROX.IV 3SG.NF-lie.NP
   with pointing, intended: ‘Here it is.’ [cf. e]

c. *Ninda ka-yunganj kenda.
   DEM.PROX.I 3SG.NF-lie.PST DEM.PROX.LOC
   ‘It was here.’
d. **Kenda** ka-yunganj.  
DEM.PROX.LOC 3SG.NF-lie.PST  
'It was here.' [can be said if one infers the pencil’s former location from e.g. seeing a stain it left]

e. **Kenda** ka-yuwa.  
DEM.PROX.LOC 3SG.NF-lie.NP  
‘That’s where I keep it.’ [cf. b]

The key contrast is between (4.61a) and (4.61b): in the former the demonstrative agrees in the noun class with pencil (class 1), while in the latter it is from the locative series or shows ‘country/places’-class (iv) agreement, both of which are out if the speaker is pointing at the sought pencil. The options (4.61d) and (4.61e) show additionally that the locative demonstrative *kenda* can be used only when it refers to the place itself, i.e. the former or the habitual location of the referent in question. This suggests that Kunbarlang demonstratives have a strong locative component to their semantics, such that even in the situation where identification not of the referent, but of its location is at stake, the demonstrative nevertheless agrees in noun class with that referent.

### 4.4.3.1 Discourse functions of the demonstrative *ngorro*

The class iv medial demonstrative *ngorro* is used for discourse coherence functions. One of these functions is marking the logical connection between propositions, typically the consequential connection (4.62), or indication of inference (4.63). Notice the position of *ngorro* in the apodosis clause of (4.62): it occupies the second position, as linkers often do in Kunbarlang (see §8).

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17. Given that *pencil* belongs to noun class 1, the ‘country’ class iv is inappropriate here anyway, and in other examples only the locative *kenda* is shown.
18. Two interesting points of comparison are to be made. In Mawng, the proximate demonstrative sometimes appears to mean ‘here’ rather than ‘this’ (Ruth Singer, p.c.), quite similar to Kunbarlang. On the other hand, in Bantu an adnominal determiner will show locative agreement (class 17) when its head noun is contained within a prepositional phrase (i), being the inverse of Kunbarlang:

(i) Kom (Grassfields Bantu; Chia 1983:83 via Watters 2003: 244)

a. **ndō** yēā/zia mà ti yūin.  
CL.9.house CL.17.that/CL.9.that I PAST:3 buy  
‘the house that I bought’

b. ndō yēā/”zia mà ti yūin.  
CL.9.house CL.17.that/”CL.9.that I PAST:3 buy  
‘in the house that I bought’
Kuyi ngudda kinj-rnekbe nayi djang, ngarrki-warr-mi
NM.IV you.SG 2SG.FUT-step.NP NM.I dreaming.site 1.INCL.NF-bad-INCH.NP
gob, ngarrka ngorro ngarrki-warr-mi.
all we.INCL DEM.MED.IV 1.INCL.NF-bad-INCH.NP
‘If you step on that dreaming site, we all will die.’

Ngunda ngarra-rna ngalkordo, ngorro karlu njunjuk.
not 1SG.IRR.NP-see.IRR.NP bropga DEM.MED.IV NEG.PRED water
‘I don’t see brolgas, therefore no water.’

In this use ngorro is optionally accompanied by the class IV free pronoun kukka, whereby the two form a complex expression similar to ‘that’s it’: 19

Ngunda ngarra-rna ngalkordo, kukka ngorro njunjuk
not 1SG.IRR.NP-see.IRR.NP bropga it.IV DEM.MED.IV water
karlu.
NEG.PRED
‘I don’t see brolgas, therefore no water.’

Diessel (1999: 125) observes that demonstratives to sentence connectives is a well-attested grammaticalisation scenario. Within Australia, for instance, McConvell (2006) describes a variety of such complementizers in the Ngumpin-Yapa languages.

4.4.4 Interrogative pronouns

The INTERROGATIVE pronouns in Kunbarlang are used for constituent questions (§7.4.2), as well as for building indefinite pronouns (§4.4.5). They include five major ontological categories, lexicalised as four main interrogative expressions:

- kaybi ‘who’
- barda ‘what’
- birlinj ‘how; when’
- karrakenda ‘where’

19. This composite expression, kukka ngorro ‘that’s it’, is also used as an exhaustive narrative marker, e.g. at the end of the story.
The person interrogative, *-kaybi* ‘who’, agrees in person and number with the understood referent. The default is the singular masculine prefix *na-* (4.65a), but the question word can also be construed as asking about a female (4.65b) or a plural individual (4.65c).

(4.65) a. **Na-kaybi** ninda?
   I-who DEM.PROX.I
   ‘Who’s that?’ [IK1-160624_000-01/01:45–47]

   b. **Kin-kaybi** ki-marnanj-ngunda?
   II-who 2SG.NF-BEN-D0.PST
   ‘Who was that woman you spoke with?’ [IK1-170606_1SY-01/44:33–34]

   c. **Kinzadda-kaybi** kadda-nganj-kidanj?
   III-who 3PL.NF-HITH-GO.PST
   ‘Who all came?’ [IK1-160610_001-01/25:35–37]

   If the referent is not third person, as in the question *Who are you?* (4.66), the prefix is selected accordingly:

(4.66) **Adju**, ngudda kirri-kaybi?
   dunno you 2SG-who
   ‘Hey, who are you?’ [IK1-180520_1DDj-01/01:11:28–29]

The interrogative pronoun *barda* ‘what’ is used to ask about inanimate objects (4.67). It is also used to inquire about reason, meaning ‘what for’ or ‘why’. In that case it takes on the genitive case by attaching the genitive masculine pronoun *-rnungu* as an enclitic (4.68).

(4.67) **La** barda ngemek kirnda ki-karrme?
   CONJ what yet DEM.AFOR.LOC 2SG.NF-HOLD.NP
   ‘And what else have you got there?’ [IK1-170610_2SM-01/27:25–28]

(4.68) **Barda=rnungu** ki-kalng kekek?
   what=he.GEN 2SG.NF-GET.PST bone
   ‘Why did you buy a bone?’ [IK1-170615_1SY-01/04:39–41]

The pronoun *birlinj* is rather multifunctional. Its core meaning is probably ‘how’, as in *Birlinj ki-ngundje?* ‘How are you doing?’, perhaps a calque from the English greeting. But it’s extensively used in combination with the verb *-ngundje* ‘say/do’ to
inquire about qualities, functioning as ‘which; what kind’. Example (4.69) is a fragment from a recording of a spot-the-difference game, where the participants employed this construction frequently:

(4.69)  IK1-170610_2SM-01/07:17–27
A: Ngudda mandjad?
    you straight
    ‘Is your [road] straight?’
B: Yoh.
    yes
    ‘Yes.’
A: Ngayi karlu.
    I NEG.PRED
    ‘Mine isn’t.’
B: Birlinj ka-ngundje?
    how 3SG.NF-do.NP
    ‘What is it like?’ [lit. ‘How does it do?”]

It can be used to inquire about the reason (4.70):

(4.70)  Birlinj kabarra-karlung?
    how 3DU.NF-dig.PST
    ‘Why have they two dug [the pit]?’ [IK1-170625_1PN-01]

It is also used to talk about time (4.71).

(4.71)  Birlinj kanak ka-ngundje  kinj-ka?
    how  SUN 3SG.NF-do.NP  2SG.IRR-go.NP
    ‘What time are you going?’ [IK1-170626_1PN-01/49:10–13]

It is even found in the spatial interrogative use, i.e. in asking ‘where’. However, this is only used to request details (e.g., the name) of an aforementioned location (4.72), and not to ask about location of sought objects.
The conventional way to ask about location of objects and events is using *karrakenda* (4.73), which seems to be a lexicalised combination of a medial and a proximal locative demonstratives.

(4.73)  A: *Karrakenda* mukka kabarra-bum marderr?
where it.III 3DU.NF-hit.PST creek
‘Where did those two make that creek?’
[dujruddjurd_2016_transcript-298569/02:06–07]

B:  Manda.
DEM.PROX.III
‘There.’
[ibid./02:08]

There are no possessive interrogatives. Instead, the person interrogative -*kaybi* is used in combination with the regular possessive marking, as in (4.74); see §4.5 below on possession.

(4.74) *Na-kaybi* kin-rnungu ninda dju?ra?
i-who I/II-he.GEN DEM.PROX.I paper
‘Whose book is this?’
[IK1-160427_tSY-01]

Some of the interrogative pronouns are used as base for indefinite and ignorative pronouns, to which I turn in the following section.

### 4.4.5 Indefinite and ignorative pronouns

The indefinite pronouns in Kunbarlang are formed from the interrogative ones (§4.4.4). There are two series, existential (4.75) and negative (4.76) indefinites. The existential ones are formed with the suffix -*nuk* ‘INDEF’ (*barda-nuk* ‘something’ etc.), and the
negative ones — by adding the negator ngunda ‘not’ before the interrogative pronoun\(^{20}\) (ngunda barda ‘nothing’ etc.).

The existential indefinite pronouns are used to refer to individuals and objects that the speaker cannot identify, or can, but decides not to.

\((4.75)\)  

\(a.\) La ng-a-mabulunj na-kaybi-nuk kanj-bun-wunj neyang
\hspace{1em} CONJ 1SG.NF-like.NP 1-who-INDF 3SG.IRR-3SG.OBJ-give.NP food
\hspace{1em} F NM.IV 1SG.IRR-GO.NP

Fluffy kuyi nganj-ka.

‘And I want someone to feed Fluffy when I go.’

\[IK1-160513_001-01/01:58–02:21\]

\(b.\) Kinj-wunj mayi neyang kanj-djinj or bardung or
\hspace{1em} 2SG.IRR-give.NP NM.III food 3SG.IRR-eat.NP or fish or
\hspace{1em} barda-nuk kinj-wunj.

what-INDF 2SG.IRR-give.NP

‘Give him food to eat or fish or something [i.e., share it with him].’

\[RS Tape 140 TG interview_v5/04:31–36\]

\(c.\) Adju ngawakwanj, birlinj-nuk.
\hspace{1em} dunno 1SG.NF-ignorant.NP how-INDF

‘I don’t know when, some time.’

\[IK1-170614_1PG-01/35:29–31\]

\(d.\) Wigu karrakenda-nuk kukka-dju: Anjamina, Andiwarnmalk, Wiala
\hspace{1em} W where-INDF it.IV-COLL A A W
\hspace{1em} welenj ngadda-bum.

road 1PL.EXCL.NF-hit.PST

‘We made roads at Wigu and elsewhere: Anjamina, Andiwarnmalk, Wiala.’

\[20060620IB03/14:46–15:00\]

In example (4.75d) the indefinite karrakendanuk ‘somewhere’ combines with kukkadju, class IV personal pronoun with collective suffix, which means roughly ‘all [the locations]’. The resulting meaning is ‘somewhere [else] in all those places’, or just ‘elsewhere’.

The negative indefinites are used to negate existence of individuals or objects (4.76). Notice that they create a negative polarity context from the point of view of the verbal marking: the clausemate predicate is in irrealis form (see §5.4 on verbal tense and mood morphology).

\(^{20}\) More rarely it can be marrek, the other negative particle.
(4.76) a. **Ngunda na-kaybi** ki-rlkwani.
not 1-who 3SG.IRR.PST-throw.IRR.PST
’No one would just throw it [rubbish on the ground].’

b. **Ngunda barda** ngemek.
not what yet
’There’s nothing else.’

(4.77) IK1-180525_1DDj-01/32:35–33:10
a. **Merrek na-kaybi** ngay-rnani.
not 1-who 1SG.IRR.PST-see.IRR.PST
’I didn’t see anyone.’

b. *Ngay-rnani merrek na-kaybi.
1SG.IRR.PST-see.IRR.PST not 1-who
‘I can’t go anywhere.’

The **ignorative** pronoun is **barninda** ‘what’ (4.78), which perhaps historically is a contraction of **barda** ‘what’ and **ninda** ‘DEM.PROX.1’. It is used to substitute for words that the speaker cannot remember (effectively, a hesitation marker). It may also be used together with a personal pronoun of appropriate noun class, as in (4.78c).

(4.78) a. **Na-kudji kirdimarrk ka-bunj donkey walkki barninda** ||
I-one man 3SG.NF-hit.NP ENG with IGNOR
stockwhip.
ENG
‘A man beats a donkey with what, a stockwhip.’

21. Mushin (1995) coins the term **epistememe** for the forms that serve as ontological categorisation of discourse referents and that may take on interrogative, indefinite, hesitation and complementising functions. She suggests that their epistemological contribution is the basis for such functional development.
b. Kadda-marnbum || **barninda** || karra kadda-rukidanj.
3PL.NF-make.PST IGNOR DEM.MED.LOC 3PL.NF-look.PST
'They made this, what’s it called, where they were looking from.'

[20060620IB03/08:23–30]

c. Kidda-maddjingi || **barninda** || **barninda** kikka, la bingkibingki.
3PL.IRR.PST-pierce.IRR.PST CONJ IGNOR IGNOR she.II baler.shell
'They used to spear it and what else... what’s her name, baler shell.'

[20060620IB04/03:16–22; translation mine — IK]

As is evident in (4.78), **barninda** is often followed by a pause, during which the speaker is presumably searching for an appropriate expression.

### 4.5 Possession

In Kunbarlang noun phrase possession is expressed by the genitive and dative pronouns. They encode the possessor and either carry a prefix or are themselves encliticised to the possessum. Kunbarlang has a system of **possessive classification**, whereby the choice of a possessive construction partitions the nominal lexicon into two classes. These two classes in Kunbarlang are customarily called **alienable** and **inalienable** (Nichols & Bickel 2013c). Altogether there are three possessive sub-constructions with the personal pronoun

- genitive pronoun encliticised to the possessum noun (inalienable possession)

- genitive pronoun prefixed with a class marker agreeing with the possessum, where classes i and ii are super-classed with prefix **kin-** and classes iii and iv take the usual prefixes **man-** and **kun-**, respectively (alienable possession)

- dative pronoun with the prefix **bi-** ‘DAT’ (alienable possession)

I discuss these constructions below grouped by alienability of the possessum.

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22. On the verbal ways of expressing possession see 7.7.2.
23. This is somewhat idealised. In fact, certain nouns, in particular body parts, are inalienable by default, but can be coerced into the alienable interpretation by the context.
4.5.1 Alienable possession

Alienable possessive constructions in Kunbarlang involve prefixed oblique forms of personal pronouns, which encode the possessor features. The prefix is either the invariant dative *bi-* (4.79) or a noun class agreement (*kin-* for classes i and ii, *man-* for class iii, and *kun-* for class iv; see §4.1 for more), agreeing with the possessum (4.80). I have not found any difference between the dative and the genitive possessive constructions other than the word order preference: the dative possessor tends to follow the head noun, while the genitive possessor tends to precede the head (§4.3.1).

(4.79) korlonj patriline.child *bi-*rnungu DAT-he.GEN
‘his child’ [IK1-160822_1SY-01]

Example (4.79) shows that the prefix cannot be omitted when the possessum is alienable (which kinship terms are).

(4.80) a. Kanjuwa ki-karrme, *kin-ngaybu* durduk, merrek ngudda proh 2sg.nf-hold.np i/ii-l.gen dog, not you.sg
*kin-ngungku*
i/ii-you.sg.gen
‘Don’t touch it, it’s my dog, not yours!’ [IK1-160829_1PN-01]

b. Mawuludja, <…> *kun-budbe yalbi* Djindibi mob. Djindibi, m iv-they.gen country Dj mob Dj
*kun-budbe yalbi*
iv-they.gen country
‘Mawuludja, [unclear] it’s Djindibi country. Djindibi, it’s their country.’ [20060620IB04/12:11–20]

Example (4.80b) shows a possessor expressed by a full noun, the clan name *Djindibi*. As shown, it can appear on either side of the head noun and genitive pronoun complex.

Coleman (1982: 78, n.d.) recognized that the form *ki-* was used indistinguishably for possessums of classes i and ii, and postulated a possessive prefix *ki-* (the nasal segmented with the base). This was probably due to lack of class iii and iv possessums in her data. I reanalyse this as agreement, which both accounts for the prefixes *man-* and *kun-* (e.g. (4.80b)) on those possessums, and treats possessive morphology as uniform noun class agreement within the noun phrase.

Unlike with the body parts (see example 4.87), possessor raising is unavailable in the alienable constructions (4.81), whether with *bi-* or noun class prefix:
(4.81) a. *Nayi durduk {bi/kin}-ngaybu ngayi **kadda-ngan-bum.**

\[
\text{NM.I dog DAT/I/II-LGEN I 3PL.NF-1SG.OBJ-hit.PST}
\]

intended: ‘They hit my dog.’

[IK1-170525_2SY-01/12:45–13:30]

b. Nayi durduk {bi/kin}-ngaybu ngayi **kadda-bum.**

\[
\text{NM.I dog DAT/I/II-LGEN I 3PL-hit.PST}
\]

‘They hit my dog.’

[IK1-170525_2SY-01/12:45–13:30]

Also notice that the possessor pronoun cannot agree with the subject when it is functioning as a predicate. It strictly has to agree with the possessed nominal, or else be in the dative (4.82):

(4.82) a. *Ngayi **ngarra**-nungku djadjja.

\[
\text{I 1SG-You.GEN MB}
\]

intended: ‘I’m your uncle.’

[ddj_180520/01:10:25]

b. Ngayi bi-nungku djadjja.

\[
\text{I DAT-You.GEN MB}
\]

‘I’m your uncle.’

[ibid.]

### 4.5.2 Inalienable possession

The main inalienable possessums in Kunbarlang are body parts.\(^{24}\) Oblique pronouns just encliticise to these to mark the possessor (4.83). There are only two forms for the third person singular oblique pronouns, viz. *-rnungu* ‘he.GEN’ and *-ngadju* ‘she.GEN’, and the inanimates use the latter (as in (4.83d); see §§4.1.3 and 4.4.1).

(4.83) a. Nayi ring ka-mankang korro **kunbid=ngadju.**

\[
\text{NM.I ring 3SG.NF-fall.PST DEM.MED.LOC hand=She.GEN}
\]

‘The ring fell off her finger.’

[sm_falling_160728]

b. Kenda kun-bondjek la **kunbid=ngadbe** kun=bonjdjek.

\[
\text{DEM.PROX.LOC IV-cold CONJ hand=we.EXCL.PL IV-cold}
\]

‘It’s cold here and our hands are cold.’

[IK1-170606_1SY-01]

c. **Barramimbaj** nga-rnay **djanga=ngadju.**

\[
\text{Woman 1SG.NF-see.PST foot=She.GEN}
\]

‘I saw a woman’s footprint.’

[IK1-160827_000-01/29:51–55]

\(^{24}\) Kin terms, which typologically often are another group of inalienable lexemes, are alienable in Kunbarlang.
(4.83c) shows that the possessive construction may be linearly disrupted by the predicate. (4.83d) shows that metaphorical extensions of the body parts to the domain of inanimate referents are also treated with the same construction. Notice that class II pronoun -ngadju ‘she.gen’ is used for the inanimate class III possessor kundulk ‘tree’.

The possessors expressed by a full noun are placed adjacent to the possessed (i.e. the head noun). The oblique pronoun of the same noun class as the possessor encliticises to the possessum, just like in the case of a pronominal possessor (4.83a).

(4.84) Nga-rdam kalakalak kodjkdj=runungu korro kun-bondjek. 
1sg.nf-put.nf chicken[i] head=he.gen dem.med.loc iv-cold
‘I’m putting the chicken’s head into the refrigerator.’

The dative-marked possessor is not normal for the inalienable nouns, and does seem to suggest alienation (see discussion of (4.90) below). I have not seen it used in narratives. However, it may occasionally occur in production during elicitation, such as in example (4.85) and in (4.89) below.

(4.85) Ngayi nganj-bunj=ngurr kodjkdj bi-ngaybu.
I 1sg.fut-hit.np=wash head dat-1.gen
‘I will wash my head.’

The possessor pronoun must attach to the possessum head noun on the right (4.86a–b).

(4.86) a. Djanga-ngaybu wularrud nga-rdulkkarrawarribin.
foot=1.gen already 1sg-tired
‘My feet are tired.’

b. *ngaybu djanga
I.gen foot
intended: ‘my foot/feet’

One of the interesting aspects of example (4.86a) is POSSESSOR RAISING (e.g. Payne & Barshi (1999), who use the term EXTERNAL POSSESSION). This is a morphosyntactic phenomenon when the possessor of a semantic argument of the predicate functions as the morphosyntactic argument. In Kunbarlang this is most evident in the agreement patterns, because overt nominal arguments of a given predicate can be missing. In
we see that the adjectival predicate -\textit{rdulwarribin} ‘tired’ agrees with the first person possessor (object pronominal prefix \textit{ngan}-), rather than with the ‘feet’ (in which case the object prefix would have been \textit{Ø}-). Another example of that is (4.87), where the object agreement with the possessor is obligatory (4.87a vs. b).

(4.87) a. Ka-\textit{ngan}-rlemang kunbodme=ngaybu.
\hspace{1cm} 3SG.NF-1SG.OBJ-punch.PST back=I.GEN
\hspace{1cm} ‘S/he punched me in the back.’ \hspace{1cm} [IK1-170525_2SY-01/15:05–08]

b. *Ka-rlemang kunbodme=ngaybu.
\hspace{1cm} 3SG.NF-punch.PST back=I.GEN
\hspace{1cm} intended: ‘S/he punched my back / me in the back.’ \hspace{1cm} [IK1-170525_2SY-01/15:33–39]

Still another example shows that one’s shadow is also inalienable in Kunbarlang grammar, and likewise gives rise to possessor raising (4.88):\textsuperscript{25}

(4.88) Nga-wundji-yinj la ka-\textit{ngan}-rnay \hspace{0.5cm} \textit{kiwayuk}=ngaybu.
\hspace{1cm} 1SG.NF-hide-REFL.PST CONJ 3SG.NF-1SG.OBJ-see.PST shadow=I.GEN
\hspace{1cm} ‘I was hiding but s/he saw my shadow.’ \hspace{1cm} [IK1-170606_1SY-01/40:51–41:12]

The dative construction does not support possessor raising.

\hspace{1cm} 1SG.NF-hide-REFL.PST 3SG.NF-HITH-GO.PST 3SG.NF-1SG.OBJ-pass.PST
\hspace{1cm} ngunda ki-rnani \hspace{0.5cm} \textit{bi-ngaybu kiwayuk}.
\hspace{1cm} not 3SG.IRR.PST-see.IRR.PST DAT-I.GEN shadow
\hspace{1cm} ‘I was hiding. S/he walked past me and didn’t notice my shadow.’ \hspace{1cm} [IK1-170606_1SY-01/48:15–25]

b. *Ka-nganj-kidanj ka-ngan-bawuy ngunda ki-rnani
\hspace{1cm} 3SG.NF-HITH-GO.PST 3SG.NF-1SG.OBJ-pass.PST not 3SG.IRR.PST-see.IRR.PST
\hspace{1cm} \textit{kiwayuk}=ngaybu.
\hspace{1cm} shadow=I.GEN
\hspace{1cm} intended: ‘[I was hiding.] S/he walked past me and didn’t notice my shadow.’ \hspace{1cm} [IK1-170606_1SY-01/48:56–59]

\textsuperscript{25} While not necessarily being body part nouns, certain person’s representations are frequently treated as inalienable in Australian languages. These include nouns meaning ‘shadow’, ‘reflection’, ‘name’, ‘footprint’. See, for example, \textit{McGregor} (1996: 257–8) on Nyulnyul.
As the grammatical variant (4.89a) shows, the pronoun is marked by the dative prefix bi- and the verb lacks an object pronominal prefix for the possessor. The inalienable construction with the genitive pronoun cliticising onto the possessum noun is ungrammatical here (4.89b).

The inalienability of body parts is not exactly a hard-wired property of all lexemes, but rather for some nouns it can interact with semantics of the whole event description. Thus, body parts can be coerced into alienable interpretation, with an appropriate change of the possessive construction. The case in point is the difference in the treatment of one’s own body parts and someone else’s body parts that one owns. Example (4.90) provides a contrast to (4.86a) in this respect:

(4.90) a. Djanga {bi-ngaybu / kin-ngaybu} yiwanj nganj-kinje.  
    foot DAT-LGEN I/II-LGEN DISC.PTCL ISG.IRR-COOK.NP  
    ‘Maybe I’ll cook the [e.g. chicken] leg(s) that I have.’  
    [IK1-170525_2SY-01/05:00–06:00]

b. kalakalak kin-ngaybu nayi djanga  
    chicken I/II-LGEN NM.I foot  
    ‘my chicken leg(s)’  
    [IK1-170525_2SY-01/07:52–58]

When a body part is not the possessor’s own inalienable body part, as in (4.90), it can be described by an alienable possessive construction. Note that the word djanga ‘foot’ is class 1 in this case, as evident in the choice of class 1 noun marker nayi in (4.90b). This suggests that it is not construed as much a body part as simply meat, class 1 being appropriate for animal food.

4.5.2.1 Proprietive and other extended usage

Interestingly, some of these body-part-plus-possessor combinations develop idiomatic meanings. These may be more or less compositional. On the one end of the scale there are the idioms denoting classes of objects based on their salient “possessive” characteristic (4.91a-b). A clear case of a less compositional idiom is shown in (4.91c), where there is no obvious semantic component of possession (see also example (7.69a) in §4.5).

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26. This resembles the functioning of the PROPRIETIVE (‘having’), which is a grammeme often found in case inventories of Australian languages (Nordlinger 2014: 242).
(4.91)  a.  
\[
\text{djanga=rnungu} \\
\text{foot=he.gen} \\
\text{‘car’ [lit. ‘his foot’]}
\]

b.  
\[
\text{kumu=ngadju} \\
\text{eye=she.gen} \\
\text{‘Cycas calcicola’ (cycad sp.) [lit. ‘her eye(s)’]}
\]

c.  
\[
\text{merre=rnungu} \\
\text{hair=he.gen} \\
\text{‘comb, hairbrush’}
\]

Notice that in (4.91c) there is no possessor semantically; rather, the idiom is metonymic, acknowledging a connection between the tool and its object of application. This is unlike (4.91a), where the car is described as something that has “feet”, or (4.91b), where a cycad is referred to as ‘her eye(s)’, probably because of its ovoid seeds being a traditional food.27 Both idioms are semantically exocentric, however, as they denote something different than a subtype of the head noun denotation. Other languages of the region have similar PROPERITIVE-like use of the possessive construction: for instance, Mawng (Singer 2006: 40), Nakkara (Eather 1990: 375 ff.) and Ndjébbana (McKay 2000: 196–7).

This pattern appears to be productive to a certain extent (rather than being a frozen list of lexicalised combinations). While translating a storyboard that included a reference to a rabbit, one speaker made the following suggestion (4.92):

(4.92)  
Rabbit  I don’t know…  \text{karlmu=rnungu?} \\
\text{ear=he.gen} \\
\text{‘[Kunbarlang word for] ‘rabbit’ I don’t know… “the one with the ears”? [lit. ‘his ear’] [IK1-160513_001-01/07:01-07]}

Thus, she used the inalienable possessive construction to innovate a Kunbarlang term for ‘rabbit’ based on its salient characteristic.

Possessive classification (i.e. the alienability distinction) is one of the important parameters of cross-linguistic variation in possessive constructions. Kunbarlang exhibits a clear picture here, with two well-defined classes (proviso the coercion possibilities illustrated in (4.90)). The following section discusses another parameter whose value is not as easy to determine in Kunbarlang: the locus of marking.

27. Masha Kyuseva (p.c.) notes that \text{djanga=rnungu ‘car’} and \text{kumu=ngadju ‘cycad sp.’} can be metonymic — or even meronymic — as well. On this scenario, first the car’s wheels (or cycad’s seeds) are conceptualised as feet/legs (resp., eyes), and then the expression is extended from a part to the whole object.
4.5.3 Typological remarks

One of the main parameters of the typological description of possessive constructions (alongside the possessive classes, such as alienability classes discussed above) is the locus of morphosyntactic marking in possessive noun phrases (Nichols & Bickel 2013a). Kunbarlang possessive constructions are interesting in that they combine traits of both head marking and dependent marking types.

On the one hand, typologists tend to classify possessive constructions with a free pronominal word marking the possessor features as a head marking type. Thus, Dryer writes:

There are still other languages in which a word intervenes [between] the possessor and possessed noun, which is not an adposition but a pronominal word varying for features of the possessor, as in [(4.93)] from Loniu (Hamel (1994)), an Austronesian language of Papua New Guinea. (Dryer 2007: 180)

(4.93) Loniu (Hamel 1994 via Dryer 2007: 180)

ɲatama iy pihin
father 3SG.POSS woman
'the woman’s father'

“This type of construction is probably best viewed as a variant of the head-marking construction... except that the pronominal morpheme is a separate word in Loniu rather than an affix.” (Dryer ibid.)

Likewise, Nichols & Bickel suggest that

[head] marking using a separate word is illustrated by [(4.94)] from Tiwi, where the marker of possession is the uninflected pronoun ɲara ‘he’. That it is syntactically attached to the head noun ‘tail’ and not the possessor noun ‘crocodile is shown when the order of possessor and possessed nouns is inverted: in [(4.94)a-b] ‘he’ immediately precedes ‘tail’ regardless of the latter’s position relative to ‘crocodile’. (Nichols & Bickel 2013a: §1.4)

(4.94) Tiwi (Osborne 1974: 74–75)

a. jɔɾɑkɔpɔi ɲara tuwata
   crocodile he tail
   ‘the crocodile’s tail’

28. And conversely, Nichols & Bickel (2013b: §3) list locus of marking in possessive phrase with noun possessor as one of two most informative phrase types in defining the whole-language locus type.
Indeed, the pronominal word in Kunbarlang is normally found next to the possessum noun. In fact, in the inalienable constructions it cliticises onto the head noun, and in (4.83c) one even finds the possessor (i.e. the dependent) noun discontinuous from the possessum-cum-pronoun complex. These facts are consistent with classifying Kunbarlang possessive NPs as head marking.

On the other hand, there are at least two arguments against such a decision. One is related to linear (dis-)continuity. Firstly, the fact that the pronoun encliticises to the head noun can be reduced to the requirement that there is a morpheme to the left of the oblique pronoun stem, which appears to be a correct generalisation. Discontinuity as in (4.83c) is not critical, as it is a regular property of Kunbarlang NPs. Moreover, examples can be adduced where the pronoun is separated from the possessum head by other material, such as the noun marker in (4.95):

(4.95) Mary burdubburdub ka-bunj ngurr John bi-\textit{rnungu} nayi M often 3SG.NF-hit.NP wash J DAT-he GEN NM.I
\begin{flushright}
\textit{badjubadju…} \textit{shirt}
\end{flushright}
\begin{flushright}
‘Mary usually washes John’s shirt…’ [IK1-160513_1SM-01]
\end{flushright}

The second argument comes from considering the function of the genitive pronouns to mark the whole NP as genitive, as discussed above in §4.3.2. Nouns in Kunbarlang do not have case morphology and the case-marked pronouns are used in construction with nouns to build analytically case-marked NPs. If that is indeed the function of the genitive pronoun in larger noun phrases, then arguably it is a dependent marking trait of the possessive construction as well.

Perhaps the most appropriate typological classification of Kunbarlang possessive NPs in terms of the locus of marking is one of Nichols & Bickel’s (2013a) minor types, namely HEADWARD-MIGRATED DEPENDENT MARKING. They describe this intermediate type as follows, contrasting it to the above example from Tiwi: “a fully inflected dependent (typically a pronominal argument) cliticises to the head, as in Bororo (Macro-Gê; Mato Grosso, Brazil)”.

(4.96) Bororo (Crowell 1979: 197)
barae eno moto
Brazilians 3PL GEN land
‘Brazil’ (lit. ‘Brazilians’ land’)

[124]
“This is different from [(4.94)] in that the pronominal piece in [(4.96)] is case-inflected and is therefore a syntactic word, while that in [(4.94)] has no case and can therefore be regarded as a phonologically word-like grammatical formative.” (Nichols & Bickel 2013a: §1.5)

Indeed, the pattern is similar to the pattern in Kunbarlang. The oblique pronominal forms in the Kunbarlang alienable construction carry the dative prefix or agree with the possessum in noun class. This shows their status as syntactic words rather than mere morphological markers indexing the possessor’s features.

4.6 Quantifiers

Quantifiers in Kunbarlang stand out among other constituents of the noun phrase in terms of freedom of their placement (this is in line with the general picture of noun phrases in Australian languages (Louagie & Verstraete 2016: 51–52; Louagie 2017: §4; see also §4.3.3 of the present grammar). Like most other constituents of the noun phrase, (D-)quantifiers can be selfstanding in Kunbarlang, meaning that there may be no overt nominal head.

4.6.1 Terminological and methodological preliminaries

This section is mainly structured around a recent comprehensive semantic questionnaire on quantification designed for cross-linguistic comparison by Keenan & Paperno (2012b) and Keenan (2012). Semantic means here that the basis for selecting the expressions as quantificational is the meanings that they express, rather than a particular form, part of speech or otherwise. Following Keenan & Paperno (2012b), I utilize their adaptation of Partee’s (1995) distinction between A-quantifiers and D-quantifiers, which is a morphosyntactic distinction. Thus, the A-type includes those quantifiers which typically combine with predicates, such as adverbials or verbal affixes. On the other hand, those quantifiers that combine primarily with nominals or form nominal expressions are classified as belonging to the D-type.

Since this choice to use Keenan’s (2012) questionnaire involves some technical terminology and notions from the field of formal semantics, I feel that it needs to be explicitly motivated. The primary motivation for this choice is the precision that it offers. The field of quantification is essentially semantic, and as such, relies most crucially on interpretation, which may often be very subtle. Thus a precise notional system in tandem with controlled methodology is instrumental for establishing the exact semantics of quantity.29 In sum, the quasi-formal apparatus is employed here not

29. I underscore that we are primarily targeting the semantics of quantity here. There may be further
to impose a specialised theory on the language and the reader, but to supplement the usual explanations with mathematically precise characterisation. I discuss methodology right after I explicate the notion of quantifier assumed here.

4.6.1.1 Quantifiers: a definition

Intuitively, quantifiers are expressions related to counting and measuring quantities. For our purposes here it is sufficient to think of quantifiers more formally as follows: a quantifier is an expression whose meaning is a particular relation between two (or sometimes more) sets (along the lines of the Generalized Quantifier theory; see Barwise & Cooper 1981). This assumes that most other natural language expressions, such as noun and verb phrases, denote sets of things. Consider, by way of example, English sentence *Several cats are sleeping*. The quantifier *several*, according to our theory, relates two sets here, viz. the set of cats and the set of sleeping things, as relevant in the context of the utterance. More specifically, it requires the intersection of these two sets to include more than one element — then the resulting sentence truthfully describes the state of affairs. We may write the following to express that condition in the language of set theory:

\[
\text{several}(C)(S) \text{ is true iff } |C \cap S| > 1
\]

where \(C\) is the set of cats and \(S\) the set of sleeping things.

In the ensuing discussion, however, nothing relies on the reader’s understanding of set theory, its notation, or the generalized quantifier theory. Rather, this is included here for the reader eager to get as precise an understanding of the Kunbarlang quantifying expressions as possible.

4.6.1.2 Quantifiers: a methodology

As was suggested above, fine semantic judgements require a particularly rigorous and reliable methodology. The main methods that I used to study the interpretation of quantifiers were direct elicitation and the truth value judgement task (TVJT; Crain & Thornton 1998, Matthewson 2004). In this task the speaker is asked to judge whether a given sentence is truthful and appropriate given a particular state of affairs. I used pictures and a toy construction set to represent the states of the world, and either asked what the best way was to describe that in Kunbarlang, or asked whether a particular

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overtones to the meanings of these expressions that the questionnaire is not designed to capture, such as the spatial connotations of Bininj Kunwok A-quantifiers (Evans 1995a). It must be pointed out, however, that understanding the semantics of quantification proper of these items is prerequisite for any further inquiry into their meaning.
Kunbarlang expression (which was either previously elicited, or modified from that, or just constructed by myself) was felicitous in that circumstance.

An example of using this technique is as follows, cf. figure 4.1.

![Figure 4.1: Materials: quantifier elicitation](image)

The picture in figure 4.1 represents a man fishing by a lake. The construction blocks represent fish. By manipulating the amounts of fish in the man’s bucket and in the lake various configurations of interest are produced. Thus, 4.1 can be described by (4.97a), but neither by (4.97b) nor by (4.97c):

(4.97) a. **Kaburrk** ka-kalng.

\[
\text{two} \quad \text{3sg.nf-get.pst}
\]

‘He caught **two** [fish].’

[IK1-170606_1SY-02/54:53–55]

b. Ka-kalng **na-worrbam**, la **na-barrkidbe** nayi **nguyuyi**

\[
\text{3sg.nf-get.pst} \quad \text{1-few} \quad \text{conjunction} \quad \text{1-other} \quad \text{NM.1 many}
\]

\[
\text{ngunda} \quad \text{ki-kala}.
\]

\[
\text{not} \quad \text{3sg.irr.pst-get.irr.pst}
\]

‘He caught a **few**, but **many others** he didn’t catch.’

[IK1-160701_000-01/56:21–28]
c. Ka-mulmul-kalng.
   3SG.NF-many-get.PST
   ‘He caught many.’ [IK1-170606_1SY-02/55:39–40]

One of the conclusions we may draw from (4.97b) is that while -worrbam translates as ‘few’, it does denote a cardinality larger than two. Next, given the prompt (4.97c), the speaker rearranges most of the fish from the lake into the bucket as in figure 4.2 and utters (4.98).

Figure 4.2: Materials: quantifier elicitation

(4.98) Ka-mulmul-kalng ninda la ka-baybum kaburk bala
   3SG.NF-many-get.PST DEM.PROX.1 CONJ 3SG.NF-leave.PST two LNK
   na-kudji.
   1-one
   ‘He caught a whole lot and left three.’ [IK1-170606_1SY-02/56:07–12]

Proceeding in such a fashion, researchers can use their judgement of the relevant meanings and semantic subtleties, such as scopal possibilities of the quantifiers and other operators etc. An obvious improvement in using the technique would be to videotape the manipulations with the elicitation materials to facilitate future (re-)analysis.
4.6.2 Generalized Existential (Intersective) Quantifiers

These quantifiers are characterised by the common property that to evaluate a sentence formed with such quantifier relating sets A and B, one should consider the intersection of A and B: \( A \cap B \). In other words, these quantifiers deal with (non-)existence of entities and their cardinality.

4.6.2.1 D-Quantifiers

The existential D-quantifiers in Kunbarlang are the bound roots -\textit{rleng} ‘much; many’ (4.99),\(^{30}\) and -\textit{worrbam} ‘(a) few’ (4.99b), the free root \textit{yika} ‘some; few’ (4.99a), and the cardinal numerals (see §4.6.2.1.1 below). See also example (4.107) for a D-quantifier usage of \textit{mulmul} ‘many’, which seems to be an A-quantifier primarily.

(4.99) a. \textbf{Kinbadda-rleng} \textbf{kirdimarrk} kadda-nganj-kidanj korro
\textit{3pl-much} \textit{man} \textit{3pl.NF-HITH-GO.PST} \textit{DEM.MED.LOC}
\textit{yiwarrudj, la} \textbf{na-yika kirdimarrk} kadda-makarrinjdjanganj.
\textit{church} \textit{CONJ} \textit{1-some man} \textit{3pl.NF-sing.PST}

‘Many people came to the church, but few [of them] sang.’
\[IK1-160802_000-01/01:47-55, 02:34-40\]

b. \textbf{Kinbadda-rleng} kadda-nganj-kidanj \textbf{barramimbanj} \textit{la}
\textit{3pl-much} \textit{3pl.NF-HITH-GO.PST} \textit{woman} \textit{CONJ}
\textbf{kirdimarrk} yiwarrudj, kadda-makarrinjdjanganj \textbf{kinbadda-worrbam}
\textit{man} \textit{church} \textit{3pl.NF-sing.PST} \textit{3pl-few}
\textit{la} \textbf{kinbadda-yika} karlu.
\textit{CONJ} \textit{3pl-some} \textit{NEG.PRED}

‘Many women and men came to the church, a few sang and some didn’t.’
\[IK1-160802_001-01/01:31-02:31\]

Like most D-quantifiers in Kunbarlang, the ones in (4.99) have adjectival morphology, in that they agree with the head noun in person, number and noun class (in singular). Notice, however, that plural number agreement is optional, in the sense that

\(^{30}\) It seems a recurring pattern in Australian languages that some adjectives, in particular ‘big’, can also function as quantifiers. Similarly, in Kunbarlang -\textit{rleng} is polyfunctional between the quantifier meaning ‘much; many’, but the inchoative and resultative forms derived from it build upon the other meaning, viz. ‘big’. Thus, -\textit{rlengmi} means not ‘multiply’ but ‘grow’, and -\textit{rlengbinbin} means not ‘multiplied’ but ‘grown up’. Also, -\textit{wanjak} ‘small, little’ can quantify mass nouns meaning ‘little’ (similar to English). Cf. Enindhilyakwa adjectives \textit{arvma} ‘big’ and \textit{adhvrrungwarrna} ‘huge’ “to express plurality... for non-count nouns” (Stokes 1982: 45 via van Egmond 2012: 126); Gooniyandi (McGregor 1990: 260) \textit{nyamani gamba} ‘a lot of water’ [lit. ‘big water’]; cf. also Louagie (2017: 96).
some speakers do not use it, hence the form *na-yika* with a singular class 1 prefix but plural reference in (4.99a).

The quantifier *yika* may or may not be prefixed with a class marker. The former option is found in examples like (4.99). The non-prefixed form is exemplified in (4.100) below:

(4.100) **Yika** ngayi-ngayini.

some 1SG.IRR.PST-hear.IRR.PST

‘Only a **little bit** [Ndjébbana] I can understand.’

[RS Tape 140 TG interview_v5/20:40–43]

In fact, the non-prefixed form is the more frequent option, with only 4 out of 25 forms (=16%) found in the corpus having a class prefix. For some of these non-prefixed uses it is not entirely clear whether it is D- or A-quantification, see for instance (4.101):

(4.101) Ngemek **yika** karlu njunjuk ki-yawani...

yet some NEG.PRED water 3SG.IRR.PST-search.IRR.PST

‘Yet **sometimes** there is no water so they would look for it.’

[20150212AS02_brolga_transcript/01:52-54]

In (4.101), *yika* could be used in an adverbial function, i.e. as an A-quantifier, or alternatively could be modifying a null/elliptical nominal head meaning something like ‘times’, thus still being a D-quantifier. This interesting polysemy of an existential quantifier between A- and D-quantifier use is found in at least three other languages (Djinang, Mawng and Yir Yoront) in Bowler & Kapitonov’s (n.d.) 125-language sample.

4.6.2.1.1 **Cardinal numerals**  
Cardinal numerals are a special case of existential quantifiers. The cardinal numerals in Kunbarlang include the simple ones - *kudji* ‘one’, *kaburrk* ‘two’ (4.97a), (*kun-kudji*) *kun-bid* ‘five’ (<”*kun-bid* ‘hand’) and the complex ones derived from them, e.g. *kaburrk* *bala* *nakudji* ‘three’ (lit. ‘two and one’; example 4.98), *kaburrk* *la* *kaburrk* ‘four’ (lit. ‘two and two’), *kaburrk* *kun-bid* ‘ten’ (lit. ‘two five’), etc. The only numeral that agrees with the head noun in noun class is - *kudji* ‘one’ (including in composite forms), the rest are invariant.

The numeral - *kudji* ‘one’ is a frequently used, polyfunctional word. Besides the core use as a numeral, it is sometimes employed to express the meaning ‘another / one more’, as in an important fieldwork phrase *Ki-mabulunj kun-kudji (tea)?* [2SG.NF-like.NP IV-one (tea)] ‘Would you like another cup of tea?’ Sometimes it is used as an indefinite article (this is never obligatory), as in (4.102):

130
A woman pushed a man and he fell to the ground.'

It may also be used as restrictive focus marking. Thus, the form ngana-kudji [1DU.EXCL-one] in (4.103) means ‘only we two’:

(4.103) Yimarnek ngana-kudji ngana-djarri but balanda like 1DU.EXCL-one 1DU.EXCL.IRR.PST-eat.IRR.PST but whitefella ngemek kabarra-djarraang bonj-bonj.
yet 3DU.NF-eat.PST RDP-exactly

‘[We thought] like only we would eat that, but whitefellas ate it too!’

The numeral -kudji can also be reduplicated to mark distributivity. In such use, it does not necessarily have scope over an argument of the predicate, but can scope over events, effectively behaving as an adverbial (4.104). When quantifying over repeated events, the agreement is with “times”, i.e. class IV.

(4.104) Nga-mabulunj nganj-ka=kulkkulk kun-kudji-kudji.
1SG.NF-like.NP 1SG.IRR.GO.NP=run IV-DISTR-one

‘I like to go for a run once in a while.’

4.6.2.2 A-Quantifiers

The existential A-quantifiers in Kunbarlang are the free form waken ‘for a while’ (4.105) and the verb prefixes kaburrk- ‘two’ and mulmul- ‘many’ (see also §6.4 on incorporated adverbials).

(4.105) Nga-kidanj waken la ngunda ngayi-yu kenda.
1SG.NF-go.PST while CONJ not 1SG.IRR.PST-lie.IRR.PST DEM.PROX.LOC

‘I went there for a while, I didn’t sleep there.’

The quantifier mulmul- ‘many’ can be incorporated into the verb (4.106) or be freestanding (4.107). Its combinations are highly lexically restricted: only two verbs
have been found to combine with this quantifier. They are -ka ‘to go’ (the subject-oriented use) and -kali ‘to get’ (the object-oriented use). The subject-oriented use is exemplified in (4.106a), object-oriented in (4.106b), and (4.106c) displays it quantifying over the object in combination with the universal D-quantifier ngob ‘all’, which is always freestanding.

   3PL.NF-HIT-HI-many-go.PST
   ‘A lot of people came.’ [IK1-160802_000-01/14:20–22]

   3PL.NF-many-get.PST apple 3PL.NF-give-REFL.PST
   ‘They got a bunch of apples and shared them.’
   [IK1-160429_000-01/1:28:33–36]

   3PL.NF-many-get.PST all meat
   ‘They got all the meat.’
   [IK1-160429_000-01/1:22:24–26]

In the following example (4.107) the quantifier mulmul is freestanding, used in combination with ngob ‘all’ again. In this case it is not immediately clear whether it is still an A-quantifier or is used as a D-quantifier.

(4.107) Kadda-nganj-kidanj mulmul ngob.
   3PL.NF-HIT-HI-go.PST many all
   ‘Everyone came.’
   [IK1-160802_000-01/14:40–43]

4.6.3 Generalized Universal (Co-intersective) Quantifiers

Generalized universal quantifiers have in common that to evaluate a sentence formed with such quantifier relating sets A and B, one should consider the complement of A to B, i.e. the result of subtracting all Bs from As: $A - B$ (in other words, As that are not Bs). Typically, a universal quantifier would require this complement to be an empty set. For instance, *All cats are sleeping* is true iff in the relevant context one can’t find a cat that is not sleeping. Thus, these quantifiers deal with inclusion.

4.6.3.1 D-Quantifiers

The universal D-quantifiers in Kunbarlang are the very frequent ngob ‘all’ (4.108), and the very rare ngobbu ‘both’ (4.109) and nunu ‘all’ (4.110). There are many examples of ngob:
1PL.EXCL.NF-return.PST all K DEM.MED.LOC  
'We all returned to Kurridja.'  
[IK1-160624_002-01/08:15–18]

b. Ngarrki-rlakka **ngob** lerrk there || ngarrki-marnbunj djurra.  
1.INCL.NF-throw.NP all word ENG 1.INCL.NF-make.NP paper  
'We all throw in words in there, we are making the book.'  
[IK1-160424_000-01/09:44–48]

c. Kadda-djarrang na-wanjak nayi kikakkin, la marrek  
3PL.NF-eat.PST 1-small NM.I meat CONJ not  
kidda-bularrbuni **ngob** nayi kikakkin.  
3PL.IRR.PST-finish.IRR.PST all NM.I meat  
'They ate a little bit of the meat, but didn’t finish it all.'  
[IK1-160802_000-01/52:15–26]

d. Kadda-kalng mayi njunjuk bi-**ngarrku** **ngob**.  
3PL.NF-get.PST NM.III water DAT-WE.INCL.GEN all  
'They brought water for us all.'  
[IK1-160802_000-01/08:49–56]

The quantifier ngobbu ‘both’ appears to be related to ngob, given the similarity of its form and function. The formative -wu is attested as a restrictive focus suffix ‘only’. It can only tentatively be identified as a constituent of ngobbu since is hard to see a plausible semantic development for the combination, nor am I certain whether its initial consonant hardens after /b/ (it does not after /k/, for instance).31

(4.109) Ngayi nga-ngundje mawa **ngobbu** Kurlinjmarr Ledjeledjel  
I 1SG.NF-say.NP FF both K L  
kabarra-wunjdji-yinj.  
3DU.NF-hide-REFL.PST  
'My grandmother and grandfather Kurlinjmarr and Ledjeledjel both hid themselves.'  
[20150206AS03/06:12–17]

There are only two instances of nunu found in texts (4.110), but its semantics is confirmed in elicitation. This morpheme is also mentioned as a component of the plural form of the oblique first person inclusive pronoun -ngarrku-nunu by Coleman (n.d.: 12); see §4.4.1 for an argument against such an analysis.32

31. At the same time, the Mawng quantifier yirrkju ‘both’ has the same structure, i.e. a universal quantifier with a suffix ‘only’ (Singer et al. 2015).
32. The function of korro in (4.110b) is not clear at present.
The universal D-quantifiers are not specified for distributivity. Thus, we find collective uses of ngob ‘all’ (e.g. (4.108c)), but it is compatible with distributive use as well, cf. (4.111):

        DEM.PROX.LOC DEM.MED.IV 1.INCL.NF-sit.NP all
        ‘We’re all going to stay here.’  
        [IK1-160624_002-01/01:48–51]

    b. Korro kunbuy nunu kadda-djarrang.  
        DEM.MED.LOC ant.nest all 3PL.NF-eat.PST
        ‘They ate all those ant nests.’  
        [20060814IB05/01:25–29; translation mine — IK]

The universal D-quantifiers are not specified for distributivity. Thus, we find collective uses of ngob ‘all’ (e.g. (4.108c)), but it is compatible with distributive use as well, cf. (4.111):

        children 3PL.NF-get.NP two sandwich all
        ‘[at school for lunch] Children get two sandwiches each.’  
        [IK1-170601_1SY-01/43:26–32]

        It does not, however, enforce a distributive interpretation. This can be achieved through the use of the A-quantifier baba- ‘distr’ (see §§4.6.3.2 and 6.4.1) or the duplicated numeral kudji ‘one’ (see subsection 4.6.2.1.1).

4.6.3.2 A-Quantifiers

The universal A-quantifiers in Kunbarlang are the prefix baba- ‘distr’ (4.112) and the free word kirdirrkkirdirrk ‘always’ (4.114). The verbal prefix baba-, like the rest of the verbal quantificational prefixes, has scope over arguments, rather than events. It provides a distributive reading of some plural participant of the verb (agent in (4.112a) and theme in (4.112b)); see also §6.4.1.

        3PL.NF-DISTR-get.NP two NM.ILLII sandwich
        ‘They get two sandwiches each.’  
        [IK1-170607_1SM-01]

    b. Ka-baba-kalng.  
        3SG.NF-DISTR-get.PST
        ‘S/he has got some of each.’  [Speaker demonstrates by pulling one block from each of three piles of construction blocks]  
        [IK1-160429_000-01]

This prefix requires some plural participant, i.e. it does not just mean ‘separately’: compare the ungrammatical (4.113a), where the only participant is singular, and (4.113b).
Other devices are available to express meanings like ‘alone’, e.g. the numeral ‘one’ (4.113c).

\[(4.113)\]  
\[\text{a. } \text{*Nga-nganj-baba-kidanj.} \text{ } \text{1SG.NF-HITH-DISTR-GO.PST} \]
\[\text{Intended: ‘I came alone.’} \quad [\text{IK1-160429_000-01/16:14–16}]\]
\[\text{b. } \text{Ngana-nganj-baba-kidanj.} \text{ } \text{1DU.EXCL.NF-HITH-DISTR-GO.PST} \]
\[\text{‘We two came here separately.’} \quad [\text{IK1-160429_000-01/17:20–22}]\]
\[\text{c. } \text{Ngarra-kudji nga-nganj-kidanj.} \text{ } \text{1SG-ONE 1SG.NF-HITH-GO.PST} \]
\[\text{‘I came alone.’} \quad [\text{IK1-160429_000-01/18:55–57}]\]

The adverbial \textit{kirdirkkirdirrkk}, on the other hand, quantifies over events:

\[(4.114)\]  
\[\text{a. } \text{Ka-ka=kulkkulk} \text{ } \text{ki\textit{dirrkkirdirrkk.}} \text{ } \text{3SG.Real-go.NP=run always} \]
\[\text{‘S/he goes running always/every day.’} \quad [\text{IK1-160719_001-01/06:28–29}]\]
\[\text{b. } \text{Nga-ngunjdie exercise} \text{ } \text{ki\textit{dirrkkirdirrkk.}} \text{ } \text{1SG.NF-say.NP exercise always} \]
\[\text{‘I do exercise every day.’} \quad [\text{IK1-170606_1SY-02/24:34–44}]\]

It is notably more difficult to verify the quantificational force of the quantifiers over events, as the precise scenarios are not as easily constructed with visual stimuli. Thus, the division between meanings like ‘often’ and ‘always’ is always more tentative in the present discussion than, for instance, the division between ‘many’ and ‘all’.

\[4.6.3.2.1\] \textbf{Quantifier \textit{munguy} ‘a long time’} At the moment I refrain from a determinate classification of the quantifier \textit{munguy} (and its reduplicated form \textit{munguy-munguy}) according to its force. It is most often found as an adverbial (thus, an A-quantifier), the core meaning of which appears to be ‘a long time’ (4.115).

\[(4.115)\]  
\[\text{a. } \text{Ngayi nga-wom Marnawukan} \text{ } \text{munguy.} \text{ } \text{1SG.NF-return.PST Maningrida a_lot} \]
\[\text{‘I went back to Maningrida [and stayed there] for a long time.’} \quad [\text{20060620IB03/20:47–50}]\]
\[\text{b. } \text{Ngadda-kidanj} \text{ } \text{munguy-munguy ngadda-bing.} \text{ } \text{1PL.EXCL.NF-GO.PST RDP-a_lot 1PL.EXCL.NF-EXIT.PST} \]
\[\text{‘We went on for ever and then we arrived.’} \quad [\text{20140704IOv02/00:18–20}]\]
This idea of a prolonged time period gives rise to several developments, such as ‘still’ (4.116a) or the universal reading ‘always’/’every day’ (4.116b).

(4.116) a. Doctor ka-ngan-marnanj-ngunda na-wanjak wam kinj-rdam
    doctor 3SG.NF-1SG.OBJ-BEN-say.PST 1-small honey 2SG.IRR-put.NP
    karra tea, la karlu, munguy nga-rdam ki-ngana.
    DEM.MED.LOC tea CONJ NEG.PRED a_lot 1SG.NF-put.NP II-big

    ‘Doctor told me to put less sugar in my tea, but in vain, I still put a lot.’
    [speaker’s rendering: “I’m still putting big mob”]
    [IK1-160802_002-01/16:50–18:01]

b. Ka-ka=kulkkulk munguy.
    3SG.Real-go.NP=run a_lot

    ‘S/he goes running always/every day.’
    [IK1-160719_001-01/06:08–10]

The D-quantifiers described in §§4.6.2.1 and 4.6.2.1 above are constituent parts of noun phrases. Within noun phrases, they are often found cooccurring with noun markers (e.g. kaburrk mayi sandwich ‘two sandwiches’ in (4.112a)). Noun markers are the topic of the next section.

4.7 Noun markers

The noun markers (NMs) are determiners, agreeing with the head noun in noun class (§4.4; example (4.10), repeated below).

(4.10) Noun marker class agreement

a. nayi kirdimarrk ‘the man’

b. ngayi barramimbanj ‘the woman’

c. mayi mankarre ‘the law’

d. kuyi njunjuk ‘the water’

They are optional in the noun phrase, and are not associated with any familiar determiner semantics, such as (in)definiteness, specificity or novelty. The main function of noun markers is to signal that a group of words is a nominal phrase, especially evident in relative clause formation ((4.117) and §8.4).
(4.117) Nga-yi ngunda ngarra-mabulu \[RC mayi ngal-buk=bonj
I not 1SG.IRR.NP-like.NP NM.III II-person=exactly
ka-kinje].
3SG.NF-cook.NP
‘I don’t like what she cooks.’

They can occupy any position within a nominal phrase, except the final/rightmost
((4.118); see other examples and discussion in §3.2.6 and §7.1.4), and can occur more
than once in a noun phrase ((4.118e) and (4.119)).

(4.118) IK1-180601_1SY-01/45’ ff.

a. Nga-djarrang [mayi man-rnunu kandiddjawa].
1SG.NF-eat.PST NM.III III-he.GEN bread
‘I have eaten his damper.’

b. Nga-djarrang [mayi kandiddjawa man-rnunu].

c. Nga-djarrang [kandiddjawa mayi man-rnunu].

d. Nga-djarrang [man-rnunu mayi kandiddjawa].

e. nga-djarrang [mayi man-rnunu mayi kandiddjawa].

f. *Nga-djarrang [kandiddjawa man-rnunu mayi].

g. *Nga-djarrang [man-rnunu kandiddjawa mayi].

(4.119) Nga-rnay [nayi na-warri nayi durduk].
1SG.NF-see.PST NM.I I-bad NM.I dog
‘I saw a cheeky dog.’

The pair of examples in (4.120) shows that specificity is not encoded by the noun
markers and that they are compatible with indefinite readings of NPs. The first example,
(4.120a), provides a context for the specific reading of *yiwarudj ‘church’, where the
referent is clearly identified (also with the help of an auxiliary picture during elicitation).
The second one, which continues the “story”, sets up an intensional context, forcing
the non-specific reading of the same noun. In both examples, the noun marker (kuyi,
class IV) may be used optionally.
(4.120) a. Missionary ka-nganj-kidanj ka-marnbum (kuyi) yiwaruddj, missionary 3SG.NF-HITH-go.PST 3SG.NF-make.PST NM.IV church la ngondo ngorro ka-dja. CONJ DEM.PROX.IV DEM.MED.IV 3SG.NF-stand.NP ‘The missionary came and built a church, and it’s standing there.’ [SY Jul2017]

b. La babi ka-kidanj kun-barrkidbe yalbi kanj-marnbunj CONJ later 3SG.NF-go.PST IV-other country 3SG.IRR-make.NP (kuyi) yiwaruddj. La ngunda ki-marnbuni, babi NM.IV church CONJ not 3SG.IRR.PST-make.IRR.PST later la ka-warr-minj. CONJ 3SG.NF-bad-INCH.PST ‘Later he went to another country to build a church, but never built it, as he died.’ [SY Jul2017]

In (4.121–4.123) I give a selection of low-referentiality contexts containing noun markers: generics (4.121), negation (4.122) and questions (4.123). These contexts ensure that the noun phrase (containing a NM in all of these cases) does not have an individual referent.

(4.121) Nayi kirdimarrk ka-karrme kaburrk djanga la kaburrk burre. NM.I man 3SG.NF-hold.NP two foot CONJ two arm ‘A man has two arms and two legs.’ [IK1-160802_000-01]

(4.122) Kenda karlu nayi wombat kenda Mardbalk. DEM.PROX.LOC no NM.I wombat DEM.PROX.LOC S.Goulburn ‘There aren’t any wombats here on South Goulburn Is.’ [IK1-160802_000-01]

(4.123) Barda nayi barbung ka-kalng? what NM.I fish 3SG.NF-get.PST ‘What sort of fish did he catch?’ [jonah_160512]

The noun markers can combine with proper names:

(4.124) Nga-ngunda bi-ngadju ngayi Sylvia. 1SG.NF-say.PST DAT-she GEN NM.II S ‘I said to Sylvia.’ [20060901IB02/01:38–41]
The noun markers cannot be the single constituent of the noun phrase (4.125) and thus are not used for anaphora.

(4.125) Q: Sandra ka-kinje neyang?
    S 3SG.NF~cook.NP food
    ‘Is Sandra cooking food?’ [IKi-170613_1SM-01/29:49–53]
    A: Yoh, ngal-buk=bonj ka-kinje mayi *(neyang).
        yes II-person=exactly 3SG.NF~cook.NP NM.NI food
        ‘Yes, it is she [who is cooking food].’ [ibid./31:40–32:04]

The requirement that there be other nominal material following a noun marker is a useful test for presence of noun phrase structure; for instance, it is applied in relative clause identification (§8.4.2). 33

Kunbarlang noun markers almost pass Himmelmann’s (2001: 832) definition of articles. That definition includes three criteria:

1. this grammatical element occurs only in nominal expressions
2. its position within such expressions is fixed relative to the head
3. this element cannot be used independently of some nominal head

As I have shown, the first and the third criteria are essential for the noun markers in Kunbarlang. The second criterion is trickier, as they may appear on either side of the head, being only prohibited from the NP-final position. Nevertheless, they are interesting from this point of view of being considerably close to articles, a functional category claimed to be largely absent in Australian languages (e.g. Dixon 2002: 66). Thus Kunbarlang contributes data to the emerging typology of article-like elements in Australia, indeed, in the languages of Arnhem Land. B. Baker (2008a) argues that in the Gunwinnguan languages Ngallakgan and Wubuy, as well as in Marra, another non-Pama-Nyungan language from southeast Arnhem Land, noun class prefixes function similar to articles, indicating topicality of the referent and the scope of clausal operators. In Mawng the article prevails in the post-verbal NPs, but not in the ones in the pre-verbal position (Forrester 2015: ch. 5). Forrester suggests that it may be related to information structure sensitivity, potentially an avoidance of non-discourse neutral positions in front of the verb (e.g. p. 12). At present I have seen no indication of a similar sensitivity in the Kunbarlang noun markers, but in the future a large-scale corpus study of their distribution may uncover some heretofore unnoticed patterns.

33. The articles, or noun markers, in Mawng also have the relative clause-marking function (Forrester 2015: 80).
Chapter 5

Verbs: inflectional morphology

The verb is arguably the most complex and morphosyntactically elaborate part of the Kunbarlang grammar. The verb features templatic organisation with a prevalence of prefixes, but also a few suffixal slots; these affixes represent inflectional categories and derivational possibilities. There is little in the way of morphophonology in Kunbarlang (§2.7), with affixes combining in an agglutinating fashion. This simplicity, however, is generously compensated by the large number of conjugational classes and formidable agreement paradigms.

I divide the presentation of the Kunbarlang verb and certain associated constructions into two chapters: the present chapter covers the phenomena in the domain of inflection, while Chapter 6 deals with the morphosyntax of derivation within the verbal domain. The areas relevant for inflection of the Kunbarlang verb are, essentially, agreement and expression of tense/mood values, and these two main areas are interconnected to the extent that the obligatory subject prefixes encode part of the tense/mood information within a system of so-called composite TAM marking. The personal prefixes, which appear in the verb’s leftmost edge, are the subject of §5.2. The tense and mood system of the verbal stem, which gives rise to a sizeable set of conjugational classes, is described in §5.3. Section 5.4 discusses the combinatorial nature of the tense and mood expression in Kunbarlang, and section 5.5 goes into the detail of what temporal and modal meanings this system encodes. Chapter 6 on derivational morphosyntax continues the discussion of the verb from the point of view of argument structure alternations and other ways of modifying event descriptions in Kunbarlang.

The verbal template is shown in table 5.1. Its general structure is fairly typical of the languages in the Gunwinyguan family: the leftmost prefixes are the agreement with the verb’s arguments, between them and the stem there is an array of incorporation and argument derivation slots, and after the stem there are suffixes for the reflexive/reciprocal derivation and TAM categories. Compare the (somewhat more elaborate) verbal template of Bininj Kunwok in table 5.2 below, which shows that in Bininj Kunwok the general structure of the verbal word is very similar to that in Kunbarlang.

The leftmost two slots of the Kunbarlang verb are the personal prefixes, which
Table 5.1: Verbal template in Kunbarlang

<table>
<thead>
<tr>
<th>-9</th>
<th>-8</th>
<th>-7</th>
<th>-6</th>
<th>-5</th>
<th>-4</th>
<th>-3</th>
<th>-2</th>
<th>-1</th>
<th>0</th>
<th>+1</th>
<th>+2</th>
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</thead>
<tbody>
<tr>
<td>Subject</td>
<td>Object</td>
<td>Benefactive</td>
<td>Delimitative</td>
<td>Directionals</td>
<td>Incorp. Qfr.</td>
<td>Incorp. noun</td>
<td>Incompletive</td>
<td>Comitative</td>
<td>Stem</td>
<td>RR</td>
<td>TAM</td>
</tr>
</tbody>
</table>

are obligatory. Valency-increasing derivations of the benefactive and the comitative are marked in slots -7 and -1, respectively. Slots -6, -5, -4, and -2 host incorporated adverbials, and slot -3 hosts incorporated nominals. The RR (slot +1) stands for the reflexive/reciprocal suffix. The TAM morphology in Kunbarlang is an area where division into morphemes is complicated due to the great number of conjugational classes and the remainder of the irregular verbs; see §5.3 for details. In examples below, which illustrate some combinations of verbal affixes, I separate the TAM suffix of the regular verbs, and show TAM values of the irregular stems as cumulative. The convention throughout this grammar, however, is to show all TAM values of the stem as cumulative, e.g. -bingki “-exit.np”.

Some of the ordering options are exemplified in the following examples. The subject slot is present in every verb, being the leftmost prefix. Example (5.2) shows slots -6 and -3: Example (5.1) also shows the object prefix in slot -8, the incompletive prefix in slot -2, and a TAM suffix in slot +2.

(5.1) Nga-buddu-woh-wu-y.
    1sg.nf-3pl.obj-incp-give-pst
    ‘I gave them a part [of something].’ [IK1-160503_000-01/01:13:52]

(5.2) Ngayi nganj-rnak-kodjkodj-bingki.
    I 1sg.fut-lim-head-exit.np
    ‘I’ll only stick out my head.’ [IK1-180601_1SY-01/23:16–19]

Example (5.3) shows slots -7 and -3:

(5.3) Nganj-ka nganj-marnanj-bardi-kali njunjuk.
    1sg.fut-go.np 1sg.fut-ben-liquid-get.np water
    ‘I’ll go get water for him/her/it.’ [IK1-180605_1SY-01/30:02–05]

Example (5.4) shows prefixal slots -5 and -1, and suffixal slots +1 and +2.
Table 5.2: Verbal template in Bininj Kunwok

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</thead>
<tbody>
<tr>
<td>-12</td>
<td>-11</td>
<td>-10</td>
<td>(-9)</td>
<td>(-8)</td>
<td>(-7)∗</td>
<td>(-6)∗</td>
<td>(-5)</td>
<td>(-4)</td>
<td>(-3)</td>
<td>(-2)</td>
<td>(-1)</td>
<td>(E-4)</td>
<td>(E-3)</td>
<td>(E-2)</td>
<td>(E-1)</td>
<td>(E-0)</td>
<td>(+1)</td>
<td>0</td>
<td>(+1)</td>
</tr>
</tbody>
</table>

(5.4) Kinj-nganj-walkki-rda-yi-∅ korro yirrk!

2SG.FUT-HITH-COM-PUT-REFL-NP DEM.MEDIA.LOC inside

'Bring it inside!' [IK1-180518_1SY-01/37:14–16]

The arrangement of incorporated adverbials amongst themselves and with respect to the other prefixes is further illustrated in §6.4.

As in other Gunwinyguan languages (Evans 2003a: 336), Kunbarlang verbal stems can be simple or complex. Although both types are synchronically monomorphemic, the complex ones are bimorphemic historically. They consist of a so-called PREPOUND and THEMATIC (the terms are Evans’s (ibid.)). THEMATICS are essentially the same elements as the simple stems, and they determine the conjugation class.¹ For instance, there is the verb -bunj ‘to hit’ (5.5a).² Besides being a simple stem on its own (5.5a), it serves as the thematic in a multitude of complex stems (5.5b–c).

(5.5) a. Ki-buddu-bu-∅.

3SG.IRR.NP-3PL.OBJ-hit-IRR.NP

'It would kill them.' [20150206AS03/07:16]

b. Mabidj kinj-ngi.bu-nj na-kaybi nukka.

YB 2SG.FUT-call-NP 1-who he.1

'Call your little brother’s name.' [20060620IB03/27:37–41]

c. Kadda-rnak-marn.bu-m but merrek kidda-bularr.bu-ni.

3PL.NF-LIM-make-PST ENG not 3PL.IRR.PST-finish-IRR.PST

'They only partially built that house, but didn’t finish it.' [IK1-150725_001-01/09:29–33]

All tense/mood suffixes in (5.5) are determined by the thematic -bunj, i.e. they are the same that the simple verb ‘to hit’ would have in the respective tenses. Kunbarlang

1. There is one thematic that does not occur as a simple stem, but only in complex stems, dje; see §5.3.

2. The citation form for verbs is the stem with the realis non-past suffix.
prepounds derive from a variety of historical sources: incorporated nouns that froze together with the thematic (such as *ngi* in (5.5b) from *kingi* ‘name’, which has a historical class II prefix *ki*; see §6.3 on noun incorporation and its productivity criteria), secondary predicate incorporation (e.g. *-djarrak.rna* ‘to be alive’ from *djarrak* ‘healthy’; this is not a productive process in Kunbarlang, but is in Bininj Kunwok (Evans 2003a: 481)), or unidentifiable, perhaps, cranberry morphs (such as *marn* and *bularr* in (5.5c)).

Verbs (i.e. verbal stems) are a closed class category in Kunbarlang. As discussed in §3.2, this refers to the fact that new words cannot be added to this class: new predicates are loaned from English as uninflecting preverbs to be used in the preverb construction (§3.2.5.2). Thus, the class of verbs is finite, but it is not small: currently about 450 verbs have been recorded, including 50 simple stems, on the basis of which the rest are built. The simple stems are diverse both formally and semantically (the majority among them are the verbs of motion, perception, transfer, consumption, and destruction). This diversity can be appreciated in §5.3 (tables 5.13 and 5.15), along with complexity of the conjugational classes that these verbs are divided into.

Before exploring the verbal form in greater detail, I discuss grammatical relations in Kunbarlang (§5.1), understanding of which is instrumental for most of the other topics.

### 5.1 Definitions: grammatical relations

Following Bickel (2010), who emphasises the construction-specific nature of grammatical relations, I understand them here as classes of arguments treated the same way by some construction in the given language. Based on three diagnostic constructions in Kunbarlang — verbal agreement, reflexive/reciprocal, and noun incorporation — I distinguish the following five grammatical roles in Kunbarlang: SUBJECT, PRIMARY OBJECT, SECONDARY OBJECT, BENEFACTIVE OBJECT, and COMITATIVE OBJECT. The subject is set apart from the four objects because of its distinct behaviour regarding agreement: it is cross-referenced in the dedicated subject slot (see table 5.1 for the verb’s morphological template). The four objects compete for being indexed in the verb’s only object slot, but are classified by their relation to reflexive/reciprocal derivation, agreement, and noun incorporation as is detailed in the rest of this section. Table 5.3 offers an economical way to present these four classes of objects. This is not an exhaustive list of the objects’ properties, but should be taken as a heuristic for classifying a given argument, like a decision tree read from left to right.

Within the argument structure of a given predicate as used in speech, it is useful to draw a distinction between the core arguments and the oblique arguments. The former ones include all arguments that can be subcategorised for by the verbal stem: the subject and the primary and secondary objects. The latter ones include the remaining two objects, which are not subcategorised for but are promoted to the argument status from
Table 5.3: Classification of Kunbarlang objects

<table>
<thead>
<tr>
<th>RR</th>
<th>Index in Obj.slot</th>
<th>Incorporation</th>
<th>primary object</th>
<th>secondary object</th>
</tr>
</thead>
<tbody>
<tr>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>primary</td>
<td>comitative</td>
</tr>
<tr>
<td>no</td>
<td>yes</td>
<td>no</td>
<td>secondary</td>
<td>benefactive</td>
</tr>
</tbody>
</table>

the benefactive and the comitative adjuncts, respectively. The applicatives involved in this promotion are discussed in §§6.1.1 and 6.1.2.

Stepping back and looking at the family level, one finds that the notion of grammatical relations appears somewhat elusive in the Gunwinyguan languages, at least with respect to the distinction between direct and indirect objects. For instance, Evans defines the ‘true objects’ (i.e., direct ones) in Bininj Kunwok as those that are neither subjects nor indirect objects. The latter ones are in turn defined in terms of agreement: an IO is “that argument of a ditransitive verb which is represented in the second pronominal prefix slot” (Evans 2003a: 391). To avoid problems with thematic role to grammatical function matching, I adopt a different approach and instead of direct and indirect objects use the terms **primary** and **secondary object** (in Dryer’s (1986) terminology; they are also sometimes called **first** and **second** objects). But first I shall define the subjects, which seems the easiest and therefore a good place to start (5.6).

(5.6) **Subjects** are the arguments cross-referenced in the subject slot.

Every verb has a subject in the sense of (5.6) (that is, it is not necessarily expressed by an overt nominal). In Kunbarlang, there are no subject-demoting transformations, such as the passive voice. Having confined the subject arguments to those indexed in the subject slot (the leftmost prefix slot of the verb), we turn to the object slot, which follows immediately.

(5.7) a. **Primary objects** are the underlying objects cross-referenced in the object slot. These are, basically, the Goal/Source arguments of the ditransitives and Themes of monotransitives;

b. **Secondary objects** are the (overt or understood) underlying arguments of ditransitives which are not cross-referenced in the object slot.

It is important in the definition (5.7) that these two objects are *underlying*, i.e. part of the verbal stem’s argument structure unmodified by any argument derivations.

---

3. It is worth noting that the Gunwinyguan languages are not unique in this respect, and difficulties arise in some other Australian languages, esp. with regards to the definition of the indirect objects (e.g., Evans (1995b: 97–99) on grammatical relations in Kayardild) and sometimes objects more broadly (e.g., Nordlinger (2011) on the bivalent constructions in Murrinhpatha).
terms of the place of Kunbarlang in the object alignment typology, (5.7) amounts to the generalisation that Kunbarlang shows **secundative alignment** (or, more specifically, **secundative indexing**) of objects, i.e. the Patient-like arguments of monotransitives are treated in the same way as the Recipient/Goal/Source-like arguments of ditransitives with respect to agreement (Haspelmath 2005). The following pair of examples shows that the second person Theme of the transitive verb -burrbunj ‘know’ (5.8a) receives the same object agreement as the Goal of the ditransitive verb -wunj ‘give’ (5.8b):

(5.8) a. Ngayi **nga-ngun-burrbunj** Mary.
   I 1SG.NF-2SG.OBJ-know.NP M
   ‘I know you, Mary.’ [20060901IB02/07:07–09]
   b. Korro ngudda kun-nungku yalbi kadda-bum ninda
      dem.med.loc you IV-YOU.GEN country 3PL.NF-hit.PST DEM.PROX.I
      la **rubbiba** balikme **kanjbadda-ngun-wunj**.
      conj money today 3PL.FUT-2SG.OBJ-give.NP
      ‘This is your country where they killed this [crocodile] and they will give
      you money today/now.’ [20060620IB04/11:36–45]

We see in (5.8b) that the Goal-like argument of -wunj ‘give’ is indexed in the object slot of the verb, but the Patient-like argument, i.e. the object of the transfer, is only expressed by a free NP, and is not indexed in the verb. The same pattern is found with other (underived) ditransitive verbs, which are listed in §6.2.3.1.

Both the primary (5.9a) and the secondary (5.9b) object can be bound by the reflexive/reciprocal (RR) suffix (§6.1.3).

(5.9) a. Lerrk **kabarra-wu-dji**.
   word 3DU.NF-give-REFL.NP
   ‘They are talking [lit. ‘giving each other words’].’
   [IK1-160809_000-01/29:50]
   b. Kudjurn kadda-ngeme-yinj kenda.
      white_clay 3PL.NF-paint-REFL.PST DEM.PROX.LOC
      ‘They painted themselves with clay here.’
      [IK1-160624_000-01/03:39–41]

The ability to interact with the reflexive/reciprocal derivation sets the primary and secondary objects apart from the oblique objects, i.e. the benefactive and the comitative ones, which cannot be bound by the RR; see §6.1.3 for details. I introduce these two grammatical functions in turn.

I chose **benefactive** (§6.1.1) as the representative of a considerable range of thematic
roles, which can be realised via one of two alternative constructions. One construction involves a dative-marked free NP adjunct to the verb (5.10a). The other is with the benefactive applicative (5.10b), whereby the verb has the prefix *marnanj*- ‘*ben*’ and the free NP is promoted to an object and is in the direct case (see §4.2 on case and §6.1.1 for more on the benefactive applicative).

(5.10) a.  Ngayi nga-bareng-minj bi-rnunug nukka kirdimarrk.  
I 1sg.NF-dangerous-INCH.PST DAT-he.GEN he man  
‘I’m angry with him.’ [IK1-160615_1IK-01]

b.  Ka-bun-marnanj-bareng-minj, kukkan ngundje  
k kidnmaybe  
3sg.NF-3sg.OBJ-BEN-dangerous-INCH.PST  
‘He’s so angry with her, he might just hit her.’ [IK1-160728_1SM-01]

For completeness, compare (5.10a) with (5.11). In the former, there is no benefactive prefix on the verb, and the noun phrase has to be case-marked with the help of the dative pronoun. In (5.11), however, the noun phrase appears in the direct case, due to the presence of *marnanj-* in the verb.

(5.11) Ngana-marnanj-kelkkuyinj na-wuk bonj Paspaley.  
1DU.EXCL.NF-BEN-work.PST i-person=exactly P  
‘We two worked for Paspaley [in the pearling industry].’  
[20060620IBo3/09:43–47; translation mine – IK]

Benefactive arguments do not incorporate into verbs; see §6.3.3.

Finally, there is another thematic role relevant for the grammatical function inventory of Kunbarlang, the comitative (5.12).

3PL.NF-hit-REFL.PST with shovel_spear  
‘They were fighting with shovel spears.’ [IK1-180605_1SY-01/25:45–47]

b.  Ka-kalng nayi djurra la ka-walkki-bing.  
3sg.NF-get.PST NM.I paper CONJ 3sg.NF-COM-exit.PST  
‘He bought a book and walked away with it.’ [IK1-160505_001-01]

---

4. This family of thematic roles may be termed affected participant; cf. Horrack (2018: 6–9), who uses the term affectee in her discussion of Wubuy.
The comitative both bears similarity to and shows difference from the benefactive (affectee) role(s). Similarly to the benefactive adjuncts/objects, semantically it is not subcategorised for, and is almost always interpreted compositionally, bearing a fixed thematic role regardless of the particular predicate it is added to (for details, see §6.1.2). Its usual meaning is the comitative, whence the name.

Another similarity to the benefactive is that there are two alternative constructions for the comitatives. One is the comitative adjunct with walkki ‘with’ functioning as a preposition (5.12a). The other is the promotion of that participant to the comitative object, whereby walkki- occurs in the comitative slot of the verb, as an applicative (5.12b). In the latter case the comitative NP appears as an argument marked for the direct case (5.13).

(5.13)  Ka-ngan-balkki-rnay kun-bareng nayi djamun la
        3SG.NF-1SG.OBJ-COM-see.PST IV-dangerous NM.1 policeman CONJ
        nga-wundjinj. 1SG.NF-hide.PST
        'The policeman saw me with grog and I hid it.' [IK1-160816_1SY-01]

Similarly to the benefactive, comitative objects cannot feed reflexive/reciprocal derivation (see §6.1.2). What distinguishes them from the benefactives, though, is that comitative objects can incorporate into verbs (5.14):

(5.14)  Nganj-lerrk-walkki-wonj bi-rnungu balanda.
        1SG.FUT-word-COM-return.NP DAT-he.GEN whitefella
        'I will translate [lit. 'return with words'] for the whitefella.'
        [IK1-180601_1SY-01/01:16:32–37]

With the definitions and taxonomy established here, I move on to discuss the morphosyntax of verbal agreement in the next section.

The rest of this chapter is structured as follows. The morphology of verbal agreement is described in section 5.2. Conjugational classes and the construction of composite TAM marking are the subject of sections 5.3 and 5.4. The range of modal and temporal meanings that these composite forms express is discussed in §5.5.

5.2 Agreement

The verb in Kunbarlang exhibits polypersonal agreement with the ability to index (up to) two of its arguments with personal prefixes, just as in other Gunwinyguan languages. At the same time, one argument is marked obligatorily in every verb, i.e. there are no
verbs without any participant cross-reference. This means that every verbal word has one or two personal prefixes in it — the subject and an object, if the verb has one. See section 5.1 for an exposition of the grammatical functions relevant for Kunbarlang. The personal prefixes paradigm has separate morphemes for subject and object arguments throughout (5.15), which appears unique among the Gunwinyguan languages. The other languages in the family have extensive fusion of subject and object into portmanteaux (along with certain combinations of separate morphemes), as in the Dalabon example (5.16).

(5.15) a. Nawalak ka-malakkidjanganj.
   child 3SG.NF-laugh.PST
   ‘The child laughed.’ [IK1-160505_001-01/1:19:26–1:19:31]

b. Ka-ngun-rnirlakwang.
   3SG.NF-2SG.OBJ-send.PST
   ‘S/he sent you something.’ [IK1-160504_000-01/28:11–28:13]

(5.16) Dalabon (Evans, Brown & Corbett 2001: 206)
   dja-h-ngabbong
   3/2-R-give.PPP
   ‘she bin give you’ [i.e. ‘She gave it to you’ — IK]

As can be seen from the contrast of (5.15b) and (5.16), in Kunbarlang, but not in Dalabon there are separate morphemes for the subject and object arguments. The pair (5.15) also shows that Kunbarlang follows the nominative-accusative alignment in the personal prefixes. In other words, the subject personal prefix of a given person and number is formally expressed by the same element (with a caveat dicussed presently), whether it is the subject of an intransitive or a transitive verb (and that is different from the form used for the object).

However, Kunbarlang has its own form of complexity in the organisation of the pronominal prefix paradigms, namely an exuberant multitude of forms. One facet of this complexity has to do with the mood expression in the subject (see §5.2.1 below). This is a part of the grammatical content of the subject prefix, and thus is always readily visible. The other facet only shows in those transitive verbs whose subject and primary object are both non-singular. Consider (5.15b) again, which has two singular number arguments cross-referenced in the verb, and then compare it with the examples in (5.17), which all have the same person arrangement of the subject and object as (5.15b), but vary in their number values. In (5.17a) the object is plural, but the singular subject is

---

5. In the original source, h- is misglossed as IRR in (5.16).
ka-, the same form as that in (5.15b). In (5.17b), the subject is plural, but the singular object is ngun-, the same form as in (5.15b). In (5.17c), both the subject and the object are plural; however, neither of them has the same form as the (same-person) plural prefixes in the other examples in (5.17). This variation of the prefix form, which depends on the number features of both the subject and the object simultaneously, permeates the entire transitive paradigm in Kunbarlang.

   3SG.NF-2PL.OBJ-DISTR-give.PST
   ‘S/he gave you all something, one each.’ [IK1-160513_000-01/01:53]

b. Kadda-ngun-rnanj kekke=nungku.
   3PL.NF-2SG.OBJ-see.NP bone=YOU.GEN
   ‘They are looking at your bones [i.e. the X-ray].’
   [IK1-170608_1SY-01/44:29–33]

c. Kabarr-ngun-midjbunj.
   3NSG.NF-2NSG.OBJ-wait.NP
   ‘They are waiting for you mob.’ [IK1-180529_1SY-01/2:00:23]

In the situation as in (5.17c) the dual/plural distinction of both the subject and the object is neutralised. Despite the degree of regularity that arises this way, the extent of allomorphy is remarkable. Taking into account the four mood series of the subject, the number of exponents for a particular person/number value can reach 13 (e.g. for the third person plural; out of the logical maximum of 28). This dimension of allomorphy in the transitive paradigms has been heretofore undescribed for Kunbarlang.

In the next section I present the morphology of these personal prefixes in two steps: first, the forms that are used in intransitive verbs and the transitive verbs with a singular agreeing argument; then the non-singular transitive verbs. I argue, based on the regularities both in the specific forms and in the overarching pattern, that these forms are better analysed as allomorphy than as subject-object portmanteaux, although the system appears to be in a transitional state. Then I show that the third person singular subject is numberless (§5.2.2) and review the conditions on the expression of the third person singular object (§5.2.3). Taken together, these facts about the agreement paradigms reflect the recurrent number neutralisation in Kunbarlang.

5.2.1 The personal prefixes

Despite the systematic parsability of subjects and objects, discussed above, Kunbarlang prefixes are not purely agglutinating. They pack together information about the argument PERSON and NUMBER, and the subject series also encodes one of the four
The mood and the tense of the subject interact with those of the stem in a combinatorial fashion to yield the full tense/mood specification of the verb; see §§5.4 and §5.5. There are three persons: first, second and third. The number system encodes three numbers: singular, dual and plural. There is also the clusivity distinction in Kunbarlang, defined on first person forms. This is illustrated below with a paradigmatic opposition (5.18): the availability of the overt personal pronouns highlights the difference in readings.

(5.18) a. Ninda (la) ngayi ngana-ka korro wadjbud.
   dem.prox.1 conj i 1du.excl-nf-go.np dem.med.loc beach
   ‘He and I, we [exclusive] are going to the beach.’

b. *Ngudda ngayi ngana-ka korro wadjbud.
   you i 1du.excl-nf-go.np dem.med.loc beach
   ‘You and I, we [exclusive] are going to the beach.’
   [IK1-160518_001-01/22:16–23:33]

c. Ngudda (la) ngayi ngarrki-ka korro wadjbud.
   you conj i 1.incl.fut-go.np dem.med.loc beach
   ‘You and I, we [inclusive] are going to go to the beach.’
   [IK1-160518_001-01/21:56–22:06, also 24:04–08]

d. *Ninda ngayi ngarrki-ka korro wadjbud.
   dem.prox.1 i 1.incl.fut-go.np dem.med.loc beach
   ‘He and I, we [inclusive] are going to go to the beach.’
   [IK1-160518_001-01/23:54–24:08]

Manipulating the conjoined subject between ‘you and I’ and ‘he and I’ in (5.18) allows to unveil the clusivity component in the prefixes ngana- (dual exclusive) and ngarrki- (non-singular inclusive). The exclusive prefix “blocks” the addressee (i.e. the second person pronoun ngudda) from forming a set with the speaker (ngayi) — hence the ungrammaticality of (5.18b). Conversely, the inclusive prefix requires the addressee to be included. Noteworthy is that even the non-singular is interpreted as dual in the presence of an overt subject that mentions two people. This is evident in (5.18d), where the exclusion of the addressee from the list together with an inclusive prefix produces the infelicity effect. If that was not the case — and given that Kunbarlang has the inclusory construction, see §4.4.2 — the addressee should have been able to be construed as implicitly included, and the number as plural: “he and I, and, implicitly, you”.

To summarise, the categories expressed in the personal prefixes are:

- grammatical function (subject or object)
I have mentioned above that there is considerable allomorphy of the prefixes in the transitive paradigm. This allomorphy is mostly related to the configurations where both agreeing arguments of a transitive verb are non-singular (that is, dual, plural or inclusive), although there are some first and second person combinations that have allomorphs even when both prefixes are singular (discussed and exemplified below). I introduce the paradigms in two steps. First, in tables 5.4–5.7, I give the forms of the subject that are used with intransitive verbs (and with most transitive verbs that have at least one singular agreeing argument); each table shows a different tense/mood subparadigm. Object prefixes for the transitive verbs with a singular subject or object are listed in table 5.8. The tables are based on Coleman (n.d.: 13–15), although I have changed a few forms that differed in my fieldwork from hers. The forms that differ are listed after each subparadigm table. One general distinction, which I shall not repeat for each table, is that I hear and transcribe a lenis, rather than fortis, velar stop in all of the first person inclusive forms, i.e. ngarrki-[ŋarki] instead of ngarrkki-[ŋarkːi] etc.

Table 5.4: Intransitive subject pronominal prefixes — Realis Non-Future

<table>
<thead>
<tr>
<th></th>
<th>Singular</th>
<th>Dual</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>nga-</td>
<td>ngana-</td>
<td>ngadda-</td>
</tr>
<tr>
<td>Inclusive</td>
<td></td>
<td>ngarrk-</td>
<td></td>
</tr>
<tr>
<td>Second</td>
<td>ki-</td>
<td>ngunu-</td>
<td>ngudda-</td>
</tr>
<tr>
<td>Third</td>
<td>ka-</td>
<td>kabarra-</td>
<td>kadda-</td>
</tr>
</tbody>
</table>

Table 5.5: Intransitive subject pronominal prefixes — Realis Future

<table>
<thead>
<tr>
<th></th>
<th>Singular</th>
<th>Dual</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>nganj-</td>
<td>ngandji-</td>
<td>ngandjidda-</td>
</tr>
<tr>
<td>Inclusive</td>
<td></td>
<td>ngarrk-</td>
<td>ngarrk-</td>
</tr>
<tr>
<td>Second</td>
<td>kinj-</td>
<td>ngundji-</td>
<td>djidda-</td>
</tr>
<tr>
<td>Third</td>
<td>kanj-</td>
<td>kanjbarra-</td>
<td>kanjbadda-</td>
</tr>
</tbody>
</table>

Coleman (n.d.: 13) cites the form ngundjidda- for the ‘2pl.fut’. I have only encountered that form once in my work (see example (5.71)), hearing djidda- otherwise, and
even have been explicitly corrected to this shorter variant from the longer one (5.19). Perhaps the longer form results from some speakers’ regularisation of the paradigm given the first person dual and plural forms and the second person dual form.

(5.19)  
IK1-180529_1SY-01/01:32:10–23


2PL.FUT-swag-wrap.NP

intended: ‘Pack up you mob!’

b. Djidda-yambi-burrdje.

2PL.FUT-swag-wrap.NP

‘Pack up you mob!’

Table 5.6: Intransitive subject pronominal prefixes — Irrealis Non-Past

<table>
<thead>
<tr>
<th></th>
<th>Singular</th>
<th>Dual</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>ngarra-</td>
<td>ngana-</td>
<td>ngatta-</td>
</tr>
<tr>
<td>Inclusive</td>
<td>ngarrak-</td>
<td>ngarrak-</td>
<td>ngarrak-</td>
</tr>
<tr>
<td>Second</td>
<td>kirri-</td>
<td>ngunu-</td>
<td>nguddu-</td>
</tr>
<tr>
<td></td>
<td>ki-</td>
<td>kibarra-</td>
<td>kidda-</td>
</tr>
</tbody>
</table>

Coleman (n.d.: 15) lists first person exclusive dual and plural with a final u (i.e. nganu- and ngaddu-), but I hear and transcribe them with a final a. Also, for third person dual and plural she gives the forms kinbarra- and kinbadda-, respectively. Those are the adjectival forms (see §3.2.2), and the verbal ones are kibarra- and kidda-, e.g.

(5.20)

Ngunda kizza-kalbing djininj mayali, ngayi barrayidjidj.

not 3PL.IRR.NP-get.IRR.NP properly sense NM.PL children

‘They don’t hold the knowledge tight, the kids.’

[IK1-160424_000-01/03:27–30]

Coleman (n.d.: 15) gives ki(yi)- for the second person singular and kayi- for the third person singular. I have only ever encountered the form ki- for both of these.

Coleman (n.d.: 15) lists the plural forms of objects with a final alveolar nasal -n, similar to the dual forms (i.e. ngaddun-, nguddun-, and buddun-). I find that the plural objects do not have that nasal and end in a vowel instead (as in (5.21); but not the numberless inclusive ngarrkun-, to be discussed presently).

Along with the few instances of syncretism that are probably accidental, there is one clear systematic pattern: first person inclusive forms are always identical in dual and
Table 5.7: Intransitive subject pronominal prefixes — Irrealis Past

<table>
<thead>
<tr>
<th></th>
<th>Singular</th>
<th>Dual</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>ngayi-</td>
<td>ngana-</td>
<td>ngadda-</td>
</tr>
<tr>
<td></td>
<td>ngarrk-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inclusive</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Second</td>
<td>ki-</td>
<td>ngunu-</td>
<td>nguddu-</td>
</tr>
<tr>
<td></td>
<td>ki-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Third</td>
<td>ki-</td>
<td>kibarra-</td>
<td>kidda-</td>
</tr>
</tbody>
</table>

Table 5.8: Object pronominal prefixes for singular subjects

<table>
<thead>
<tr>
<th></th>
<th>Singular</th>
<th>Dual</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>ngan-</td>
<td>nganun-</td>
<td>ngaddu-</td>
</tr>
<tr>
<td></td>
<td>ngarrkun-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inclusive</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Second</td>
<td>ngun-</td>
<td>ngunun-</td>
<td>nguddu-</td>
</tr>
<tr>
<td></td>
<td>ngunun-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Third</td>
<td>bun-/Ø-</td>
<td>burrun-/Ø-</td>
<td>buddu-/Ø-</td>
</tr>
</tbody>
</table>

plural. That is, number distinctions are collapsed in all contexts when an argument’s referent includes the speaker and the hearer (5.21).

(5.21) Adjak ka-karrme ki-buddu-bu
sickness 3SG.NF-hold.NP 3SG.IRR.NP-3PL.OBJ-hit.IRR.NP
ki-ngarrkun-bu.
3SG.IRR.NP-1.INCL.OBJ-hit.IRR.NP
'Ve have a sickness, we will kill them, we will kill us (all).'</n:translation mine — IK]

The object form ngarrkun- in (5.21) is underspecified for the number of referent — it could potentially be dual or plural. Since this number semantics — cardinality greater than one — already follows from the meaning of the inclusive form (which by definition involves at least the speaker and the hearer), I regard the inclusive forms as numberless. That is, number as a category is undefined on first person inclusive forms. See §5.2.2 for arguments in favour of numberless analysis of third person ‘singular’ subject prefix.

In this section I am not attempting to exemplify every possible combination of subject and object prefixes, suffice it to give a few diverse examples. Many other combinations can be found elsewhere in the present grammar.

(5.22) Kun-mak kuyi ngundji-nganj-kaburrk-ka.
IV-good NM.IV 2DU.FUT-HITH-TWO-GO.NP
'Ve hope that you two will come together.' [IK1-160505_001-01/28:39–41]
Mayi man-kuk-karlyung nganj-ngun-wunj mayi kundulk.
NM.III III-length-big 1SG.FUT-2SG.OBJ-give.NP NM.III tree
‘I’ll give you a long stick.’ [IK1-160824_tSY-01]

Ngunda kirri-kelbung; karlu, ngunda ngarra-kelbung
not 2SG.IRR.NP-afraid.IRR.NP NEG.PRED not 1SG.IRR.NP-afraid.IRR.NP
nga-ngunda. 1SG.NF-do.PST
‘[They said] Don’t be frightened; No, I’m not frightened, I said.’
[20060901IB02/04:15–18]

Kidda-kangkayini kidda-ngayini djarrebe
3PL.IRR.NP-go.IRR.PST 3PL.IRR.NP-hear.IRR.PST far
ki-wardidji, ki-dji kordorrkordorrk.
3SG.IRR.NP-shout.IRR.PST 3SG.IRR.NP-stand.IRR.PST ONOMATOPOETIC
‘They used to go along hearing them [brolgas] from far away calling out, calling “kordorrkordorrk”.’
[20150212AS02_brolga_transcript/1:33–38]

As I have mentioned above, Kunbarlang personal prefixes exhibit prolific allomorphy in the transitive forms where neither of the prefixes is singular. The full transitive paradigms are presented in tables 5.9–5.12. The tables are followed by a general discussion of the major patterns found in these paradigms.
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Table 5.9: Transitive paradigms: Keels Non-Pure
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Table 5.11: Transitive paradigms: Irrealis Non-Past
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As can be seen from the tables, in each tense/mood subparadigm the singular forms of the subject are systematic within each respective person column, and so are the singular forms of the object, within each respective person row. Essentially, they are the forms from the ‘intransitive subject’ tables 5.4–5.7 and the object table 5.8 above. The notable exclusions are found when a second person subject acts on a first person object:

1. throughout the subparadigms, 1SG.OBJ prefix *ngan-* is reduced to *n-* when the subject is dual or plural second person.

2. in realis non-future and irrealis past, the second person non-singular subject is null.

3. in realis future, the 2SG subject monosyllabic prefix *kinj-* is reduced to its coda *-nj-*. By the law of nasal cluster resolution (§2.7.3), this palatal nasal overrides the velar initial of the object prefix: /ɲ-ɲan/ \(\rightarrow\) [ɲ'yan] etc.

However, when neither the subject nor the object are singular, their shapes rarely match the dual or plural forms of that person/number combination. Irregular, phonologically fused and hard to separate forms for subject/object combinations are widespread in other Gunwinyguan languages, and are customarily analysed as portmanteaux. That potentially could be a simple synchronic analysis for Kunbarlang, due to the irregularities and the disparity of the intransitive and the transitive paradigms. I prefer to discuss these paradigms here in terms of allomorphy. The choice of this label over calling them portmanteaux is not particularly important, but I wish to highlight the regularities found in these formidable transitive paradigms.

Indeed, this allomorphy is not completely random. First of all, there is regularity in the shape of the four paradigmatic tables: there is a very systematic neutralisation of the dual/plural distinction in both subjects and objects, such that regardless of the tense/mood and person, there is always one form for a dual or plural subject acting on a dual or plural object. I gloss these forms as "NSG" to reflect this fact (5.27).

(5.27) a. **Kanjbarra-ngun-midjbu**.

\[3\text{NSG.FUT-2\text{NSG.OBJ-wait.NP}}\]

‘They (dual or plural) will be waiting for you (dual or plural).’

\[\text{[IKi-180608_1PN-01/42:27]}\]

b. **Ngunda ngarr-ngun-midjbu**.

\[\text{not } 1\text{NSG.EXCL.IRR.NP-2\text{NSG.OBJ-wait.IRR.NP}}\]

‘We (dual or plural) can’t wait for you (dual or plural).’

\[\text{[IKi-180531_1SY-01/39:04]}\]
Second, although the variation in form is considerable, there is enough recurrence of form to regard these forms as agglutination of subject and object, so that portmanteaux analysis is not necessary from the point of view of divisibility. For instance, the form ngarrun- (see realis non-future and irrealis past; second person acting on first) appears highly irregular and it may be tempting to analyse it as a portmanteau — but one finds that it is also the 1nsg object form with the 3nsg irr np subject. Taking into account other facts of the second person subject prefix erosion with the first person object (e.g. in the future subparadigm), it seems most natural to analyse ngarrun- as the first person object with a null second person subject. Looking further at the paradigm tables, one finds that the form ngarrun- as the first person non-singular object is found with the third person non-singular subject in the future and in the irrealis non-past. Thus, there are enough cross-combinations of subjects and objects to guarantee their divisibility, i.e. agglutination. There is one form that in some speaker’s production fuses beyond separation: the regular combination ngarra-nungun- (1sg irr np subject and 2sg object) may be contracted to ngarnakun-.

Third, there are a couple of other syncretism regularities. One is that the 3nsg subject plus 3nsg object form is always the same as 3sg subject with a 3du object of the respective tense/mood subparadigm. The non-singular object always has the same form as the singular object (of the same person) in the following combinations (writing $n > m$ for $n^{th}$ person subject and $m^{th}$ person object): $1 > 2$, $1 > 3$, $2 > 3$, $3 > 2$.

Finally, an interesting picture emerges in regard of the first person inclusive forms. Semantically they are all non-singular, by virtue of the inclusive semantics, necessarily adding at least the hearer to the speaker. But whereas all other non-singular forms give rise to the allomorphy patterns discussed above, the inclusive ones do not: when it is the subject, it is fully regular, and as the object it (i) combines with the regular sg–du–pl subject forms, and (ii) has two allomorphs whose distribution is morphophonologically conditioned, the longer one appearing with monosyllabic subjects, and the short one — with polysyllabic subjects, arguably being a truncated variant of the longer one.

The next two sections deal with the question of number in third person subject morphemes (§5.2.2) and the patterns of third person object agreement (§5.2.3), which deserve a special mention.

### 5.2.2 Is third person singular subject singular?

In the presentation of the personal prefixes above they were offered as a set of tables, each combining person and number values. The values of the category PERSON in Kunbarlang are: first, second and third. Those of NUMBER are: singular, dual and plural.

---

6. Realis future forms are somewhat aberrant, but the data on these forms are rather scarce, and I have decided to leave these forms aside until further checking.
However, it seems that not all prefixes are specified for both of these categories. In §5.2.1 it was suggested that first person inclusive forms are in fact unspecified for number. The present section aims to adduce evidence for a similar conclusion about the third person ‘singular’ subject prefixes, namely: realis non-future \textit{ka}-, realis future \textit{kanj}-, and irrealis (past/non-past) \textit{ki}-.

The main evidence to be discussed here comes from the quite widespread use of these ‘singular’ prefixes for non-singular referents, both non-human and human. Consider example (5.28), where the first three instances of the subject prefix cross-referencing a plural referent (one and the same, as it appears) are ‘singular’ and the fourth one appears to be elaboration that provides more exact detail:

\begin{verbatim}
(5.28) Kenda=bonj ka-nganun-yakbum nayi Japani \\
        dem.prox.loc=exactly 3sg.nf-1du.excl.obj-drop.off.pst nm.1 Japanese \\
        ka-ngaddu-yakbum la ka-wom, kadda-wom. \\
        3sg.nf-1pl.excl.obj-drop.off.pst conj 3sg.nf-return.pst 3pl.nf-return.pst \\
        ‘The Japanese brought us and dropped us here [at Goulburn Island] and they went back.’ [20060620ibo3/09:52–10:01]
\end{verbatim}

This number neutralisation, shown in the narrative fragment (5.28) is a recurring pattern, even if not an overwhelmingly frequent one. It is also typical that the underspecified forms occur next to ones with a proper number specification. Both the plural (5.28) and the dual (5.29) can be reduced to the \textit{ka}- form.

\begin{verbatim}
(5.29) Mayirri, then start ka-ngunda wukbonj kabarra-bum old man, \\
        place.name eng eng 3sg.nf-do.pst canoe 3du.nf-hit.pst eng eng \\
        mammam, two, two mammam, Kodjok and Kunarr mammam. \\
        mf eng eng mf k. eng k. mf \\
        ‘[We were/arrived at] Mayirri, then they two started to make a canoe, the two old men, two grandpa’s, Kodjok and Kunarr.’ [IK1-160624_002-01/00:45]
\end{verbatim}

The underspecification is found with non-human referents as well, e.g. brolgas in example (5.25) above, or buffaloes in (5.30) below. Often the referent indexed by such underspecified prefixes may have a generic construal or flavour, or some sort of reduced individuation of the members of the plural referent. Notice, however, that this is not a

\footnote{7. Making this assumption also allows for a neat analysis of the third person singular object morpheme distribution (subject of the next section).}  
\footnote{8. The attentive reader will notice that the two object prefixes also encode different number values, first dual and then plural. It is less clear from the narrative what its actual cardinality should be. One possibility is that the speaker first focusses on just two persons, himself and another Warlang man, and then clarifies that there were others.}
requirement (cf. example 5.29), nor are these referents to be interpreted as kinds (i.e. as the Leadbeater’s possum in The Leadbeater’s possum is endangered).

(5.30) Na-rleng nganabbarru ka-dja korro man-berrk.
     1-many buffalo 3SG.NF-stand.NP DEM.MED.LOC III-dry.land
‘There are many buffaloes on the mainland.’

In (5.30) the quantifier na-rleng ‘many’ is used, which ensures that the subject is not misconstrued as denoting a singular referent. Most of the examples in this section are in realis mood, but the phenomenon is not confined to it (5.25).

Interestingly, these examples always come from spontaneous discourse. As soon as a speaker’s attention is drawn towards this issue during elicitation, they would prohibit the ‘singular’ prefix form and demand the appropriate one — dual or plural. This is probably a pragmatic effect, some kind of preference for the most specified form when the speaker is making a conscious effort to speak ‘correctly’, i.e. normatively. Various patterns of number neutralisation are found in many languages of the area. For instance, in Ndjébbana, “for nominals with multiple non-human referents number may be neutralised and the gender contrast retained if the number of referents is non-specific. If, however, the plural non-human referents are individuated or enumerated... the appropriate augmented or unit augmented pronominal affixes are used. Finally number may be neutralised for human referents when sort of general/habitual statement is made without specific referents in mind” (McKay 2000: 192). In the next section I also review some relevant data from Bininj Kunwok.

In the light of the data presented in this section, I suggest that it is best to analyse the third singular subject prefixes as actually unmarked, or unspecified, for number. The following subsection (§5.2.3) is concerned with a similar issue in the third person object prefixes, where the morphological (non-)realisation of the prefix is dependent on its number value.

5.2.3 Third person object prefixes

The paradigm of object prefixes is given in table 5.8. From the table it is immediately obvious that the third person objects differ from first and second person ones: their cells contain zeroes (Ø). Let us first discuss dual and plural third person objects, and then we’ll turn to the singular ones, whose pattern is somewhat more complicated.

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9. The Ø’s in table 5.8 are used for a practical purpose rather than an ontological commitment to zero-allomorphs. Should the reader want to construct a verb using the paradigm tables, the Ø’s may serve as a reminder of the variation described here.
The relevant notion for the dual and plural objects is *animacy*. Thus, with an inanimate object in (5.31a) there is no object prefix on the verb, while it is obligatory with an animate object in (5.31b).

(5.31) a. Nga-rnay. (CONTEXT: There are many cars in Darwin.)
   1SG.NF-see.PST
   ‘I saw them.’ [qu_last_PN]

   b. Nga-*buddu-rnay. (CONTEXT: A big mob is coming to fight us.)
   1SG.NF-3PL.OBJ-see.PST
   ‘I saw them.’ [qu_last_PN]

It is not straightforward whether animacy needs to, or even can, be considered a grammatical category in Kunbarlang. No other manifestations of it have been detected so far. Even in the domain of agreement, there is no clear division of the nominal lexicon into the animate and inanimate classes: rather, there are *bona fide* animates (live humans) and *bona fide* inanimates (properly inanimate objects), and there is some vagueness in between, in the domain of animals, forming a scale from ‘animate’ dogs to ‘inanimate’ fish and bugs.

The same property is relevant for the singular objects as well. Inanimate objects are never cross-referenced with the object morpheme -*bun-* (5.32a), and animates are (5.32b):

(5.32) a. Mary ka-rnay nayi djurra korro kun-bodme bi-ngaydjju.
   3SG.NF-see.PST NM.I paper DEM.MED.LOC IV-back DAT-she.GEN
   ‘Mary saw the book behind her.’ [sm_160513]

   b. Fred ka-(bun)-rnay Mary.
   3SG.NF-3SG.OBJ-see.PST Mary
   ‘Fred saw Mary.’ IK1-160518_001-01/19:29–20:07

The object marker is obligatory for the singular animate referent in (5.32b). However, the pattern underlying the distribution of the singular object marking is more complex. Its overt (non-)appearance is dependent not only on the properties of the object, but also on those of the subject. Consider the following pair of examples in (5.33):

   1SG.NF-see.PST John
   ‘I saw John.’ [jack_160610]
b. Ngal-buk=bonj ka-bun-rnay John, na-buk=bonj
   II-person=exactly 3SG.NF-3SG.OBJ-see.PST John 1-person=exactly
   ngunda ki-bun-rnani.
   not 3SG.NEG-3SG.OBJ-see.IRR.PST
   ‘She saw John, but he didn’t see her.’  [jack_160610]

The difference between (5.33a) and (5.33b) is in the features of the subject: in the
former the subject is first person, while in the latter it is third person. Accordingly, the
object marker for the third person singular object is only present in the latter case. The
generalisation about bun- can be stated as follows:10

(5.34)  **bun- generalisation**: Kunbarlang third person singular object marker bun-
(i) only cross-references animate referents, and (ii) appears on the verb iff the
subject is third person singular (ka-).

Indeed, if the subject is other than third person singular, bun- may not appear in
the object slot. (5.33a) above provides an example of a first person subject, and (5.35a)
below illustrates the point for a second person subject. Note that there is no such effect
between, e.g., first person subject and second person object (5.35b).

(5.35)  a. Ngudda ki-(‘bun)-ngayi nukka nayi kirdimarrk?
   you 2SG.NF-3SG.OBJ-hear.NP he NM.I man
   ‘Do you hear that man?’  [sm_160523]

b. Ngayi nga-ngun-ngayi (ngudda).
   I 1SG.NF-2SG.OBJ-hear.NP you
   ‘I hear you.’  [sm_160523]

Non-singular (i.e., dual or plural) subjects preclude the appearance of bun- regardless
of their person. This effect of third person dual and plural subjects is exemplified in
(5.36a) and (5.36b), respectively:

(5.36)  a. Benengka yiwanj  **kanjbdda-rnanj** ngal-buk malayi...
   they.DU DISC.PTCL 3DU.FUT-see.NP II-person tomorrow
   ‘They two will see her tomorrow…’  [sm_160712]

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10. This generalisation, referring to properties of both the subject and the object, may appear at first
as a case of subject/object portmanteau ‘3SG.SBJ:3SG.ANIM.OBJ’. However, this does not seem to be the
correct analysis, both on theoretical grounds (which I do not pursue here, but see Kapitonov 2016) and
on language-internal considerations, for which see below.
b. Na-buk yimarnek ki-buddu-karlikkangkhi la kadda-rnay
   1-person like 3SG.NEG-3PL.OBJ-stalk.IRR.PST CONJ 3PL.NF-SEE.PST
   la kadda-bum.
   CONJ 3PL.NF-HIT.PST
   ‘He was going to sneak up on them, but they saw him and beat him.’
   [sm_160712]

At the same time, the non-singular object markers always cross-reference animate
objects, regardless of the subject’s featural content; see example (5.31b) above. The
following example offers a near-minimal pair of a verb with first person singular subject
and third person singular (5.37a; no marker) or plural object (5.37b; marker present).

   1SG.NF-THITH-send.PST DEM.MED.LOC YOU.PL.GEN
   ‘I sent someone to you.’
   [sy_160503]

b. Nga-buddu-rnilakwang korro nukudbe.
   1SG.NF-3PL.OBJ-send.PST DEM.MED.LOC YOU.PL.GEN
   ‘I sent them to you.’
   [sy_160503]

The generalisation (5.34) is relevant for all arguments that are cross-referenced in
the object slot. Thus, it does not matter what the object’s θ-role is, so the patterns
described above hold of Recipient object just as well (5.38):

(5.38) a. Ngadbe ngadda-wuy na-buk.
   we 1PL.NF-give.PST 1-person
   ‘We gave it to him.’
   [jack_160610]

   II-person=exactly 3SG.NF-3SG.OBJ-give.PST book John
   ‘She gave a book to John.’
   [jack_160610]

Likewise, the objects that are introduced by valency-changing derivations exhibit
the same behaviour. In (5.39) realisation of the benefactive argument is contrasted with
a first person and a third person subject.

(5.39) a. Ki-rnay nayi kirdimarrk nayi nga-marnanj-rlakwang djirrka?
   2SG.NF-SEE.PST NM.I man NM.I 1SG.NF-BEN-THROW.PST beard
   ‘Have you seen the man who I shaved?’
   [sy_160818]
Recall that there are other items in the Kunbarlang agreement inventory that invite a numberless analysis:

- Kunbarlang third person singular subject prefix *ka-* is best analysed as numberless (§5.2.2)
- all first person inclusive forms in Kunbarlang are numberless as well (§5.2.1)

In sum, we have seen that there is no particular reason to adopt the portmanteau semantics for the personal prefix *bun-* over the simpler analysis as an object marker. In fact, the simpler analysis potentially has a desirable conceptual advantage on a syntactic view of agreement. Namely, object agreement does not need to look ahead: only the object’s features matter, not the subject’s features (Kapitonov 2016). Next, I review a relevant fragment of Bininj Kunwok agreement system.

Interestingly, in Bininj Kunwok there is a similar in spirit, but less grammaticalized inverse-like system (Evans 2003a: 417–25). The personal prefix *bi-*, which marks the combination of third minimal subject and third minimal object (we can call this object agreement for convenience), is only used when the object is of a comparable or higher animacy than the subject on the scale (5.40). Otherwise the intransitive prefix is used (roughly speaking, *ba-* or *Ø-*, depending on the dialect and on the verbal tense). These are the inverse and the direct forms, respectively.

(5.40) Malevolent spirits > humans > other animates > inanimates
[Evans 2003a: 422, ex.10.96]

Thus, animals, which do not trigger the *bi-* form with human subjects (5.41a), do that with inanimate subjects (5.41b).\(^\text{11}\)

(5.41) Bininj Kunwok (Evans 2003a: 421)

\(^\text{11}\) The notation '3/3' denotes the third minimal subject acting on third minimal object in portmanteau prefixes. The glosses *h* and *l* stand for 'higher' and 'lower', respectively, referring to the position of the object on the scale (5.40) w.r.t. the subject. Boldface mine — IK.
Conversely, humans, which do trigger the bi- form (5.42a) with human subjects, in combinations with spirit subjects fail to support object agreement (5.42b).

(5.42) Bininj Kunwok (Evans 2003a: 421)

a. Daluk bi-bom.
   woman 3/3H.PST-hit.PP
   ‘S/he hit the woman.’
   OR ‘The woman hit him/her.’ [ex.10.82]

b. Daluk ba-bu-ni na-bulwinjbulwinj.
   woman 3/3L.PST-hit-PI MA-spirit
   ‘The spirit killed the woman.’
   NOT: ‘The woman killed the spirit.’ [ex.10.89]

However, the system seems not fully grammaticalized, as there are occasional examples where the described principles are not operating, and, more generally, “there are border-line cases, such as babies or higher [animates—IK], where the speaker enjoys considerable latitude to manipulate the Ø vs bi- choice to communicative ends” (Evans 2003a: 425).

Crucially, Kunbarlang lacks the inverse effects. Thus, the object agreement does not appear in the combinations of an inanimate subject with an animate (i.e., higher) object, if that object NP does not normally support object agreement (5.43).

(5.43) Ninda na-warri mandjang ki-bu barbung.
   DEM.PROX.I 1-bad perhaps 3SG.NEG-hit.IRR.NP fish
   ‘This poison would kill fish.’ [IK1-160715_000-01]

Fish, as a low animacy referent, never triggers object agreement, and so it doesn’t in an inverse context in the presence of a ‘lower’ subject. In contrast to Kunbarlang data in (5.43), such combinations give rise to object marking in Bininj Kunwok (5.44):
Mawurrumbulk *kabi*-bu-n ka-dowe-n.
fish.poison 3/3H-kill-NP 3-die-NP
‘The fish poison kills the fish.’

I conclude that while there are very good reasons to conceive of the Bininj Kunwok object agreement pattern as a kind of an inverse system, the same analysis would be unjustified for the superficially similar Kunbarlang facts. Given the formal similarity of the markers involved — bi- in Bininj Kunwok and bun- in Kunbarlang — it is plausible that the two systems are slightly different developments of a common inheritance. It is possible to speculate further that Kunbarlang, with its complex but thoroughly agglutinating paradigms (§5.2.1), represents an innovation against the background of other Gunwinyguan languages whose paradigms are full of portmanteaux.12

In the broader picture, it is apparent that in the organisation of the Kunbarlang agreement paradigm the feature of number has a profound effect due to its tendency for neutralisation. At the descriptive level, it has been involved in the discussion of the third person ‘singular’ subject and object prefixes, the first person inclusive prefixes, and the allomorphy patterns in the transitive paradigms. I leave the exploration of its theoretical significance, as well as a formal analysis, for a separate occasion.

### 5.3 Conjugations

Common irregularities of the verbal conjugations are one of the major arguments in favour of the Gunwinyguan family (Alpher, Evans & Harvey 2003). The Gunwinyguan languages all have elaborate systems of verbal conjugation, with many subclasses organized around the subregularities. Wubuy provides one of the most spectacular examples with approximately 27 different subclasses of the eight more general patterns (Heath 1984: 408–411). Kunbarlang follows this common structure with its multiple conjugational classes of small size. On the present analysis, seven different classes (with a total of 12 subclasses) are recognised.13 The classes are summarised in table 5.13, which shows the sets of suffixes characteristic of each conjugational class and lists the class members. The members shown are all bound morphemes—thematics (see the beginning of this chapter on the structure of the verbal word). The form of the verb root is obtained by combining the thematic from the ‘Members’ column with the desired suffix. Thus, for example, the four forms of the root *-beye* ‘to bite’ (class 1.B) are: *-beye, -beyang, -beye* and *-beyerli.* The semantics of the tense/mood forms is discussed in §5.5.

---

12. I’m grateful to Nick Evans for bringing up that point.
13. Coleman (1982: 45,102) mentions a figure between 10 and 12 conjugations, but does not give a full list of those, nor of the verbs that group together.
Table 5.13: Kunbarlang conjugational classes

<table>
<thead>
<tr>
<th>Class</th>
<th>Realis</th>
<th></th>
<th>Irrealis</th>
<th></th>
<th>Members</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Non-past</td>
<td>Past</td>
<td>Non-past</td>
<td>Past</td>
<td></td>
</tr>
</tbody>
</table>
| I     | A       | ∅      | nj       | ∅      | li      | INCH -mi
|       | B       | e      | ang      | e      | erli    | karrm ‘hold’, larlm ‘separate’
|       |         |        |          |        |         | b rdukkum ‘cut’
|       | C       | e      | eng      | e      | ili     | all verbs ending in -dje
| II    |         | ∅      | ing      | ∅      | ingi    | d b rayi ‘reach’
|       |         |        |          |        |         | refl -dji/-yi
| IV    | A       | nj     | ng       | ∅      | ni      | mikwa ‘be stuck’, wa ‘wander’
|       | B       | nj     | m        | ∅      | ni      | bu ‘hit’, wo ‘return’
|       | C       | nj     | y        | ∅      | ni      | djarrakbu ‘save’, mabulu ‘want’, rdawu ‘cut’, rna ‘see’, wu ‘give’
|       | D       | nj     | y        | ng     | ni      | rlu ‘cry’
| V     | wa      | ng     | ng       | ngi    | dju ‘stab’, karlu ‘dig’, rluklu ‘wake’
| VI    | a       | nganj  | ng       | i      | dj ‘stand’, rni ‘sit’, yu ‘lie’
| VII   | be      | dang   | be       | dana   | rnek ‘step’, yi ‘empty’

---

a The RP is _rumung_, with -u, presumably from assimilation.

b The RNP is _lartma_, with -a.

c The RP is _rdukkumung_, with -u, presumably from assimilation.

d Except for _ngundje_ ‘say; do’, which is irregular, and _burrde_ ‘wrap’, which shows variation in the irrealis forms: NP _burrdjing_, PST _burrdjingi_– _burrdjerli_.

e The RP varies between -nj and -n.
The distribution of thematics into classes is not strictly determined by any factors, whether phonological, semantic, or the thematic’s transitivity. However, there are some regularities in certain classes:

**class I** the majority of thematics end in \(-m\); it could be the case that all of these contain a proto-Gunwinyguan thematic (e.g. \(^*ma\); Alpher, Evans & Harvey 2003: 329–33), but it is not obvious

**class III** all thematics end in a front non-low vowel \((e/i)\)

**class IV** all thematics end in a vowel other than front non-low \((a/o/u)\)

**class V** all thematics end in \(-u\)

**class VI** contains the three posture verbs; this grouping is common among Gunwinyguan languages

This last class VI needs some further clarification in regard of the vocalism of the stems. Although it is clear that these three verbs share a common conjugation pattern, the choice of the vowel between the root and the suffix is hardly predictable. The full forms of these three stems are listed in table 5.14.

<table>
<thead>
<tr>
<th>Realis</th>
<th>Irrealis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-past</td>
<td>Past</td>
</tr>
<tr>
<td>dja</td>
<td>djanganj</td>
</tr>
<tr>
<td>rna</td>
<td>rninganj</td>
</tr>
<tr>
<td>yuwa</td>
<td>yunganj</td>
</tr>
</tbody>
</table>


Kunbarlang differs from other Gunwinyguan languages in terms of the inflectional categories that characterise the tense and mood of the stem. In particular, it differs from Dalabon (Evans & Merlan 2003) and Bininj Kunwok (Evans 2003a: ch. 9), the two languages it groups together with (see also Alpher, Evans & Harvey 2003: 310–313). In other Gunwinyguan languages, typically, irrealis is one form counterposed to a system of realis, which includes non-past and past, the latter also showing aspectual contrast between perfective and imperfective. This may be schematically represented as in

171
Table 5.15: Irregular conjugation verb stems in Kunbarlang

<table>
<thead>
<tr>
<th></th>
<th>Realis</th>
<th></th>
<th>Irrealis</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Non-past</td>
<td>Past</td>
<td>Non-past</td>
<td>Past</td>
<td>Gloss</td>
<td></td>
</tr>
<tr>
<td>bingki</td>
<td>bingki</td>
<td>bing</td>
<td>bingki</td>
<td>bingki</td>
<td>‘exit’</td>
<td></td>
</tr>
<tr>
<td>birrinja</td>
<td>birrinjanganj</td>
<td>birrinjinj</td>
<td>birrinjinj</td>
<td>birrinjinj</td>
<td>‘be same’</td>
<td></td>
</tr>
<tr>
<td>djin</td>
<td>djarang</td>
<td>djang</td>
<td>djarri</td>
<td>‘eat’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ka</td>
<td>kidanj</td>
<td>kidang</td>
<td>kangkayini</td>
<td>‘go’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>kani</td>
<td>kalng</td>
<td>kalbing</td>
<td>kala</td>
<td>‘get’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>kelbungu</td>
<td>kelbunganj</td>
<td>kelbung</td>
<td>kelbunji</td>
<td>‘be(come) afraid’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ngadjabu</td>
<td>ngadjbum</td>
<td>ngadjbe</td>
<td>ngadjbuni</td>
<td>‘grind’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ngale</td>
<td>ngalenj</td>
<td>ngalen</td>
<td>ngaleni</td>
<td>‘spread’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ngunga</td>
<td>ngunga</td>
<td>ngunga</td>
<td>ngungarli</td>
<td>‘threaten’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ngundjje</td>
<td>ngunda</td>
<td>ngundjje</td>
<td>ngunda</td>
<td>‘say/do’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>rdam</td>
<td>rdam</td>
<td>rdam</td>
<td>rdana</td>
<td>‘put’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>rduka</td>
<td>rdukidanj</td>
<td>rdukidang</td>
<td>rdukarli</td>
<td>‘look’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>rlakka</td>
<td>rlakwang</td>
<td>rlakwa</td>
<td>rlakwani</td>
<td>‘throw’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>yurrbungu</td>
<td>yurrbunganj</td>
<td>yurrbu</td>
<td>yurrbunguni</td>
<td>‘get wet’</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 5.1: Structure of Gunwinyguan TAM inflectional categories

`Figure 5.1 (cf. Alpher, Evans & Harvey 2003: 311; imperative is in parentheses since a distinct form is not found in many languages).

The TAM categories of Kunbarlang are organised in a different fashion, showing a main opposition of realis and irrealis systems, each with non-past and past forms; cf. figure 5.2 and §5.4. Notice that the aspectual distinction (perfective vs. imperfective) is not grammaticalised in Kunbarlang. The mood, rather than the tense, is analysed here as a higher-level division, because of the restrictions on the combination of subject prefixes with TAM suffixes: they may have different tense specification, but must have the same mood specification (see §5.4 on the composite TAM forms in Kunbarlang).`
Out of these four Kunbarlang TAM forms shown in figure 5.2, three clearly continue the proto-Gunwinyguan (pGN) forms as reconstructed by Alpher, Evans & Harvey (2003, henceforth AEH), and suggestions are made below regarding the historical origins of the fourth form, the irrealis non-past. Kunbarlang data were not used in AEH’s reconstruction: “The verbal suffix system of Kunbarlang is so aberrant that we decided not to integrate it into our reconstruction at this stage” (op. cit.: 308). From the formal and functional similarity it is clear that the Kunbarlang realis non-past and past, as categories, have developed out of the non-past and past perfective, respectively. Kunbarlang irrealis past developed out of the pGN past imperfective. It has retained some of the original semantics, still being used in past habituals (see §5.5.2.1), but also extended to such irrealis meanings as negation and counterfactuals. It seems to be a relatively common development; as the authors of the reconstruction notice, “many languages have lost the distinction, or blurred or exchanged forms between the irrealis and the past imperfective” (p. 312). The past imperfective suffix in the majority of pGN conjugations is /niɲ/, and the corresponding Kunbarlang form is /ni/, i.e. Kunbarlang has systematically dropped the final palatal nasal (similar to Bininj Kunwok, Ngandi, Wubuy and Mangerayi).

An illustrative example of a Kunbarlang stem paradigm against the background of other Gunwinyguan languages is the verb ‘hit’, given in table 5.16 (forms from languages other than Kunbarlang are (a subset of) those in Alpher, Evans & Harvey (2003: §2), except for Enindhilyakwa from van Egmond (2012: 353); orthography unified, with the initial labial stop systematically represented by p, palatal nasal by ny and the glottal stop by q).

The origin of the fourth Kunbarlang stem form — irrealis non-past — is far from obvious and would require separate research, but a hypothesis can be made here. Alpher,

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14 On the other hand, Kunbarlang irrealis past bears formal similarity to the irrealis forms of Ngalakgan and Rembarrnga, cf. wlg rna-ni “see-IRR.PST” ~ nig nani “see-IRR” (B. Baker 2004: 321). This appears to be coincidental, for two reasons: (i) B. Baker (op. cit.: 323) argues that the irrealis form is a recent innovation in Ngalakgan and Rembarrnga, and there is no reason to subgroup Kunbarlang with them, and (ii) the unusual irrealis past forms of Kunbarlang conjugation I, which have a lateral in them, are easier to explain on the hypothesis that these forms indeed continue the pGN past imperfective of ‘-ma-’do; say’/thematic.
Table 5.16: Paradigms of *pu-

<table>
<thead>
<tr>
<th>Language</th>
<th>Non-past</th>
<th>Past (perf.)</th>
<th>Past Ipf.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kunbarlang</td>
<td>pu-ny</td>
<td>pu-m</td>
<td>IrrPst: pu-ni</td>
</tr>
<tr>
<td>Jawoyn</td>
<td>pu-n</td>
<td>pu-n</td>
<td>pu-nay</td>
</tr>
<tr>
<td>Warray</td>
<td>pu-n</td>
<td>pu-m</td>
<td>pu-n-iny</td>
</tr>
<tr>
<td>Bininj Kunwok</td>
<td>pu-n</td>
<td>po-m</td>
<td>pu-ni</td>
</tr>
<tr>
<td>Dalabon</td>
<td>pu-n</td>
<td>po-ng</td>
<td>pu-niny</td>
</tr>
<tr>
<td>Ngaliakgan</td>
<td>pu-n</td>
<td>poq-∅</td>
<td>pu-niny</td>
</tr>
<tr>
<td>Rembarrnga</td>
<td>pu-n</td>
<td>puwa</td>
<td>pu-n-iny</td>
</tr>
<tr>
<td>Ngandi</td>
<td>pu-nung</td>
<td>poo-m</td>
<td>pu-ni</td>
</tr>
<tr>
<td>Wubuy</td>
<td>pa-ng</td>
<td>pi-ni</td>
<td></td>
</tr>
<tr>
<td>Mangarayi</td>
<td>pu-n</td>
<td>pu-p</td>
<td>pu-ni</td>
</tr>
<tr>
<td>Enindhilyakwa</td>
<td>pa-m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pGN</td>
<td>*pu-</td>
<td><em>po-m~</em>po-ng</td>
<td>*pu-n-iny</td>
</tr>
</tbody>
</table>

Evans & Harvey (2003: 312) observe that the Bininj Kunwok irrealis form has cognates in Dalabon, Ngandi (the evitative) and Wubuy (the non-past 2). They remark that the irrealis series is probably reconstructable for pGN, but “so many languages have lost the distinction, or blurred or exchanged forms between the irrealis and the past imperfective, that the reconstruction is complex” and is not attempted in that paper. Kunbarlang does not have any morphology immediately resembling the elaborate bgw irrealis forms, but connection seems easier to establish to the Dalabon irrealis (Evans & Merlan 2003) and the Ngandi evitative (Heath 1978: ch. 9).

Kunbarlang IrrNP is identical to the realis non-past for classes I, II and III (table 5.13). In the remaining classes the IrrNP formative is either -∅ or -ng.15 Among the verbs in the table, the -ng form characterises the posture verbs (class vi.a), rlunj ‘to cry’ (class iv.e), and class v verbs, such as djuwa ‘to stab’.

Dalabon irrealis is “mostly based on the present stem” (Evans & Merlan 2003: 277). The main pattern is that either -i is added after the present tense suffix, or the glide -y substitutes for that suffix. Additionally, in several verbs the irrealis is -ngi; these are the three posture verbs, dong ‘chop’ (cognate to wlg djuwa ‘stab’), and three more which do not seem to have cognates in Kunbarlang.

The pGN non-past continues in Ngandi as future. It typically carries a suffix that contains a nasal. The evitative formative in Ngandi are -∅, -yi and -ngi; they are never added on top of the future, but are in complementary distribution with the future ones.

The correspondences across the three languages are these:

1. in the three posture verbs the reflex of the pGN irrealis suffix is /-ŋi/; Kunbarlang

15. There are some other forms occasionally, which I disregard for the moment.
and Dalabon, but not Ngandi also have that reflex in their respective forms of pGN \(^*\)do-; few other modern verbs show that velar nasal.

2. In Kunbarlang and Ngandi the reflexive/reciprocal forms take zero suffix in IrrNP (resp., evitative); if Ngandi thematics -\(d\)u and/or -\(d\)a are cognate to Kunbarlang thematic -\(d\)je, then there is further similarity here.

3. There is a pattern where the Dalabon/Ngandi verbs that have present (resp., future) suffix with the apical -\(n\), have the irrealis reflex with a glide (-\(yi/\)yi); this corresponds to Kunbarlang verbs with present suffix -\(nj\) and IrrNP -∅ (see table 5.17; clear examples of such verbs are \(bunj < ^*bu\) ‘hit’, \(rmanj < ^*na\) ‘see’, and \(wunj < ^*wo\) ‘give’).

Table 5.17: Kunbarlang class iv correspondences with Dalabon and Ngandi

<table>
<thead>
<tr>
<th></th>
<th>Reflex of the pGN non-past</th>
<th>irrealis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dalabon</td>
<td>-n</td>
<td>-y</td>
</tr>
<tr>
<td>Ngandi</td>
<td>-n((u)ŋ)</td>
<td>-yi</td>
</tr>
<tr>
<td>Kunbarlang</td>
<td>-(nj)</td>
<td>-∅</td>
</tr>
</tbody>
</table>

While this would need to be confirmed by a thorough reconstruction, I conclude here that Kunbarlang irrealis non-past, as well as Dalabon irrealis and Ngandi evitative, instantiate modern reflexes of the proto-Gunwinyguan morphological category of irrealis. Given that all three languages are non-contiguous, this further confirms the suggestion made by B. Baker (2004: 674–5) that “Dalabon and Ngandi [and Kunbarlang—IK] preserve the essential details of the Irrealis category from pGN, which has become reshaped in various daughter languages such as Bininj Gun-wok and the Jala group”.

5.4 Tense and mood: composite morphology

The tense and mood values in Kunbarlang are marked morphologically in a composite way, by the combination of the values of the subject prefix and the verb stem form (Australian composite TAM marking, in particular, counterfactual forms, are investigated in Verstraete 2005).\(^{16}\) There are four series of subject prefixes (§5.2.1), and four forms

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\(^{16}\) Terminological notes: I use the term mood here for the binary opposition between realis and irrealis (also called “reality status” sometimes), rather than for the sentence moods, which have to do with illocutionary force. For a recent overview of the competing terminology, as well as for references, see Nikolaeva (2016).
of the verb stems (§5.3). These are cross-combined in a restricted way, yielding five morphological combinations (six for some younger speakers). Viewpoint aspect can only be marked analytically (§7.2). This section outlines the inflectional morphology on the verb that serves for the expression of tense and mood meanings. The semantics of these forms is discussed in detail in §5.5, along with other, analytical, ways of encoding tense and mood. My analysis of the Kunbarlang tense/mood forms differs significantly from Coleman’s (1982); in what follows I first present the system as I found it in my fieldwork, and afterwards compare this description with Coleman’s.

Table 5.18 below gives the combinations that proved well-formed in my fieldwork. On the present analysis, the verb forms are divided into two major groups, viz. realis and irrealis forms. Both prefixes and stems have that division, and must agree in mood with each other.

Table 5.18: Permitted tense/mood combinations of subject prefixes and verb stems

<table>
<thead>
<tr>
<th>Verb stem</th>
<th>Realis</th>
<th>Irrealis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subj. prefix</td>
<td>Past</td>
<td>Non-past</td>
</tr>
<tr>
<td>Realis</td>
<td>Future</td>
<td>✓</td>
</tr>
<tr>
<td>Non-future</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Irrealis</td>
<td>Past</td>
<td>✓</td>
</tr>
<tr>
<td>Non-past</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

By way of illustration, table 5.19 shows the forms for the verb -djin with the first person singular subject, arranged in the same way as the table 5.18.

Table 5.19: A tense/mood paradigm of -djin ‘to eat’

<table>
<thead>
<tr>
<th>Verb stem</th>
<th>Realis</th>
<th>Irrealis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subj. prefix</td>
<td>Past</td>
<td>Non-past</td>
</tr>
<tr>
<td>Realis</td>
<td>Future</td>
<td>nganj-djin</td>
</tr>
<tr>
<td>Non-future</td>
<td>nga-djarrang</td>
<td>nga-djin</td>
</tr>
<tr>
<td>Irrealis</td>
<td>Past</td>
<td>ngay-djarri</td>
</tr>
<tr>
<td>Non-past</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Two of the subject prefix series and two of the verb stem types are realis. The realis categories are the past (5.45a), the present (5.45b) and the future (5.45c). The irrealis
forms occur in modal contexts, including under negation (see below). The prefix and stem must agree in whether they are realis.

(5.45) a. ngana-ninganj
    1DU.EXCL.NF-sit.PST
    ‘we two (exclusive) were sitting’ [20060901IB02/04:52–53]

b. ngana-rna
    1DU.EXCL.NF-sit.NP
    ‘we two (exclusive) are sitting’ [20150413IOv01/02:27–28]

c. nganjdji-rna
    1DU.EXCL.FUT-sit.NP
    ‘we two (exclusive) will sit’ [IK1-160811_000-01/19:55–56]

The two realis subject prefix series are future (Table 5.4) and non-future (Table 5.5). The realis stems are past and non-past. The combination of the future prefix and past stem is prohibited, presumably on semantic grounds. The remaining three combinations yield future, present and past temporal reference (5.45). At least for the future, the temporal reference may be relative (5.46).

(5.46) La babi ka-kidanj kun-barrkidbe yalbi kanj-marnbunj
    CONJ later 3SG.NF-go.PST IV-other country 3SG.FUT-make.NP
    yiwarrudj. La ngunda ki-marnbuni, babi la
    church CONJ not 3SG.IRR.PST-make.IRR.PST later CONJ
    ka-warr-minj,
    3SG.NF-bad-inch.PST
    ‘Later he went to another country to build a church. But never built it, as he
died.’ [SY Jul2017]

In this example, the reference of the future form kanj-marnbunj is not to the future of the speech time (i.e. absolute), but to the future relative to the past tense reference of the verb ka-kidanj. That is confirmed by the following sentence, which states the death of the protagonist in the past (of the speech time).

The division in the irrealis forms is between past (5.47a) and non-past (5.47b). For some speakers, the subject and verb stem are in a one-to-one correspondence, i.e. for them only two combinations are possible, where the subject prefix and the stem bear the same value. These are irrealis past and irrealis non-past. The respective subject prefix paradigms can be found in tables 5.6 and 5.7.
\[\text{not} \quad 1\text{SG.IRR.PST-SEE.IRR.PST}\]
'I didn’t see him/her/it.'  \[\text{IK1-160704_1SY-01}\]

b. Karlu, ngunda ngarra-rna.
\[\text{NEG.PRED not} \quad 1\text{SG.IRR.NP-SEE.IRR.NP}\]
(i) 'No, I don’t see him/her/it.'
(ii) 'No, I shan’t see him/her/it.'  \[\text{IK1-160704_1SY-01}\]

c. *Ngunda ngay-rna.
\[\text{not} \quad 1\text{SG.IRR.PST-SEE.IRR.NP}\]
intended: ‘I don’t/didn’t see him/her/it.’  \[\text{IK1-180531_1SY-01/02:10:25–29}\]

d. *ngarra-rnani.
\[1\text{SG.IRR.NP-SEE.IRR.PST}\]
Speaker’s judgement is that this is not a word.  \[\text{IK1-160704_1SY-01}\]

Other—younger—speakers allow combining the non-past prefix with the past stem (5.48b). The resulting meaning is the same as for the combination of the past prefix with the past stem, i.e. past tense reference. The fact that these two are two equal options to express the irrealis past leads me to conclude that for them this prefix is only specified as irrealis, but (for these speakers) may not be specified for tense. The three irrealis forms that are grammatical for these younger speakers are not isomorphic to the three realis forms, i.e. they are not negative polarity conditioned allomorphs of the realis forms. See table 5.18: crucially, the two realis combinations are with the non-past forms of the verb stem, and the two irrealis ones are with the past forms of the stem. Example (5.48c) shows the more standard form, in which the prefix and the stem match in both mood and tense.

(5.48) a. Ki-mabulunj bilmu?
\[2\text{SG.NF-LIKE.NP} \quad \text{barramundi}\]
‘Do you like barramundi?’  \[\text{IK1-160722_1SM-01}\]

b. Nga-wakwanj, ngayi marrek ngarra-djarri bilmu
\[1\text{SG.NF-IGNORANT.NP} \quad \text{not} \quad 1\text{SG.IRR.NP-EAT.IRR.PST} \quad \text{barramundi wularrud.}\]
already
‘I don’t know, I’ve never tried it.’  \[\text{IK1-160722_1SM-01}\]

17. The speaker of this example is in her early 40’s. The negated experiential perfect reading arises in the presence of the adverb \textit{wularrud} ‘already’. Without that adverb the verb (with the negative particle) is ambiguous between that reading and negating a particular event (‘I didn’t eat it’).
- The irrealis forms are obligatory under negation, that is with the negative particles ngunda ‘not’ and marrek ‘not’ (5.48b). In the absence of the negative particles they convey modal meanings. The non-past forms have an epistemic possibility meaning (5.49a) and can occur in the protasis of a real conditional (5.50). When used to indicate epistemic possibility, the non-past verb forms are often accompanied by the word mandjang ‘perhaps’, which immediately precedes the verb (5.49a). Notice also in (5.49a) that the future form is used in imperatives. Negative imperatives use the present form with a prohibitive marker (§7.5); there’s no dedicated imperative mood marking.

(5.49) a. Kinj-rnanj nukka nakarrken mandjang ki-ngarrkun-beye.
   2SG.FUT-see.NP he dog perhaps 3SG.IRR.NP-1PL.OBJ-bite.IRR.NP
   ‘Watch out, that dog is cheeky, it might bite us.’ [IK1-170609_1SY-01]

b. Karlu ngunda ki-ngarrkun-beye.
   NEG.PRED not 3SG.IRR.NP-1PL.OBJ-bite.IRR.NP
   ‘No, it won’t bite us.’ [IK1-170609_1SY-01]

(5.50) Kuyi ki-ngan-beye nganj-bunj.
   NM.IV 3SG.IRR.NP-1SG.OBJ-bite.IRR.NP 1SG.FUT-hit.NP
   ‘If it bites me, I will kill it.’ [IK1-160828_1PN-01]

The past irrealis forms have an even more diverse array of functions. On the one hand, those forms can have counterfactual meaning (5.51). On the other hand, they can refer to remote past habitual situations (5.52, repeated from 5.25 above).18

(5.51) Ngudda benbe yimarne ki-nganj-kangkayini ngayi
   you.SG yesterday like 2SG.IRR.PST-HITH-go.IRR.PST I
   ngay-ngun-nguni bilmu ki-djarri.
   1SG.IRR.PST-2SG.OBJ-give.IRR.PST barramundi 2SG.IRR.PST-eat.IRR.PST
   ‘Had you come yesterday, I would’ve given you barramundi to eat.’ [IK1-170609_1SY-01]
(5.52) **Kidda-kangkayini** kidda-ngayini djarrebe
3PL.IRR.PST-go.IRR.PST 3PL.IRR.PST-hear.IRR.PST far

ki-wardidji. ki-dji kordorrkordorrk.
3SG.IRR.PST-shout.IRR.PST 3SG.IRR.PST-stand.IRR.PST ONOMATOPOETIC

“They used to go along hearing them [brolgas] from far away calling out, calling “kordorrkordorrk”.”

[20150212AS02_brolga_transcript/1:33–38]

The meanings and functions of the permitted combinations are discussed at length in §5.5.

The previous analysis by Coleman (1982) rests on a somewhat different pattern in the data. Her table of permitted combinations includes six to seven forms (Coleman 1982: 104; see Table 5.20 here, with the original order of columns and rows adjusted for the ease of comparison with Table 5.18). For Coleman, the prefixes are modal and are grouped into two classes: the ones concerned with ‘performance’ proper (performative and non-performative ones) vs. the ones concerned with the ‘intent towards performance’ (intentional and non-intentional) (p. 99). The verb stems are divided first by status (realis vs. irrealis; correspond to my use of mood), and then (i) realis has a tense distinction (past and non-past), but (ii) irrealis has a ‘probability’ distinction (possible vs. impossible).

Table 5.20: Permitted combinations of subject prefixes and status endings (Coleman 1982)

<table>
<thead>
<tr>
<th>Stem status</th>
<th>Realis</th>
<th>Irrealis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject prefix</td>
<td>Past</td>
<td>Non-past</td>
</tr>
<tr>
<td>Intentional Performative</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Non-intentional Non-performative</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

My analysis is informed by somewhat different data. Most importantly, there are two combinations reported by Coleman, but not confirmed in my fieldwork. One is of

19. The two tables have the same order and position of forms, even though they are differently named. This allows one to ‘overlay’ one table on top of the other. Visual inspection reveals immediately three points of discrepancy in the data: Coleman’s table has two combinations in the lower left block that mine does not; these two combine what I call irrealis prefixes with the realis stems. My data, on the other hand, have one combination in the lower right block that is missing from her data. This is the alternative past form that I found only some younger speakers to accept.
a non-intentional prefix with a non-past suffix, which in my terms is irrealis past and realis non-past (5.53):

\[(5.53)\] Malayi ngayi ngayi-kali.
\[1sg.\text{irr.}\text{pst-get.}\text{np}\]
\[\text{tomorrow I 'I might get it tomorrow.' } [\text{Coleman 1982: 97; gloss mine — IK}]\]

The other form is a combination of a non-performative prefix with a past suffix, which in my terms is irrealis non-past and realis past (5.54):

\[(5.54)\] Ngayi ngunda ngarra-djarrang kandiddjawa.
\[1sg.\text{irr.np-eal.pst damper}\]
\[\text{I not 'It wasn’t me who ate the damper.' } [\text{Coleman 1982: 93; gloss mine — IK}]\]

Both examples were rejected by several of my informants. It is very hard to tell if a change has occurred since, or whether it is just a transcription error in the first place. Neither of these two combinations appear frequently in Coleman’s (1982) thesis.

\[\text{5.5 Tense and mood: semantics}\]

The morphological resources of the verbal paradigm that make up the various tense and mood forms are described in §5.4. As mentioned in that section, by mood I refer here to the opposition between realis and irrealis (sometimes termed reality status). The choice of term is partially driven by the wish to de-emphasize the semantic component of actualization of some state of affairs, often implied in the “reality status” (Nikolaeva 2016: 80). In Kunbarlang, realis and irrealis are, first of all, two morphological subsystems in the system of expressing temporal and modal meanings. While the two subsystems largely coincide with the actualized/non-actualized distinction, the inclusion of future tense within the realis system may be viewed as a wrinkle on the actualization divide. I refer the reader to the section on the future forms (§5.5.1.3) for further discussion.

In this section I deal in greater detail with the meaning and functions of the synthetic forms described in §5.4 and discuss analytical constructions that further convey TAM semantics. Under the analysis outlined, the major division is between two moods, realis and irrealis. Within those, there are further tense distinctions, such that, broadly speaking, there are past, present and future forms within the realis system, and past and non-past forms in the system of irrealis. Viewpoint aspect is not systematically encoded by the verbal morphology, but it can be expressed via stylistic lengthening or serial verb constructions (§7.2). Kunbarlang Aktionsart has not been studied extensively, this would be a topic for future in-depth lexicographic work on the aspectual semantics.
5.5.1 Realis forms

Realis mood forms are built with realis subject prefixes and realis verb stems, and include three combinations: past, present and future.

5.5.1.1 Realis past

The main function of past tense realis forms is to convey past tense reference, i.e. talk about events that took place in the past; consider (5.55), a fragment of the narrative about the speaker’s camping trip in Arnhem Land during the 1974 cyclone Tracy.

   DEM.MED.IV whitefella 3SG.NF-HITH-GO.PST 3SG.NF-speak.PST
   ka-burrdjung wind cyclone.
   3SG.NF-divulge.PST
   ‘That whitefella came, and talked, and told about the wind, the cyclone.’
   [IK1-160624_002-01/06:15–20]

b. But kabarra-ngunda “karlu” ngayi two old people, “oy kun-mak ngadda-rna”.
   ENG 3DU.NF-do.PST no NM.PL two old people INTJ IV-good
   1PL.EXCL.NF-sit.NP
   ‘But the two old men said “No, we’re fine here.”’
   [ibid./06:22–28]

c. Ngorro bonj ka-wom.
   DEM.MED.IV exactly 3SG.NF-return.PST
   ‘So he went back.’
   [ibid./06:30–32]

The past is unspecified for perfective/imperfective interpretation. The event normally is understood as being complete or finished, but this can be cancelled (5.56).

(5.56) Ka-borrkkidanj la ngunda ki-burnbuni la munguy ka-borrkka.
   3SG.NF-dance.PST CONJ not 3SG.IRR.PST-finish.PST CONJ a_lot
   3SG.NF-dance.NP
   ‘He was dancing and didn’t finish, and is still dancing.’
   [IK1-170616_1SY-01/07:04–20]
5.5.1.2 Realis present

Present tense realis forms are built with realis non-future prefixes and realis non-past suffixes. The present tense is used to refer to events whose time overlaps with the moment of speech: both specific events which are simultaneous with the moment of speech, translated with the English Present Continuous (5.57), and generic events (5.58), including present tense habituals (5.58b–c).

(5.57) Manda man-djelmi la ka-worrhunj.
    DEM.PROX.III III-lukewarm CONJ 3SG.NF-heat.NP
    ‘That [food] is lukewarm and s/he’s reheating it.’
    [IK1-170615_1SY-02/51:09–14]

(5.58) a. Namaddba, nayi nukka ngorro mukka mangrove ka-dja.
    oyster NM.II he.I DEM.MED.IV NM.III mangrove 3SG.NF-stand.NP
    ‘Oysters, they live in the mangroves.’
    [20060814IB02/00:27–32]

b. Ka-kelkkuyi korro office, ka-bihbunj djurra.
    3SG.NF-work.NP DEM.MED.LOC office 3SG.NF-write.NP paper
    ‘S/he works at an office. S/he writes letters.’
    [IK1-160428_000-01/07:42–48; after Dahl’s (1985) Questionnaire item (25)]

c. Ka-ka kulkkulk munguy.
    3SG.NF-go.NP run a_lot
    ‘S/he goes running always/every day.’
    [IK1-160719_001-01/06:08–10]

The present is also used in talking about events that do not have a specific temporal value, such as in example (5.59), taken from a procedural text on making damper.

(5.59) a. Bonj ngorro ka-bun-djinj, man-djorleng, la
    exactly DEM.MED.IV 3SG.NF-3SG.OBJ-eat.NP III-ripe CONJ
    ngadda-nguluk-kali.
    1PL.EXCL.NF-ash-get.NP
    ‘Then it bakes, and when it’s ready, we take it out from the ashes.’
    [IK1-160726_002-01/01:03–11]

b. Ka-yuwa, ngadda-rdukku-rdukkume, ngorro ngadda-djinj.
    3SG.NF-lic.NP 1PL.EXCL.NF-PLURAC-cut.NP DEM.MED.IV 1PL.EXCL.NF-eat.NP
    share ngadda-ngundje.
    share 1PL.EXCL.NF-do.NP
    ‘It sits [cooling down], we cut it in pieces, then we eat it, we share it.’
    [ibid./01:12–20]
Realis present is the verbal form that is used in negative imperatives (§7.5), together with the obligatory prohibitive marker *kanjyuwa* (5.60):

(5.60) Kanjyuwa **ki-rnanj!**

PROH 2SG.NF-see.NP

‘Don’t stare at him/her/it!’

[IK1-180521_iSY-01/25:03]

5.5.1.3 Realis future

The future tense form of the verb is morphologically related to the present tense form, because both are built from the realis non-past stem; the future, however, uses the future subject prefix series. These forms are used when the event time follows the utterance time (5.61).

(5.61) a. Kadda-burrdjung **kanj-manganj** nayi balmad malayi.

3PL.NF-divulge.PST 3SG.FUT-fall.NP NM.I rain tomorrow

‘They said [on the radio], it will rain tomorrow.’

[nancy_160516]

b. Kukka ngundje **kanjbadda-rna** kanjbadda-wonj malayi, la maybe 3PL.FUT-sit.NP 3PL.FUT-return.NP tomorrow CONJ ngarrk-wakwanj.

1.INCL.NF-ignorant.NP

‘Maybe they’ll be going back home tomorrow, but we don’t know.’

[IK1-170615_iSY-02/09:59–10:09]

c. **Nganj-ka** korro kaddum korro Ngabbard

1SG.FUT-go.NP DEM.MED.LOC above DEM.MED.LOC F ka-rna. Yiwanj **nganj-nganj-wonj.**

3SG.NF-sit.NP DISC.PTCL 1SG.FUT-HITH-return.NP

‘I will go to Heaven where Father sits. Later I will return.’

[IK1-160430_000-01/03:57–04:09]

Examples above show absolute time reference (although (5.61a) may be relativised to the speech verb in that sentence, if the future form is understood as direct speech), but the future forms can also have relative reference (5.62):
Later he went to another country to build a church. But never built it, as he died. [SY Jul2017]

Kunbarlang future tense form is also the only form used in positive imperatives (5.63, 5.69b; see §7.5 on imperatives).

Kunj-ngunj ninda!
2SG.FUT-give.NP DEM.PROX.I

‘Give it to him!’ [jm_co_160612]

The proper analysis of the Kunbarlang future is unclear at the moment, and needs further work on its temporal and modal semantics. On the one hand, future tense is morphologically related to the proper realis categories of the present and the past, through sharing the realis non-past stem with the present form of the verb. On the other hand, as mentioned in the introduction to this section, realis is often thought of as having to do with actualized events; future tense reference, however, is non-actualized. Before further work can be done, I offer the following analysis.

The Kunbarlang future is a tense category, not a modal category (as Comrie (1985: 44) points out “[it] is... possible to have future time reference which is not necessarily modal”). The realis/irrealis divide in Kunbarlang has to do with the possible worlds semantics (Lewis 1986). All forms of the realis subsystem make reference to the actual world. The irrealis forms (see the sections below) all involve quantification over possible worlds. As a tense that belongs to the realis system, future has to do with statements about a future reference point (i.e. speaker’s predictions).

Some potential complication comes from the fact that the Kunbarlang future is occasionally found in what functionally are conditionals (5.64):

(5.64) a. Ngayi nganj-djinj kun-mak mayi kumungadju?
    1SG.FUT-eat.NP IV-good NM.3II berry
    ‘I’ll be OK if I eat this berry?’ [lit. ‘I shall eat this berry fine?’] [IK1-160618_000-01/34:18–21, after Dahl’s (1985) Questionnaire item (81)]

    you.SG 2SG.FUT-eat.NP 2SG.FUT-vomit.NP
    ‘If you eat it you’ll vomit.’ [ibid./33:50–54, also 34:22–25]
Although the future can be found in conditionals, it appears less common than the non-past irrealis form (§5.5.2.2; the usual form used in conditionals). Moreover, there is a possibility that the modal flavour of the conditional is not inherent in the semantics of the Kunbarlang future. Perhaps the literal meaning of (5.64b) is akin to English You eat this and you’ll vomit — where the conditional reading arises contextually, since there is no formal conditional marking.

5.5.2 Irrealis forms

Irrealis mood forms are built with irrealis subject prefixes and irrealis verb stems. For some speakers, the tense specification of the prefix and the stem must match, for other speakers, the non-past prefixes may combine with the past stems. In either case, the composite verb forms have only a two-way distinction, viz. between past and non-past. The contrast between present and future, observed in the system of realis, is neutralised in irrealis.

5.5.2.1 Irrealis past

The irrealis past in Kunbarlang is used in a variety of irrealis contexts, specifying past tense reference. This form is obligatory (for the events preceding the speech time) in the scope of negative particles (ngunda ‘not’ and marrek ‘not’, the latter having similar forms in Bininj Kunwok and Mawng).

(5.65) Yoh la ngunda ngarrki-kangkayini, karlu.
\[\text{yes conj not 1.incl.IRR.PST-go.IRR.PST neg.pred}\]
\[\text{‘Yes, but we didn’t go, nothing. [Because there was no car.]’}\]
\[\text{[20060830IB02/02:09–11]}\]

This form is also used in counterfactual conditionals (5.51, 5.66).

(5.66) Kuyi ngarrki-kangkayini hammer ngay-karrmili or
\[\text{nm(iv) conj neg.pred}\]
\[\text{1.incl.IRR.PST-go.IRR.PST hammer 1sg.IRR.PST-hold.IRR.PST or}\]
\[\text{or rabbi... la karlu.}\]
\[\text{file neg.pred}\]
\[\text{‘If we had have been going to go, I would’ve taken a hammer or a file… but}\]
\[\text{nothing.’}\]
\[\text{[20060814IB02/01:12–18]}\]

Still another function of the irrealis past form is the past habituals. This occurs particularly frequently in older people’s stories about the olden times and traditional activities, such as the fragments in (5.67) and (5.68).
(5.67)  

a. Kingarduld ngadda-karlungi.  
venus.clam 1pl.excl.IRR.PST-dig.IRR.PST  
‘We used to dig [scratch the surface of the sand/mud] for venus/tapestry clams.’  
[20060620IB03/01:19–24]  
b. Ngadda-worrmilli  
wirdidj,  
1pl.excl.IRR.PST-kindle.IRR.PST fire  
kunkeba ngadda-wirdidj-djungi.  
fire.drill 1pl.excl.IRR.PST-fire-stab.IRR.PST  
‘We used to make fire, we twirled the fire drill.’  
[ibid./01:30–35]  
c. Ngadda-kinjerli  
barbung.  
1pl.excl.IRR.PST-cook.IRR.PST fish  
‘We would cook fish.’  
[ibid./01:36–38]  

(5.68)  

Ki-warreni ki-wokdji ki-yawani  
3sg.IRR.PST-occur.IRR.PST 3sg.IRR.PST-speak.IRR.PST 3sg.IRR.PST-seek.IRR.PST  
njunjuk bonj-bonj.  
water RDP-exactly  
‘They [brolgas] would go along crying out, looking for water again.’  
[20150212AS02_brolga_transcript/01:59–02:03]  

Some scholars point out that habituals have a modal component to them (Boneh & Doron 2010), which explains the use of irrealis in Kunbarlang on the proposal made above that Kunbarlang irrealis is inherently modal, i.e. has to do with possible worlds.

5.5.2.2 Irrealis non-past  
Kunbarlang irrealis non-past is used in irrealis contexts, specifying present or future tense reference. Similarly to its past tense counterpart (see above), it is obligatory in the scope of negation.

(5.69)  

a. Ngunda kidda-kalbing  
djininj mayali, ngayi barrayidjidj.  
not 3pl.IRR.NP-get.IRR.NP properly sense nm.pl children  
‘They don’t hold the knowledge tight, the kids.’  
[IK1-160424_000-01/03:27–30]  
b. Na-mak kinj-karrme la ngunda ki-ngun-beye.  
1-good 2sg.fut-hold.NP conj not 3sg.IRR.NP-2sg.obj-bite.IRR.NP  
‘It’s good, hold it and it won’t bite you.’  
[IK1-170615_1SY-02/18:08–12]  

187
Other uses of this form include the protasis of a conditional (5.70a) and other modal contexts, in particular, expressing epistemic possibility (5.70b).

(5.70)  a. The police warns the local population about the coming cyclone. They say, among other things:

**Nguddu-yung** mandjang **ki-nguddu-bu.**

2PL.IRR.NP-lie.IRR.NP perhaps 3SG.IRR.NP-2PL.OBJ-hit.IRR.NP

‘If you sleep [in the house] you might get hurt.’

[20060614IB/00:30–33; translation mine — IK]

b. Kukka ngundje **ki-bun-rnak-bu.**

maybe 3SG.IRR.NP-3SG.OBJ-lim-hit.IRR.NP

‘S/he might just hit him/her/it.’

[IK1-160728_000-01]

Deontic modality does not have any specific form of expression in Kunbarlang. It may be expressed with future/imperative (5.71), or with the irrealis non-past if modalised through the use in a conditional (5.72b).

(5.71) **Ngundjidda-ka** ngorro.

2PL.FUT-go.NP DEM.MED.IV

‘You can go now.’ [E.g., said by a teacher after the class is over.]

[IK1-170522_1SM-01/02:51]

(5.72)  a. Ngudda ngunda **kirri-rna.**

you.SG not 2SG.IRR.NP-see.IRR.NP

‘You won’t find it.’

[IK1-170609_1SY-01/22:47–49]

b. Ngarra-mabulu **ngarra-rna.**

1SG.IRR.NP-want.IRR.NP 1SG.IRR.NP-see.IRR.NP

‘If I want to, I can find it.’

[ibid./21:40, 22:54]

Perhaps a type of epistemic modal meaning of the irrealis non-past is the adversative use as in (5.73):

(5.73) **Kanjyuwa** ki-kali **la ki-ngun-djang!**

PROH 2SG.NF-get.NP CONJ 3SG.IRR.NP-2SG.OBJ-eat.IRR.NP

‘Don’t get it, it’ll burn you!’

[IK1-170530_1SY-02/21:26–30]
Chapter 6
Verbs: derivational morphology and constructions

This chapter presents a variety of morphological devices that can alter the verb’s argument structure and to modify the event description. These include valency increasing prefixes (§6.1), noun incorporation (§6.3) and a variety of incorporated adverbials (§6.4), and valency decreasing reflexive/reciprocal suffix (§6.1.3). Section 6.2 reviews the valency classes found in Kunbarlang, taking into account both underived predicates and predicates formed through the application of argument structure derivations. The last section (§6.5) discusses a particular type of complex predicate construction found in Kunbarlang, viz. the coverb construction. This construction is unusual in the Gun-winyguan family but is structurally very similar to the Mawng coverb construction. However, there is interesting correspondence between the Kunbarlang coverb construction and certain features of predicate building in the Gunwinyguan languages, in particular, the complex stems and the phenomenon of excorporation.

6.1 Argument derivation

Thanks to its rich polysynthetic morphology, Kunbarlang has an array of morphological means to change the verb’s valency and argument structure. It has both valency increasing and decreasing derivations. The former include the benefactive (§6.1.1) and the comitative (§6.1.2), expressed by prefixes. The valency-decreasing derivation is represented by the reflexive/reciprocal suffix (§6.1.3). A predicate can be formed via successive application of derivations, and interpretation of the resulting predicates suggests that the reflexive/reciprocal always applies before the benefactive or the comitative. This is the opposite of the restriction found in Enindhilyakwa, Bininj Kunwok, Ngandi, and Wubuy, whereby the reciprocal cannot precede other argument derivations (Horrack 2018: 266–8). The two Kunbarlang valency-increasing derivations
do not interact with each other, and in that sense are unordered.¹

### 6.1.1 Benefactive

The benefactive is introduced by the prefix *marnanj-* (6.1a) in the slot -7 (see table 5.1 at the beginning of chapter 5). It is cognate with the benefactive prefixes in Bininj Kunwok and Dalabon (the "marne group" of Alpher, Evans & Harvey 2003).

(6.1) a. Ka-**ngan-marnanj**-yawanj djurra, nayi kin-ngaybu.
   3SG.NF-1SG.OBJ-BEN-seek.NP paper NM.1 1/11-1.GEN
   ‘S/he’s looking for my book for me.’ [IK1-170602_1SY-02/01:18–25]

b. Yoh ngal-buk=bonj njunjuk **ka-yawanj**.
   yes II-person=exactly water 3SG.NF-seek.NP
   ‘Yes, she looks around for water.’ [20150212AS02_brolga_transcript/01:41–44]

Its main function is to add an extra argument to the verb’s frame (compare the benefactive-marked derived ditransitive verb in (6.1a) with its monotransitive base form in (6.1b)). The thematic role of the new argument can be the beneficiary (6.1a), the addressee (6.2a), the goal (6.2b), the stimulus (6.2c), or the maleficiary (6.2d). I decided to use the traditional label ‘benefactive’ here, but it may be more transparently called *affectee* to reflect the range of thematic roles it introduces (that is the terminological choice made for the similar derivation in Wubuy by Horrack (2018: 6–9)).

(6.2) a. Kabarra-**marnanj**-ngunda that two mammam: **Bonj ngandjidda-rna**
   3DU.NF-BEN-do.PST ENG ENG MF exactly 1PL.EXCL.FUT-sit.NP
   kun-mak.
   IV-good
   ‘The two mammam told him [John Hunter]: Ok, we’ll be fine.’ [IK1-160624_002-01/02:15–38]

b. Kabarra-**marnanj**-bing old man kakkak Bungorro.
   3DU.NF-BEN-exit.PST ENG ENG MMB B
   ‘They two came to the old man Bungorro.’ [ibid./03:35–38]

¹. Derivation of predicates and interaction of applicatives in a such morphosyntactically rich language as Kunbarlang is a complex topic, and within the scope of this grammar I cannot do full justice to its exploration. Recent work on another Gunwinyguan language Wubuy by Horrack (2018; see esp. ch. 7) reveals an intricate system of interaction of valency-changing processes and their effects on the realisation of verbal arguments. Further work on Kunbarlang would be beneficial for a deeper understanding of how argument structure is built and modified.
c. Kadda-\textit{marnanj}-borrkridanj njunjuk.  
\textit{3pl.nf-ben-dance.pst} \textit{water}

’They went dancing for that water.’ [IK1-160726_000-01/10:28–32]

d. Ka-\textit{ngan-marnanj}-yambi-kalng=kubirribirrkuk.  
\textit{3sg.nf-1sg.obj-ben-yambi-get.pst=steal}

’S/he/it stole a swag from me.’ [IK1-160715_000-01/10:44]

The benefactive derivation effectively promotes the dative adjuncts the argument status (in particular, enabling their cross-referencing in the object slot). Consider two consecutive clauses from a narrative, where both devices are used in turn to express a beneficiary (6.3):

(6.3) a. Kadda-kalng ngorro kadda-wormeng \textit{bi-rnangu}.  
\textit{3pl.nf-get.pst dem.med.iv 3pl.nf-kindle.pst dat-he.gen}

’They got him and made a fire for him.’ [IK1-16010_000-01/04:44–49]

b. Ka-\textit{buddu-marnanj}-wormeng ngob.  
\textit{3sg.nf-3pl.obj-ben-kindle.pst all}

’They made fire for them all.’ [ibid./04:49–51]

This additional non-subcategorised benefactive/affectee role must be expressed either as a dative adjunct (6.4a) or a benefactive object (6.4b), but the two constructions cannot be mixed, as shown by the ungrammaticality of (6.4c), where there is both a prefix in the verb and a free dative pronoun instead of the object prefix.

(6.4) IK1-160618_000-01/46’ ff.

a. Kunj ka-bum \textit{bi-ngaybu ngayi}.  
kangaroo \textit{3sg.nf-hit.pst dat-l.gen} I

’S/he killed a kangaroo for me.’

b. Kunj ka-\textit{ngan-marnanj}-bum ngayi.  
kangaroo \textit{3sg.nf-1sg.obj-ben-hit.pst} I

c. *Kunj ka-\textit{marnanj}-bum \textit{bi-ngaybu ngayi}.  
kangaroo \textit{3sg.nf-ben-hit.pst dat-l.gen} I

The benefactive appears fully productive, i.e. it combines with a large number of diverse verbs. The interpretation of the thematic role of the introduced argument arises based on the base verb semantics.
6.1.2 Comitative

The comitative, like the benefactive, increases the valency of the verb, but it bears a number of important differences to it, which I explain below. It occupies slot -1 in the verbal template and is expressed by the prefix walkki- (6.5).

(6.5) Ka-ngan-balkki-rnay kunbareng nayi djamun la
3SG.NF-1SG.OBJ-COM-see.PST alcohol NM.1 policeman CONJ
nga-wundjijnj. 1SG.NF-hide.PST
'The policeman saw me with grog and I hid it.' [IK1-160816_1SY-01]

In (6.5), the comitative licenses the unmarked noun kunbareng as the comitative argument. By contrast, without the comitative applicative, the noun has to be an adjunct in a prepositional phrase with walkki (6.6).

(6.6) Kadda-bu-djinj walkki rlama.
3PL.NF-hit-refl.pst with shovel_spear
'They were fighting with shovel spears.' [IK1-180605_1SY-01/25:45–47]

The absolute majority of examples with the comitative derivation include an animate Theme and an inanimate comitative (as in (6.5)), so the latter is not indexed in the object agreement slot. Example (6.7) shows that the comitative argument is indexed by a personal prefix in the object slot, when not overridden by other objects.

(6.7) Nginda djarrangalanj nga-buddu-walkki-rleng-minj.
NM.PL boy 1SG.NF-3PL.OBJ-COM-much-1INCH.PST
'I was growing up with these boys.' [I. O’Keeffe’s field notes]

Furthermore, with verbs whose comitative argument is the Recipient, it gets indexed in the object slot over the Theme (6.8):

(6.8) Ka-buddu-walkki-baybum nayi nawalak.
3SG.NF-3PL.OBJ-COM-leave.PST NM.1 child
'She left the child with them.' [IK1-180529_1SY-01/01:22:14–20]

The comitative argument can also be incorporated, like the generic incorporated nominal bardi- 'liquid' in (6.9):
The comitative seems to be less frequent than the benefactive and combines with fewer verbs. Although the present data do not suggest any particular semantic restriction on the type of the base verb, my impression is that the majority of uses include a motion verb, e.g. -bingki 'to exit', -bukayi 'to rise', -wonj 'to return' etc.

Another important difference is that the comitative has a free-standing counterpart of the same phonological form, which serves as a preposition (6.6, 6.11; see also §3.2.9).

Semantically, the comitative typically encodes a possessive, 'having', meaning. The possessor can be the subject (6.7, 6.10) or the object of the base verb (6.5). There are, however, occasional examples that do not clearly fall into the comitative interpretation (6.12), which may be idiomatic.

Additional evidence for the idiomatisation of the comitative in (6.12) comes from the fact that an adjunct comitative phrase does not have the same meaning (6.13):
3PL.NF-hit-REFL.PST with magpie_goose

‘They were fighting, and each mob had magpie geese.’

not: ‘They were fighting over the magpie geese.’

[IK1-180605_tSY-01/25:40–43]

There is also one known idiom with it, -walkki-karrme ‘to help’ ((6.14); lit. ‘to hold it with X’).

not 1SG.IRR.NP-like.IRR.NP 1SG.IRR.NP-2SG.OBJ-COM-hold.IRR.NP

‘I don’t want to help you.’ [IK1-170602_tSY-01]

As discussed in more detail in §6.1.3, the comitative cannot be input to the reflexive or reciprocal derivation in Kunbarlang. The only examples where the comitative prefix and the reflexive/reciprocal suffix -dji~yi co-occur are the non-transparent ones, like (6.12) above (where the RR has to apply first, to the extent that a compositional interpretation may be suggested) or (6.15) below, where the verb means ‘to work together’ or ‘to help each other’, but hardly literally ‘to hold something with each other’:

(6.15) Ngarrki-balkki-kadbi-yi so ngarrki-bularrbunj quick.
1.INCL.FUT-COM-hold-REFL.NP ENGINE 1.INCL.FUT-finish.NP ENGINE

‘We’ll work together so that we finish quick.’

[IK1-180518_tSY-02/26:56–27:00]

This fact about the interaction of the two derivations can be accounted for by a fixed ordering of the derivations: the RR always applies before the comitative does. With this in mind, let us turn to the valency-decreasing derivation of reflexive/reciprocal.

6.1.3 Reflexive/Reciprocal

Similarly to the majority of Gunwinyguan languages, Kunbarlang has a suffix that is used to form reflexives and (with non-singular subjects) reciprocals. Along with the morphological strategy that is ambiguous between the reflexive and the reciprocal readings, Kunbarlang has unambiguous analytic constructions for both readings. Even though these do not pertain to the domain of verbal morphology, I review them here as the alternative means of expression of similar semantics. I begin with general information on the reflexive/reciprocal (RR) suffix that is common to both readings and then discuss each of them in more detail in §6.1.3.1 (reflexives) and §6.1.3.2 (reciprocals).

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3. Enindhilyakwa, Warray and Wubuy have separate markers for reflexive and reciprocal derivations.
As is frequently the case in Australian languages (Evans, Gaby & Nordlinger 2007: §2), the same exponent serves both the reflexive and the reciprocal derivation in Kunbarlang. That is the suffix in slot +1 with two allomorphs -yi and -dji. The distribution of the allomorphs is phonologically conditioned as follows:

1. after the high back vowel /u/ they are found to be in free variation, with some of the tokens being intermediate between the glide and the stop realisations

2. -yi is used after the high front vowel /i/ (6.16b)

3. -dji is used elsewhere (6.16a)

(6.16)  

   1SG.NF-beard-throw-REFL.PST  
   ‘I shaved [myself].’  
   [IK1-160818_002-01/20:37–39]

b. Kabarra-djalerrkalbi-yinj.  
   3DU.NF-embrace-REFL.PST  
   ‘They two hugged each other.’  
   [IK1-160809_000-01/06:03–05; MPIR:07]

The RR suffix identifies (binds) an object with the subject, decreasing the valency of the predicate by one. Monovalent predicates are incompatible with the RR-derivation, even when denoting a semantically reciprocal situation (6.17). Example (6.17a) illustrates the coverb construction meaning ‘(to be placed) leaning against something’, and is ambiguous between a reciprocal reading (‘leaning against each other’) and a non-reciprocal one (‘leaning against something separately’). Example (6.17b) shows that it is impossible to add the RR suffix to such a construction to disambiguate it in favour of the reciprocal reading. The resulting verb form (without the coverb) can only be interpreted as containing a different root (6.17c).

4. Some of the reciprocal examples in this section were elicited using the video stimuli from Evans et al. (2004). In those cases I cite the number of the video in the set as follows: MPIR:nn, where nn is the number.

5. There is further detail regarding the RR realisation with /e/-final stems. If that front mid vowel is preceded by a palatal consonant, it raises to [i] between the two palatals, feeding the choice of the -yi allomorph (see discussion in §2.7.2). Otherwise the vowel does not change and the stop-initial allomorph -dji is selected.
\[3DU.NF-sit.NP=lean \text{ they.DU 11-person}\  
'They two (one of them a woman) are sitting leaning [against each other or against something else].' [IK1-160812_000-01/37:17–20]  
\[3DU.NF-sit-REFL.NP=lean\  
Intended: ‘They two are sitting leaning against each other.’ [ibid./45:00–02]  
c. Kabarra-rna-dji.  
\[3DU.NF-see-REFL.NP\  
Only: ‘They are looking at each other.’  
\text{not: ‘They are sitting (leaning) against each other.’} [ibid./43:55–57]  

It is possible to disambiguate (6.17a), but only in favour of the non-reciprocal reading, using the distributive prefix \textit{baba-} (6.18):  

(6.18)  Kabarra-baba-rna=lorr.  
\[3DU.NF-DISTR-sit.NP=lean\  
‘They are sitting separately, leaning against something.’ [IK1-160812_000-01/45:58–46:00]  

Regarding the grammatical function that can be reflexivised or reciprocalised, the matters are not crystal clear. The RR derivation has not yet been recorded in spontaneous narratives with the ditransitive predicates, therefore one has to rely on direct elicitation in order to contrast reflexivisation and reciprocalisation of the primary and the secondary objects. Underlying ditransitives are scarce in Kunbarlang and some of them are ill-suited to eliciting reflexive situations. Even the judgements on the best such verb, \textit{rdukbandje} ‘to show; to teach’, are mixed. Still, the pattern that emerges is that both the primary and the secondary objects can be bound by the RR suffix; see (6.19a) and (6.19b), respectively.

(6.19)  a. Kadda-wu-\textit{yìnj}.  
\[3PL.NF-give-REFL.PST\  
‘They gave each other something.’ [IK1-160512_000-01/17:52]  
b. Nga-rdukbandji-\textit{yìnj} bi-rnungu.  
\[1SG.NF-show-REFL.PST\ D\textit{AT-he.GEN}\  
‘I showed myself to him.’ [IK1-160715_000-01/30:51–54]  

Furthermore, it seems that there is a preference for explicit external expression of the other argument, as in (6.19b). It is not clear at present why this should be, but one
possibility is that this is a strategy to reduce the potential for ambiguity, especially in
the construction that is not particularly frequent in everyday speech. Example (6.20)
further shows the dispreference for the goal argument of -rdukbandje ‘to show’ to
be indexed in the object slot (6.20a), and the alternative with an external pronominal
favoured by the speaker (6.20b).

   3SG.NF-1SG.OBJ-show-REFL.PST
   Intended: ‘S/he showed her-/himself to me.’ [IK1-160818_1RD-01]

   b. Ka-rdukbanjdji-yinj bi-ngaybu.
   3SG.NF-show-REFL.PST DAT-L.GEN
   ‘S/he showed her-/himself to me.’ [IK1-160818_1RD-01]

Derived objects (i.e. the benefactive and comitative ones) cannot be reflexivised or
reciprocalised. Instead, one must use circumlocutions. Example (6.21) illustrates this
for the comitative and example (6.22) for the benefactive.

   1.INCL.NF-COM-leave-REFL.PST
   intended: ‘We’ve exchanged something [lit. ‘left something with each
   other’].’ [IK1-180518_1SY-02/16:12]

   b. Ngayi nganj-ngun-walkki-baybunj ninda, la ngudda
      I 1SG.FUT-2SG.OBJ-COM-leave.NP DEM.PROX.I CONJ YOU.SG
      nj-ngan-walkki-baybunj ninda.
      2SG.FUT-1SG.OBJ-COM-leave.NP DEM.PROX.I
      ‘I’ll give this to you, and you give this to me.’ [ibid./15:20–30]

(6.22) Kadda-marnanj-kinje-dji.
   3PL.NF-BEN-COOK-REFL.NP
   ‘They are cooking each other (for somebody).’
   NOT: ‘They are cooking for each other.’ [IK1-180522_3SY-01/38:46–49]

   Placing the verb under contrastive focus in coordination does not facilitate a form
like ka-marnanj-kalbi-yinj [3SG.NF-BEN-get-REFL.PST], and free pronouns are used for
the reflexive Goal instead (6.23):
This is in contrast with other Gunwinyguan languages. In Bininj Kunwok, there is a difference between the reflexive and the reciprocal, such that only the latter, but not the former can bind derived objects (Evans 2003a: 439–40). We see that in Kunbarlang the reciprocal is not able to bind a derived object (6.21). In Wubuy, similarly to BKW, the reciprocal can apply after the valency-increasing derivations, but not before them (Horrack 2018: 266).

I have mentioned above that the use of the RR suffix leads to ambiguity in case the subject is non-singular (in case of singular subjects only the reflexive reading is available, as the subject is the controller of the RR). Example (6.24), where the subject is plural, illustrates that: it is ambiguous between the reading where everyone is working on their own hair and the other where everyone is helping each other.

\begin{align*}
(6.24) & \quad \text{Kadda} - \text{merre-marnbu-dji.} \\
& \quad \text{3pl.NF-hair-make-REFL.NP}
\end{align*}

‘They are doing up their hair.’ [IK1-160819_000-01/30:08]

In the next two subsections I discuss separately the properties of reflexives and recirocals that are peculiar to them, including the ways to express either reading unambiguously.

### 6.1.3.1 Reflexives and the intensifier bidju

The forms derived with the RR suffix are ambiguous between the reflexive and the reciprocal readings when the subject is non-singular, as was noted above (6.24). The reflexive reading, however, can be enforced by using the emphatic construction “pronoun=bonj bidju” (6.25).

\begin{align*}
(6.25) & \quad \text{Kadda-widrna-dji} \quad \text{bedbe=bonj bidju.} \\
& \quad \text{3pl.NF-hate-REFL.NP they=exactly EMPH}
\end{align*}

‘They hate themselves.’ [IK1-160513_000-01/52:53–58]

Such use of a free personal pronoun with a focus clitic bonj ‘exactly’ and the emphatic particle bidju ‘EMPH’ forces the reflexive reading and thus disambiguates the predicate. I analyse the combination (bonj) bidju as an adjunct intensifier (König,
Siemund & Töpper 2013), more specifically composed of the focus clitic bonj and the anaphoric intensifier bidju. To wit, bonj is optional in this construction, i.e. bidju can combine with a pronoun by itself (6.26).  

(6.26) Balkkime ngudda bidju kinj-bu-yi-ngurr. today you EMPH 2SG.FUT-hit-REFL.NP=wash

‘Today you are washing (yourself) yourself! (i.e., I am not helping you).’

Furthermore, the clitic bonj alone does not convey the same emphasis. Compare the intensified reading of (6.29a) below to example (6.27), where the pronoun without bidju merely spells out the subject.  

(6.27) Ka-rnay na-wuk=bonj. 3SG.NF-see.PST 1-person=exactly

‘He saw it.’

Finally, the particle bidju must adjoin to a pronoun and cannot modify the verb on its own (6.28):

(6.28) *Fred ka-rnay bidju. F 3SG.NF-see.PST EMPH

‘Fred saw himself.’

There are two interesting and important properties to notice:

(i) the pronominal intensifier construction itself cannot substitute for the reflexive/reciprocal suffix, where the structural conditions of the suffix are met

(ii) the particle bidju, however, imposes a coreference requirement (the NP containing it must be coindexed with the local subject; see below), which in certain configurations yields the reflexive interpretation in the absence of the RR suffix

To appreciate these two points let us first confine our attention to the verb’s objects. In the absence of the RR suffix the construction serves for intensification without

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6. According to König, Siemund & Töpper (2013), many languages use an identical form for reflexives and intensifiers (differing only in their distribution; for instance, the English x-self), while in others these are formally differentiated (for instance, the German selbst or the Russian sam); Kunbarlang clearly falls into the latter group. The worldwide distribution of these two possibilities is 94/74 (identical/differentiated), with Australian languages in their sample closely reflecting that ratio (5/4, not counting Kunbarlang).

7. It could potentially convey identificational focus, for instance, in an answer to the question Who saw it? (but this particular example was elicited without larger discourse context).
contributing the reflexive semantics (6.29). Example (6.29a) has only the emphatic, but not the reflexive, reading, and example (6.29b) demonstrates an overt object present, which would be eliminated in a reflexive clause.

(6.29) a. Ka-rnay $na$-wuk=$bonj$ bidju.
3SG.NF-see.PST 1-person=exactly EMPH

‘He saw it himself, with his own eyes.’

NOT: ‘He saw himself.’

[IK1-160513_002-01/01:53–58]

b. I feed my dogs, but...

Ngayi kinbadda-bareng yiwanj $kanj$badda-yawanj neyang
NM.PL 3PL-dangerous DISC.PTCL 3PL.FUT-seek.NP food

$bedbe=bonj$ bidju.
they=exactly EMPH

‘The wild [dogs] will search for food themselves.’

[IK1-160513_000-01/57:35–58:07]

Recall that $bidju$ always appears as a constituent of a NP (6.28). As I noted above, the particle $bidju$ ensures that the NP that contains it is coindexed with the local subject. The following data demonstrate that this is the correct analysis. First, observe the impossibility of $bidju$ in (6.30), confirming that it must be coindexed with the local subject:

(6.30) a. Mary ka-rnay nayi djurra korro kun-bodme bi-rnungu
M 3SG.NF-see.PST NM.I paper DEM.MED.LOC IV-back DAT-he.GEN

("bidju".
EMPH

‘Mary saw the book behind him/*himself.’

[IK1-160513_002-01/33:36–48]

b. *[Na-wuk=bonj ka-ngan-wardam] [la nganj-balkki-karrme
1-person=exactly 3SG.NF-1SG.OBJ-ask.PST CONJ 1SG.FUT-COM-hold.NP
bidju].
EMPH

‘*He asked me to help himself.’

[IK1-180522_3SY-01/55:11–20]

Adding $bidju$ to (6.30a) is impossible, because it establishes obligatory coreference of the NP containing it with the subject, and they clash in gender features in this case. In (6.30b) the potential antecedent of $bidju$ is in a different, conjoined clause, which renders it inaccessible.8 Thus, we see that this intensifier is not just some type of focus,

8. There is another problem with (6.30b), that is, the absence of a pronoun (see discussion of example
neither is it a logophor. Rather, it is a local anaphor. When there is no gender clash, the presence of bidju enforces (through coindexation with the subject) a reflexive reading of a structure that is otherwise ambiguous due to the referential ambiguity of the pronoun (6.31).

(6.31) a. Mary ka-rnay nayi djurra korro kun-bodme bi-ngadju. M 3SG.NF-see.PST NM.I paper DEM.MED.LOC IV-back DAT-she.Gen 'Mary found the book behind her.' [IK1-160513_002-01/32:00–17]  
   b. Mary ka-rnay nayi djurra korro kun-bodme bi-ngadju  
   EMPH  
   'Mary found the book behind herself.' [ibid./32:18–38]

Normally bidju is subject-oriented, as in the examples above; however, in elicitation a benefactive is allowed as its antecedent (6.32).

(6.32) Nga-buk ka-kidanj ka-bun-rnay John, la nukka John  
   II-person 3SG.NF-go.PST 3SG.NF-3SG.OBJ-see.PST  J  CONJ he.I  J  
   ka-bun-marnanj-ngunda kuyi ngal-buk=bonj  bidju.  
   3SG.NF-3SG.OBJ-ben-do.PST NM.IV II-person=exactly EMPH  
   'She went to see John, and he told her about herself.'  
   [IK1-180531_1SY-01/02:34:30–42]

Within the clause, bidju does not have to be a co-argument of its antecedent. For instance, it can be the possessor within an adjunct prepositional phrase (6.33):

(6.33) Ki-djung mayi kundulk [korro ngudda bidju ki-nungku  
   2SG.NF-stab.PST NM.III tree DEM.MED.LOC you EMPH I/II-YOU.GEN  
   karra kodbarre]. DEM.MED.LOC house  
   'You felled a tree near your own house.'  
   [IK1-180531_1SY-01/23:16–27]

To sum up the above discussion, Kunbarlang has an intensifier construction with (bonj) bidju, which serves to emphasise reflexive readings in cases of ambiguity and has the general intensifying function otherwise. What is particularly interesting about this construction is that it has some properties of an anaphoric pronoun without being...
one. Thus, it is involved in establishing referential coindexing between two NPs, but it does not affect the argument structure of the predicate, behaving consistently as an adjunct even when modifying arguments (e.g. 6.29a).

6.1.3.2 Reciprocals

The morphological reciprocal (just like the reflexive) is valency-reducing in terms of Evans, Gaby & Nordlinger (2007), which means that the verbal construction resulting from the application of the RR suffix to a base verb is one valency lower. More specifically, an object that is bound by the reciprocal cannot be instantiated. Typically (i.e. in the case of a transitive verb), this is manifest in the absence of object agreement. Consider the pair of examples in (6.34), which show the object agreement in the verb -ngeme ‘to paint’ and that it disappears in a reciprocal situation.

(6.34) a. Kinj-ngan-ngeme balkkime, la ngayi nganj-ngun-ngeme malayi.
   2sg.fut-1sg.obj-paint.np today conj 1sg.fut-2sg.obj-paint.np tomorrow
   ‘You paint me now, and I’ll paint you tomorrow.’
   [IK1-160712_000-01/10:32–37]

b. Ngarrki-ngeme-yi.
   1.incl.fut-paint-refl.np
   ‘Let’s/we’ll paint each other.’
   [ibid./09:32]

In addition to the morphological construction with the reflexive/reciprocal suffix -yi/-dji, described above, there is an analytic construction. Formally it looks like an elliptical clause, one from which everything is elided but for the subject, expressed by a contrastive pronoun (6.35).

(6.35) Ka-bun-rnay la na-wuk-ma.
   3sg.nf-3sg.obj-see.pst conj 1-person-contr
   ‘They looked at each other.’
   [IK1-160809_000-01/29:07–09; MPIR:33]

As can be seen, in terms of morphosyntax this construction is valency-conserving (Evans, Gaby & Nordlinger 2007), as the verb retains the agreement in the object slot.

The morphological reciprocal is preferably used for simultaneous situations (6.36a), although its use in sequential ones is also often admitted. There is, however, a preference to give longer explicit descriptions (e.g. via the analytic construction) for the sequential situations (6.36b). A simultaneous situation is one where the participants perform as
agents of the relevant action at the same time. A prototypical simultaneous situation is when two people embrace. A sequential situation, by contrast, is one where a similar event iterates over time with the participants alternating in the agent role. A prototypical sequential situation is when two people chase each other in turn (or in fact anything that is done in turn). Note that events of most kinds can be manipulated to skew them towards one or the other kind of situation, and this is one of the reasons why video stimuli are immensely useful for elicitation and checking of reciprocal constructions: they are maximally unambiguous with respect to the number of participants, their agentivity and the temporal course of events.

For instance, there are several videos that present events of delousing. In one of them, there are two participants, who are browsing each other’s hair simultaneously, and that is best described by the morphological reciprocal (6.36a). In another video, however, the two participants are taking turns in looking at each other’s hair, and the preferred description for that is with the analytic construction (6.36b).

   3DU.NF-hair-see-REFL.NP
   ‘They are looking at each other’s hair / delousing each other [simultaneously].’
   [IK1-160809_000-01/48:29; MPIR:45]

   3SG.NF-3SG.OBJ-hair-see.NP CONJ II-PERSON-CONTR
   ‘They are looking at each other’s hair / delousing each other [taking turns].’
   [IK1-160809_000-01/09:04; MPIR:10]

The analytic reciprocal strategy (as in (6.35) and (6.36b)) seems fully constructionalised, with its three constituents — the verb, the conjunction la and the emphatic pronoun — occurring in this order under a single intonational contour. It is interesting to note that unlike the morphological strategy, which requires the base verb to be transitive (see example (6.17) and related discussion), this construction admits intransitive verbs as well, cf. (6.37): 9

(6.37) Pat la Stacey ka-nganj-yuwa la na-wuk-ma.
   P CONJ S 3SG.NF-HITH-lie.NP CONJ 1-PERSON-CONTR
   ‘Pat and Stacey are neighbours (i.e., live near each other).’
   [IK1-160513_001-01/00:44–50]

The construction is sensitive to the number of participants in the reciprocal event and to its internal composition (simultaneous or sequential subevents; Evans et al. 2004).

9. It is not clear at present why the posture verb -yuwa ‘to lie’ (meaning ‘to live’ here) has the directional prefix nganj- ‘HITH’. It may serve as locative (rather than directional) with stative verbs; there are also examples of this prefix used with the other posture verbs in my recordings, albeit few.
The number of participants is tracked by the grammatical number of the verb’s personal prefixes and of the contrastive personal pronoun. Thus, examples (6.35) and (6.37) unambiguously describe situations with two participants (and thanks to the gender specification of the singular pronoun *nawukma* ‘he.contr’, also indicate that at least one of the participants is male). If the event involves more participants, both the verb and the pronoun reflect that (6.38).

(6.38) **Ka-buddun-karlangwanj la bedberre-ma.**  
3SG.NF-3PL.OBJ-chase.NP conj they-contr  
‘They are chasing each other.’ [IK1-160809_000-01/35:38–40; MPIR:43]

The analytic reciprocal only suits descriptions of simultaneous reciprocal events, but not sequential ones. This is illustrated by the unacceptability of this construction in (6.39a), when the prompt video shows two men hugging one another in turn. This prompt, like all other markedly sequential events, invites an explicit description instead (6.39b).

3SG.NF-3SG.OBJ-embrace.PST conj 1-person-contr  
Intended: ‘They hugged each other in turn.’  [IK1-160812_000-01/33:12–25]  

b. Na-buk werrk ka-bun-djalarrkkarrmeng yirrkbonj  
1-person immediately 3SG.NF-3SG.OBJ-embrace.PST then  
ka-ngorrodjanganj na-wuk-ma=wali  
3SG.NF-turn_around.PST 1-person-contr=turn  
ka-bun-djalarrkkarrmeng.  
3SG.NF-3SG.OBJ-embrace.PST  
literally: ‘He hugged him first, then he turned around and hugged him in his turn.’ [ibid./32:38–54]

Interestingly, the neighbouring Iwaidjan language Mawng (as well as Iwaidja, spoken on Croker Island) uses a structurally similar construction as its main reciprocal strategy (Singer 2011). It also includes a conjunction and a contrastive pronoun (6.40) and appears to have developed from a biclausal construction; Singer notes that this structural type is cross-linguistically rare (2011: 234, citing Evans 2008).

(6.40) **Mawng (Singer 2011: 238)**  
Ngi-wu-ng la ngapimung.  
1SG>3M-hit-PP conj 1SG.contr  
‘We (two) hit each other.’
In Mawng, there is a hierarchy (6.41) that determines the person of the contrastive pronoun (Singer 2011: 238).

\[(6.41) \quad 1 > 2 > \frac{3M > 3F}{3PL}\]

Consider (6.40): the subject of the verb is of the first person, and the contrastive pronoun is also of the first person. The literal rendition of that would not amount to *I hit him, and then he [hit me]*; the choice of the pronoun does not intuitively reflect the reciprocal, turn-taking nature of the event. However, the contrastive pronoun must be of the first person, which overrides the third person on the hierarchy (6.41).

Similarly to Mawng, Kunbarlang has a hierarchy, but unlike Mawng, the third person outranks the second in Kunbarlang (6.42):

\[(6.42) \quad 1 > 3 > 2\]

The datapoint that illustrates this is in (6.43a), where the pronoun is third person, like the subject of the verb. Example (6.43b) confirms that the person of the pronoun is not just tied to that of the subject.

\[(6.43) \quad a. \quad \text{Ngudda na-buk kanj-ngun-rranj la} \quad \text{you 1-person 3SG.FUT-2SG.OBJ-see.NP CONJ} \]
\[\text{na-wuk}=\text{ma}/*\text{nji}=\text{ma}. \quad 1\text{-person}=\text{CONTR}/\text{you}=\text{CONTR} \]
\[\text{‘You and he, you’ll see each other.’} \quad [IK1-180530_JW-01/01:24:05–07]\]

\[b. \quad \text{Ka-ngan-bum la nganj}=\text{ma}. \quad \text{3SG.NF-1SG.OBJ-hit.PST CONJ I}=\text{CONTR} \]
\[\text{‘We fought / hit each other.’} \quad [IK1-180522_3SY-01/44:42–45]\]

Given the typological rarity of such a reciprocal construction and the close connections between Kunbarlang and Mawng speakers (including the fact that all Kunbarlang speakers are proficient in Mawng), it is highly plausible that the homology of this reciprocal strategy in the two languages is not accidental, but has been the result of language contact. Taking into account the presence of a similar construction in Iwaidja and in no other Gunwinyguan languages, one may conjecture that it has been borrowed from Mawng into Kunbarlang.

### 6.2 Valency classes

Australian languages are well-known typologically for their lack of lability (Dixon 1980: 278; with the notable exception of Mawng (Singer 2006: 63–5)). In Kunbarlang, as
well, the stems have fixed transitivity and thematic-role grids, and the argument frame of a verb can only be altered via valency-changing derivations (§6.1). There are a few preponds which show a causative-inchoative alternation depending on the choice of the thematic (-wunj 'to give' or -mi 'inch'; see §8.3.1), but they are a small and closed class. The following pattern with the intransitive (6.44) and the transitive (6.45) verbs meaning ‘to break’ is typical and illustrative: one of them is strictly transitive, the other is strictly intransitive, and their argument frames cannot be mixed and matched.

      dem.prox.1 cup 3sg.nf-fall.pst 3sg.nf-break.pst
      ‘The cup fell down and smashed.’ [IK1-160505_001-01/01:10:40–44]

b. *Mary ka-rdakdjung nayi banikkin.
   M 3sg.nf-break.pst NM.1 cup
   intended: ‘Mary smashed the cup.’ [ibid./01:11:27–35]

      M 3sg.nf-smash.pst / 3sg.nf-break.pst NM.1 cup
      ‘Mary smashed the cup.’ [IK1-160505_001-01/01:11:34–01:12:39]

b. *Ninda banikkin ka-mankang, ka-rlumung.
   dem.prox.1 cup 3sg.nf-fall.pst 3sg.nf-break.pst
   intended: ‘The cup fell down and smashed.’ [ibid./01:13:00–05]

The predicates in Kunbarlang can have between one and four argument positions. No Kunbarlang verbs are known to be avalent, i.e. to have zero argument positions. In particular, there are no specialised weather verbs found, such as exist, for instance, in Germanic languages (e.g., English *to rain* or in Bininj Kunwok (e.g., mayhke ‘to lighting’; Evans 2003a: 393). Rather the nouns that denote atmospheric conditions combine with intransitive posture (6.46b) and motion verbs (6.46c), (6.47). As is discussed in §3.2 on parts of speech, nouns characteristically cannot have personal prefixes (6.46a).

(6.46)  IK1-160513_000-01

a. *Ka-balmad.
   3sg.nf-rain
   intended: ‘It’s raining.’

   rain 3sg.nf-stand.np 3sg.nf-sit.np 3sg.nf-lie.np
   ‘It’s raining.’
c. Balmad ka-bakdjuwa.
   rain 3SG.NF-fall.NP
   ‘It’s raining.’

   wind 3SG.NF-go.NP=run
   ‘The wind is blowing.’

6.2.1 Monovalent verbs

Monovalent verbs have just one argument. Regardless of its thematic role it is obligatorily cross-referenced by the appropriate personal prefix out of the “subject set” and I call this only argument the subject. Monovalent verbs can be formed from intransitive stems or derived from monotransitive stems via application of the reflexive/reciprocal derivation.

(6.48) a. Ka-malakkidjanganj.
   3SG.NF-laugh.PST
   ‘S/he laughed.’
   [IK1-160505_001-01/01:19:30]

b. Ka-ngan-ngungang la ngunda ngay-kelbunguni.
   3SG.NF-1SG.OBJ-threaten.PST CONJ not 1SG.IRR.PST-afraid.IRR.PST
   ‘S/he threatened me but I didn’t get scared.’
   [IK1-180521_2SY-01/54:19–23]

c. Kinj-wonj kinj-yawanj.
   2SG.FUT-return.NP 2SG.FUT-seek.NP
   ‘Go back and look for it!’
   [IK1-170516_2DDj-01/59:13–16]

Transitive stems that admit of reflexive or reciprocal readings/construals can be detransitivised with the addition of the reflexive/reciprocal suffix -dji/-yi, yielding monovalent predicates (6.49). Compare, specifically, the intransitive verb form derived from the transitive stem -kali ‘to get’ (6.49b) with that stem used without any argument derivation, and thus transitively, in (6.49c). Characteristically, in the former all the participants are “accounted for” by the subject prefix (as this is a reciprocal situation), whereas in the latter there is a separate subject and a separate object prefix.

10. There is a noun (a skin name) Ngal-ngarridi present next to the verb in (6.49b), which is not an object, but a part of the subject in an inclusory construction (see §4.4.2).
6.2.2 Divalent verbs

Divalent verbs are those that have two arguments, viz. the subject and an object. Divalent predicates show the most diversity in the ways they can be formed, which can be one of the following:

- having a monotransitive verbal stem unmodified by any argument derivation
- derived from a monovalent predicate via application of the benefactive or the comitative prefix (where the monovalent predicate can be an intransitive verbal stem or itself derived)
- derived from a ditransitive verbal stem via application of the reflexive/reciprocal suffix

6.2.2.1 Underived divalent verbs

There are very many transitive stems in Kunbarlang. They form divalent verbs if not modified by any of the argument derivations.

(6.50)  

a. Malayi ngunda **ki-ngan-rluklung**.
   tomorrow not 3SG.IRR.NP-1SG.OBJ-wake_up.IRR.NP
   ‘S/he won’t wake me up tomorrow.’ [IK1-180521_2SY-01/29:19–22]
b. **Nga-yawang. nga-kalng.**

1SG.NF-seek.PST 1SG.NF-get.PST

'I looked for it [the lost dog], I found it.'  

[IK1-160829_000-01/06:47–52]

The primary (and only) object of an underived monotransitive verb is cross-referenced in the object slot in the verb (as in (6.50a)), unless that is a third person singular object acted upon by a subject other that third person singular (6.50b).  

See §5.2 for a full explanation of the verbal agreement system.

### 6.2.2.2 Increasing valency to two

The intransitive stems may serve as the basis for valency-increasing derivations and thus form divalent verbal forms. There are two valency-increasing derivations in Kunbarlang, viz. the benefactive and the comitative (§6.1). They can combine with a wide variety of verbal stems, the main restriction generally being the viability of the semantic interpretation.

One of the relatively frequent verbs that is formed in this way is -*marnanj-bingki* 'to arrive to (meet) someone', derived by applying the benefactive to the intransitive stem -*bingki* 'to arrive; to exit'.

(6.51) a. **Ka-burrun-marnanj-bing** ka-burrun-rnay ninda

3SG.NF-3DU.OBJ-BEN-exit.PST 3SG.NF-3DU.NF-see.PST DEM.PROX.I

kabarra-rna.

3DU.NF-sit.NP

'He found those two and he saw them sitting down.'

[djurddjurd_2016_transcript-298569/05:27–31]

b. **Nganj-walkki-wonj.**

1SG.FUT-COM-return.NP

'I’ll bring it back.'  

[IK1-160829_000-01/06:58–07:00]

It is also possible to apply a valency-increasing and a valency-decreasing derivation to a transitive stem and thus get a divalent derived predicate as the result. I cannot assess the extent of productivity of such a derivation: the known examples are the cases where a particular derived form of a verb seems to undergo lexicalisation, but is still transparent enough. The order of derivations is such that the reflexive/reciprocal always precedes the valency-increasing derivations (§6.1.3). Thus, in (6.52a) and (6.52b) the original stem -*rdam* 'to put' is detransitivised by the reflexive to mean 'to enter'

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11. Inanimate objects do not get a cross-referencing personal prefix either, regardless of the nature of the subject.
(−rdayi), and afterwards its valency is increased again to a two-place predicate by the benefactive or the comitative prefix, respectively. In (6.52c), on the other hand, the original stem is -bunj ‘to hit’, first reciprocalised to mean ‘to fight each other’, and then made two-place again by a somewhat idiosyncratic use of the comitative (see also §6.1.2).

   NM.II II-skin.name 1SG.NF-BEN-word-put-REFL.PST
   ‘I called Ngalngarridj.’ [IK1-160628_000-01/04:01–04:01–04]

b. Ninda mutikang nayi kin-ngaybu ngunda
   DEM.PROX.I car NM.I 1/II-L.GEN not
   ngarra-walkki-rda-yi.
   1SG.IRR.NP-COM-put-REFL.IRR.NP
   ‘I cannot drive my car inside [of this shed].’ [lit. ‘I cannot get myself inside with the car.’] [IK1-170616_1SY-01/01:05:08–17:17]

c. Mamu ka-ngaddu-karlwangang yakarni kikka ngorro
devil 3SG.NF-3PL.EXCL.OBJ-chase.PST magpie_goose she.II DEM.MED.IV
   ngadda-walkki-bu-djinj.
   3PL.EXCL.NF-COM-hit-REFL.PST
   ‘Devil was chasing us, we were fighting over those magpie geese.’
   [20060620IB04/05:01–06]

6.2.2.3 Decreasing valency to two

The ditransitive stems can attach the reflexive/reciprocal suffix (semantics permitting; see §6.1.3 on this suffix), and in this way form two-place verbs. There are few underlyingly ditransitive verbal stems in Kunbarlang (§6.2.3).

(6.53) a. Ngarrki-kinjang neyang ngorro ngarrki-wu-dji
   1.INCL.NF-COOK.PST food DEM.MED.IV 1.INCL.NF-give-REFL.PST
   korro=way kenda=way.
   DEM.MED.LOC=HITH DEM.PROX.LOC=HITH
   ‘We made food and then shared it/exchanged it with each other [lit. ‘gave it to ourselves’].’ [IK1-180522_2SM-01/16:32–17:02]

b. Barrayidjyidj kadda-barndji-yi keddjurr.
kids 3SG.NF-stick-REFL.NP mud
   ‘The kids are sticking mud on each other (or on themselves).’
   [IK1-160518_001-01/48:13–16]
6.2.3 Trivalent verbs

Trivalent verbs have three arguments, viz. the subject, a primary object and a secondary object. Trivalent predicates in Kunbarlang can be formed from underlyingly ditransitive stems, be derived from a monotransitive stem via a valency-increasing argument derivation (i.e. the benefactive or the comitative), or sometimes be derived from an intransitive stem via applying both valency-increasing derivations.

6.2.3.1 Underived trivalent verbs

At present six underived trivalent verbs (i.e., ditransitive stems) are known. The most frequently used one is -wunj ‘give’ (6.54a). The other five are these (6.54): -barndje ‘stick’ (6.54b), -berrek bunj ‘promise in marriage’ (6.54c), -kaybunj ‘withhold’ (the primary object’s role here is closer to Source; 6.54d), -rdukbanjdje ‘show’ (6.54e), and -yikali ‘take away’ (the primary object’s role here is closer to Source; 6.54f).

(6.54) a. Nga-buddu-wuy kekkek nakarrken la na-kudji ngunda
   1sg.NF-3PL.OBJ-give.PST bone dog conj 1-one not
   ngarra-wu nayi nakarrken.
   1sg.IRR.NP-give.IRR.NP NM.I dog
   ‘I gave bones to [all] the dogs but I won’t give a bone to this one.’
   [IK1-170610_1SY-02/19:23–30]

   NM.I kid 3sg.NF-1sg.OBJ-stick.NP mud
   ‘The kid is sticking mud on me.’
   [IK1-160518_001-01]

c. Ngayi nga-ngunj-berrek bunj kenda.
   1sg.NF-2sg.OBJ-promise.NP DEM.PROX.LOC
   ‘I promise you so and so.’
   [IK1-160518_001-01]

   1sg.NF-ask.PST conj 1-person 3sg.NF-1sg.OBJ-withhold.PST
   ‘I asked him/her [for something], but s/he didn’t give [it to] me.’ [ik160518-001]

e. And ka-ngan-rdubanjdjing yalbi.
   ENGLISH 3sg.NF-1sg.OBJ-show.PST country
   ‘[My father] taught me the country.’ [lit. ‘He showed the country to me.’]
   [20150413IOv01/07:10–11]
In all examples in (6.54), except for (6.54d), there is a Theme/Patient object present in the form of a free standing NP (the secondary object), but without any cross-reference in the verb. This is because a Goal or a Source is the primary object, i.e. the preferred argument for indexing in the object slot. However, there is another possibility for indexing the secondary object on the verb, namely, noun incorporation (more on noun incorporation in §6.3).

6.2.3.2 Increasing valency to three
Underlying transitive stems can take on the benefactive or the comitative and thus yield trivalent predicates.

(6.55)  
   3SG.NF-3SG.OBJ-take.away.PST cigarette what-INDEF
   'He took from him smokes or something.' [K1-160510_000-01/03:25–29]

   3SG.NF-3PL.OBJ-com-leave.PST NM.I child
   'She left the child with them.' [K1-180529_1SY-01/01:22:14–20]

   A felicitous combination of the benefactive with the comitative is extremely rare, but a good example is the verb -marnanjwalkkiwonj 'to return something to someone’, derived from the intransitive stem -wonj 'to return (intr.)’, illustrated in (6.56). The felicity of this combination is partially due to a subpart of it, -walkkiwonj, seemingly developing the idiomatic meaning 'to bring back'.

(6.56) Ninda nganj-ngun-wunj djurra, yiwanj babi la
   DEM.PROX.I 1SG.FUT-2SG.OBJ-give.NP paper DISC.PTCL later CONJ
   nj-ngan-marnanj-walkki-wonj.
   2SG.FUT-1SG.OBJ-BEN-COM-return.NP
   'I’ll give you this book, then afterwards return it to me.'
   [IK-180531_1SY-01/02:12:23–33]
6.2.4 Four-place verbs

There are no underived four-place verbs in Kunbarlang. Ditransitive stems, in principle, can increase their valency by one when the benefactive or the comitative is attached. However, such forms have not been registered in spontaneous discourse and the judgements of these forms are mixed, with some speakers accepting, for instance, the benefactive derivation of -\textit{wunj} ‘to give’, while others reject it (6.57).

(6.57) a. \textit{Nganj-ngun-marnanj-wunj} ninda djurra kinj-marnanj-kanj
\textit{1SG.FUT-2SG.OBJ-BEN-give.NP DEM.PROX.I paper 2SG.FUT-BEN-take.NP}
Jackie.

J
'I’ll give you this book to take to Jackie.’ [lit. ‘I’ll give you this book for him, you’ll take it to Jackie.’] [IK1-180522_3SY-01/23:55–24:02]

b. *\textit{Nga-ngun-marnanj-wuy}.
\textit{1SG.NF-2SG.OBJ-BEN-give.PST}
intended: ‘I’ll give it to you for him/her.’ [IK1-180522_2SM-01/03:42–45]

I am led to conclude at this point that four-place predicates are a marginal phenomenon that belongs to the Kunbarlang grammar, but is not really a part of people’s language use. No transitive stems increased by both the benefactive and the comitative (parallel to (6.56)) are known.

6.3 Noun incorporation

Kunbarlang has a rich system of noun incorporation, whereby nominal roots can under certain circumstances appear linearly within the verbal word (6.58). Noun incorporation is one of the hallmarks of polysynthesis (M. C. Baker 1988, 1996, Evans 2017, Mithun 1984b) and within the Gunwinyguan family is found in all languages (except Kungarakany and Mangarayi (Evans 2003a: 33), if these are to be included in the family).

\textit{DEM.MED.LOC G they yesterday 3PL.NF-shelter-hit.PST}
‘At Gove they later made houses.’ [20060620IB03/32:44–50]

b. Kunbid=rnengu ka-\textit{birri}-rdami-yinj.
\textit{hand=he.GEN 3SG.NF-hand-put-REFL.PST}
‘He left a handprint.’ [IK1-170606_1SY-01/38:24–26]
Bininj Kunwok is well-known for its elaborate productive system of noun incorporation (Evans 2003a: §10.4). It has a very wide variety of incorporated nominals, and allows a vast array of external modification of those. In comparison with Bininj Kunwok, the Kunbarlang system is more modest; in particular, external modification is very restricted. Another difference is that whereas Bininj Kunwok has two clearly distinct subtypes of incorporated nominals, viz. body parts and generic nouns, which can co-occur and occupy distinct slots in the verb, Kunbarlang does not seem to have grounds to make this distinction. Specifically, the two seem unable to co-occur.

Some of the important parameters of variation in the domain of noun incorporation are the grammatical relations that can be incorporated and the set of the forms that incorporate. I discuss the grammatical relations after listing the forms. In terms of the incorporated forms, Kunbarlang allows a finite set of generic nouns and body parts to be incorporated, all 30 attested forms given in table 6.1. The forms of the nouns are usually identical to the freestanding forms of those nouns, with a few exceptions, such as for instance the word *djabirrk* ‘swag’, whose incorporated form is *yambi*-, or the word *njunjuk* ‘water’, whose incorporated form is *bard*- ‘liquid’ (or *ngambi*- ‘water’ in the Kumungkurdu dialect (Coleman 2010: 92)). An important caveat is that the nouns that historically bear noun class prefixes (§4.1.3) drop them so that only the root is incorporated (6.59). Thus, table 6.1 lists the incorporated roots and their meanings, but also gives the following information about the free form:

(i) the historical noun class prefix, if the free form has one; the N-dash (–) in the first column indicates that the free form does not carry one, and an empty cell in the first column indicates that there is no corresponding free form

(ii) the free form itself, which is in boldface in case there is suppletion (the last column)

Some individual combinations have lexicalised, so that the predicate as a whole does not compositionally relate to the verb-plus-noun, nor can the incorporate be taken out of such a combination; e.g. *-yalbi.rdakdjua*wa ‘to sprint’, whose meaning is not a function of *yalbi*- ‘country’ and *-rdakdjua*wa ‘to break’. The only metaphorical extension I am aware of is *djarda*- ‘mouth’ extending to mean topological entrances, such as the door or the brim of a jug. In all other cases the incorporate retains its meaning.

12. And possibly also a separate category of incorporated nouns serving as secondary predicates, see Evans (2003a: 458 ff.) for details.
13. The ‘water’-suppletion seems to be a familial trait of the Gunwinyguan: the same is the case in Gundjeihmi and Kunwinjku (*gukku ~ bo-*), Kune and Kuninjku (*kunronj ~ kolk-*), Ngandi (*kw-djark ~ bun-*), and in Ngalakgan (*weʔ ~ binyi-*), according to Evans (2003a: 332). Evans further notices that “[i]n Ngalakan, as in Mayali, this is the only suppletive incorporated nominal in the language” (ibid.: fn. 5).
Table 6.1: Incorporating nominal roots

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Root</th>
<th>Meaning</th>
<th>Free form</th>
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<td>kun</td>
<td>bardi</td>
<td>liquid</td>
<td>njunjuk</td>
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<td>bim</td>
<td>white clay</td>
<td>kudjurn</td>
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<td>bid</td>
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<td>ki</td>
<td>yambi</td>
<td>swag</td>
<td>djabinrrk</td>
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</table>
(6.59) a. La mayi **kundulk** ka-dja mayi kaburrk.
   
   \[ \text{CONJ} \text{NM.III\text{ tree} 3SG.NF-stand.NP NM.III two} \]
   
   ‘As for trees, there are two.’ [IK1-170610_2SM-01/03:04-12]

b. **Ka-dulk**-dja.
   
   \[ 3SG.NF-tree-stand.NP \]
   
   ‘A tree is standing.’ [IK1-160505_001-01/01:22:46]

6.3.1 Grammatical relations

Kunbarlang allows for a wide variety of grammatical relations to incorporate into the verb. That includes

- the core set of arguments
  - intransitive subject (6.59b), (6.60)
  - primary object (6.62)
  - secondary object (6.63)

- locative adjuncts, in particular
  - essive locatives (6.65)
  - ablative (source) locatives (6.66)

The incorporation of arguments follows the absolutive pattern, i.e. objects and intransitive subjects (6.60) can incorporate, but not agents/transitive subjects (e.g. 6.61; see M. C. Baker 1996: 291–2). In fact, among the incorporating nominal roots few have semantics that goes well with agentivity.\(^\text{14}\) The predicates in (6.60a)–(6.60c) may look agentive, but it is also possible that their only arguments are construed as non-volitional figures moving on a trajectory. In the absence of tests, at present, this has to be left open.

\(^{14}\) Compare: ”the overwhelming majority of incorporable nouns are inanimate in Gunwinyguan languages“ B. Baker (2014a: 248).
Concerning objects, it is the Themes that incorporate, that is, the primary objects of transitives (6.62) and the secondary objects of ditransitives (6.63). Incorporation of derived objects is discussed in §6.3.3.

     1SG.NF-flesh-get.PST
     ‘I got meat.’ [IK1-160429_000-01/01:14:36]

(6.63) Nga-buddu-kakkin-rnirlakwang.
     1SG.NF-3PL.OBJ-flesh-send.PST
     ‘I sent them meat.’ [IK1-160503_1SY-01]

When the Theme is a body part in a possessive construction, and thus allows for possessor raising (see §4.5.2), it may also be incorporated, with the possessor indexed in the object slot (6.64). Similar structure is found in Wubuy, where the possessum can be incorporated both in a possessor raising construction and without possessor raising (Baker et al. 2010).
The absolutive pattern for noun incorporation is typologically very common (e.g. Massam 2009: 1089 and references therein). Incorporation of adjuncts, however, is seldom attested. Adjuncts can incorporate in Chukchi, for instance (Spencer 1995). Within the Gunwinyguan family, incorporation of instrumentals and locatives is found in Wubuy (B. Baker 2014a). In Kunbarlang locatives can be incorporated into a variety of verbs if they describe essive location (6.65) or source (6.66).

(6.64) Ka-bun-birr-djarrang.
3sg.nf-3sg.obj-hand-eat.pst
‘It burnt her on the hand.’ [IK1-160712_000-01/14:41]

Example (6.64) shows that the Theme is indexed in the object slot, while the Source is incorporated. Example (6.67) shows that when Source is encoded paraphrastically, it has the generic preposition karra:

(6.65) Ngadda-yalbi-djangaj Malabunuwa.
1pl.excl.nf-country-stand.pst M
‘We were staying at Malabunuwa country.’ [IK1-160510_000-01/01:54–56]

3pl.nf-water-pull_out.pst
‘They pulled it out of the water.’ [Coleman 2010: 18]

b. Ka-burrun-nguluk-kalng.
3sg.nf-3du.obj-ash-get.pst
‘[The devil] took them two out of the ashes.’ [IK1-180601_1SY-01/06:31]

Example (6.66b) shows that the Theme is indexed in the object slot, while the Source is incorporated. Example (6.67) shows that when Source is encoded paraphrastically, it has the generic preposition karra:

(6.67) Ka-burrun-kalng karra nguluk ka-burrun-kinjeng.
3sg.nf-3du.obj-get.pst dem.med.loc ash 3sg.nf-3sg.obj-cook.pst
‘[The devil] took them two out of the ashes, he’d cooked them.’ [IK1-180601_1SY-01/06:52–56]

Example (6.68) further shows that the Source (just like all other Kunbarlang incorporation, for instance, see examples (6.58b), (6.60a), (6.60b), (6.65)) may be doubly expressed, and then the external locative obligatorily has the preposition. It seems to be a particular property of placenames that they can be used without korro/karra (6.65).

(6.68) Ka-yambi-yuwa nayi djabirrk *(karra) baladji.
3sg.nf-swag-lie.np nml1 dress dem.med.loc bag
‘The dress is in the bag.’ [IK1-180529_1SY-01/55:28–34]
As I have mentioned above, another Gunwinyguan language that allows the incorporation of locatives is Wubuy (6.69).

(6.69) Wubuy (B. Baker 2014a: 237)

\[
\begin{align*}
\text{wirri-} & \text{wa} & \text{la-jabijgaa} & \text{ana-ngagara} & \text{(a-walak-guy)} \\
3\text{PL/NEUT-log-go.in.CAUS.PC} & \text{NEUT.TOP-bones} & \text{NEUT.OBL-hollow.log-ALL} \\
\end{align*}
\]

‘They put the bones in the hollow log (NEUT).’

For comparison, Bininj Kunwok only allows incorporation of absolutive arguments, with several extensions: the essive locatives can incorporate into verbs of stance and waiting, and the verb *down* ‘die’ can incorporate the goal (with the meaning ‘be dying for/of’); there are also cases suggestive of the *a*-argument incorporation, but they all admit of alternative analyses (Evans 2003a: 468–71).

### 6.3.2 External modification

In terms of the possibilities of external modification, however, Kunbarlang is considerably more moderate than Bininj Kunwok, which allows modification of the incorporated noun by adjectives, demonstratives, numerals, possessives, proper names, relative clauses, and in addition to that construal of the incorporated noun as conjoined with a freestanding nominal (Evans 2003a: 452–3). By contrast, Kunbarlang only allows modification by adjectives (6.70a) and possessives (6.70b), as well as doubling by an external noun, often more specific (6.71).

(6.70) a. Kanjyuwa ngutta-\textit{yambi}–kanj \textit{na-rleng}.

\[
\begin{align*}
\text{proh} & \text{2PL.NF-swag-take.NP} & \text{1-much} \\
\end{align*}
\]

‘Don’t bring too many things!’ [20060614IB/00:50]

b. Nga-\textit{djakbu}–karlangwanj \textit{kun-ngadju}.

\[
\begin{align*}
\text{1SG.NF-step-follow.NP} & \text{IV-she.GEN} \\
\end{align*}
\]

‘I’m following in her footsteps.’ [IK1-180601_1SY-01/01:23:55]

(6.71) Ngal-nj\textit{kakkin}-rnirlakka \textit{burru}=rnungu.

\[
\begin{align*}
\text{1SG.FUT-flesh-send.NP} & \text{arm=he.GEN} \\
\end{align*}
\]

‘I’ll send him/her meat, the arm/flipper part.’ [IK1-180601_1SY-01/01:35:35–38]

Modification by demonstratives and numerals seems ill-formed, as is coordination with external material. Example (6.72) shows that a second independent predicate is obligatory if coordination is to be done.
This may reflect the syntactic restriction on extraction from a coordinate island, on a syntactic movement theory such as M. C. Baker’s (1996). It would require much further work to establish every detail of syntactic functioning of Kunbarlang incorporation.

### 6.3.3 Interaction with argument derivation

Similarly to Bininj Kunwok, in Kunbarlang comitative objects can incorporate (6.73) and (6.9), repeated below.

**6.73** 
\[
\text{Nganj-lerrk-walkki-wonj bi-rnungu balanda.} \\
\text{1sg.fut-word-com-return.np dat-he.gen whitefella} \\
\text{‘I’ll translate for the whitefella.’} \\
\text{[IK1-180601_1SY-01:16:32–37]}
\]

**6.9** 
\[
\text{Ka-bun-bardi-walkki-rnay kunbareng.} \\
\text{3sg.nf-3sg.obj-liquid-com-see.pst alcohol} \\
\text{‘[The policeman] saw him/her with grog.’} \\
\text{[IK1-180601_1SY-01:22:08–11]}
\]

Benefactive objects, however, cannot incorporate. While the benefactive prefix *marnanj*- can co-occur in a verbal word with an incorporated noun, they necessarily deal with distinct arguments (6.74a):

**6.74** a. 
\[
\text{Nganj-ka nganj-} \text{marnanj-bardi-kali njunjuk.} \\
\text{1sg.fut-np 1sg.fut-ben-liquid-get.np water} \\
\text{‘I’ll go fetch some water for him/her/it.’} \\
\text{[IK1-180605_1SY-01:30:02–05]}
\]

\[
\text{1sg.1sg.liquid-ben-go.np} \\
\text{intended: ‘I’ll go for water.’} \\
\text{[ibid./29:24–28]}
\]

Forms like (6.74b) are ungrammatical. Notice also that the ordering of the benefactive and the incorporated noun as in (6.74a) mirror the semantic composition of the verb: [[get-water] for-someone].
6.3.4 Productivity

The variety of forms with incorporated nominals in Kunbarlang is vast. However, incorporation seems not entirely productive. Rather, sometimes one finds gaps that are currently hard to explain by factors other than some degree of lexicalisation of which verb stems can incorporate which nouns. Consider example (6.75b): while we can see independently that -kali ‘to get’ can incorporate nouns (6.74a), (6.75a) and that dulk- is the incorporated form of ‘tree; stick’ (6.59), (6.60d), their combination is ungrammatical.

   DEM.MED.IV water 3SG.NF-liquid-get.PST
   ‘This is the water that he brought.’ [IK1-170522_1SM-01/07:16–19]

b. *Kunj-dulk-kali!
   2SG.FUT-tree-get.NP
   intended: ‘Get some branches!’ [IK1-180601_1SY-01/01:38:28–38]

6.4 Adverb incorporation

The “middlefield” of the verb, as I shall call the slots between the benefactive and the comitative prefixes, contains incorporated nominals, described in §6.3, and incorporated adverbials, such as warribo- in (6.76).

   1SG.NF-INADV-eat.PST like III-1.GEN CONJ it.III III-he.GEN
   ‘I ate the wrong food: I thought it was mine, but it was his.’
   [IK1-180601_1SY-01/38:48–55]

The verbal template is repeated here as table 6.2 for convenience, with the adverbial slots in boldface.

Incorporating adverbs are a semantically heterogeneous class of elements that modify the description of the event or its participants, including the quantificational nuances. They are bound morphemes that appear only within verbal words, so the characterisation of them as incorporating refers purely to their positioning inside of the verbal word, as opposed to other free adverbs (and not to a productive relation between the same adverbial element being bound or freestanding, as is the case with incorporated nominals, §6.3). There is only one morpheme that can appear inside or outside of the verb, kaburrk- ‘two / coll’ (§6.4.2). Table 6.3 lists the incorporating adverbs with their meanings and the glosses used for them.
Kunbarlang incorporating adverbs can co-occur within a single verb, as in (6.77), although I have never recorded a verb that had more than two. The ordering between them largely follows the template, with little permutation possible; I talk about the ordering for individual adverbials below.

(6.77) Kanjbarra-**nganj-rnak**-ka.
3DU.FUT-HITH-LIM-GO.NP
‘They two will just come together.’ [IK1-170530_1SY-02/53:35]

Incorporating adverbs differ in their scope possibilities, i.e. what bits of information they can modify. Thus, some modify the properties of the event, scoping over the verb’s stem. Others modify descriptions of certain participants, having scope over corresponding arguments of the verb. In what follows, I discuss each of the incorporating adverbs in turn, illustrating their usage and scopal properties.
6.4.1 *baba*- ‘separately, each’

The incorporating adverb *baba*- is a distributive universal quantifier (6.78; see also §4.6.3.2) in slot -4 in the verbal template (table 5.1):

(6.78) a. Kabarra-*baba*-kalng neyang.
         2DU.NF-DISTR-get.PST food
   ‘They two each got some food, separately.’ [ibid.:71]

b. Kadda-nganj-*baba*-kidanj.
         3PL.NF-HITH-DISTR-go.PST
   ‘They all came separately.’ [sy_160429:23]

Its semantics is to pair an object or an event type in its scope (the so-called *share*) to each of the distributive *keys* (Gil 1995), such as the agent of the event. Thus, in (6.78b) the use of *baba-* specifies the event of arriving (the share) as distributed over the plural subject (the key). Similarly, (6.78a) describes the event of getting food as distributed over the dual subject. Example (6.79) shows the object (expressed here by the numeral *nakudji* ‘one’) as the share.

         1-person 3SG.NF-LIM-many-get.PST they 1-one 3PL.NF-DISTR-get.PST
   ‘He just caught plenty [of fish], and they’ve got one each.’ [IK1-160722_1SM-01]

In the above examples (6.78–6.79) the key is always the subject, but with the ditransitives the goal (i.e. the primary object) can be the key as well (6.80):

(6.80) Ngudda ki-ngaddu-*baba*-wuy djarrang.
         you.SG 2SG.NF-1PL.EXCL.OBJ-DISTR-give.PST horse
   ‘You (SG) gave us each a horse.’ [IK1-160503_1SY-01]

The theme, i.e. the primary object of a transitive verb in (6.81), can also be construed as the key:

(6.81) Ka-*baba*-kalng.
         3SG.NF-DISTR-get.PST
   ‘S/he got some of each.’ [IK1-160429_1SY-01]

This example describes a situation constructed with the help of construction blocks: the agent had three piles of blocks in front of them, and took one block from each pile. Here, the taking events (the share) are distributed over the object items (the key).
Among the incorporated adverbials, *baba-* has been found in variable ordering with the hither directional *nganj-*. 

### 6.4.2 *kaburrk-* ‘collectively’

The adverb *kaburrk-* in slot -4 is the only incorporating adverb that is freely found outside of the verb, in which case it is the numeral ‘two’ (§4.6.2.1.1). As a prefix, it has a shortened form *burrk-* (6.82). Its semantics is that of a collective marker, meaning that the agents carry out the action together.

(6.82) Kaburrk kabarra-nganj-*burrk*-kidanj.

\[
\begin{array}{ll}
\text{two} & \text{3DU.NF-HITH-COLL-GO.PST} \\
\end{array}
\]

‘They both came together.’ [sy_160429:8]

Being a collective marker, it is semantically incompatible with distributivity.

(6.83) *Na-kudji-kudji kadda-*kaburrk-*warre.*

\[
\begin{array}{ll}
\text{1-DISTR-one} & \text{3PL.NF-COLL-OCCUR.NP} \\
\end{array}
\]

Intended: ‘Everyone is walking by themselves.’ [IK1-170610_1SY-01/24:50–53]

It can, however, co-occur with the distributive *baba-* (§6.4.1) if an appropriate construal is available (6.84):

(6.84) Kadda-*kaburrk-baba-*warre.

\[
\begin{array}{ll}
\text{3PL.NF-COLL-DISTR-OCCUR.NP} \\
\end{array}
\]

‘Different groups (*kaburrk*) are walking separate from each other (*baba)*.’ [IK1-170610_1SY-01/20:52–54]

When co-occurring, *kaburrk-* precedes *baba*-. The groups in (6.84) can be larger than two members, which shows that *kaburrk-* is collective, rather than dual. Besides the subject, it can also modify the primary object (6.85):

(6.85) Ka-nganun-*kaburrk-*wuy.

\[
\begin{array}{ll}
\text{3SG.NF-1DU.EXCL.OBJ-COLL-GIVE.PST} \\
\end{array}
\]

‘S/he gave us two something to share.’ [IK1-180524_SY-02/43:23]
6.4.3 mulmul- ‘many’

The prefix mulmul- ‘many’ is a quantifier (6.86) with lexically restricted combinatorics. It only combines with the verbs -ka ‘to go’ (6.86a) and -kali ‘to get’ (6.86b) and scopes over the intransitive subject of the former or the object of the latter (see also §4.6.2.2).

   3PL.NF-HITH-many-go.PST
   ‘a lot of people came.’ [IK1-160802_000-01/14:21]

   3PL.NF-many-get.PST ENG 3PL.NF-give-REFL.PST
   ‘They’ve got many apples and sharing them (amongst themselves).’
   [IK1-160429_000-01/01:28:33–37]

Section §4.6.2 describes this prefix within the system of other bound and free quantifiers.

6.4.4 nganj- ‘hither’

The directional prefix nganj- ‘HITH’ is primarily used with motion and other dynamic verbs. With these, it adds the semantic component of motion directed towards a deictic center, which may or may not coincide with the speaker. Thus, the pair in (6.87) shows a contrast between an example without nganj- that refers to a non-specific direction of returning (6.87a) and an example with nganj- that refers to an event of returning to the place which is the current stage of the action unfolding at that point in the narrative (6.87b):

(6.87) a. Ka-wom ngorro ka-bardi-kalng njunjuk.
   3SG.NF-return.PST DEM.MED.IV 3SG.NF-liquid-get.PST water
   ‘S/he went back to get water.’ [IK1-170516_ISY-01/12:08–12]

   3SG.NF-HITH-return.PST DEM.MED.IV 3SG.NF-3DU.OBJ-country-seek.PST
   ‘When he came back he looked for those two (but they were not there).’
   [djurddjur_2016_transcript-298569/05:01–04]

   Similar to the Bininj Kunwok ‘hither’-directional m- (Evans 2003a: 489–90), the Kunbarlang nganj- allows occasional extension of the meaning into non-dynamic, non-directional event descriptions. Example (6.88) shows an instance of such extension with the verb -yuwa ‘to lie’, where the use of nganj- probably highlights the mutual proximity of the two participants:
This prefix typically precedes the other incorporated adverbs, but also has been found in variable ordering with the delimitative *rnak-* (see §6.4.6 for examples).

### 6.4.5 mun- ‘THITHER’

There are two directional prefixes placed in slot -5 in Kunbarlang: the frequent ‘hither’ *nganj-* (§6.4.4) and the very infrequent ‘thither’ *mun-* (6.89).

(6.89) a. ...la ngadda-*mun*-bing-bi ngadda-maddjing.
   CONJ 1PL.EXCL.NF-THITH-exit.PST-THITH 1PL.EXCL.NF-pierce.PST
   ‘...and we got close [to that crocodile] and we speared it.’
   [20060620IB04/09:12–15]

b. Nga-*mun*-rnirlakwang kikakkin.
   1SG.NF-THITH-send.PST meat
   ‘I sent (someone) meat.’
   [IK1-160503_000-01/24:32–34]

There are few examples of this prefix (only four tokens in narratives currently), which makes it difficult to determine the semantics of *mun-* precisely. Two out of the four tokens feature the allative clitic *bi-* (§7.6) on the verb (6.89a), and the other two — on a locative pronoun (6.90), suggesting that there is a strong semantic connection between them.

(6.90) Kabbala kenda-*bi* ka-*mun*-kidanj=kulkkulk.
   boat DEM.PROX.LOC-THITH 3SG.NF-THITH-go.PST=run
   ‘A boat was going from this way.’
   [20060620IB03/06:30–33]

The interpretation of (6.90), with the boat approaching the place where the speaker was, suggests that the deictic center assumes the perspective of the grammatical subject (rather than the speaker).
6.4.6  *rnak* - ‘just’

The de\(\text{lim}\)itative prefix *rnak*- in slot -6 has a wide range of discourse uses, which are fairly close to the English adverb *just*. Effectively, through association with its scope, it has the following meaning: consider things of the same kind as the phase in scope describes; substituting them in place of scope makes false statements. Thus, in (6.91) the prefix associates with the Recipient phrase *ngalbuk bi-ngadju* ‘for herself’, and has the effect of exclusion of other, potential, Recipients, such as “for me”, set up in the left context:

(6.91) Nga-ngunda=barr ngayi ngana-djangaj ka-marnbum bi-ngaybu 1SG.NF-do.PST=open I 1DU-sibling 3SG.NF-make.PST DAT-LGEN neyang, la ka-rnak-marnbum ngal-buk bi-ngadju. food CONJ 3SG.NF-LIM-make.PST II-person DAT-she.LGEN

‘I thought sister made food for me, but she only made it for herself.’

The prefix is not grammatically restricted in its association: it may associate with a range of verb’s arguments, as well as with the verb stem, i.e. the event description, itself. Example (6.92) illustrates this by showing a ditransitive verb with *rnak*- (a) and a selection of felicitous continuations (b–e) which all highlight different possible construals of (a), viz. the focus on subject, primary and secondary objects, or the entire event description.  

(6.92) IK1-160503_000-01/46:50–01:00:20

a. Ngayi nga-buddu-rnak-wuy djarrang...
   1SG.NF-3PL.OBJ-LIM-give.PST horse

   ‘ONLY[I gave them a horse].’ (i.e. ‘I was the only one who gave them a horse’, or ‘They were the only ones I gave a horse to’, or ‘It was only horse that I gave them’, or ‘All I did was give them a horse’)

b. SUBJECT:

   ngunda  ki-buddu-wuni djarrang.
   not  3SG.IRR.PST-3PL.OBJ-give.IRR.PST horse

   ‘S/he didn’t give them a horse.’

---

15. The Bininj Kunwok prefix *djal*- ‘just’ is very similar to *rnak*- (Evans 2003a: 515ff.).
16. These continuations were all constructed by me and offered to my consultant to judge if they made sense when said together with the sentence containing *rnak*- (6.92a). I have also verified that the speaker rejected contradictory Kunbarlang statements (like, *I gave them a horse, but I didn’t give them a horse*) as non-sensical.
c. PRIMARY OBJECT/RECIPIENT:
   ngunda ngay-ngun-wuni.
   not 1SG.IRR.PST-2SG.OBJ-give.IRR.PST
   ‘I didn’t give one to you.’

d. SECONDARY OBJECT/THEME:
   ngunda ngay-buddu-wuni  durduk.
   not 1SG.IRR.PST-2SG.OBJ-give.IRR.PST  dog
   ‘I didn’t give them a dog.’

e. ENTIRE EVENT:
   ngunda ngay-wuni neyang.
   not 1SG.IRR.PST-give.IRR.PST  food
   ‘I didn’t feed it.’

The ordering of rnak- with respect to the other middlefield prefixes is often flexible (6.93).

   3PL.NF-LIM-HITH-GO.PST
   ‘They just came suddenly.’
   [IK1-160513_000-01/54:19–22]

   3DU.FUT-HITH-LIM-GO.NP  3DU.FUT-COLL-eat.NP
   ‘They (two) will just come and eat together.’
   [IK1-170530_1SY-02/53:34–39]

However, the delimitative appears to be rigidly ordered preceding the incompletive woh- (§6.4.8).

6.4.7 warribo- ‘INADVERTITIVE’

The prefix warribo-, which I gloss as ‘INADV’, conveys that something about the event was wrong. It does not contribute any more specific or complex information, and the appropriate interpretation must be arrived at via the relevant context. In effect, the scope of this adverb is always over the event as a whole, rather than its individual participants; cf. Bicevskis’s (2012: 80–86) analysis of the corresponding modifier warrgah- found in Bininj Kunwok (Kun-djeihmi and Kune) and Dalabon, where she argues that it scopes over the entire stative (sub)event.
(6.94) a. Kabarra-marnanj-bing old man kakkak Bungorro.
   3DU.NF-BEN-exit.PST ENG ENG MMB B
   'They two came to the old man Bungorro.' [IK1-160624_002-01/03:35–38]

   3SG.NF-3PL.OBJ-BEN-INADV-exit.PST
   'S/he came to the wrong people.' [IK1-160628_000-01/52:46–48]

A speaker in the discussion of (6.95) comments that it could describe any kind of mistake at all—e.g. the wrong kind of meat, the wrong piece, unintentionally getting meat instead of rice, etc.

(6.95) Nga-warribo-kalng nayi kikakkin.
   1SG.NF-INADV-get.PST NM:1 meat
   'I wrongly got the meat.' [IK1-160429_000-01/01:16:15–17]

6.4.8 *woh*- ‘INCOMpletely’

The contribution of the incompletive prefix *woh*- can be described as ‘incompletely’, ‘unthoroughly’ or ‘halfway’. Effectively, in the majority of uses it can be translated as ‘not all’. That is, adding it to the verb describes the event as incomplete, an action only partially carried out or its result merely temporary and transient. Example (6.96) illustrates its use to describe a partially affected theme:

(6.96) Man-kudji kurrambalk ka-bun-*woh*-djarrang
   III-one house 3SG.NF-3SG.OBJ-ICNP-eat.PST
   la kadda-ngulukdombum.
   CONJ 3PL.NF-extinguish.PST
   'A certain house only burnt down partially, they’ve put out the fire.' [IK1-170530_1SY-02/13:48–54]

With plural arguments the effect of *woh*- is similarly that of partial quantification (6.97):
   3PL.NF-sit.PST  3PL.NF-INC-PST-stand.PST
   ‘They were sitting and then part of them stood up.’
   [IK1-180601_1SY-01/29:23]

   b. Kinj-woh-bunj=ngurr  la  na-yika  ngayi  nganj-bunj=ngurr.
   2SG.FUT-INC-hit.NP=wash  CONJ  1-SOME  I  1SG.FUT-hit.NP=wash
   ‘You wash some [of the dishes] and I shall do the rest.’
   [IK1-170530_1SY-02/20:23–27]

In some cases this prefix may communicate an air of negligence, such as ‘lying
around’ in (6.98a), or a temporary result state, which probably relates semantically
to the idea of negligence, not putting in enough effort for a proper permanent result
(6.98b).

(6.98)  a. Marrek  barda  ngemek  ki-woh-yung  korro  welenj.
   not  WHAT  YET  3SG.IRR.NP-INC-lie.IRR.NP  DEM.MED.LOC  road
   ‘There is nothing else lying around on the road.’
   [IK1-170610_2SM-01/11:07–11]

   b. Nga-woh-marnbum.
   1SG.NF-INC-make.PST
   ‘I made it only temporary [will make a permanent one later].’
   [IK1-150725_001-01/12:56]

The prefix woh- normally follows all other prefixes in the middlefield.

6.5 Coverb constructions

Kunbarlang is the only Gunwinyguan language that has coverb constructions (6.99), in
the narrow sense that will be defined below.

(6.99)  Nga-warrenj=yerri  kurrula.
   1SG.NF-occur.PST=dream  saltwater
   ‘I dreamt of the sea.’
   [list_cvc.xls]

These coverb constructions are formed by combining an inflecting “light” verb with
an uninfecting coverb. In (6.99), the verb -warre ‘to occur’ is combined with the coverb
yerri, with the resulting predicate meaning ‘to dream’. Thus, coverb constructions are a
type of complex predication. By complex predicate I mean here structures where “the
<table>
<thead>
<tr>
<th>verb</th>
<th>meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>-bunj</td>
<td>'to hit'</td>
</tr>
<tr>
<td>-dja</td>
<td>'to stand'</td>
</tr>
<tr>
<td>-ka</td>
<td>'to go'</td>
</tr>
<tr>
<td>-kali</td>
<td>'to get'</td>
</tr>
<tr>
<td>-karrme</td>
<td>'to hold'</td>
</tr>
<tr>
<td>-kelkwunj</td>
<td>'to tease'</td>
</tr>
<tr>
<td>-maddje</td>
<td>'to pierce'</td>
</tr>
<tr>
<td>-ngale</td>
<td>'to spread, move along'</td>
</tr>
<tr>
<td>-ngundje</td>
<td>'to say; to do'</td>
</tr>
<tr>
<td>-rdam</td>
<td>'to put'</td>
</tr>
<tr>
<td>-rna</td>
<td>'to sit'</td>
</tr>
<tr>
<td>-rranj</td>
<td>'to see'</td>
</tr>
<tr>
<td>-warre</td>
<td>'to occur; to move'</td>
</tr>
<tr>
<td>-yuwa</td>
<td>'to lie (down)'</td>
</tr>
</tbody>
</table>

Table 6.4: Light verbs of the coverb constructions

information normally associated with the [lexical — IK] head of a verbal predicate is spread over several parts of the predicate” (Bowern 2014: 264).

The light verb in the Kunbarlang construction is drawn from a set of 14 verbs (see table 6.4), all of which have simple stems (see the introduction to chapter 5 for simple and complex stems) and can otherwise be used as predicates on their own. The coverb is drawn from a closed class of items in the order of one hundred, whose distribution is restricted to this function. As is discussed in §3.2.5.1, coverbs are analysed here as lexical clitics: they have rich lexical content, but very rigid placement immediately following the verb. Their clitic behaviour is also manifest in the manner assimilation that can happen between the consonants at the point of nexus (§2.7.4). Nothing can intervene between the two parts of this construction; see §3.2.5.1 for examples. This section focuses on the complex predicate formation, relation of the coverb construction to other predicates (§6.5.1), and its place within the context of the Gunwinyguan family and other neighbouring languages, esp. Mawng (§6.5.2).

Kunbarlang coverbs cannot appear by themselves. When asked about some coverb, speakers would usually recognize it and produce a full coverb construction, rather than

---

17. The lexical content of the light verbs is remarkably uniform across Australian languages: they are the frequent verbs with generic meanings, such as ‘say / do’, ‘sit / be’, ‘stand’, ‘become’, ‘fall’, ‘go’, ‘carry’, ‘take’, ‘hit’, ‘catch / get’, ‘put’, ‘give’, ‘throw’ and ‘spear’ (McGregor 2002: 104); Kunbarlang set conforms to this observation. Across languages of the world, verbs with these meanings often serve as light verbs, auxiliaries or verb proforms, or grammaticalise as markers of voice, tense and aspect (Heine & Kuteva 2002).
give translations, explanations or examples for the coverb alone. The light verb and the coverb form a tight morphosyntactic unit. Not only can they not be interrupted by other material, but also the light verb cannot be gapped under coordination, such as contrastive focus (6.100):

(6.100) a. Nga-kali=karlirrk dolobbo.
   1sg.NF-get.NP=drag stringybark
   'I’m dragging bark.' [list_cvc.xls]

   b. Nga-kali=kerd dolobbo.
   1sg.NF-get.NP=carry stringybark
   'I’m carrying bark.' [list_cvc.xls]

   c. *Nga-kali=karlirrk, ngunda ngarra-kalbing =kerd.
   1sg.NF-get.NP=drag not 1sg.IRR.NP-get.IRR.NP=carry
   intended: 'I’m dragging it, not carrying it.' [IK1-150805_000-01/12:10]

(6.101) Nga-kali=karlirrk, ngayi ngunda ngarra-kalbing=kerd.
   1sg.NF-get.NP=drag I not 1sg.IRR.NP-get.IRR.NP=carry
   'I’m dragging it, not carrying it.' [IK1-150805_000-01/12:55]

In the first two examples in (6.100) the two coverb constructions use the same light verb kali 'get', but different coverbs. Example (6.100c) shows that the light verb cannot be elided under identity (shown schematically in strikethrough), leaving the coverb behind. On the other hand, ellipsis of the verb is allowed in other constructions with a direct object (6.102):

(6.102) Nukka ka-bunj=beleybeley, la marrek ki-bu kunbid.
   he 3sg.NF-hit.NP=clap conj not 3sg.IRR.NP-hit.IRR.NP hand
   'He’s clapping something, but not hands.' [IK1-150805_000-01/8:00]

Most of the light verbs, as well as most of the coverbs, participate in several combinations. However, coverbs are used at most with three or four verbs, and cross-classing usually is insufficient to determine their semantic contribution with certainty. Moreover, coverbs are not used outside the coverb construction, which complicates the task of isolating their meaning. Some are only recorded in one construction (6.103), and their meaning has to be stipulated, to an extent.

(6.103) Ka-maddjing=rдорд barndang.
   3sg.NF-pierce.PST=goad trouble
   'He started trouble.' [list_cvc.xls]
The coverbs are very diverse formally, many of them mono- or disyllabic, but a few are quite large (6.104).

(6.104)  Ka-ngan-maranj-\textbf{kalng}=kubirribirrkuk.
3SG.NF-1SG.OBJ-BEN-get.PST=steal
‘S/he/it stole it from me.’ [IK1-160715_000-01/09:36–39]

They are also very diverse with respect to the effect they have on resulting predicate semantics and event structure. There is not a single uniform pattern. Some of the coverbs have a very transparent contribution, akin to adverbial modification; consider the coverb \textit{mulmul}, which ‘adds’ the meaning ‘underwater’ to the base light verb (6.105):

(6.105) a. Ka-\textbf{karrme}=\textbf{mulmul}.
3SG.NF-hold.NP=underwater
‘He’s holding it underwater.’ [list_cvc.xls]

b. Ka-\textbf{warre}=\textbf{mulmul}.
3SG.NF-occur.NP=underwater
‘He’s diving.’ [list_cvc.xls]

By contrast, complex predicates built with some other coverbs, such as \textit{karndjurrrk} ‘single_file’ or \textit{kolk} ‘cut’, are harder to relate to the light verb (6.106). Interestingly, these are frequently the ones where the coverb does not cross-combine with other verbs.

3PL.NF-pierce.NP=single_file  3PL.NF-go.NP
‘They are walking in a single file.’ [IK1-170610_1SY-01/29:09]

b. Kadda-\textbf{djanganj}=\textbf{kolk}.
3PL.NF-stand.PST=cut
‘They cut it down [the tree].’ [IK1-150804_000-01/44:40–42]

Comparing (6.105) and (6.106), one can see that in the former, \textit{mulmul} narrows down the situation described by the light verb (e.g. holding underwater is a type of holding); however, being in single file (\textit{karndjurrrk}) is not a type of piercing, nor is cutting down a tree a type of standing.

It is fairly tricky to reason about the change in transitivity and aspectual class change in coverb constructions. Many of the ones that appear to change in transitivity compared to the base light verb do not easily take human objects (e.g. as in (6.106): -\textit{maddje} ‘to pierce’ → -\textit{maddje}=\textit{karndjurrrk} ‘to form a single file’; -\textit{dja} ‘to stand’ → -\textit{dja}=\textit{kolk} ‘to cut/chop down’); thus, object agreement prefixes, which would provide
the most reliable evidence for their transitivity, are not readily available. In terms of the aspectual class (Aktionsart), there are no good tests for that in Kunbarlang at the moment. One can only rely on the semantics apparent in translations. Based on that, it does seem that the structure of the event can change considerably. One example is -dja=kolk in (6.106b): it appears that a stative event of standing, which only has one participant, changes to an accomplishment with an agent and a patient. Similarly, example (6.107) shows a posture base verb -rna ‘to sit’, which has only one participant and is presumably stative, turning into an achievement with two participants -rna=bard ‘to acquire’:

(6.107) Neyang ka-rninganj=bard kandidjawa.
food 3SG.NF-sit.PST=acquire bread
‘He bought food, flour.’

Further work is required to explore event structure in Kunbarlang and syntax and semantics of individual coverb constructions.

6.5.1 Structural parallels

Kunbarlang coverb constructions have an interesting place in the broader picture of predicate formation in Gunwinyguan languages. Two phenomena are relevant for this discussion: (i) Gunwinyguan complex stems, and (ii) excorporation. Recall the discussion at the beginning of Chapter 5 concerning the structure of the complex stems, consisting of a prepound and a thematic. *Thematics* are monomorphemic verbal roots that determine the conjugation class. *Prepounds* are elements to the immediate left of the thematic that come from various historical sources and form lexicalised complex stem combinations together with thematics. Other Gunwinyguan languages have similar structures. I find that a number of Kunbarlang coverbs are clear cognates to morphemes found as prepounds in other languages. For instance, Bininj Kunwok has a verb djelh.me ‘to drip’, whose prepound corresponds to the Kunbarlang coverb djerl ‘drip’ (6.108a); Dalabon has a verb karrhkarrh.mu ‘to shake’, corresponding to the Kunbarlang coverb karrkarr ‘shake’; and Ngandi has a verb wurup-dhu ‘to bathe, be immersed’, corresponding to the Kunbarlang coverb rlubburlub ‘splash’ (6.108b). I talk about cognacy with other Gunwinyguan morphemes, as well as other sources of coverbs in more detail below.

ENG 3SG.NF-stand.NP=drip
‘Tea is dripping.’
b. Nawalak  ka-rna=rlubburlub.
   child  3SG.NF-sit=splash
   ‘The baby sits splashing/playing in water.’  [Coleman 2010: 110]

Furthermore, a few of the Kunbarlang coverbs can appear in either position: as a coverb or as a prepound within a complex stem. One such coverb is larl ‘open’ (6.109a), which has a cognate in Dalabon (6.109c), and as a prepound in Kunbarlang combines with the thematic -ma meaning ‘to divide, separate’ (6.109b). 18

   3SG.NF-mouth-hold.pst=open
   ‘S/he opened the door.’  [list_cvc.xlc]

b. Ngarrki-larlma.
   1.INCL.NF-divide.NP
   ‘We are dividing it.’  [IK1-170620_1SY-02/13:13]

c. Dalabon (Evans, Merlan & Tukumba 2004: 199)
   Yila-h-larlh.miyan.
   1PL-R-open.fut
   ‘We’ll prise it open.’  [glosses mine — IK]

Next, there is the phenomenon of EXCORPORATION, found at least in Rembarrnga (McKay 2008), Ngalakgan (Baker & Harvey 2003), Dalabon, and Manyallaluk Mayali (BKW) (Evans 2017). In this construction, “otherwise bound verb roots... can optionally appear externally to the rest of the verb word” (B. Baker 2014b: 147); an example from Ngalakgan is in (6.110):

(6.110) Ngalakgan (Baker & Harvey 2003: 14)

a. Burru-worrowk-mi+ny
   3PL-gallop-aux+pp
   ‘They galloped.’

b. Worrowk burru-mi+ny.
   gallop  3PL-aux+pp
   ‘They galloped.’

Unlike the Kunbarlang coverbs (but similar to Kunbarlang preverbs, see §3.2.5.2), excorporated prepounds in other Gunwinyguan languages appear to the left of the inflecting verb left behind (6.110b). In this particular example, -mi does not have lexical

18. The thematics in (6.109b) and (6.109c) are also cognate, in fact.
content on its own, so the string *burruminy* is not a word by itself. There is not enough information about these constructions in the aforementioned languages, but it appears that they differ from the rigid Kunbarlang coverb construction. Thus, in Ngalakgan the two constituents cannot be permuted or interrupted by other material, but the prepound part can sometimes appear alone (Baker & Harvey 2003: 14–15). In Rembarrnga, the prepound may be separated from the inflected verb by other material (McKay 2008: 9). In both Rembarrnga (ibid.) and Dalabon (Evans 2017: 330), the prepound may recur both outside and inside the inflected verb. My understanding of the literature is that in all of the cited languages, excorporation serves a stylistic purpose, perhaps making narration more vivid and dramatic. This is in striking constrast with Kunbarlang where for many lexicalised meanings, this is the only available expression, and not a stylistic variant. It is almost certain that the predicate-forming structures discussed above — complex stems, (Kunbarlang) coverb constructions, and excorporation — are very closely related historically, presenting slightly different ways of combining a lexical component (i.e. the prepound/coverb) with a structural component (the thematic) to produce a complex predicate. It will require a separate investigation to establish the diachronic pathways between these structures.

Further corroboration of the idea that coverbs and prepounds are functionally very similar comes from the fact that in Kunbarlang all light verbs in the coverb construction have simple stems. Attempts to build coverb constructions with complex stems are rejected by my informants, e.g. (6.111).

   they 3PL.NF-fear.go.PST all  
   ‘They fled (in fear).’  
   [IK1-170607_SM-01/49:09]

b. Ka-**ka=kulkkulk** munguy.  
   3SG.NF=go.NF=run a_lot  
   ‘S/he goes running always/every day.’  
   [IK1-160719_001-01/06:09]

   3PL.NF-fear.go.PST=run  
   ‘They fled, running in fear.’  
   [IK1-160728_000-01/01:15–20]

The verb -**kel.kidanj** ‘flee.PST’ in (6.111a) has a complex stem, with the prepound *kel* ‘fear’ and the thematic -**ka** ‘to go’. That thematic, when used as a simple stem, can form a coverb construction meaning ‘to run’ (6.111b). However, their combination is impossible.
6.5.2 Etymology

I have discussed above a family of complex predicate constructions, in Gunwinyguan languages, which appear very closely connected as different morphosyntactic solutions to the same task of forming a predicate from two lexical heads. I do not attempt here to reconstruct the diachrony of the Kunbarlang construction arising. However, I shall review the coverb construction in Mawng, which is structurally very similar to the Kunbarlang one. Next, I shall demonstrate some lexical correspondence between Kunbarlang, Mawng, and some other Gunwinyguan languages, and make a suggestion that Kunbarlang might have developed the coverb construction from the original Gunwinyguan option for variable prepound placement in the contact situation with Mawng, perhaps from the need to accommodate for lexical exchange with the latter.

6.5.2.1 Mawng coverb constructions

Mawng coverb constructions essentially show very similar structural properties to the Kunbarlang ones (Singer 2016: §3.1.2):

- they form a tight morphosyntactic unit
  - they are strictly adjacent: all postverbal clitics must attach after the coverb, without breaking the complex (6.112a)19 (Singer 2016: 118 fn. 10)
  - the verb-coverb boundary is subject to morphophonemic integration
- they are often non-transparent semantically, with high degree of idiomatisation
- they often feature lexicalised agreement (one quarter of coverb constructions; Singer 2005: 6) (6.112b)

(6.112) Mawng (Singer 2006)

a. Pa an-\text{i-wu-k} pirl=\text{ga}=pa ja nganaparru
   \text{p.seq} 3.\text{MA}>3.\text{LL-hit-PP} \text{cross_water}=\text{H=EMPH1 MA} \text{buffalo}
   y-a-ngkung-ka.
   3.\text{MA}-\text{GO1-PHAB-HITH}
   ‘So the buffalo crossed over (a body of water) and was headed this way.’
   [p. 71; “=” for the clitic separator and boldface mine — IK]

b. Anny-arlu\text{kpa-n} rtap ja Yumparrparr.
   3.\text{MA}>3.\text{LL-move_foot-PP} \text{slip MA} \text{giant}
   ‘Yumparrparr slipped.’
   [p. 292; boldface mine — IK]

19. The non-obvious glosses for the Mawng examples are: EMPH1 backgrounding suffix for verbs, PHAB past habitual, P.SEQ sequential particle.
Table 6.5: Kunbarlang coverbs with correspondence in Mawng

<table>
<thead>
<tr>
<th>Kunbarlang</th>
<th>meaning</th>
<th>Mawng</th>
<th>meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>buk</td>
<td>blow, spit</td>
<td>wu₂</td>
<td>blow</td>
</tr>
<tr>
<td>barrbarr</td>
<td>flat</td>
<td>parrparr</td>
<td>be extended, stretch</td>
</tr>
<tr>
<td>berlbberl</td>
<td>ooze</td>
<td>pirlpirl</td>
<td>flow</td>
</tr>
<tr>
<td>bokob</td>
<td>float</td>
<td>pagap</td>
<td>float</td>
</tr>
<tr>
<td>djerr</td>
<td>hold tightly</td>
<td>jir(r)</td>
<td>hold tightly</td>
</tr>
<tr>
<td>djab</td>
<td>move</td>
<td>yap₂</td>
<td>move from one spot to another</td>
</tr>
<tr>
<td>djerl</td>
<td>drip</td>
<td>djirl</td>
<td>drip</td>
</tr>
<tr>
<td>djorrord</td>
<td>limp</td>
<td>jarrart</td>
<td>limp</td>
</tr>
<tr>
<td>dob</td>
<td>pop, burst</td>
<td>rtap</td>
<td>explode</td>
</tr>
<tr>
<td>dowdow</td>
<td>shake</td>
<td>tawktawk</td>
<td>shake</td>
</tr>
<tr>
<td>kabbirrk</td>
<td>trip up</td>
<td>kapirrk</td>
<td>trip over</td>
</tr>
<tr>
<td>karlk</td>
<td>walk in line</td>
<td>kalk</td>
<td>be in line</td>
</tr>
<tr>
<td>larl</td>
<td>open</td>
<td>larl</td>
<td>lie open</td>
</tr>
<tr>
<td>mabularr</td>
<td>calm</td>
<td>mapullarr</td>
<td>calm</td>
</tr>
<tr>
<td>madmad</td>
<td>fly</td>
<td>matmat</td>
<td>fly</td>
</tr>
<tr>
<td>marrmarr</td>
<td>happy</td>
<td>marrmarr</td>
<td>happy</td>
</tr>
<tr>
<td>mulmul</td>
<td>underwater</td>
<td>murlmurl</td>
<td>dive in</td>
</tr>
<tr>
<td>rlburlrbul</td>
<td>splash</td>
<td>wurlupurlup</td>
<td>bathe, swim</td>
</tr>
</tbody>
</table>

In example (6.112a) the postverbal clitics, directional ga ‘hither’ and backgrounding pa, attach to the verb-coverb complex, i.e. after the coverbs, rather than to the light verb. Example (6.112b) shows the so-called lexicalised agreement: the light verb agrees as if with a land gender object, while no such object is overtly present in the sentence, nor does the same verb have such agreement when used by itself.

Interestingly, “[i]t is acceptable for some Mawng coverbs to precede rather than follow the verb” (albeit this is rare in spontaneous speech), which is a bit more freedom of placement than there is for coverbs in Kunbarlang (Singer 2006: 77). In the following section I discuss the lexical similarities between Mawng and Kunbarlang.

6.5.2.2 Lexical correspondence

Out of approximately a hundred coverbs known in Kunbarlang at least 18 are common with Mawng (Singer et al. 2015). The correspondences between Kunbarlang and Mawng are shown in table 6.5. This list is not necessarily exhaustive, these are just the correspondences I have identified to date.
Table 6.6: Kunbarlang coverbs with correspondence in Bininj Kunwok

<table>
<thead>
<tr>
<th>Kunbarlang</th>
<th>meaning</th>
<th>Bininj Kunwok</th>
<th>meaning</th>
<th>category</th>
</tr>
</thead>
<tbody>
<tr>
<td>barr</td>
<td>display</td>
<td>barrme</td>
<td>be open</td>
<td>intr. verb</td>
</tr>
<tr>
<td>barr</td>
<td>display</td>
<td>barrhbun</td>
<td>dawn, (day) break</td>
<td>intr. verb</td>
</tr>
<tr>
<td>borkbork</td>
<td>play</td>
<td>bork-</td>
<td>play, dance</td>
<td>N/V</td>
</tr>
<tr>
<td>buk</td>
<td>blow, spit</td>
<td>buhme</td>
<td>blow</td>
<td>trans. verb</td>
</tr>
<tr>
<td>djerl</td>
<td>drip</td>
<td>djelhme</td>
<td>drip</td>
<td>intr. verb</td>
</tr>
<tr>
<td>kidjihidji</td>
<td>tickle</td>
<td>gidjigidjikme</td>
<td>tickle</td>
<td>intr. verb</td>
</tr>
<tr>
<td>kolk</td>
<td>cut</td>
<td>golkme</td>
<td>cut</td>
<td>trans. verb</td>
</tr>
<tr>
<td>kolkulk</td>
<td>run</td>
<td>gurlhgurlme</td>
<td>run fast (of water)</td>
<td>intr. verb</td>
</tr>
<tr>
<td>larl</td>
<td>open</td>
<td>larlma</td>
<td>separate</td>
<td>trans. verb</td>
</tr>
<tr>
<td>marrmarr</td>
<td>happy</td>
<td>marrmarrme</td>
<td>be happy</td>
<td>intr. verb</td>
</tr>
<tr>
<td>wayud</td>
<td>wave</td>
<td>waidan</td>
<td>wave</td>
<td>trans. verb</td>
</tr>
<tr>
<td>yerri</td>
<td>dream</td>
<td>bengyirri²²</td>
<td>daydream</td>
<td>intr. verb</td>
</tr>
</tbody>
</table>

Singer (2005) provides independent evidence that nouns were the source of some coverbs in Mawng. I take this as a piece of evidence to support the hypothesis that the direction of borrowing is from Mawng into Kunbarlang. Further suggestion along these lines comes from the fact that fewer of the Kunbarlang coverbs have cognates in the closer related Gunwinyguan languages: eleven in Bininj Kunwok (Evans 1991), seven in Dalabon (Evans, Merlan & Tukumba 2004), three in Ngandi (Heath 1978). Every pair of these other languages (except Dalabon~Ngandi) shares at least one of these morphemes; for instance, Mawng and Bininj Kunwok share as many as five. The same caveat holds for Gunwinyguan correspondences as for Mawng, mentioned above: these lists are indicative rather than exhaustive. In the following tables I show Kunbarlang coverbs that have correspondence with words in Bininj Kunwok (table 6.6), Dalabon (table 6.7), and Ngandi (table 6.8).

It has been previously observed in languages of northern Australia that coverbs are freely borrowed (Bowern 2014: 288). Furthermore, McConvell (2010) discusses the scenario where a language has developed coverb constructions as the means to accommodate loans (in Gurindji, for borrowings from non-Pama-Nyungan languages). It would take much more diachronic work to thoroughly describe the evolution of the Kunbarlang coverb construction; however, I would like to make the following suggestion in light of the facts reviewed in this section, viz. (i) the morphosyntactic variety of complex predicate structures within the Gunwinyguan family (§6.5.1), and (ii)

---

²⁰ Initial glides of many coverbs in Mawng undergo hardening after a consonant final verb (e.g. wu~pu).
²¹ The dictionary says “transitive verb”, which is likely a typo.
²² The part beng presumably is the nominal root meaning 'hearing; intelligence', and thus the Bininj Kunwok verb might evoke the image of the sleep of reason.
Table 6.7: Kunbarlang coverbs with correspondence in Dalabon

<table>
<thead>
<tr>
<th>Kunbarlang meaning</th>
<th>Dalabon meaning</th>
<th>category</th>
</tr>
</thead>
<tbody>
<tr>
<td>barr display</td>
<td>barr(mû) open</td>
<td>intr. verb</td>
</tr>
<tr>
<td>borrhng snore</td>
<td>borrhmû snore</td>
<td>intr. verb</td>
</tr>
<tr>
<td>djorrord limp</td>
<td>djorrordmû be lame</td>
<td>intr. verb</td>
</tr>
<tr>
<td>karrkarr shake</td>
<td>karrhkarrhmû shake off (dirt)</td>
<td>trans. verb</td>
</tr>
<tr>
<td>kulkkulk run</td>
<td>kurlhkurlhno fast pace, run</td>
<td>noun</td>
</tr>
<tr>
<td>kulkkulk run</td>
<td>kurlhkurlhmû run along</td>
<td>intr. verb</td>
</tr>
<tr>
<td>larl open</td>
<td>larlarl(mû) be open/ready to split</td>
<td>intr. verb</td>
</tr>
<tr>
<td>larl open</td>
<td>larlhmang (prise) open</td>
<td>trans. verb</td>
</tr>
<tr>
<td>wirrkwirrk scrape</td>
<td>wirrkmû scrape clean</td>
<td>trans. verb</td>
</tr>
</tbody>
</table>

Table 6.8: Kunbarlang coverbs with correspondence in Ngandi

<table>
<thead>
<tr>
<th>Kunbarlang meaning</th>
<th>Ngandi meaning</th>
<th>category</th>
</tr>
</thead>
<tbody>
<tr>
<td>buk blow, spit</td>
<td>buh-dhu blow</td>
<td>intr. verb</td>
</tr>
<tr>
<td>kolk cut</td>
<td>gulk-dhu cut</td>
<td>trans. verb</td>
</tr>
<tr>
<td>rlburlub splash</td>
<td>wurlup-dhu bathe, be immersed</td>
<td>intr. verb</td>
</tr>
</tbody>
</table>

the particular structural and lexical affinity between Kunbarlang and Mawng. It appears plausible that Kunbarlang has developed the coverb construction as a regularised way of borrowing lexicon from Mawng. Simultaneously, a subset of inherited Gunwinyguan morphemes (which are preponde rs in other Gunwinyguan languages), have also got fixed as coverbs in Kunbarlang. Perhaps there were loans from contact languages other than Mawng — further etymological research is required to shed light on that. Thus, we have today’s picture of a rigid construction in Kunbarlang where the coverbs come from a variety of sources.

Finally, table 6.9 provides those 33 Kunbarlang coverbs for which no correspondences in other languages have been established at the moment of writing.

23. It seems probable that marr and marrmarr ‘happy’ are related, but since they occur in different constructions and the synchronic relation is unclear, I included marr here for the sake of completeness. The constructions are: -kelkwunj=marr ‘to tease’ vs. -ngundje=marrmarr ‘to be happy’.
Table 6.9: Kunbarlang coverbs without established correspondence

<table>
<thead>
<tr>
<th>Coverb</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>bard</td>
<td>acquire</td>
</tr>
<tr>
<td>berrulk</td>
<td>cough</td>
</tr>
<tr>
<td>bulilibbulilib</td>
<td>slide</td>
</tr>
<tr>
<td>burduburdubeminj</td>
<td>forget</td>
</tr>
<tr>
<td>dakkardak</td>
<td>block</td>
</tr>
<tr>
<td>durdulk</td>
<td>rub, stroke</td>
</tr>
<tr>
<td>didik</td>
<td>stretch</td>
</tr>
<tr>
<td>djakdjak</td>
<td>sift</td>
</tr>
<tr>
<td>karlirrk</td>
<td>drag</td>
</tr>
<tr>
<td>karndjurrrk</td>
<td>single file</td>
</tr>
<tr>
<td>karrik</td>
<td>paddle</td>
</tr>
<tr>
<td>kerd</td>
<td>carry</td>
</tr>
<tr>
<td>kubirribirrkuk</td>
<td>steal</td>
</tr>
<tr>
<td>lorr</td>
<td>lean (against something)</td>
</tr>
<tr>
<td>makoberl</td>
<td>envy</td>
</tr>
<tr>
<td>marr</td>
<td>tease(^{23})</td>
</tr>
<tr>
<td>mawiwird</td>
<td>whistle</td>
</tr>
<tr>
<td>melmel</td>
<td>(lightning) strike</td>
</tr>
<tr>
<td>molek</td>
<td>(make) noise</td>
</tr>
<tr>
<td>mung</td>
<td>suck</td>
</tr>
<tr>
<td>munumunu</td>
<td>roll up</td>
</tr>
<tr>
<td>ngerrk</td>
<td>growl</td>
</tr>
<tr>
<td>ngid</td>
<td>proud of obj.</td>
</tr>
<tr>
<td>ngurr</td>
<td>wash</td>
</tr>
<tr>
<td>njawnjaw</td>
<td>chew</td>
</tr>
<tr>
<td>nunu</td>
<td>squeeze</td>
</tr>
<tr>
<td>rdak</td>
<td>obstruct</td>
</tr>
<tr>
<td>rdorr</td>
<td>goad</td>
</tr>
<tr>
<td>rdurdu</td>
<td>thunder</td>
</tr>
<tr>
<td>wadbuk</td>
<td>splash</td>
</tr>
<tr>
<td>wadbukwadbuk</td>
<td>fan, blow</td>
</tr>
<tr>
<td>worrworr</td>
<td>shake (trans.)</td>
</tr>
<tr>
<td>yulyulk</td>
<td>put under</td>
</tr>
</tbody>
</table>
Chapter 7

Clause structure

This chapter is focused on the structure of simple clauses. There are two main types of simple clauses: the bulk of the chapter deals with clauses built around verbal predicates, and section 7.7 is about the stative clauses, the majority of which have nominal predicates. The analytical comparative constructions cross-cut the distinction, but they are presented all together in §7.7.4 for the sake of presentation coherency. This chapter is structured as follows. In section 7.1 I discuss clausal word order, which is relatively free in Kunbarlang, and its relation to information structure. Section 7.2 presents the analytical viewpoint constructions that express imperfectivity and duration. Negation strategies, which require a change in the mood of the clause to irrealis, are discussed in §7.3. In §7.4 I turn to the formation of questions, which may, but do not have to include a question particle (in the case of polar questions) or a question word at the front (in constituent questions). Then I show how imperatives are formed in Kunbarlang (§7.5): there is no dedicated imperative mood, so positive imperatives use the future tense of the verb, and negative imperatives employ a construction with a prohibitive particle and a present tense verb. Section 7.6 is about the directional clitics in Kunbarlang. The following section (§7.7) brings together discussion of the ascriptive (§7.7.1), possessive (§7.7.2), locative and existential clauses (§7.7.3), and the expression of comparative and superlative degrees (§7.7.4). Finally, the last section of this chapter (§7.8) gives a brief overview of the reference tracking patterns and strategies to mark coreference that are found in Kunbarlang. In the next chapter, I turn to a discussion of multicausal constructions found in Kunbarlang (chapter 8).

This discussion of clausal structure, especially for the verbal predicate clauses, relies heavily on the discussion of verbal morphology in chapter 5. The topics most important for navigating the clausal constructions are verbal agreement and tense (§§5.2–5.5), and the exposition of grammatical relations (§5.1).
7.1 Word order and information structure

As has been emphasised throughout this grammar, a defining feature of Kunbarlang is polysynthesis. It has been observed in a variety of other polysynthetic languages that their constituent order is often based on pragmatic factors rather than grammatical relations (Fortescue, Mithun & Evans 2017: 4–5), and this has been tied to the richness of their morphology (ibid.: 2). The freedom of word order in the Australian context has been primarily discussed for the dependent-marking languages (Nordlinger 2014: §3) under the agenda of non-configurality (initiated in Hale’s work, such as the seminal 1983 paper). However, head-marking languages have also been described in these terms, including such Gunwinyguan languages as Bininj Kunwok (Evans 2003a: 549 ff.) and Wubuy (Heath 1986).

Kunbarlang is similar in this respect, in that it has ‘free’ word order.¹ This means that the word order in Kunbarlang does not serve to encode grammatical function as it does, for instance, in English or French. Coleman (1982) describes Kunbarlang verbal clauses as free-word order with a tendency for SVO. This is in essence similar to my findings. Thus, in a simple transitive clause with an overt subject and an overt object there is no fixed predetermined order of the verb, subject and object. The pair of examples (7.1) show two of the possible orders, viz. SVO and OVS. Both examples were elicited with picture prompts (rather than an English prompt or a linguist-constructed Kunbarlang prompt).²

    DEM.PROX.I creature 3SG.NF-3PL.OBJ-chase.NP two boy
    ‘This bird is chasing two boys.’ [IK1-170609_2SM-01/01:01:38–45]

    he NM.I man 3SG.FUT-3SG.OBJ-bite.NP NM.I crocodile
    ‘The crocodile is going to bite the man.’ [ibid./52:46–53]

An example of a verb-initial order VSO from a narrative is given in (7.2):

    3SG.NF-3SG.OBJ-ask.PST whitefella man
    ‘Whitefellas [the police] asked him [the aboriginal man].’
    [20060831IB10/01:14–15]

¹. Very often in natural discourse in Kunbarlang the clauses consist of a single verb. The discussion in this section is concerned with the subset of the clauses that have overt NP arguments.
². The pictures were generously shared with me by Evan Kidd and Rachel Nordlinger, who created them for an experimental study of the word order in Murrinhpatha. See more in §7.1.1.
In direct elicitation of the word order permutations in a three-word sentence, all six options are judged well-formed (7.3), if the speaker is alerted to the fact that the linguist is attempting different ways to express the same idea (but see §7.1.1 below).

(7.3) pm150720:

a. Djarrangalanj ka-maddjing mankuli.  
   boy 3SG.NF-catch.PST green.turtle  
   'A boy caught a turtle.' (SVO)  

b. Djarrangalanj mankuli kamaddjing. (SOV)  

c. Mankuli djarrangalanj kamaddjing. (OSV)  

d. Kamaddjing mankuli djarrangalanj. (VOS)  

e. etc...

This does not amount, however, to saying that the word order is completely unconstrained. Rather, Kunbarlang word order is largely driven by the information flow in the discourse, or the information structure (Baker & Mushin 2008). Kunbarlang is largely organised around a topic-comment structure. This structure is readily visible in the ascriptive (non-verbal) clauses (7.4):

(7.4) a. [Nayi kirdimarrk]topic [balanda]comment.  
   NM.I man whitefella  
   'The/this man is a whitefella.'  
   [qu_sentence.types_sandra]  

   'The honey in the branches is Yirriddja moiety. The honey in the ground is Duwa moiety.'  
   [20060620lBo3/02:56–03:07]

The verbal clauses show the same topic-comment structure (7.5):

   creek 3SG.NF-dry-INCH.PST  
   'Rivers are dry.' [lit. ‘dried’]  
   [qu_sentence.types_sandra]
b. Ngayi [kodbarre korro kaddum]topic, barninda, [ka-ngundje I house DEM.MED.LOC top IGNOR 3SG.NF-do.NP yimarne mulubin]comment-
lake like blood

'In my picture, the roof of the house is, whatsit, red.' [lit. 'I, house on top, whatsit, does like blood.'] [IK1-170610_2SM-01/01:45–02:00]

The topic–comment structure can, however, be overridden by discourse-pragmatic needs, e.g. prominent information can be placed clause-initially even if it is not topical; see section §7.1.2 below. Example (7.5b) shows additionally that the topics may be preceded by frame-setting expressions, in this case the pronoun ngayi ‘I’ serves to set the frame ‘in my picture’. Notice also that the phrase that constitutes the comment is a verbal phrase, spelling out what is lexicalised in English as the adjective ‘red’.

Besides some regularities that stem from the information structure principles, there are also certain lexical classes with specific ordering preferences. Connectors are normally placed between the constituents that they connect (7.6), question words (§4.4.4) are preferentially placed clause-initially (7.7), the universal quantifier ngob (§4.6.3.1) is most often found in immediate post-verbal position (even though it can float around; 7.8).

(7.6) Nga-mankang la bedberre-ma kadda-nganj-bing bonj. 1SG.NF-fall.PST CONJ they-CONTR 3PL.NF-HITH-exit.PST exactly

'I landed and they arrived too.' [20060620IB03/11:57–12:03]

(7.7) Na-kaybi ki-rnay karra welenj? 1-who 2SG.NF-see.PST DEM.MED.LOC road

'Who did you see in the street?' [IK1-160811_000-01/38:02–05]

(7.8) a. Ka-burrum-marnanj-worrmeng ngob. 3NSG.NF-3NSG.OBJ-BEN-kindle.PST all

'They made fire for all of that other mob.' [IK1-160510_000-01/04:49–51]

b. Korro hall ngob djidda-rna. DEM.MED.LOC ENG all 2PL.FUT-sit.NP

'Go to the hall you all!' [20060614IB/00:25–27; translation mine — IK]

As for placement of adjuncts, I do not find any important regularities. They can appear on either side of the verb (7.9). They are also as much subject to the information
structure factors as other lexical information in the clause (see, for instance, example (7.13) below and related discussion).

(7.9) **Bilingual section** nga-kelkkuyinj **kordokmeng.**

\[
\begin{array}{llll}
\text{ENG} & \text{ENG} & \text{1SG.NF-WORK.PST} & \text{first} \\
\end{array}
\]

'I worked in the bilingual section before.' [20150206AS03/03:23–26]

There are two adjuncts in (7.9), a locative one that precedes the verb, and a temporal one that follows the verb.

Having established that word order does not serve to encode grammatical functions in Kunbarlang, I show in the next section that there still is a default order, namely, SVO. But before proceeding to the specific topics in Kunbarlang word order, an important caveat must be clarified. Word order is not the only correlate of information structure rendering, the other one of high importance being the intonation. A thorough study of word order and information structure, including instrumental measures and large corpus statistics, as well as controlled experiments, would be a subject for a separate full-scale study. As this is only one topic in the present grammar, I rely primarily on my direct perception of the intonational patterns, such as pitch movement and intonation contours.

### 7.1.1 Subject–Verb–Object as the default word order

Singer (n.d.) points out that "strong tendencies in word ordering have been found in all recently published analyses of word order in Australian languages... In most cases, these ordering tendencies are not only correlated to discourse-pragmatic factors but to grammatical function as well". Even though, as we have seen, the constituents encoding core grammatical functions may occur in various orders in the Kunbarlang clause, I argue here that SVO is the most neutral order. Recent experimental work on Murrinhpatha has used a picture paradigm to investigate word order in isolation of the context (Nordlinger & Kidd 2018). In Nordlinger & Kidd’s (2018) design, a set of pictures controlled for a number of factors (animacy, number, left-to-right linear order of figures in the picture) was presented to Murrinhpatha native speakers to elicit sentence production. The pictures are unrelated and do not form a narrative, thus the sentences produced by the speakers can be assumed to be out-of-the-blue and without contextual information structure biases. Some of the findings in this study are that there is no "basic word order" as such in Murrinhpatha production, but there are certain tendencies. In particular, subjects tend to precede objects, but animate objects

3. The authors’ original paradigm involves eye-tracking of the speakers gaze alongside with the production, which I do not discuss here.
tend to precede inanimate subjects. I show below that there are similar tendencies in Kunbarlang. In fact, I argue that there is a stronger tendency for SVO, not just subject before object.

The order SVO in Kunbarlang is (impressionistically) very prevalent in production during elicitation, but this is always open to the interpretation that the English prompts could be responsible for at least a proportion of such sentences. To tap into this issue and gain some preliminary insight into the word orders in out-of-the-blue production unbiased by the prompts, I used the same stimuli, which the authors generously made available to me. I instructed the speakers I worked with to name the participants in the situation described, so most of the responses have at least two overt noun phrases. I report on one of the subsets of pictures that was used in elicitation with four different speakers, yielding 50 responses. Out of those, 14 had to be left out because they contained less than two NPs or other errors. Considering the remaining 36 responses with both subject and object present, SVO sentences comprise approximately 69% (n=25), OVS approximately 28% (n=10), and the only produced SOV sentence amounts to ~3%. All examples with the OVS order include either a lower animate acting on a human (7.1b) or an inanimate agent (7.10).

(7.10) [Manda kundulk]_O ka-bum [nawordewordekken]_S.
      DEM.PROX.III tree 3SG.NF-hit.PST lightning
      'Lightning strikes this tree.' [IK1-170609_2SM-01:01:12–18]

I conclude that there is a strong preference for SVO in the absence of information structural and other contextual pressures. However, there is also a strong tendency for post-verbal inanimate agents (particularly striking with human objects), which normally overrides the default order. Obviously, this elicitation does not directly address the question of whether during the decades of contact there has been a perceptible influence of the English word order on the Kunbarlang word order tendencies. This remains an open question. However, the strict systematicity of all four speakers’ OVS responses to the stimuli with low animacy agents suggests that Kunbarlang does not merely mimic the English patterns.

Let us now consider the opposite aspect, viz. the interpretation of sentences. I find that even though an object-first order is possible (such as OVS in (7.1b) or (7.10)), it is usually rejected out-of-the-blue. I conclude that from the comprehension point of view, the preferred interpretation of sentences with the sequence NP–V–NP is SVO (cf. a similar remark about the flexibility of the Russian word order by Comrie (1989: 88)). Thus, a fronted object order is marked and requires certain licensing (such as contextual prominence or inherent prominence due to the patient being higher on

4. A few sentences contain more, because they include, for instance, a description of an instrument. I did not analyse the nominals beyond the S and O ones.
the animacy hierarchy than the agent, as in (7.1b)). Consider example (7.11), modified from previously elicited examples to the OVS order and presented to a speaker. Even despite the possibility of such word order in principle, the speaker judged the example as semantically odd, interpreting it as SVO by default.

(7.11) #Mayi murrkidj ka-bun-rladbum ngalwundji.
    NM.III potato 3SG.NF-3SG.OBJ-overcook.PST girl
    ‘The potato overcooked the girl.’

In this section I have described SVO as the default, or neutral, word order in Kunbarlang. In natural connected discourse, however, pragmatic and contextual factors often yield mutations of that order. In Kunbarlang, similar to a number of Australian languages, there are dedicated constructions that express various discourse functions. In section §7.1.2 I discuss the most prominent one: the clause-initial position.

7.1.2 The initial position

The clause-initial position has been noted in Australianist literature as pragmatically distinguished. Simpson & Mushin (2008), surveying a number of word order studies in individual Australian languages, conclude that

> there is consensus that whatever core constituent occurs clause-initially has some pragmatic importance or prominence. This importance is usually to signal that the information in question is brought to the forefront of the hearer’s attention, perhaps by emphasis or contrast, because it’s either non-recoverable (i.e., new) or it runs counter to expectations (i.e., it changes the interlocutor’s knowledge state) and is thus prominent. (Simpson & Mushin 2008: 27)

I find that in Kunbarlang the clause-initial position is also prominent. There is no unique discourse-pragmatic function associated with it; however, two functions are particularly noticeable, viz. new information focus and contrast. The first one is exemplified by the set of question-answer pairs (7.12–7.15). Notice that the focused constituent in the answer always occurs clause-initially. The prominent constituent, placed in that position, bears higher pitch accent with a falling contour.

(7.12) Q: Na-kaybi nayi kirdimarrk ki-remlang?
    1-who NM.I man 2SG.NF-punch.PST
    ‘Which man did you punch?’

249
A1: **Na-wamud**, or **Na-bangardi** nga-rlemang.

*i-W eng 1-B 1sg.NF-punch.PST*

'I punched Wamud or Bangardi.'

[ibid./53:08–12]

A2: **Ninda** kirdimarrk nga-rlemang.

*DEM.PROX.I man 1sg.NF-punch.PST*

'I punched this man [pointing].'

[ibid./54:14–17]

A3: **Ninda** nga-rlemang.

*DEM.PROX.I 1sg.NF-punch.PST*

'I punched him [pointing].'

[ibid./54:25–27]

(7.13) Q: Ki-bum kundulk or barda ki-rlemang?

*2sg.NF-hit.PST stick eng what 2sg.NF-punch.PST*

'Did you hit him/her/it with a stick or with what?'

[IK1-160829_000-01/51:44–46]

A: **Kunbid** nga-rlemang.

*hand 1sg.NF-punch.PST*

'I punched him/her/it with my hand.'

[ibid./51:47–48]

(7.14) Q: Karra kenda nayi kirdimarrk ki-rlemang?

*where NM.I man 2sg.NF-punch.PST*

'Where did (it happen that) you punch the man?'

[IK1-160829_000-01/50:37–40]

A: **Karra** kodbarre nga-rlemang.

*DEM.MED.LOC house 1sg.NF-punch.PST*

'I punched him at home.'

[ibid./50:53–56]

(7.15) Q: Na-kaybi ka-ngan-marnanj-kalng nayi nga-djanga-rda-yi?

*i-who 3sg.NF-1SG.OBJ-BEN-get.PST NM.I 1sg.NF-foot-enter-REFL.NP*

'Who took my shoes?'

[IK1-160811_000-01/46:21–36]

A: **Nukka** ka-kalng bi-nungku **nayi ka-nganj-kankinj**

*he 3sg.NF-get.PST DAT-YOU.SG.GEN NM.I 3sg.NF-HITH-take.PST neyang. food*

'He who brought us food took them on you (to your detriment).'

[ibid./46:56–47:20]
These examples illustrate constituent questions to various grammatical functions: the primary object (7.12), the instrument (7.13), the locative adjunct (7.14) and the subject (7.15). Regardless of the grammatical function, however, the focus of the answer preferentially occurs in the clause-initial position in Kunbarlang. This placement is only preferential, but not obligatory. Thus, as an alternative to the OV order answers in (7.12) the order VO (7.16) is also possible in response to (7.12Q):

(7.16)  

<table>
<thead>
<tr>
<th>Nga-rlemang</th>
<th>Na-bangardi.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG.NF-punch.PST</td>
<td>1-B</td>
</tr>
<tr>
<td>‘I punched Bangardi.’</td>
<td></td>
</tr>
</tbody>
</table>

The subject question-answer pair in (7.15) shows a further interesting variation of the construction. The subject there is a relative clause headed by the pronoun nukka ‘he’. This head appears in the clause-initial prominent position, whereas the modifier clause is shifted to the end of the clause, presumably due to its heaviness.\(^5\)

Example (7.17) shows that an embedded object can front and appear in the clause-initial position, if there is appropriate context. The resulting order is O–V\(_{matr}\)–V\(_{emb}\) with the matrix verb separating the embedded verb from its fronted object. In the absence of supporting context, however, the sentence-initial word is construed as the subject of the matrix verb, which in this case yields an infelicitous reading ‘the barramundi told me that \(p\)’ (7.17a). I consider this subject construal out-of-context, even in the face of pragmatic implausibility, to be further evidence for SVO preference in Kunbarlang.

(7.17)  

| IK1-160512_000-01/47:00–49:46: |
| a. %Bilmu | ka-ngan-marnanj-ngunda | ka-kalng. |
| barramundi | 3SG.NF-1SG.OBJ-BEN-do.PST | 3SG.NF-get.PST |
| ‘S/he told me that s/he caught barramundi.’ |
| Infelicitous unless in the right context, such as the question in (b). Speaker’s comment: ‘It’s just like saying, bilmu told you.’ |

---

5. Relative clauses in subject position are usually embedded (i). See §8.4 on relativisation in Kunbarlang.

(i)  

| Na-kaybi-nuk | [RCnayi | ka-mangarninjdjangaj | ka-ngan-rluklung, | la |
| 1-who-INDF | NM.I | 3SG.NF-sing.PST | 3SG.NF-1SG.OBJ-wake.PST | CONJ |
| nga-wakwanj, | 1SG.NF-ignorant.NP |
| ‘Someone who was singing woke me up, but I don’t know [who that was].’ | [IK1-160822_000-01/11:30–39] |
b. Barda nayi barbung ka-kalng?
   what NM.1 fish 3SG.NF-get.PST
   ‘What sort of fish did s/he catch?’

All of the above examples show the attraction of the new information focus to the clause-initial position, diagnosed by the question-answer pairs. The other significant function that appears in the clause-initial position is contrast. On the one hand, I find that the contrastive/emphatic pronouns with the suffix -ma (§4.4.1.2) overwhelmingly occur in the clause-initial position (7.18).

(7.18) Kadda-kidanj, nganj-ma ngondo bonj nga-rnak-ninganj.
   3PL.NF-go.PST I-CONTR DEM.PROX.IV exactly 1SG.NF-LIM-sit.PST
   ‘They went, and I just stayed in this country.’ [20060620IB03/33:53–58]

Out of 35 examples with -ma-marked pronouns drawn at random, 6 26 have them in the initial position (approximately 75%). Three examples in the sample involve the reciprocal construction “V la pro-ma” ‘V each other’ (§6.1.3), which really is a different function of these forms. With the exclusion of these three, the proportion of the clause-initial ones is even higher, namely 82% (26/32). For comparison, out of 35 examples of various personal pronouns not marked for any communicative function, only 19 occur clause-initially (54%).

Further examples of constituents bearing contrast being placed in the initial position come from non-pronominal contrastive constituents that receive the contrast prominence through syntagmatic oppositions. Consider (7.19), which contraposes women with men in regards to the treatment they receive from the mythical giant mankurdel. In the first clause, the noun barramimbanj ‘woman’ is topical, placed in the clause-initial position; it is paired with the contrastive focus kirdimarrk ‘man’, placed in the initial position of the second clause. 7

(7.19) [Barramimbanj]CT || karlu ngunda ki-buddu-bakbelbu
   woman NEG.PRED not 3SG.IRR.NP-3PL.OBJ-throw_down.IRR.NP
   ngayi barramimbanj || only [kirdimarrk]CF ka-buddu-bakbelbunj.
   NM.PL woman ENG man 3SG.NF-3PL.OBJ-throw_down.NP
   ‘As for women, he doesn’t throw the women down, it’s only the men that he throws down.’ [20060901IB08/00:29–00:35]

6. This is roughly half of all instances of such pronouns in the corpus. I have analysed the first half of the output of ELAN search function, which yielded a mixture of speakers and recording occasions. I have omitted examples from elicitation, and thus only spontaneous narrative/dialogue is included.
7. My analysis of kirdimarrk ‘man’ as focal is based on its association with the exhaustive particle ‘only’. Furthermore, I assume here that CONTRAST is an information-structural feature in its own right, which allows for pairing contrastive elements without necessarily matching their TOPICALITY or focality.
Contrastive focus constituents are also placed in the clause-initial position. In (7.20b) the object that is under contrastive focus is placed in the beginning of the clause, just after the conjunction la.8

(7.20) a. Yidok ka-burrung-beyang nayi durduk?
   Q 3SG.NF-3DU.OBJ-bite.PST NML dog
   'Did that dog bite both the man and the woman?' [IK1-160628_1RD-01]

   NEG.PRED CONJ woman 3SG.NF-3SG.OBJ-LIM-bite.PST
   'No, it only bit the woman.' [IK1-160628_1RD-01]

These two discourse-pragmatic functions, contrast (which can be topic or focus) and new information focus, cover the vast majority of noun phrases (other than the subject) in the clause-initial position. They certainly do not account for every single example that one can encounter, but as was mentioned earlier, such a level of detail is unfeasible within the scope of the present grammar. I observe that the functions discussed here are consistent with the broader picture reported in Simpson & Mushin 2008 and elsewhere (e.g. Singer n.d.), both in terms of the heterogeneity of this position and in terms of the particular types of prominent information. I assume for now that (i) the other functions that may be connected to the Kunbarlang initial position are also expressing prominence and (ii) that the subjects and aboutness topics do not have to be prominent to occur in that position (in virtue of SVO and the topic–comment structure being the defaults; see §7.1.1). Effectively, prominence of a constituent allows it to occur in the initial position, potentially overriding the default placement. The opposite, far right end of the clause, which hosts the so-called “afterthoughts”, is discussed in the next section.

### 7.1.3 Afterthoughts

Afterthought, or the right-dislocated, position is another pragmatically significant position recognised in a variety of Australian languages. Baker & Mushin define it as the "position, where a (typically phrasal) constituent is informationally connected to a preceding utterance (e.g., it refers to a discourse entity which was also referred to in the previous utterance), but is offset prosodically from that preceding utterance" (2008: 10). Kunbarlang uses the right-dislocated position in this function, too (7.21).9

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8. With respect to connectors I take a different approach to Simpson & Mushin (2008). They count the connectors as one of classes of items that fill the clause-initial position, but I regard them as external to clause.
9. Notice an interesting instance of the pronoun nawukma 'he.CONTR' determining the noun kabbala 'boat' (class i).
(7.21) Ngadda-nganj-mayinj, kabbala na-wuk-ma ka-nganj-rda-yinj, 
1PL.EXCL.NF-HITH-cross.PST boat[1] 1-PERSON-CONTR 3SG.NF-HITH-put-REFL.PST 
na-rleengbinbin.
1-big

‘We came across and there was a boat coming in, a big one.’

[IK1-160510_000-01/02:27–33]

The pitch contour for (7.21) is shown in figure 7.1 (without the first verb). Even though there is no prolonged pause before the afterthought, the pitch reset is clearly visible.

Figure 7.1: Pitch contour of an afterthought

Being a clarificatory device or hosting appositional modifiers, the afterthoughts in Kunbarlang are a prime source of discontinuous but coreferential nominal material. While looking — from the point of view of word order — like classic discontinuous NPs, such right-dislocated nominals are considered by some researchers to constitute a separate phenomenon from discontinuity proper (e.g. Schultze-Berndt & Simard 2012). I analyse such appositional modifiers in the right periphery as separate, but coreferential, noun phrases. Singer (2006: 99–100) pursues the same analysis for Mawng discontinuous nominals (7.22). The word order in the Kunbarlang NP is taken up further in §7.1.4, and NP constituency is discussed in §4.3.

(7.22) Mawng (Singer 2006: 99)

\begin{verbatim}
Yungku marrik manga-niki-ng mata ma-lakpi.
firewood[VEG] NEG 3.NMA->3VEG-carry-IRR VEG VEG-heavy
\end{verbatim}

‘She shouldn’t carry heavy firewood.’
The afterthoughts in Kunbarlang may, but do not necessarily have to, co-refer with some nominal material from the main/preceding part of the utterance. They just broadly refer to some discourse entity, and thus can also elaborate on other kinds of referents, such as those represented in the pronominal prefixes on verbs; cf. (7.23), where the only nominal material referring to the subject of the throwing is right-dislocated to the afterthought position.

(7.23) Like yimarne ka-yuwa=rdurdu yimarne balmad bonj kuyi eng like 3sg.NF-lie.NP=thunder like rain exactly NM.IV
ka-buddu-bakbelunj ngayi kirdimarrk || nayi mankurdel. 3sg.NF-3pl.OBJ-throw_down.NP NM.PL man NM.I giant
'It's like when the thunder roars, when it's wet season, that's how [it sounds like when] he throws the people down; the giant.' [20060901IB08/00:18–25]

7.1.4 Word order in the noun phrase

Flexible word order and the possibility of linear discontinuity of noun phrases have been suggested as two of the hallmarks of non-configurationality and a number of Australian languages have been argued, due to these features, to lack NPs altogether (e.g. Kalkatungu (Blake 1983: 145), Wubuy (Heath 1986: 377–81) or Bininj Kunwok (Evans 2003a: 229–31); see also an overview and references in Nordlinger 2014: §6). Some more recent work on other Australian languages has argued for the existence of noun phrases and discussed their organizational principles. The results of both individual languages studies and typological investigations (see, respectively, Schultze-Berndt & Simard 2012 for Jaminjung and Louagie & Verstraete 2016 for a sample of a 100 Australian languages) point towards the conclusion that the characterisation of Australian languages as generally lacking NP structures may be premature and unwarranted. A closer inquiry into the conditions on NP discontinuity suggests that what at a first glance may look like a disrupted NP, could often more fruitfully be analysed as a two co-referential constituents. In particular, the by now familiar discourse-pragmatic factors (such as focusing or topicalising a certain fragment of information) can favour encoding of referring expressions via such independent but co-referential constituents over a single longer unit (see e.g. Schultze-Berndt & Simard 2012).

I find that the order of the elements in the Kunbarlang noun phrase is relatively restricted. This has been formulated in §4.3.1 in terms of a noun phrase template, which is repeated in (7.27) below. The bulk of the modifiers precede the head noun. Similar to the order of the verb’s arguments, discussed above, in elicitation a variety of orders of an adjective, a noun marker and the head noun are available (7.24). One categorical restriction is that the noun markers are not allowed in the NP-final position (7.24e–f).
However, outside of elicitation of the permutations, there are several noticeable regularities concerning the word order in the Kunbarlang noun phrase. They include the following ones:

1. noun markers are prohibited NP-finally (see (7.24) above)
2. relative clauses are normally postnominal (example (7.25) and §8.4 on RCs)
3. in the possessive constructions, the $bi$-marked possessors follow and the agreeing ones precede the head noun (7.26)

The head noun $barrayidjidj$ ‘kids’ in (7.25) is the head of the relative clause, which follows it immediately. In the two examples in (7.26) the same speaker uses two different possessive constructions to talk about his language, and accordingly uses the different word order: the $bi$-marked possessor occurs after the head noun $lerrk$ ‘word’ (7.26a) and the agreeing possessor precedes the head noun (7.26b).
Again, the ordering in the possessive constructions is not categorical, but the bi-
possessors follow the head noun in 84% of examples and the agreeing ones precede the
head in 87% of examples, revealing a very strong tendency.

Noun phrases are usually short in natural discourse, only having one or two modi-
fiers. However, these modifiers consistently follow the maximal NP template in (7.27):

(7.27) pronoun — demonstrative — adjective | quantifier — NM — gen-
possessor — head noun — dat-possessor — bidju 'EMPH'

Demonstratives are especially rare in co-occurrence with other modifiers in a noun
phrase. Example (7.28) illustrates the general pattern, without the demonstrative but
with all other positional classes present.10 Example (7.29) shows the relative ordering
of a demonstrative and an adjective, albeit without a head noun.

(7.28) nukka kun-warri kuyi kodbarre
he iv-bad NM.IV house[IV]
‘bad houses’ [20060614IB/00:26–29]

(7.29) Manda man-warri ka-rna ka-ngarrkun-wunj.
DEM.PROX.III III-bad 3SG.NF-sit.NP 3SG.NF-1.INCL.OBJ:give.NP
‘He keeps giving us the bad ones.’
[djurddjurd_2016_transcript-298569/03:39–41; translation mine — IK]

Further support for the template (7.27) comes from the fact that in isolation, ad-
nominal adjectives must precede nouns (7.30a–b), but in the absence of a noun follow
pronouns (7.30c–d).

10. I do not know why the pronoun here is class I rather than class IV kukka. Perhaps this has to do
with the masculine class being the default one.
Noun phrase constituency and the functions of the various modifiers (including the use of personal pronouns in the NP) were discussed in detail in §4.3.

7.2 Aspectual constructions

As discussed above (e.g. §5.3), the verbal morphology only specifies the tense and mood of the clause, but not the aspect. There are, however, other expressive means that convey (some) viewpoint aspect information: the imperfective auxiliary construction (IAC; §7.2.1) and the stylistic lengthening §7.2.2.

7.2.1 The imperfective auxiliary construction

Viewpoint aspect is not a morphological category in Kunbarlang, but there is a construction which expresses imperfective aspect. This construction involves the verbs -dja ‘to stand’, -rna ‘to sit’, -yuwa ‘to lie’, and -warre ‘to occur’ in auxiliary-like functions. They are fully inflected and combined with the semantically main verb (or nominal predicate — see (7.33c)), which also is fully inflected. The two verbs have identical subjects (and thus, subject prefixes) and identical tense/mood specification. The auxiliary verb comes before the main verb.

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11 Similar constructions, albeit with a diverse range of functions, have been described in a number of Australian languages, including Garrwa, Kalkatungu, Ngan’gityemerri, Waanyi, Wamba, and Yukulta, and treated as a type of serial verb construction (see Laughren 2016 and references therein.)
**Mismatch of the tense features of the auxiliary and the main verb is prohibited, e.g.**

(7.32) Na-kaybi ngondo {ka-rintinganj} ‘ka-rna} ka-nganj-kanginj
1-who DEM.PROX.IV 3SG.NF-sit.PST 3SG.NF-sit.NP 3SG.NF-HITH-take.PST
kuyi kuwalak?
NM.IV rock
‘Who was bringing all these rocks here?’

[IK1-170602_1SY-02/36:34–40, 37:50–53]  

The meaning of this construction is, essentially, the IMPERFECTIVE. It is used to specify the viewpoint aspect as unbounded, i.e. that the reference time is included as a subset into the event time. More specifically, it can realise a number of aspecual meanings, such as PROGRESSIVE (7.33a), HABITUAL (7.33b), or STATIVE (7.33c). Similar constructions, with varying syntax and auxiliary sets, are found in other languages of the region, for instance: Nakkara (Eather 2011: 403–10), Gurr-goni (Green 1995: §5.3), Ndjébbana (McKay 2000: 286–7), Bininj Kunwok (esp. Kuninjku and Kune; Evans 2003a: 371, 130–2)).

(7.33) a. Ngadda-maddjing ngadda-karlingwa::ng ka-rintinganj
1PL.EXCL.NF-pierce.PST 1PL.EXCL.NF-follow.PST 3SG.NF-sit.PST
ka-burrndji-ynj la ngadda-mun-bing-bi
3SG.NF-WRAP-REFL.PST CONJ 1PL.EXCL.NF-THITH-exit.PST-THITH
ngadda-maddjing || ngadda-burrndjing.
1PL.EXCL.NF-pierce.PST 1PL.EXCL.NF-WRAP.PST
‘We speared it, then we chased it. It was getting wrapped around [with a rope], and we got close to that crocodile and we speared it. We wrapped [the rope] around the crocodile.’

[20060620IB04/09:08–17]  

12. It is not clear what the masculine pronoun *nukka* in this example refers to.
b. Nukka **ngadda-warrenj** **ngadda-kalng** kiyurlu la he 1PL.EXCL.NF-occur.PST 1PL.EXCL.NF-get.PST egg CONJ

na-walak-walak.

1-PL-small

‘That’s where we used to get those seagull eggs and the baby ones too.’

[20060620IB04/07:37–43; translation mine — IK]

c. And balkkime ngorro **ngarrk-dja** **ngarrak-djarrak**, and and now DEM.MED.IV 1.INCL.NF-stand.NP 1.INCL-healthy and

balkkime kenda ngarrk-dja.

now DEM.PROX.LOC 1.INCL.NF-stand.NP

‘And today those of us still alive, and today we are here.’

[IK1-160424_000-01/01:55–02:00]

The respective postures (or motion) conveyed by the auxiliary appear to be implied and cancellable. That is, while the subject of the action may be construed as being in a particular posture (7.34), or wandering (7.33b) during the event, often that original meaning is incompatible with the type of the event. That is a sign that the original posture/motion meaning may sometimes be bleached and the aspectual contribution of the auxiliary is central in this construction. In particular, the incompatibility is evident in cases where a posture verb accompanies a motion predicate, as in the examples in (7.35).

(7.34) **Kadda-djanganj** **kadda-kelkkuyinj** la Georgina **ka-djanganj**

3PL.NF-stand.PST 3PL.NF-work.PST CONJ G 3SG.NF-stand.PST

**ka-burrun-rnay.**

3SG.NF-3DU.OBJ-see.PST

‘They were digging and Georgina was watching them.’

[20060814IB01/00:39–42; translation mine — IK]

(7.35) a. **Kadda-rninganj** **kadda-nganj-kidanj.**

3PL.NF-sit.PST 3PL.NF-HITH-go.PST

‘Everyone was coming [separately, rather than arrived together].’

[IK1-160429_000-01/07:33–35]

b. Kukka ngundje **kadda-rna** **kadda-wonj** karra yalbi.

maybe 3PL.NF-sit.NP 3PL.NF-return.NP DEM.MED.LOC country

‘Maybe they’re going back home.’

[IK1-170615_1SY-02/06:52–55]

The interaction of this construction with the Aktionsart has not been studied systematically, for the want of a good understanding of Kunbarlang Aktionsart. However,
all examples in the corpus are compatible with the hypothesis that the imperfective auxiliary construction requires the eventuality of the verb phrase to be durative (which corroborates the analysis advanced here of this construction as imperfective). Thus, one finds examples where it is plausible to think that the underlying eventuality is a state (7.33c), an activity (7.34) or an accomplishment (7.33a), but there are no compelling examples of achievements. Although there are no “starred” examples, there is one suggestive case from an elicitation (7.36). When asked about the possibility of using *nga-warrenj nga-rnay* [1SG.NF-occur.PST 1SG.NF-see.PST] in the context which forced the achievement reading of the main verb (’find’ rather than ’see, watch’), the speaker repeated that with an extra conjunction *la* inbetween, which indicates that these belong to separate clauses.

(7.36)  

\begin{Verbatim}
Nga-warrenj nga-yawang la babi la \textbf{nga-warrenj la nga-rnay.}
\textit{1SG.NF-occur.PST 1SG.NF-see.PST CONJ later CONJ 1SG.NF-occur.PST CONJ}
\textit{nga-rnay.}
\textit{1SG.NF-see.PST}
\end{Verbatim}

’I was looking for it and then (I was browsing and) I found it.’

[IK1-170610_1SY-02/54:02–10]

This is consistent with the above interpretation of this construction as specifying unbounded aspect. This view further predicts that if an achievement verb was to be used in an imperfective auxiliary construction, the resulting reading would have to be iterative or habitual (see de Swart 1998 on aspectual coercion). This prediction seems to be borne out: example (7.33b) is understood as a habitual, and (7.37) as iterative.

(7.37)  

\begin{Verbatim}
Ka-warrenj ka-rlakwang mayi mamukunbid, ngunda barbung ki-kala, karlu.
\textit{3SG.NF-occur.PST 3SG.NF-throw.PST III fishing_rod not fish}
\textit{3SG.IRR.PST-get.IRR.PST NEG.PRED}
\end{Verbatim}

’S/he was casting the fishing rod, but did not catch any fish.’

[IK1-160722_1SM-01]

In terms of intonation, the two verbs are included within a single contour and pronounced without pauses. The pitch contour for (7.38) is shown in figure 7.2.\footnote{The main verb in (7.38), *nga-bum ngurr* ’I washed’, is itself a complex one, more specifically, a coverb construction (§6.5).}
And nga-nganj-kanginj kenda-wu nga-djanganj and 1SG.NF-HITH-take.PST DEM.PROX.LOC-ELA 1SG.NF-stand.PST nga-bum-ngurr karra yalbi. 1SG.NF-hit.PST=wash DEM.MED.LOC country ‘I took them here and washed them at home.’ [20060814IB03/01:00–02; translation mine — IK]

Ross (2011: 257–79) shows that in Dalabon (and Kayardild) there are multi-verb intonational phrases which include under a single contour verbs describing tightly connected events. In the next subsection I turn to a prosodic means of expressing prolonged duration of an event.

### 7.2.2 Stylistic lengthening

Kunbarlang speakers employ another prosodic device to indicate extended duration of an event, namely stylistic lengthening. In this case, the vowel of the final syllable of the verb is pronounced with an emphatically long duration (7.33a), (7.39).

(7.39) Ngadda-burl-karrme:: ngob ngorro ngadda-marnbunj yimarne 1PL.EXCL.NF-fist-hold.NP all DEM.MED.IV 1PL.EXCL.NF-make.NP like ka-ngundje kurrana. 3SG.NF-do moon ‘We knead it all for a while, then we make it into a round shape.’ [IK1-160726_002-01/00:34–41]
The extent of the lengthening is illustrated in the following pair of waveform diagrams, taken from a recording of one male speaker. The words pictured are a near-minimal pair: they involve the verb -djin 'to eat/consume' (7.40), referring to a human’s consumption of a liquid in one instance and to a fire burning in the other.

(7.40) a. Ka-bardi-djarrang.  
3SG.NF-liquid-eat.PST  
‘He drank it.’  
[20060606IB02/09:49]

b. Ka-bun-djarra::ng.  
3SG.NF-3SG.OBJ-eat.PST  
‘It was cooking.’  
[ibid./01:06]

Figure 7.3 shows a token of ka-bardi-djarrang ‘s/he drank’, spoken in a regular way. The final syllable [ɾaŋ] here is 0.17s in length (duration of the whole word is 0.69s). In constrast, figure 7.4 shows a token of ka-bun-djarra::ng ‘it was burning/cooking’ with the lengthening. Duration of the whole word is 2.1 seconds, including the final syllable [ɾaːːŋ] of 1.6s.

Figure 7.3: Waveform of ka-bardi-djarrang [20060606IB02/09:49]

This kind of vowel lengthening is one of the characteristic intonational patterns in Australian languages (see, e.g. Fletcher & Butcher (2014: 124) and references therein; phonological structure of such lengthening in Bininj Kunwok is analysed by Bishop (2002: §2.3.6)).

In Kunbarlang this formal means of signalling temporal extent of an event can, and often is, combined with the imperfective auxiliary construction, described above. Examples of this can be found in (7.33a) and (7.41).
(7.41) Ka-warrenj ka-yunga::nj.
3SG.NF-occur.PST 3SG.NF-lie.PST
'It [the crocodile] was lying down.'

7.3 Negation

Negation is formed using one of the two negative particles, *ngunda* (7.42a) or *merrek* (7.42b), which immediately precede the verb (7.42) or the nominal predicate (see examples below).

(7.42) a. Ngal-buk=bonj ka-bun-rnay John, na-buk=bonj
11-person=exactly 3SG.NF-3SG.OBJ-see.PST J 1-person=exactly
    *ngunda* ki-bun-rnani.
    not 3SG.IRR.PST-3SG.OBJ-see.IRR.PST
'She saw John, but he didn’t see her.'

b. Kaburrrk kirdimarrk **marrek** ki-bun-rnani la
two man not 3SG.IRR.PST-3SG.OBJ-see.IRR.PST CONJ
    *na-wuk-ma*.
    1-person-CONTR
'The two men did not see each other.'
The verb form is sensitive to the polarity of the clause: it is obligatorily irrealis under negation, marked in the subject prefix and in the verbal stem form. This can be clearly seen in (7.42a), where the first of the two conjoined clauses is positive polarity and the verb is marked for the realis past (ka-bun-rnay), but the second clause is negative and thus the verb is marked for irrealis past (ki-bun-rnani). For more on the verb tense/mood morphology see §5.4 and for the semantics of these forms, §5.5. The unusual reciprocal construction in (7.42b) is described in detail in §6.1.3.2.

Of the two particles, marrek is shared with Bininj Kunwok and Mawng; I am not aware of any counterparts of ngunda in other languages. The latter is also more frequently used, and perhaps there is an air of it being ‘more properly’ Kunbarlang. There is however no semantic difference between the two, and speakers will often alternate between them and/or allow substitution (7.43).

(7.43) Ngal-buk ngunda ki-djarri barbung.
      it-person not 3SG.IRR.NP-eat.IRR.NP fish

      Marrek ki-mabulu.
      not 3SG.IRR.NP-like.IRR.NP

      ‘She doesn’t eat fish. She doesn’t like it.’  [IK1-160722_001-01/02:05–23]

In terms of the verb’s paradigm, the tense categories are reduced under negation (although this is the property of the irrealis mood and not peculiar to negation alone; §5.4). While there are three tense forms in the realis (past, present and future), only past and non-past are distinguished in the irrealis.14

The same particles, especially ngunda, are used in negative indefinite pronoun formation (§4.4.5). In clauses with a negative pronoun, there is no other independent negative particle (7.44).

(7.44) a. Ngunda na-kaybi ki-buddu-rnani.
      not 1-who 3SG.IRR.PST-3PL.OBJ-see.IRR.PST

      ‘S/he didn’t see anyone.’  [IK1-160628_000-01/09:29–31]

b. Marrek barda ngemek ki-woh-yung korto
      not what yet 3SG.IRR.NP-INC-IE.IRR.NP DEM.MED.LOC
      welenj.
      road

      ‘There is nothing else lying around on the road.’
      [IK1-170610_2SM-01/11:07–11]

In such constructions with a negative pronoun, it has to precede the verb (7.45):

---

14. This is consistent with the observation that the future tense contrast is susceptible to neutralisation in negative contexts, as opposed to the past (Ultan 1978: 95).
Nominal predicates are similar to the verbal ones in that either *merrek* or *ngunda* may be used (7.46):

\[(7.46)\]
\[
a. \quad \text{Ninda} \quad \text{merrek} \quad \text{marrkidjbu.} \\
\quad \text{DEMPROX.} \quad \text{not} \quad \text{witch_doctor} \\
\quad \text{‘He’s not a witch doctor.’} \\
\text{[IK1-160829_000-01/01:14:37]}
\]
\[
b. \quad \text{Nukka} \quad \text{ngunda} \quad \text{durduk,} \quad \text{nukka} \quad \text{kornobolo.} \\
\quad \text{he.1} \quad \text{not} \quad \text{dog} \quad \text{he.1} \quad \text{wallaby} \\
\quad \text{‘It’s not a dog, it’s a wallaby.’} \\
\text{[IK1-160630_000-01/01:00–02]}
\]

Constituent negation, however, uses a different negator, viz. the predicative negation marker *karlu* (7.47). See §4.3 for more details.

\[(7.47)\]
\[
\text{Kenda} \quad \text{karlu} \quad \text{nayi} \quad \text{wombat} \quad \text{kenda} \quad \text{Mardbalk.} \\
\quad \text{DEMPROX.LOC no} \quad \text{NM.1 wombat} \quad \text{DEMPROX.LOC S.Goulburn} \\
\quad \text{‘There aren’t any wombats here on South Goulburn Is.’} \\
\text{[IK1-160802_000-01]}
\]

In subordinate clauses, if the matrix predicate is negated, the sentential complement is obligatorily inflected for the same tense/mood value as the matrix verb (7.48):

\[(7.48)\]

\[
a. \quad \text{Ka-mulmul-kalng} \quad \text{banikkin,} \quad \text{la} \quad \text{ngunda} \quad \text{ki-mabulu} \\
\quad \text{3SG.NF—many-get.PST} \quad \text{dish} \quad \text{CONJ not} \quad \text{3SG.IRR.NP—like.IRR.NP} \\
\quad \text{ki—bu=ngurr.} \\
\quad \text{3SG.IRR.NP—hit.IRR.NP=wash} \\
\quad \text{‘S/he has got a lot of dishes but doesn’t want to wash them.’} \\
\text{[IK1-170608_1SY-01/17:51–56]}
\]
\[
b. \quad *\text{Ngunda} \quad \text{ki-mabulu} \quad \text{kanj-bunj=ngurr.} \\
\quad \text{not} \quad \text{3SG.IRR.NP—like.IRR.NP} \quad \text{3SG.FUT-hit.NP=wash} \\
\quad \text{intended: ‘S/he does not want to wash it.’} \\
\text{[ibid./18:50–59]}
\]

The literal structure of (7.48a) is hard to render in English, but it could be along the lines of saying "she doesn’t want [that] she would wash them". The ungrammatical
variant in (7.48b) shows that it is not possible to use a realis form as complement (in this case, future tense) to an irrealis one. This phenomenon of tense/mood agreement is considered in greater detail in section §8.3.

As will be shown in §7.5, the prohibitive particle in the negative imperatives does not create negative polarity and the verb forms are morphosyntactically realis.

### 7.4 Questions

Questions can be categorised by the type of the answer that they require, which correlates with the formal means of constructing them. Polar (also known as *yes/no*) questions and constituent (also known as *wh*-questions) questions can be formed in Kunbarlang, and are described in the two following sections. I have not been able to identify a reliable way to ask an alternative question, such as *Does she like cats or dogs?* That is probably related to the lack of a dedicated disjunction strategy.

#### 7.4.1 Polar questions

Polar questions are the ones that require *yes* or *no* for the answer (hence their other name, *yes/no* questions).

(7.49) Q: Sandra ka-kinje neyang?
      S   3SG.NF-cook.NP food
      ‘Is Sandra cooking food?’

A: Yoh, ngal-buk=bonj ka-kinje neyang.
   yes "person=exactly 3SG.NF-cook.NP food
   ‘Yes, it is she who is cooking food.’

There is no evidence of high rising tunes in questions in other Australian languages (see, e.g. *Fletcher & Butcher 2014: §5.2*). For Kuninjku it has even been reported that in a small corpus of recordings all polar questions displayed a phrase-final fall (*Bishop 2002: 96–7*). At the same time, however, a study of Dyirbal reports suspended Fo declination in 88% of interrogative intonation phrases in a corpus. This contrasts to Dyirbal declarative phrases, where a comparable proportion of phrases shows steady declination (*King 1994: 145*). The author suggests that the cue to differentiation between declaratives and interrogatives in Dyirbal may lie in the presence or absence of Fo declination.
My impression is that Kunbarlang questions have a distinct tune from declaratives, and that this tune is the main formal way to mark an utterance as interrogative. However, at the present stage the individual pitch contours that I have examined are not informative. Thus, this impression remains to be verified in a controlled instrumental study of Kunbarlang intonation.

The yes/no questions can also contain the question particle *yidok* (7.50). This particle does not seem to be obligatory under any circumstances.¹⁵

(7.50) a. **Yidok** ka-burrun-beyang, nayi durduk?
    Q 3SG.NF-3DU.OBJ-bite.PST NM.1 dog
    ‘Did that dog bite them two?’  [IK1-160628_000-01/06:19–29]

    b. Karlu, la barramimbanj ka-bun-rnak-beyang.
    NEG.PRED CONJ woman 3SG.NF-3SG.OBJ-LIM-bite.PST
    ‘No, it only bit the woman.’  [ibid./06:42–48]

The marker *yidok* is restricted to matrix clauses, i.e. it cannot be used to embed a question like the English *whether* (7.51a). No complementizer is used at all when a question needs to be embedded under a verb like -*wakwanj* ‘(to be) ignorant’ (7.51b).

(7.51) a. *Nga-wakwanj  yidok* mayi birradja Mary ka-kinjang
    1SG.NF-ignorant.NP Q NM.III rice M 3SG.NF-cook.PST
    balkkime.
    today
    intended: ‘I don’t know whether Mary cooked rice today.’
    [IK1-160812_000-01/04:32–48]

    b. Nga-wakwanj manda birradja mayi Mary ka-kinjang.
    1SG.NF-ignorant.NP DEM.PROX.III rice NM.III M 3SG.NF-cook.PST
    ‘I don’t know whether Mary cooked **rice**.’  [ibid./04:50–55]

### 7.4.2 Constituent questions

Constituent questions are used to request specific information, rather than a *yes or no*. They are formed with the help of interrogative pronouns, which are listed and described in §4.4.4.

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¹⁵ Mawng has a particle *kurlingka* with similar function.
(7.52) Q: **Na-kaybi** ki-marnanj-lerrk-rdayinj?
    1-who 2SG.NF-BEN-word-enter.PST
    'Who did you call (on the phone)?'
    [IK1-160628_000-01/03:41–43]

A: Ngayi Ngalngarridj nga-marnanj-lerrk-rdayinj.
    NM.II N 1SG.NF-BEN-word-enter.PST
    'I called Ngalngarridj.'
    [ibid./04:01–04]

The new information that constitutes the focus of the answer — *Ngalngarridj*, in the case of (7.52A), is characteristically found in the preverbal position (see §7.1 for more on word order). The answer can be elliptical and include only that new information (7.53A):

(7.53) Q **Ngudda** birlinj ka-ngundje nayi ka-bakki-dja kaddum?
    you how 3SG.NF-do.NP NM.I 3SG.NF-vertical-stand.NP above
    'In your picture, what are the chimneys like?' [lit. 'What is it doing, that which stands up at the top?']
    [IK1-170610_2SM-01/00:12–16]

A Kaburrk, na-walk-walak.
    two 1-PL~small
    'Two, small ones.'
    [ibid./00:18–23]

The construction *birlinj ka-ngundje*, as in (7.53Q), is the major periphrastic way to inquire about any property of a referent, in particular, qualities and quantity. In terms of the word order, the interrogative expressions tend to occur clause initially, possibly preceded by sentence external topics (7.53Q). The fronting, however, is not obligatory, and interrogative pronouns may as well occur elsewhere (7.54):

(7.54) Ka-kidanj **na-kaybi** ka-yawanj wam?
    3SG.NF-go.PST 1-who 3SG.NF-seek.NP honey
    'Who went to look for honey?'
    [IK1-180524_1SY-01/06:40–42]

The particle *yidok* cannot be used in a constituent question (7.55):

(7.55) **'Yidok** Jamie **barda** ka-kinjang?
    Q J what 3SG.NF-cook.PST
    intended: 'What did Jamie cook?' or 'Did Jamie cook something?'
    [IK1-170614_1PG-01/14:33–35]
7.5 Imperatives

Imperatives are defined here functionally as “the constructions dedicated to the expression of the directive speech acts, i.e. orders and requests, but also invitations... etc” after König & Siemund (2007: 303). In Kunbarlang there are positive imperatives, which express a directive to perform a certain action, and negative imperatives, which express a directive not to perform a certain action. Except for the specialised imperative negator, there are no dedicated imperative forms, and regular agreement morphology is used.

The positive imperative uses the future realis form of the verb (7.56), i.e. the second person prefix is drawn from the future series (tables 5.5/5.10) and the verbal stem is in the non-past realis form.

(7.56) Ngabba, karrard, ngundji-n-rnanj!
father mother 2DU.FUT-1SG.OBJ-see.NP
Mommy, Daddy, look at me!' [IK1-160613_000-01/06:08-11]

The second person singular subject of the imperative has a phonologically reduced form with the first person object (7.57), as always in the future forms (see table 5.10).

(7.57) a. Barda ninda ki-karrme? Nj-ngan-rdukbanjdje!
what DEM.II 2SG.NF-hold.NP 2SG.FUT-1SG.OBJ-show.NP
What have you got? Show it to me!' [IK1-160613_000-01/1:19–2:12]
b. Kinj-ngan-ngeme!
2SG.FUT-1SG.OBJ-paint
‘Paint me!’ [IK1-160712_1SM-01]

Negative imperatives use a dedicated prohibitive negator not used elsewhere, kanj-yuwa ’proh’, and the usual negators found in declarative sentences (marrek and ngunda) are prohibited. The verbal stem is in the non-past realis form, as in the positive imperatives, but the personal prefixes are drawn from the non-future realis set (7.58).

16. Curiously, this prohibitive (negative imperative) marker is homonymous with the future tense form of the verb -yuwa ‘to lie’ with a third person singular subject: kanj-yuwa (3SG.NF-lie.NP) ‘S/he / it will lie’. One might speculate that, by analogy with the use of the future tense forms for imperatives, this is an optative, which is now undergoing grammaticalisation into a complex prohibitive construction. Incidentally, Mawng negative imperatives have the same structure as the Kunbarlang ones (Singer 2006: 72).
Despite its formal resemblance of the third person, future tense form of "yuwa 'to lie', the prohibitive particle is not a morphosyntactically active verb. For one, it is not sensitive to the person and number features of the event participants. The mismatch is obvious with the second person subject of the imperative, and the prohibitive particle does not change with different persons of the object either. Thus, with a first person object informants reject nganjyuwa [1sg.fut.lie.np] (7.59):

(7.59) Kanjuwa ki-ngan-rnanj!
PROH 2SG.NF-1SG.OBJ-SEE.NP
‘Don’t look at me!’  [IK1-180521_1SY-01/25:15]

Since there are no dedicated morphological forms for imperatives (nor hortatives, nor optatives), there are no grounds to postulate first or third person imperatives.

7.6 Directionals

There are several morphemes in Kunbarlang that serve to express the directional, or more broadly, locative, meanings. Two of them — the verbal prefixes mun- ‘THITH’ and nganj- ‘HITH’ — are discussed in §6.4. The other two are the clitics =bi ‘THITH’ (7.60) and =way ‘HITH’ (7.61). These clitics attach to verbs (7.60a), (7.61b) and to demonstratives (7.60b):

(7.60) a. Ki-ngan-marnanj-ngunda nganj-mun-ka=bi malayi
2SG.NF-1SG.OBJ-BEN-DO.PST 1SG.FUT-THITH-GO=THITH tomorrow
Budawin. Port_Darwin
‘You told me, I’m going to Darwin tomorrow.’
[IK1-180516_1PN-02/17:20–25]
   DEM.MED.LOC=THITH 3SG.NF-GO.NP IV-other country
   'S/he’s going to another country.' [ibid./37:38–43]

(7.61) IK1-180529_1SY-01/01:32:42–50

   3SG.NF-1SG.OBJ-SEND.PST
   'S/he sent me.' [no direction or location specified]

b. Ka-ngan-rnirlakwang=way.
   3SG.NF-1SG.OBJ-SEND.PST=HITH
   'S/he sent me over here.'

Example (7.61) offers a minimal pair, where the addition of the clitic =way adds a locational specification 'towards the deictic centre'. These clitics seem to be going out of use. They are not used in spontaneous speech very frequently, and although in elicitations they are recognised and judgements are offered with confidence, those judgements are not always consistent. For these reasons, the rules described below are a good approximation of the present-day system, but they can also be found violated in some elicitation recordings — possibly due to some discourse conditions on their use that are hard to control for in elicitation. It is not inconceivable that the decline of the system has to do — in one way or another — with the complexity of the deixis encoded, as discussed below.

The directional clitics have a strong tendency to cliticise onto the verbs with a directional prefix (7.62a–b). Moreover, by default the prefix and the clitic match in the direction they encode (7.62c–d; although see more below):

(7.62) a. ??Ka-ka=bi.
   3SG.NF-GO.NP=THITH
   intended: 'S/he’s going away.' [IK1-180518_1SY-01/02:35–49]

b. ??Ka-ka=way.
   3SG.NF-GO.NP=HITH
   'S/he’s coming here.' [ibid.]

c. *Ka-mun-ka=way.
   3SG.NF-THITH-GO.NP=HITH [ibid./01:43–47]

d. *Ka-nganj-ka=bi.
   3SG.NF-HITH-GO.NP=THITH [ibid./02:11–19]
In fact, the requirement that a prefix be present in the verb for the clitic to attach is somewhat variable. Thus, one speaker shows no sensitivity to that requirement whatsoever, while another consistently observes it.\footnote{Data from other speakers are more sporadic at the moment, but are in agreement with the requirement.} For instance, the sentence in (7.63) is volunteered (and later confirmed) by the former of the two, but ruled out by the latter:

(7.63) %Kinj-rdam=bi korro yirrk!
   2sg.fut-put.np=hith dem.med.loc inside
   ‘Take/put it inside!’ [IK1-180516_iPN-02/30:08; IK1-180518_iSY-01/06:22]

Further complications arise with respect to the deictic centre. As is pointed out in §6.4, the direction of motion is determined relative to a deictic centre, which may or may not coincide with the speaker of the utterance. Interestingly, some examples suggest that more than one deictic centre can be encoded if both a prefix and a clitic are present. Consider (7.64), which may be uttered by a speaker standing outside of a building to an addressee who is inside of the building:

(7.64) Kinj-\textit{mun}-rdam=\textit{way} kenda rlobberl nganj-kali.
   2sg.fut-thith-put.np=hith dem.prox.loc outside 1sg.fut-get.np
   ‘Pass it on here outside, I’ll get it.’ [IK1-180518_iSY-01/35:02–06]

In (7.64) there is a mismatch between the directional prefix and clitic. It can be interpreted to serve a creative purpose, however, indicating that for the verb’s subject (i.e. the addressee of the imperative utterance) the action is elative, but from the speaker of the utterance’s point of view the action is allative.

As is discussed in §6.4.5, there is a certain asymmetry between the directional prefixes, such that the hither \textit{nganj-} occurs more frequently than the thither \textit{mun-}, and the default interpretation of directed actions in the absence of either prefix is the elative. This does not seem to be the case with the clitics, which are equally infrequent. Another manifestation of the asymmetry in prefixes is the fact that \textit{nganj-}, but not \textit{mun-}, can combine with stative (posture) verbs (7.65). It is not clear to me whether there is any semantic import of \textit{nganj-} in such cases.

(7.65) Korro-bi ka-\textit{nganj-yuwa}.
   dem.med.loc=thith 3sg.nf-hith-lie.np
   ‘S/he stays/sleeps over there.’ [IK1-180518_iSY-01/31:33]

More generally, the verbs that can be prefixed with the directional verbs are those that admit of some kind of directionality as part of their meaning. Accordingly, -\textit{kanj} ‘to
take’ can have a directional prefix, but -bularrbunj ‘to finish’ or -warre ‘to occur’ cannot. Likewise, -rduka ‘to look’ can attach the directional prefix, but -rnanj ‘to see’ cannot.

(7.66) a. Ka-nganj-rduka(=way) ka-ngarrku-rnanj.
    3SG.NF-HITH-look.NP(=HITH) 3SG.NF-1DU.OBJ-see.NP
    ‘S/he’s looking this way and seeing us two.’
    [IK1-180520_DDj-01/16:52–17:47]

d. *Ka-nganj-rnanj(=way).
    3SG.NF-HITH-see.NP(=HITH)
    ‘S/he’s looking/facing this way.’ [perhaps similar to the badness of *s/he sees this way]
    [ibid./18:37–53]

Among the nominals the situation is not completely clear cut either. The clitics are normally only found on demonstratives and are banned from proper and common nouns and from personal pronouns (7.67). However, there is one example in a spontaneous exchange between two speakers where =bi is used metaphorically, cliticised on the noun balanda ‘whitefella; English’ meaning ‘[translate it] into English’ (7.68).

(7.67) a. Malayi nganj-mun-ka=bi Mardbalk(=*bi).
    tomorrow 1SG.FUT-HITH-go.NP=THITH S.Goulburn= THITH
    ‘Tomorrow I’m going to South Goulburn island.’
    [IK1-180516_1PN-02/38:06–15]

d. *Nga-ka kodbarre=way.
    1SG.NF-go.NP house=HITH
    intended ‘I’m going towards the house.’ [IK1-180518_1SY-01/12:23–25]

c. *nukka=bi; *ngudda=way.
    he=THITH you=HITH
    intended: ‘to him; from you.’ [IK1-180520_1DDj-01/10:00]

(7.68) Korro la balanda=bi kinj-yolyolme kanjbarra-burrbunj.
    DEM.MED.LOC CONJ English=THITH 2SG.FUT-talk.about.NP 3DU.FUT-know.NP
    ‘Say it in English so they can understand.’ [20060606IBo2/11:32–35]

Apparently, the form balandabi in (7.68) means ‘away, from the agent’s point of view, into the foreign language’.
7.7 Stative clause types

This section focuses on stative clauses: ascriptive (§7.7.1), possessive (§7.7.2), locative and existential (§7.7.3), and comparative (§7.7.4). Ascriptive clauses have a nominal predicate with a posture verb copula (omitted in the present tense). Possessive clauses come in two varieties, depending on the semantic definiteness of the possessum; one type is formally identical to ascriptive clauses, the other uses the verb -karrme ‘to hold’. Locative and existential clauses are built around a posture verb copula with a locational complement. Comparative clauses use verbal predicates.

7.7.1 Ascriptive clauses

Ascriptive clauses assert some property of an object. The property is expressed by a nominal, i.e. a noun (7.69) or an adjective (7.70). There is no copula in the present tense. The order of the constituents seems to be always topic-comment.

(7.69) a. Ninda nayi yiwarnjdjr=rnungu.
   DEM.PROX.I NM.I church=he.GEN
   ‘This [man] is a priest.’
   [qu_sentence.types_sandra]

b. Nginda barramimbanj korl didja.
   DEM.PROX.II woman school teacher
   ‘This woman is a teacher.’
   [IK1-160616_1RD-01]

(7.70) a. Mary kin-kodjkodjburri.
   M II-smart
   ‘Mary is smart.’
   [IK1-170616_1SY-01/10:53–55]

b. Mukka kandiddjawa man-rayek djinij.
   it.III damper III-hard properly
   ‘This damper is really hard.’
   [IK1-180524_1SY-02/20:36–41]

c. Yimarne kadda-ngunda=barr na-bareng, but nukka ngorro
   like 3PL.NF-do.PST=open I-dangerous ENG he DEM.MED.IV
   karlu, nukka ngorro na-mak, Christian man.
   NEG.PRED he DEM.MED.IV I-good ENG ENG
   ‘They thought he was dangerous, but he wasn’t, he was good, a Christian man.’
   [IK-160624_000-01/03:12–19]
Notice also the null anaphora in the first clause of (7.70c), where nabareng ‘dangerous’ is predicated of a discourse topic (this is from a passage about the arrival of Reverend Watson, the founder of Warruwi Mission), but there is no overt subject noun or pronoun until the next clause (nukka ‘he’).

Kunbarlang is a language that uses zero copulas for predicate nominals in the present tense (Stassen 2013b). In the non-present tenses overt copulas are used in Kunbarlang. There are five known verbs used in the copular function: the three posture verbs -dja ‘to stand’, -rna ‘to sit’, and -yuwa ‘to lie’, the generic existential/motion verb -warre (which I gloss as ‘occur’), and another verb with a very general meaning ‘to say; do; perform’ -ngundje. Different subtypes of non-verbal predicates make use of different subsets of these copular verbs. Ascriptive clauses have been recorded with the posture verb -rna ‘to sit’ (7.71a) and the verb -ngundje ‘to do’ (7.71b). See §7.7.3 for examples of locative and existential sentences, where other posture verbs are also used.

(7.71) a. Kikka ngorro ka-rninganj ki-wanjak, ngadda-karrmeng.
   she DEM.MED.IV 3SG.NF-SIT.PST II-little 1PL.EXCL.NF-GET.PST
   ‘She was little [when] we got her.’ [20060620IBo3/29:17–22]

      1SG.NF-DO.PST 1SG-little
      ‘I was little.’ [RS Tape 140 TG interview_v5/19:32]

No copula is required in the present tense with negation, where either the negative particle ngunda or the predicative negator karlu is used:

(7.72) a. Nukka ngunda na-bareng.
   he not 1-dangerous
   ‘He [the dog] is not dangerous.’ [IK1-180524_1SY-02/12:57]

   b. Nukka karlu na-bareng.
      he NEG.PRED 1-dangerous
      ‘He [the dog] is not dangerous.’ [IK1-180524_1SY-02/13:11]

### 7.7.2 Possessive clauses

This section describes ways of encoding predicative possession, i.e. cases when ownership of some entity (the possessum) is predicated of a possessor (Stassen 2013a). Adnominal/attributive possession is discussed in §4.5. In the typological literature a distinction is sometimes made between indefinite and definite predicative possession, which refers to the definiteness of the possessum (Stassen 2013a). The distinction is illustrated with
English, which uses different constructions for the two types, the indefinite possessum in (7.73a) and the definite one in (7.73b):

(7.73) a. Erwin has a cat.
    b. This cat is Erwin’s.

Kunbarlang uses different constructions for the two types as well. I discuss them in turn below.

### 7.7.2.1 Indefinite possessum

Kunbarlang uses two constructions to express possession of a semantically indefinite item. The first one involves the transitive verb -karrme ‘hold’ (7.74). This is a ‘have’-type possessive (Freeze 1992, Stassen 2013a), which uses a transitive verb.

(7.74) Kukka ngundje ka-karrme budjibudji.
    maybe 3SG.NF-hold.NP cat
    ‘Maybe he has a cat.’ [IK1-160513_001-01/08:40–42]

This construction is used for metaphorical extension of possession as well, for instance, part-whole descriptions of inanimate entities. Example (7.75) illustrates that, and also shows that absence of possession can be expressed with the predicative negator karlu, being effectively a negative existential clause (see §7.7.3 below).

(7.75) Manda dem mayi kundulk ka-karrme ma-rleng mayi burru, la
    DEM.PROX.III NM.III tree 3SG.NF-hold.NP III-much NM.III arm Conj
    karlu mayi maworord.
    NEG.PRED NM.III leaf
    ‘This tree has many branches, but it doesn’t have any leaves.’
    [IK1-170522_1SM-01/44:50–53. 45:35–46]

Another negation strategy for this possessive construction is negating the verbal predicate -karrme (7.76):

(7.76) Ngunda ngarrak-karrme mayi neyang.
    not 1.INCL.IRR.NP-hold.IRR.NP NM.III food
    ‘We don’t have food.’
    [IK1-160802_001-01/06:23–40]

Besides the ‘have’-type possessive, (indefinite) predicative possession can be expressed in Kunbarlang with the adnominal possessive construction (7.77). This seems to
be a rather infrequent strategy in Kunbarlang, as well as probably a typological rarum. Stassen (2009: §4) lists a number of languages that employ their respective adnominal possessive constructions for predicative possession; however, all of those languages except Gumbaynggirr use an overt copula ‘be’/‘exist’.

(7.77) Ngana-kalbi-yinj ngorro balkkime nawalak bi-nganungka.
1DU.EXCL.NF-get-REFL.PST DEM.MED.IV NOW child DAT-WE.DU.EXCL.GEN
‘We got married, now we’ve got kids.’ [lit. ‘my and his/her children’]

It is clear that semantically the highlighted fragment in (7.77) is a proposition, not a referential phrase. In the discussion of adnominal/attributional possession in §4.5 (see esp. §4.5.2.1) I also show that these constructions sometimes appear more semantically complex than mere attribution of possession.

### 7.7.2.2 Definite possessum

Expression of definite predicative possession largely draws on the resources available for attributional possession (§4.5). Thus, a typical example of a possessive clause just uses the possessive noun phrase as its predicate (7.78). In fact, grammatically this is a subtype of ascriptive clauses, singled out here only on semantic grounds.

(7.78) a. Ninda (nayi) kin-ngaybu (nayi) durduk.
DEM.PROX.I NM.I 1/II-I.GEN NM.I dog
‘This is my dog.’ [qu_sentence.types_sandra]

b. Ninda djurra kin-ngaybu.
DEM.PROX.I paper 1/II-I.GEN
‘The book is mine.’ [qu_sentence.types_sandra]

Negation of definite possession is made by the negative particle scoping over the possessive (7.79; more on negation in section 7.3):

(7.79) Ninda djurra ngunda bi-ngaybu.
DEM.PROX.I paper not DAT-I.GEN
‘The book is not mine.’ [IK1-160618_000-01/01:47]

In tenses other than present, the verb -karrme ‘to hold’ is added (7.80), which is otherwise used in the indefinite possessum constructions described in §7.7.2.1 above.
7.7.3 Locative and existential clauses

In some languages location and existence are expressed with different constructions, due to the fact that they have slightly different pragmatics, arising form a different presuppositional viewpoint (Partee & Borschev (2002) call it the Perspectival Centre). In locative constructions the existence of the thing is presupposed, and its location is at issue. In existential constructions, on the other hand, the existence of the location is presupposed, and the object that is present or non-present there is central to the assertion. In Kunbarlang these constructions seem to have the same expression.

7.7.3.1 The form of locative and existential clauses

The general pattern for this semantic type of clause is \text{figure}–(\text{copula})–\text{ground}. In contrast to the ascriptive clauses, the copula in the locative and existential clauses is normally present in all tenses, i.e. not omitted in the present (7.81). The locative expression is most often introduced by the medial locative demonstrative korro/karra (see §§4.4.3 for more details), or else can be unmarked if it is an inherently locational expression, as in (7.84) below.

(7.81) Nayi manburra \textit{ka-yuwa} korro baladji.
\text{NM.1 clothes 3SG.NF-lie.NP DEM.MED.LOC bag}
‘The dress is in the bag.’ [qu_sentence.types_sandra]

Example (7.82) shows examples of negative existentials, where the predicative negator karlu serves as the only copula, whether in the present (7.82a) or in the past tense (7.82b).

(7.82) a. \textit{Karlu} neyang korro burruburrkang.
\text{NEG.PRED food DEM.MED.LOC bag}
‘There’s no food in the bag.’ [IK1-160429_001-01/10:30–33]
b. Benbe nga-mabuluy ngay-kangkayini korro mandandi yesterday 1sg.nf-like.pst 1sg.irr.pst-go.irr.pst dem.med.loc mainland
la karlu kabbala.
conj neg.pred boat
‘Yesterday I wanted to go to the mainland, but there was no boat.’

Similar to other stative clauses, the copula encodes the tense of the clause, cf. example (7.83) in the past tense:

(7.83) Bread ka-yunganj korro burrubburrkang la karlu.
bread 3sg.nf-lie.pst dem.med.loc bag conj neg.pred
‘The bread was in the bag, but now it’s not [there].’ [qu_150803_pn]

The copulas used in locatives and existentials are more varied than those used in ascriptive clauses (§7.7.1), specifically, they can be different posture verbs and the verb -warre ‘to occur’. In the examples above it was -yuwa ‘to lie’. The other ones are -rna ‘to sit’ (7.84a) and -dja ‘to stand’ (7.84b). The choice of the copula is further discussed in §7.7.3.2 below.

(7.84) a. Ki-rleng ngayi marnilikarrng ka-rna kaddum.
ii-many nm.ii star 3sg.nf-sit.np above
‘There are many stars in the sky.’ [qu_sentence.types_sandra]

b. Barrayidjyidj kadda-dja rlobberl.
kids 3pl.nf-stand.np outside
‘The kids are outside.’ [IK1-160618_000-01/09:41]

Negative existentials use the predicative negator karlu (7.85). The copula is omitted in the present tense (7.85a), but used overtly if other tense needs to be specified (7.85b).

(7.85) a. Karlu nakarlyung korro njunjuk.
  neg.pred crocodile dem.med.loc water
‘There’s no crocodiles in the water [so you can swim].’
  [qu_sentence.types_sandra]

  first neg.pred crocodile 3sg.nf-sit.pst 1pl.excl.nf-swim.pst
‘There used to be no crocodiles and we used to swim across.’
  [20060620IBo3/04:56–05:00]
7.7.3.2 Choice of the copula

Establishing the precise conditions that influence the choice of the copula would need further detailed lexico-semantic research, but some preliminary generalisations can be made from the examples available in my data. It appears that the primary factor which determines the choice of the copula is the ontological type of the figure, sometimes in conjunction with its physical position (in cases when the figure can assume various positions). Below I describe which figures/positions are typical of each copular verb.

The verb *yuwa* 'to lie' is used for the figures that have a 'lying' posture, i.e. a salient horizontal axis (such as crocodiles (7.86a); but cf. (7.85b) above with the most versatile copula *rna* 'to sit'), or do not have any inherent posture at all (such as clothing (7.81) or water (7.86b)).

(7.86) a. Nayi nakarlyung **ka-yuwa** korro njunjuk.
  NM.1 crocodile 3SG.NF-lie.NP DEM.MED.LOC water
  ‘There are crocodiles in the water.’ [ddj_160429]

  b. Djadji nguddji-nganj-ka, ngondo kyui njunjuk
  come.here! 2DU.NF-HITH-go.NP DEM.PROX.IV NM.IV water
  **ka-yuwa** bi-ngarrrku.
  3SG.NF-lie.NP DAT-we.INCL
  ‘Come here you two, there’s water for us.’ [jack_160610]

The verb *yuwa* 'to lie' also extends to mean 'to sleep', and via that meaning further to 'to live/stay [somewhere]' (7.87):

(7.87) Nginda ngayi ngana ngayi kin-ngadju nawalak **kadda-baba-yuwa**.
  DEM.PROX.II mother NM.PL 1/II-she.GEN child 3PL.NF-DISTR-lie.NP
  ‘Her kids live separately.’ [IK1-160819_000-01]

The verb *dja* 'to stand' is used for temporary location of people (7.84b) and for the figures that are standing upright, such as large animals (7.88):

(7.88) Na-rleng nganabbarrru **ka-dja** korro manberrk.
  1-much buffalo 3SG.NF-stand.NP DEM.MED.LOC bush
  ‘There are many buffalos on the mainland.’ [IK1-160715_1SY-01]

Inanimate figures can also be localised with this verb, if their position is upright:
(7.89) Window **ka-dja** la karnda=way nayi curtain.

window 3SG.NF-stand.NP CONJ DEM.DIST.IV=HITH NM.I curtain

‘There’s a window and behind it a curtain.’  [IK1-170526_1SY-01]

The verb -*rna* ‘to sit’ seems to have the most abstract semantics of the three posture verbs. It can be used in existentials with the figures that typically have some other postures and positions, e.g. the crocodiles (who normally “lie” rather than “sit”) in example (7.85b). It can be used for abstract objects that do not have a distinct position, such as the stars in the sky (7.84a). It also extends to meaning of ‘to live [somewhere]’ (7.90):

(7.90) Budawin **ka-rna**, but ka-yuwa hospital, ka-warri.

Darwin 3SG.NF-sit.NP but 3SG.NF-lie.NP hospital 3SG-sick

‘She lives in Darwin, but is now at the hospital sick.’  [IK1-170610_2SM-01/19:41–47]

Sometimes still another verb is used as an existential copula, viz. -*warre* ‘to occur’. Its core meaning is non-directed motion, although the motion component may be absent in certain combinations. An example of its existential use is in (7.91):

(7.91) Nukka-dju djarrangalanj kenda ngunda **ki-warre**.

he-coll boy DEM.PROX.LOC not 3SG.IRR.NP-occur.IRR.NP

‘There’s no boys like that here.’  [IK1-170607_1SM-01]

These posture/motion verbs are also used in the analytic aspectual construction (§7.2.1). Similar polyfunctionality of a set of posture and motion verbs has been described for many Australian languages, including Maningridan languages (Gurr-goni, Green 1995: §5; Nakkara, Eather 2011: 371–2, 403–10; Ndjébbana, McKay 2000: 286, 291) and also for Ngan’gityemerri and other Daly languages (Reid 2002).

7.7.4 Comparative and superlative clauses

In Kunbarlang there are no morphological means to mark comparative and superlative degrees. Instead, the relevant meanings are inferred from the usage of the positive form of gradable predicates (primarily, gradable adjectives). Thus, in example (7.92) the comparative meaning arises from the coordination of two ascriptive clauses with antonymic predicates, -*djurrkmi* ‘short’ and -*kukkarlyung* ‘long’. Likewise, the superlative semantics is inferred from the contextual use of the general purpose intensifier *djininj* ‘properly’ (7.93; see §7.7.4.2 below).
7.7.4.1 Comparative clauses

Typologically speaking, Kunbarlang belongs to the languages that express comparison with implicit, or conjoined, constructions. This means that there are no dedicated comparison words or morphemes, but instead the comparative semantics is inferred from the way clauses are combined. The subtypes of the implicit comparison that are encountered in the data are these: antonyms (7.92, 7.94, 7.96a), negation of a quality (7.95, 7.96b), ngemek ‘still, yet’ (7.97), and budarr, a Mawng loan (7.98). I shall exemplify and discuss them in turn.

A major strategy is the conjunction of two antonymic descriptions, as in (7.94); see also examples (7.92) above and (7.96a) below.

(7.94) Na-wuk na-kuk-karlyung, la na-wuk na-djurrkmi.
1-person 1-length-big CONJ 1-person 1-short
‘This guy is taller than that guy.’ [lit. ‘He is tall and he is short.’]

An alternative to conjoined antonyms is the conjunction of a positive and a negative statement (7.95):

18. For a typological overview see Stassen 1985, Bobaljik 2012 and references therein.
There are no comparative forms of proportional quantifiers (‘many’ ~ ‘more’). The respective meaning is expressed just as comparison of qualities, with antonyms (‘many’ ~ ‘few’; 7.96a) or negation (7.96b).

A different way to form an implicit comparative in Kunbarlang is to reiterate the same description or quantifier with the word *ngemek* ‘ngemek’ (7.97). It affords a concessive flavour akin to how *yet* may be used in English:

Finally, some speakers may occasionally loan a word from Mawng, such as *wutarr* (Mawng orthography, rendered as *budarr* in Kunbarlang examples) meaning ‘a little bit more’:

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19. This word in Mawng is used in kin term formation, e.g. to derive ‘second eldest child’ from ‘the eldest child’ (Ruth Singer, p.c.). This is one of the ways in which the elaborate kinship systems in Australian languages can get recruited for the less elaborate areas of comparison and quantification. Another notable example is that the noun for ‘mother’, which often becomes a “lexicalized superlative”, used
7.7.4.2 Superlative clauses

The superlative construction is formed with the intensifier *djininj* ‘really; very’ (7.98). Just as in the comparative clauses, the semantics here is inferred, rather than encoded with any dedicated, conventional means. The superlative can be shown to be absolute rather than relative, i.e. expressing a high degree of a quality but not necessarily the unique maximum. Thus, the following dialogue (7.99) shows that the uniqueness presupposition is absent from Kunbarlang superlative clauses. The sentence that functionally serves as a superlative question ‘Which X is the P-est one?’ literally just asks ‘Which X is really/very P?’ (7.99). If the speaker is presented with a set of alternatives, he or she would identify the relevant (here, biggest) referent and pointing to it, saying something that literally means ‘This one is very P’ (7.99b). The possibility of the continuation (7.99c), which says about another referent that it’s ‘also very P’, confirms the lack of uniqueness component in the meaning of an utterance like (7.99b).

(7.99) a. **Question:**

   Karra kenda nayi barbung ki-ngana djininj?
   where NM.I fish II-big properly
   ‘Which fish is very big?’ (literal)
   or ‘Which is the biggest fish?’ (pragmatic)

b. **Answer:**

   Ninda_\text{prox.1} ki-ngana djininj...
   DEM.PROX.1 II-big properly
   ‘This one is very big...’
   or ‘This one is the biggest...’

with concrete objects but not abstract ideas (Umpila and Cape York Creole, Peter Sutton p.c.; Burarra, Margaret Carew p.c.; Arrernte and Western Desert language, Jenny Green p.c.; also Woiwurrung: *bababi djinang* ‘big toe’ (lit. ‘mother foot’), as the biggest toe, and perhaps *babadi marnung* ‘thumb’ (lit. ‘mother hand’) (Blake 1991).
c. Answer [ctd.]:

\[\text{La } \text{ninda}_k \text{ ki-ngana djinij bonjbonj.} \]
\[
\text{CONJ DEM.PROX.I II-big properly RDP~exactly} \]
‘...And this [other] one is very big, too.’
\[
\frac{1}{2} ‘...And this [other] one is the biggest, too.’ [IK1-160816_1SY-01] \]

7.8 Anaphora and reference maintenance

This section gives a brief summary of the ways to track reference in Kunbarlang discourse. The reader interested in an extensive analysis of person reference and other communicative practices in an Australian language is referred to Garde (2013), who studied the topic in Bininj Kunwok in enviable depth.

In Kunbarlang, noun phrases are used very sparingly in discourse. Personal prefixes in the verb prevail as the reference tracking device, i.e. one finds what can be considered very extensive zero anaphora. Full noun phrases are given as the first mention, and afterwards the referent does not have to have any nominals referring to it, with a few exceptions. The main kinds of these exceptions are:

- contrastive focus, which can only be achieved with the use of overt nominals, and
- oblique case positions, where a pronoun (and possibly other nominals) occurs to mark a grammatically obligatory case.

Essentially, these exceptions — illustrated below — are precisely those cases where verbal morphology is insufficient to convey some information, and so a nominal is obligatory. Example (7.100) shows focus on the first person subject, which is contrasted with another referent mentioned earlier in the text.

(7.100) \[\text{La } \text{ngarra}_k \text{-ma } \text{ngarrki-kali } \text{mulurr } \text{ngarrki-ka.} \]
\[
\text{CONJ INCL-CONTR 1.INCL.NF-get.NP driftwood 1.INCL.NF-go.NP} \]
‘And us MOB, we’ll get driftwood and we’ll go.’
\[\text{[djurddjurd_2016_transcript-298569/04:02–06]} \]

The pair of examples in (7.101) (repeated from (4.37)) illustrate the point about case positions. These are several consecutive clauses from a narrative, where the speaker expresses a phrase with the same sense ('they say to me') in two slightly different ways. In (7.101a), there is a verb -\text{ngundje} 'to say/do', which requires dative case marking on the addressee; here a free pronoun is obligatory, at least as an exponent of case. By contrast,
in (7.101b), the speaker adds an applicative to the verb, making it -*marnanj-ngundje* ’to say to (someone)’, which indexes the addressee participant in the object slot; here the pronoun is not required.20

(7.101) a. Kadda-ngundje *bi-ngaybu* “kikka Ngal-Bangardi ka-wokdja

3PL.NF-say.NP DAT-LGEN she.II N 3SG.NF-speak.NP

Kunbarlang kun-mak ngadda-ngayinj”.

Kunbarlang IV-good 1PL.EXCL.NF-hear.PST

“They tell me: “We heard that Ngal-Bangardi speaks Kunbarlang well.””

[20070108IB01/25:21–26; translation mine — IK]

b. Yoh, nga-ngunda, ngayi ngorro teach im.

yes 1SG.NF-say.PST I DEM.MED.IV [Kriol]

Ka-*ngan-*marnanj-ngunda “Ah aku!”

3SG.NF-1SG.OBJ-BEN-say.PST ah ok

“‘Yes’, I told them, “I teach her.” They said to me “Ah okay!”’

[ibid./25:26–29; translation mine — IK]

The above discussion was concerned with the cases of obligatory use of referring expressions. When they not obligatory, they are very seldom used. This can be appreciated in any of the three text samples included in Appendix A. After the first mentions established referents rarely ever get mentioned by referring expressions again, and usually if they do, they do for a reason. For instance, *kandiddjawa* ’damper’, the topic of Text A.2, is mentioned in the first clause (A.31) and then 13 clauses later, as *manda ngorro kandiddjawa* [DEM.PROX.III DEM.MED.IV bread] ’this damper’ in (A.44). The possible reason is that in the first part of the text, the damper is construed generically, but later on the narrator switched to the actual situation and refered to the specific damper that she was making at that moment.

Another example is found in the game-based dialogue in Text A.3. One of the first established referents, *nayi kabakkidja kaddum* [NM.I 3SG.NF-stand vertically.NP above] ’chimneys (lit. that which stands up at the top)’ in (A.49), only get described by modifiers without any nouns or pronouns, until some 12 clauses later (A.57) players spot the difference. Then one of the speakers uses a pronoun (*nukka* ’he.1’) to refer to the chimneys and convey a sense of constrast.

This style of reference maintenance, whereby tracking mainly is not done with (pro)nouns, but rather with agreement, zero anaphora, and/or inference, seems typical of Australian languages. It is reported in such distant languages as Bininj Kunwok, Guugu Yimidhirr, Ngarinyin (see Garde 2013: §5.2 for discussion and references), and Bardi (Bowern 2012: 286).

20. In fact, here a pronoun is prohibited; see §4.2 for details.
That does not mean, however, that in Kunbarlang nouns and pronouns are omitted whenever possible — just most of the time. Example (7.102) below (repeated from (4.28)) shows that a speaker may choose to insert a pronoun without any obvious compelling reason to: the first person referent is referred to only through the verb for a while (7.102a), and then a free pronoun is added (7.102b).

    1pl.excl.nf-put+refl.pst 1pl.excl.nf-eat.pst 1pl.excl.nf-sing.pst
    'We went in, we ate and we sang.' [IK1-160624_000-01/01:18–22]

b. Ngemek ngadbe ngadda-makarninjdjanganj.
    yet we.excl.pl 1pl.excl.nf-sing.pst
    'We sang more.' [IK1-160624_000-01/01:23–25]

Kunbarlang has some strategies for highlighting coreference. All of them are discussed elsewhere, so here I merely list them and give cross-references to other parts of the grammar. One is the ‘aforementioned’ series of demonstratives (§4.4.3), which seemingly are passing out of use. A more actively used demonstrative with anaphoric functions is the class iv medial demonstrative ngorro. In its anaphoric use it always combines with other personal or demonstrative pronouns; in §4.4.3 I suggest that ngorro imparts the feature of givenness to the resulting pronominal complex. There are also reflexive and reciprocal constructions (§6.1.3). One is a verbal suffix that has both interpretations (the reciprocal arguably being a special case of the reflexive). Two other are non-verbal ones: an anaphoric intensifier bidju, used for reflexives (§6.1.3.1), and a typologically rare analytic reciprocal construction that appears to have developed from a biclausal one (§6.1.3.2).
The inner clausal structure and syntactic processes that happen within a single clause are covered in chapter 7. The present chapter concludes the description of Kunbarlang by discussing structures that involve more than one clause. There are two main classes of such structures: clausal coordination and subordination. Coordination is the subject of §8.1. It is done in Kunbarlang via juxtaposition of clauses or with the help of the conjunction \textit{la}. This construction with \textit{la}, however, has a wider range of functions than mere logical conjunction. One of its frequent uses is to encode causal relations (see §8.1 and §8.5.1). The subsequent section (§8.2) provides some typological and Australianist background to contextualise the ensuing discussion of subordinate structures in Kunbarlang. Subordination in Kunbarlang is represented by a range of finite subordinate clauses that can be verbal complements (§8.3), relative clauses modifying nouns (§8.4), or adverbial clauses (§8.5). There is rather little morphological marking (or lexical complementizers) for any of the subordinate clause types in Kunbarlang. It is interesting, therefore, to investigate the formal means signalling subordination (§§8.3.2–8.3.3) and diagnostics for particular structures (§8.4.2). Similar to many other languages (e.g. German or Swahili), there is some form-function overlap between the types of subordinate clauses, whereby some of the adverbial clause functions are served by free relatives (§§8.5.2–8.5.3).

### 8.1 Clausal coordination

In contrast to the various types of subordinate clauses described in sections 8.3–8.5 below, where the two combined clauses are not equal in their status (asymmetry), clausal coordination involves a set of clauses in a symmetrical relation. There are two main ways to coordinate clauses in Kunbarlang: juxtaposition (8.1) and coordinating
with the conjunction *la* 'CONJ' (8.2).\(^1\)

(8.1) Ka-burrun-kalng kenda ngorro kadda-yunganj.  
3NSG.NF-3NSG.OBJ-get.PST DEM.PROX.LOC DEM.MED.IV 3PL.NF-lie.PST  
‘They [Aboriginal people] got them [whitefellas], and they [the whitefellas] slept there.’  
[IK1-160510_000-01/05:22–25]

(8.2) a. Nayi na-buk bidju bi-rnungu nayi mutikang ka-marnbum *la*  
NM.1 1-PERSON EMPH DAT-HE.GEN NM.1 car 3SG.NF-make.PST CONJ  
ka-rdakdjung bonj-bonj.  
3SG.NF-break.PST RDP-exactly  
‘The guy fixed his car, and/but it broke again.’  
[IK1-180606_1SM-01/29:05–19]

b. Ngunda kidda-ngulukdombuni *la* ka-bun-djarrang  
not 3PL.IRR.PST-extinguish.IRR.PST CONJ 3SG.NF-3SG.OBJ-eat.PST ngob.  
all  
‘They did not put the fire out and it [the house] burnt down completely.’  
[IK1-170530_1SY-02/15:16–20]

Because of the extent of pro-drop in Kunbarlang, taken together with the fact that every verb must indicate its subject’s person and number, it is not meaningful to contrast clausal coordination and VP-coordination when the subject is the same for two or more verbs. Thus, (8.3), containing only two fully inflected and juxtaposed verbs, can be analysed either way.

(8.3) Kadda-ngambiwan kadda-bukayinj.  
3PL.NF-swim.PST 3PL.NF-climb.PST  
‘They swam and got out onto the shore.’  
[IK1-160510_000-01/03:51]

The only Kunbarlang coordinator, the particle *la*, is not hard-wired with any discourse relations (like for instance contrast, or adversativity, as in the case of the English *but*). Besides the most typical use as a logical conjunction (as in the majority of the above examples) it can connect things that are in contrast (8.4) or even in a relation more typical for adverbial clauses, that of reason (e.g. (8.5), where it connects a consequence and its reason; see more examples in §8.5.1).

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\(^1\) The same particle is used in Mawng (Singer et al. 2015) and in Eastern dialects of Bininj Kunwok, while in the other dialects the prevailing coordinator is *dja* (Alex Marley, p.c.).
(8.4) Na-buk yimarnek ki-buddu-karlkkangki la kadda-rnay la kadda-bum.  
1-person like 3SG.NEG-3PL.OBJ-stalk.IRR.PST CONJ 3PL.NF-see.PST CONJ 3PL.NF-hit.PST  
‘He was going to sneak up on them, but they saw him and beat him.’  
[IK1-160712_1SM-01]

(8.5) Nganjdi-ka la kadda-dja kabarr-ngan-midjbunj.  
1PL.EXCL.FUT-go.NP CONJ 3PL.NF-stand.NP 3NSG.NF-INSG.EXCL.OBJ-wait.NP  
‘We (exclusive) shall go, because [lit. ‘and’] they are waiting for us.’  
[IK1-180529_1SY-01/01:56:31–34]

The particle la can be used in a (weak) disjunction (8.6), too:

(8.6) Ngunda birlinj kidda-ngundje la kidda-woh-kidang.  
not how 3PL.IRR.PST-do.IRR.NP CONJ 3PL.IRR.PST-INC-P-go.IRR.NP  
‘They can neither do anything nor walk properly.’  
[20060614IB/01:21–24]

Examples of coordination of constituents below the clause level can be found in §3.2.10.

8.2 Subordination: preliminaries

As an introduction to the ensuing discussion of the subordinate clauses in Kunbarlang I first give a brief overview of the types of subordination and of the formal means employed in subordinate constructions, both from the point of view of broader typology and from the Australianist perspective. Then I outline the distinctions between the main types of subordinate clauses in Kunbarlang and describe each type in turn.

Considering the full array of subordinate structures, Thompson, Longacre & Hwang (2007: 238) note that “[t]here are three devices which are typically found among languages of the world for marking subordinate clauses”: (i) subordinating morphemes, (ii) special verb forms, and (iii) word order. In the typological literature three types of subordinate clauses are usually recognised (see e.g. Lehmann 1988 or Diessel 2001, among many others):

(i) complement clauses (section 8.3; Noonan 2007)

(ii) adverbial clauses (section 8.5; Thompson, Longacre & Hwang 2007)
Diessel (2001: 435–6) offers the following distinguishing criteria for the three types. On the level of syntax, complement clauses are complements, while both adverbial and relative clauses are adjuncts. Semantically speaking, complement clauses are arguments of some matrix predicate, and the other two (being syntactic adjuncts) are modifiers: adverbal clauses modify the main clause or its verb phrase, and relatives modify a nominal constituent in the main clause. Finally, from the point of view of characteristic morphosyntactic marking, relative clauses contain a gap or a relative pronoun; adverbial clauses usually have an adverbial subordinator, which indicates the semantic relation between the main and the subordinate clause; and complement clauses are marked by a complementizer (including zero, as a special case). I shall use some of these criteria in the analysis of Kunbarlang below.

It has been noted in the typological literature that the distribution of subordination across languages of various structural profiles is not even. Specifically, there were claims that polysynthetic languages do not have (or only show weak development of) subordinate structures, and in particular non-finite constructions (Mithun 1984a, M. C. Baker 1996). Recent work on the Gunwinyguan languages has shown these generalisations to be overly strong: Nordlinger & Saulwick (2002) demonstrate that Rembarrnga has infinitives (even two types thereof), and Evans (2006) documents a wide variety of subordination strategies in Dalabon. On this spectrum, Kunbarlang falls into an intermediate position. There are no infinitives, all well-formed verbs must be finite. There are not many dedicated strategies to mark subordination either, save for a few subordinating conjunctions. However, syntactically Kunbarlang has all three structural types of subordinate clauses, all of them built with finite verbs. I give examples of these types and criteria for their recognition presently, after a brief exposition of the topic of subordination in the broad Australian context.

One of the topics in subordination that has received much attention in the Australianist literature is relative clause formation. In a very influential paper, Hale described a type of subordinate clause that is linearly unembedded within, or adjacent to, the matrix clause. He called this type the *adjoined relative clause* (henceforth AdjRC).\(^2\) The focus of his paper was on Warlpiri and Kaytetye, although he mentions a number of other languages where similar structures have been found. In Warlpiri, furthermore, the AdjRC can serve functionally as a relative clause or as a temporal adverbial clause, specific examples often being ambiguous between the two readings (termed *NP-relative* and *T-relative*, respectively). The significance and impact of that work, as well as a recent revision of the adjoined relative clause hypothesis (Nordlinger 2006), is further explored

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2. An important diagnostic is the possibility of the construction where the nominal head is linearly disjoint from the clause modifying it. Whereas in Warlpiri the AdjRC has to occur peripherally, Kaytetye shows both the possibility for the disjoint construction and that for linear integration of the RC within the matrix clause.
in the section on Kunbarlang relative clauses (§8.4; see also Nordlinger 2014: 248–252 and references therein). Kunbarlang does not have the prototypical AdjRC-type clause, yet headless relatives fulfil the function of some adverbial subordinate clauses (see §8.5 for further detail).

Looking beyond the adjoined relative clause and similar constructions, one finds a wide variety of formal devices signaling subordination. In Thompson, Longacre & Hwang’s (2007) terms, they fall primarily into two classes: special verb forms and subordinating morphemes. The first class is exemplified by Gooniyandi, where the verb of the subordinate clause must be in a non-indicative mood (McGregor 1988). The second class is represented both by dedicated complementizing morphemes (such as the subordinating prefixes in Dalabon (Evans 2006)) and by functional extensions of other types of morphology, perhaps most notably of case markers (known as the ‘c-complemetizing case’, see Dench & Evans 1988). For an overview of major research topics in subordination in Australian indigenous languages, and for further references, see Nordlinger 2014: §7. Austin 1988 is a collection of original papers on various topics concerning complex sentences in a number of typologically and genetically diverse Australian languages.

Even in closely related languages there can be a significant degree of variation. For instance, Dalabon and Bininj Kunwok, which belong to the same branch of the Gunwinyguan family as Kunbarlang, noticeably differ in the array of available formal means of marking subordination: whereas Bininj Kunwok reveals “a paucity of formally distinct subordinating structures” (Evans 2003a: 628, 646), Dalabon “possesses an elaborated set of structural options for signalling subordination overtly on the verb” (Evans 2006: 55). It should be pointed out, on the other hand, that the availability of those diverse subordinating structures is independent of their use by the speakers: in a two hundred clause Dalabon corpus surveyed by Evans (2006) only 3.9% of clauses are subordinate.

Kunbarlang is more similar to Bininj Kunwok than to Dalabon, in that it does not have an elaborate array of dedicated subordinating structures. However, the three major types of subordinate clauses can be recognized, according to the following criteria. Complement clauses (8.7) are complements of a matrix predicate, i.e. they are subcategorised for by a small set of matrix verbs that take clausal complements (see §8.3 for full description of this class).

(8.7) Nga-mabulunj [kanj-ka barbung].
1SG.NF-like.NP 3SG.FUT-go.NP fish
‘I want him/her [to go fishing].’ [IK1-170615_1SY-02/25:52–54]

Relative clauses contain a gap in the relativisation site, which cannot be filled (as (8.8) shows; see §8.4 for more detail). They are adjuncts modifying nominals (headed RCs) or — in case there is no nominal head — themselves appear in the positions of noun
phrases, i.e. as arguments or adjuncts of any predicate, without being restricted to the set of complement-taking verbs.

(8.8) Kadda-maddjinj ka-mankang korro [kuyi ngadbe 3pl.nf-pierce.pst 3sg.nf-fall.pst dem.med.loc nm.iv we.excl ngadda-rninganj (*korro)].

1pl.nf-sit.pst dem.med.loc

‘They shot it and it fell down to [where we were staying (*there)].’

[IK1-160701_1SY-01]

Adverbial clauses (8.9) come in two main varieties: some are introduced by dedicated subordinating conjunctions; others are a residue class, formally identical to headless relatives, and distinguished as adverbial clauses on a functional basis, rather than formally. The subordinate clause in (8.8) above is an example of a free relative that functionally is a locative adverbial clause.

(8.9) Kirdimarrk ka-rdulkkarrawarribin [warri na-buk=bonj ka-djung man 3sg.tired because 1-person=exactly 3sg.nf-stab.pst wirdidj].

fire

‘The man is tired [because he was chopping firewood].’

[IK1-170607_1SM-01/56:52–57]

These three types are discussed in detail in the sections that follow (§§8.3–8.5).

8.3 Complement clauses

Finite clauses in Kunbarlang can be complements to thought and speech verbs, as discussed in the bulk of this section, and to the verb -marnbunj ‘to make’, thus forming causatives. These analytic causatives are presented in §8.3.1, separated on functional grounds. In section 8.3.2 I provide a list of the functional elements that can appear between the matrix and the subordinate clause similar to complementizers. Section 8.3.3 discusses the tense/mood forms of complement clauses expressing desires.

A small set of thought and speech verbs in Kunbarlang are able to take subordinate clauses as complements. The most notable ones among them are: -burrbunj ‘to know’, -burrdjuwa ‘to divulge; to tell’, -mabulunj ‘to want; to like’, -ngundje ‘to say / do’, -wardam ‘to ask (inquire)’, and -wakwanj ‘to not know’. The adjectives -mak ‘good’ and -warri ‘bad’ can also function as propositional attitude matrix predicates, in which case they inflect for class iv (8.10).
Speech verbs embed reported speech clauses. In Kunbarlang there is a strong preference for direct reported speech: this is the case when some utterance is reproduced verbatim. In particular, all indexicals (such as pronouns, for instance) must be interpreted relative to the reported situation and not the utterance situation. Consider (8.11):

(8.11) Mary ka-bun-marnanj-ngunda John [ngudda kirri-kodjkodjburrinj].
M 3SG.NF-3SG.OBJ-BEN-do.PST J you 2SG-smart
‘Mary told John, [You are smart].’

In (8.11) one can tell that the subordinate clause is direct speech, because the second person pronoun ngudda ‘you’ refers to the same individual as the matrix clause benefactive object John, rather than to the utterance addressee. In other words, this indexical pronoun ‘switches’ the setting in which it is to be understood. The intonational contours are varied: sometimes the direct speech of the subordinate clause is set off from the main by the pause, as in (8.12), but in (8.11), interestingly, it is a single intonational contour.

(8.12) Babi la ka-bun-wardam || [bardarnungu ki-kalng nayi later CONJ 3SG.NF-3SG.OBJ-ask.PST why 2SG.NF-get.PST NM.I carrot?]
ENG
‘And then he asked her, [Why did you buy the carrot?]’

Occasionally, however, the speech in the subordinate clause is indirect, as in example (8.13). The fact that the embedded verb ka-karrme ‘he has’ has a third person pronominal prefix shows that this is indirect speech, otherwise the prefix would have been nga-, for the first person.

(8.13) La ngunda ki-burbuni nayi norno, babi la CONJ not 3SG.IRR.PST-know.IRR.PST NM.I snake later CONJ
ka-bun-marnanj-ngunda [norno ka-karrme].
3SG.NF-3SG.OBJ-BEN-do.PST snake 3SG.NF-hold.NP
‘She did not know (that he had) that snake, but later he told her [that he had a snake].’
The remaining matrix verbs are exemplified below: *-burrbunj* ‘to know; to think’ (8.14), *-mabulunj* ‘to like; to want’ (8.16), and *-wakwanj* ‘to not know; to be ignorant’ (8.17).


1/I-he.GEN 3SG.NF-hold.NP snake

‘Pat thought, [who would look after the snake that he has got]?’

[IK1-170615_1SY-01/01:39–51]

(8.15) Nganj-*burrdjuwa* [kuyi ngadda-karrmeng Yiwarrudj 1SG.FUT-divulge.NP NM.IV 1PL.EXCL.NF-hold.PST church

kendra=bonj Warruwi].

DEM.PROX.LOC=exactly W

‘I’ll tell [how we had the Mission Centennial here at Warruwi].’

[IK1-160719_000-01/00:13–19]

(8.16) La *conj* nga-*mabulunj* [na-kaybi-nuk kanj-bun-wunj neyang Fluffy CONJ 1SG.NF-like.NP 1-who-INDF 3SG.FUT-3SG.OBJ-give.NP food F

kuyi nganj-ka].

NM.IV 1SG.FUT-go.NP

‘And I would like [someone to feed Fluffy when I’m gone].’

[IK1-160513_001-01/01:58–02:21]

(8.17) Nga-*wakwanj* [yimarnek kanjbadda-nganj-ka=way]. 1SG.NF-ignorant.NP like 3PL.FUT-HITH-go.NP=HITH

‘I don’t know [if they are coming / are on the way].’

[IK1-180516_1PN-02/26:29–33]

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3. This example may perhaps be classified as *free indirect discourse* (FID) for its combination of the author’s and the protagonist’s speech: the indexicals are interpreted as in the indirect speech (for instance, not first but third person form of the verb *ka-karrme*), but the presence of the interrogative is rather characteristic of the direct reported speech (see Reboul, Delfitto & Fiorin 2016 for an overview of FID and further references). I refrain here from postulating this as a separate class of reported speech constructions in Kunbarlang. More data would be needed for an appropriate analysis.
8.3.1 Causatives

Causatives in Kunbarlang are formed analytically, using the verb -*marnbunj* ‘to make’ as the matrix causative verb. The caused event is expressed with a full clause directly following that matrix verb, as in (8.18). The clause that encodes the caused event is in brackets.

(8.18) Ngayi nga-*marnbum* [nayi nawalak ka-malakkidjanganj].
I 1SG.NF-make.PST NM.I child 3SG.NF-laugh.PST
‘I made the child laugh.’ [IK1-160505_001-01:20:29–38]

The causation does not have to be volitional. Consider example (8.19b), where *kanak* ‘sun’ denotes the causer in a direct, non-volitional causative situation:

ENG 3SG.NF-white.PST all
‘The picture is bleached.’ [IK1-160523_001-01/35:47–8]

b. Kanak ka-**marnbum** [ka-walarrbum nayi badjubadju].
sun 3SG.NF-make.PST 3SG.NF-white.PST NM.I shirt
‘The sun bleached out the shirt.’ [ibid./39:46–54]

c. *Kanak ka-walarrbum badjubadju.
sun 3SG.NF-white.PST shirt
intended: ‘The sun bleached out the shirt.’ [ibid./39:36]

The causee, i.e. the subject of the caused event verb, is indexed as the object in the verb -*marnbunj*. This is shown in (8.20), where the causee is first person. This example provides good evidence that these causatives are complex clauses (and not pairs of two distinct finite clauses), because the argument structure of the matrix clause does not make sense without the complement clause.

(8.20) Kurrrana ka-**ngan-marnbunj** [nga-walarrbunj].
moon 3SG.NF-1SG.OBJ-make.NP 1SG.NF-white.NP
‘The moon makes me shine and appear white.’ [IK1-160523_001-01]

Either of the higher or the lower verb can be negated with the expected difference in the reading. Consider the following paradigm in (8.21), with negation scoping over the causation event (b) or the caused event (c).

---

4. The concept of ‘white’ is lexicalised as a verb in Kunbarlang, rather than an adjective.
5. Note the contrast of this pattern to the irrealis spreading found in the desire constructions (§8.3.3). In the Kunbarlang causatives, it is possible that only the matrix verb is in the irrealis, while in desire constructions the embedded verb has to be in the irrealis whenever the matrix one is.

297
a. Nga-marnbu-djinj nganj-djin.
1sg.nf-make-refl.pst 1sg.fut-eat.np
'I made myself eat it.' [sy150724]

b. Ngunda ngarra-marnbu-dji nganj-djin.
not 1sg.irr.np-make-refl.irr.np 1sg.fut-eat.np
'I didn’t make myself eat it.' [sy150724]

c. Nga-marnbu-djinj ngunda ngarra-djang.
1sg.nf-make-refl.pst not 1sg.irr.np-eat.irr.np
'I made myself not want to eat.' [sy150724]

In the typological literature a conceptual distinction is made between direct and indirect causation (e.g. Shibatani & Pardeshi 2002; see also Horrack 2018: 68–71). The former prototypically involves a single event with immediate physical involvement of the causer and (a fully patientive) causee (e.g. The moon makes me shine). The latter prototypically consists of two sub-events, each with its own agent (e.g. Mother made me eat porridge). In Kunbarlang there is no morphosyntactic difference between direct and indirect causation. However, indirect causation, probably partially due to its more pragmatic, open-to-interpretation nature, can be expressed with the verb -ngundje ‘say; do’, as in (8.22):

(8.22) Benbe ninda ngunda ki-mabaluni
yesterday dem.prox.i not 3sg.irr.pst-like.irr.pst
ki-buni=ngurr, babi la nga-marnanj-ngunda
3sg.irr.pst-hit.irr.pst=wash later conj 1sg.nf-ben-do.pst
ka-bum=ngurr.
3sg.nf-hit.pst=wash
'This guy did not want to wash [the dishes] yesterday, but later I told him to and he washed them.' [IK1-170608_SY-01]

Since there is no lability in Kunbarlang (see, for instance, §6.2), no predicate can just take an extra causer and become a causative predicate, hence the ungrammaticality of (8.19c). Kunbarlang does not have any productive morphological means of marking causativity, unlike some other Gunwinyguan languages. For instance, causative suffixes are found in Enindhilyakwa (van Egmond 2012: 172ff.) and Wubuy (Horrack 2014), but in other languages complex predicate formation serves this function: in Bininj Kunwok, verbal incorporation into the verbs -we ‘to throw’, -wo ‘give’ and the transitive thematic -ke forms causatives (Evans 2003a: 539ff), and in Rembarrnga incorporation into -ga ‘to take’ and -wa ‘to follow’ has the same function (Saulwick 2003: ch. 8). Kunbarlang shows reflexes of these structures in some lexicalised causatives, where the
thematic is -\textit{wunj} ‘to give’. Known verbs that contain this as the causative thematic are -\textit{djuhmiwunj} ‘to shorten’, -\textit{kelkwunj} ‘to soften’, -\textit{makwunj} ‘to decorate’, -\textit{monekwunj} ‘to warm someone up’, -\textit{morewunj} ‘to fold; to muster’, -\textit{rayekwunj} ‘to tighten; to fix in a position’, -\textit{worlngunj} ‘to (re)heat’, and probably also -\textit{djawunj} ‘to feed’ and -\textit{djurkwunj} ‘to annoy’. Some of the prepounds are easily identifiable as adjectives (-\textit{djuhmi} ‘short’, -\textit{mak} ‘good’, -\textit{more} ‘close together’, -\textit{rayek} ‘hard’) or adverbs (\textit{monek} ‘warm’). Even though not productively, a few of these stems participate in a lexicalised causative-inchoative alternation, achieved by varying the thematic. Compare the causative formation from the adjectival prepound \textit{rayek} ‘hard’ in (8.23a) and the corresponding inchoative formation (8.23b):

(8.23) a. Nga-\textit{rayek.wunj} ninda door la ka-bibilayi.
   1sg.nf-tighten.np dem.prox.i eng conj 3sg.nf-sway.np
   ‘I’m jamming the door, because it is swinging open.’
   [IK1-180521_2SY-01/14:54–59]

   b. Ngunda ngarra-mabulu mayi ka-\textit{rayek.minj}.
      not 1sg.irm.np-like.irm.np nm.iii 3sg.nf-harden.pst
   ‘I don’t like [bread] which has dried/hardened.’
   [IK1-160827_000-01/22:55–58]

In all of these verbs (except ‘to feed’, ‘to annoy’ and ‘to reheat’) prepounds are able to combine with the inchoative thematic -\textit{mi}, yielding respective readings.

### 8.3.2 Elements functioning as complementizers

There are no dedicated complementizers for sentential complements in Kunbarlang. However, there are three functional elements that can occur in embedded clauses, effectively as complementizers. They are:

- \textit{kuyi} — the class iv noun marker (§4.7; examples (8.10) and (8.15) above)
- \textit{yidok} — the interrogative particle also used in root polar questions (§7.4.1; example (8.24) below)
- \textit{yimarne(k)} — the similative and quotative particle (example (8.17) above)

(8.24) Ka-ngan-\textit{wardam} [yidok shop ka-bum=dol].
   3sg.nf-1sg.obj-ask.pst q eng 3sg.nf-hit.pst=obstruct
   ‘S/he \textbf{asked} me [whether the shop was closed].’
   [IK1-180604_1SM-01/24:47–51]
The subordinate clause can be an indirect question, with a wh-pronoun at its left edge (as in examples (8.14) and (8.25)).

(8.25) Nga-wakwanj [na-kaybi ka-kinjang mayi birradja].
1sg.NF-ignorant.NP 1-who 3sg.NF-cook.PST NM.III rice
‘I don’t know [who cooked the rice].’ [IK1-160805_000-01/22:47–23:09]

Every predicate can only select a subset of these complementizing markers/constructions to combine with. The causative matrix verb -marnbunj ‘to make’ (§8.3.1) can only take bare complement clauses. Table 8.1 summarises the combinations (EmQu stands for ‘embedded question’ and the % sign means that speakers are divided on the combinability of -wakwanj with yimarne(k)):

Table 8.1: Combinations of the major matrix predicates and subordinate clause markers

<table>
<thead>
<tr>
<th></th>
<th>marnbunj ‘make’</th>
<th>mabulunj ‘like; want’</th>
<th>ngundje ‘say; do’</th>
<th>wakwanj ‘not know’</th>
<th>burrbunj ‘know’</th>
<th>wardam ‘ask’</th>
</tr>
</thead>
<tbody>
<tr>
<td>kuyi</td>
<td>-</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>EmQu</td>
<td>-</td>
<td>?</td>
<td>-</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>yidok</td>
<td>-</td>
<td>?</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>✓</td>
</tr>
<tr>
<td>yimarne(k)</td>
<td>-</td>
<td>✓</td>
<td>✓</td>
<td>%</td>
<td>?</td>
<td>-</td>
</tr>
</tbody>
</table>

There are three combinations in table 8.1 that I am not certain about, although I think they are impossible; these are indicated by the question marks. However, it is important to note that these complementizer-like elements are completely optional. Any of these predicates can take a subordinate clause complement without additional marking.

8.3.3 Tense and mood forms in the expressions of desires

There are no infinitives in Kunbarlang, i.e. all verb forms are finite (see §8.2; also chapters 3 and 5). Thus, there are no equivalents to control or raising constructions. In the majority of cases the use of the tenses and moods is absolute, i.e. not dependent on the neighbouring verbs (including the matrix verb; see §5.5 on tense and mood semantics). There is, however, one interesting exception to this generalisation, viz. constructions with the matrix verb -mabulunj ‘to want; to like’.

I distinguish the following 3 cases of its use with a clausal complement:

- actual wishes, which are expressions of desire in the present, or a fulfilled desire in the past
• counterfactual wishes, which are akin to counterfactual conditionals (§8.5.4.2) in the sense that they express desires impossible to fulfil at the relevant point in time

• negative wishes, which involve negation of the matrix verb and the spreading of the irrealis marking into the subordinate clause (mood spreading, as I call it)

In expression of the actual wishes, the subordinate verb is in the realis mood, and its tense depends on that of the matrix verb in a straightforward way: if -mabulunj is non-past, the subordinate verb is in the future (8.26a); if -mabulunj is in the past, the subordinate verb is in the past (8.26b).

(8.26)  a. Nga-mabulunj [nganj-ka karnda=way mandandi].
       1sg.NF-like.NP 1sg.FUT-go.NP DEM.DIST.LOC=HITH mainland
       ‘I want [to go across to the mainland].’

       b. Ngayi nga-mabuluy [nga-djarrang ngorro].
       1sg.NF-like.PST 1sg.NF-eat.PST DEM.MED.IV
       ‘I wanted [to eat, so I ate].’

Example (8.26b) highlights an important feature of the desire constructions in Kunbarlang: the speaker must convey whether the wish is consummated or not (unlike in English, where a verb such as want does not require—or indeed make it possible—to express the outcome of the wishing). Contrast (8.26b), where the realis past form of the subordinate verb entails that the wish was fulfilled, with a past tense counterfactual wish in (8.27), which unambiguously indicates that the wishing was in vain:

(8.27)  Nga-mabuluy [ngay-djarri] la karlu, ka-bum=dol
        1sg.NF-like.PST 1sg.IRR.PST-eat.IRR.PST CONJ NEG.PRED 3sg.NF-hit.PST=obstruct
        korro ngarrk-djarramarramaddjiyi.
        DEM.MED.LOC 1.INCL.NF-buy.NP
        ‘I wanted [to eat], but no, the store was closed.’

Example (8.27) shows the irrealis past form, which the subordinate verb takes in past tense counterfactual wishes. Present tense counterfactual wishes, in turn, employ the irrealis non-past form. The irrealis mood is obligatory, as illustrated in (8.28):

(8.28)  a. Benbe nga-mabuluy [ngay-kangkayini korro
        yesterday 1sg.NF-like.PST 1sg.IRR.PST-go.IRR.PST DEM.MED.LOC
        mandandi] la karlu kabbala.
        DEM.MED.LOC CONJ NEG.PRED boat
        ‘Yesterday I wanted [to go to the mainland], but didn’t have a boat.’

       [IK1-170614_1PG-01]
b. *Benbe nga-mabuluy [nganj-ka / nga-kidanj] korro
   yesterday 1SG.NF-like.PST 1SG.FUT-NP 1SG.NF-go.PST DEM.MED.LOC
   mandandi] la karlu kabbala.
   mainland CONJ NEG.PRED boat
   intended: ‘Yesterday I wanted to go to the mainland, but didn’t have a boat.’
   [ibid.]

The subject of the subordinate clause does not have to co-refer with the matrix
subject:

(8.29) Nga-mabuluy [yimarne ki-kangkayini barbung] la
   1SG.NF-like.PST like 3SG.IRR-PST-GO.IRR.PST fish CONJ
   ka-ngunda karlu ngunda ngarra-mabulu.
   3SG.NF-do.PST NEG.PRED not 1SG.IRR.NP-like.IRR.NP
   ‘I wanted [him to go fishing], but he said No I don’t want to.’
   [IK1-170615_iSY-01]

The embedded clause subject is not constrained by the higher clause configuration,
but rather freely indicated by the personal prefix. In this respect, Kunbarlang can
be said to not have any control verbs.6

We see from the above discussion that the use of the realis or irrealis mood of
the subordinate verb can differentiate the actual and counterfactual wishes, while the
matrix verbs remains in the realis. In the negative wishes, however, we find a tense
and mood agreement between the matrix and the subordinate verbs. Similar to English,
where the negation normally appears in the higher clause regardless of its actual scope,
in Kunbarlang the negation is also found in the higher clause. Since verbs in scope
of negation must be in the irrealis form (see §7.3), the matrix verb is irrealis. What is
interesting is that the subordinate verb must also be in the irrealis (8.30). This seems to
be motivated morphosyntactically, rather than semantically.

(8.30) a. Ka-mulmul-kalng banikkin, la ngunda ki-mabulu
   3SG.NF-many-get.PST dish CONJ not 3SG.IRR.NP-like.IRR.NP
   [ki-bu=ngurr].
   3SG.IRR.NP-hit.IRR.NP=wash
   ‘S/he has got a lot of dishes but doesn’t want to wash them.’
   [IK1-170608_iSY-01/17:51–56]

b. *Ngunda ki-mabulu kanj-bunj=ngurr.
   not 3SG.IRR.NP-like.IRR.NP 3SG.FUT-hit.NP=wash
   intended: ‘S/he does not want to wash it.’
   [ibid./18:50–59]

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6. This might be a corollary of not having infinitive forms in Kunbarlang.
This pattern contrasts with that in the causatives, where the negation-triggered irrealis is confined to that verb which is in the scope of negation (see §8.3.1). Furthermore, in desire constructions, if there are several subordinate verbs, the negation spreads over all of them (8.31):

\[(8.31)\] Ngunda ngarra-\textit{mabulu} [\textit{malayi} ngarra-\textit{kidang}]
not 1SG.IRR.NP-like.IRR.NP tomorrow 1SG.IRR.NP-go.IRR.NP
\textit{ngarra-rda-yi} school.
1SG.IRR.NP-put-REFL.IRR.NP ENG
\[\text{‘I don’t want to go to school tomorrow.’}\] [IK1-160704_1SY-01]

A more literal rendition of (8.31) could be something along the lines of ‘I don’t want it that tomorrow I would go and I would enter school.’ As this example shows, in case there are juxtaposed subordinate verbs, they all take on the irrealis form. The tense of the subordinate verb also needs to correspond to that of the matrix one. Thus, while the above examples show the non-past irrealis forms (for future temporal point), example (8.32) below is in irrealis past (as a report of a negative wish at a past temporal point):

\[(8.32)\] Benbe ninda ngunda \textit{ki-mabuluni}
yesterday DEM.PROX.I not 3SG.IRR.PST-like.IRR.PST
\[\text{[ki-buni=ngurr].}\]
3SG.IRR.PST-hit.IRR.PST=wash
\text{‘This guy did not want to wash [the dishes] yesterday [implies: and did not do them].’}\]
[IK1-170608_1SY-01]

The inference that the dishes were never done is not an entailment, and can be cancelled, as shown by (8.33), an elaboration on (8.32):

\[(8.33)\] a. Benbe ninda ngunda ki-mabuluni
yesterday DEM.PROX.I not 3SG.IRR.PST-like.IRR.PST
ki-buni=ngurr, \textit{babi la} nga-marnanj-ngunda
3SG.IRR.PST-hit.IRR.PST=wash later CONJ 1SG.NF-BEN-do.PST
\textit{ka-bum=ngurr.}
3SG.NF-hit.PST=wash
\text{‘This guy did not want to wash [the dishes] yesterday, but later I told him to and he washed them.’}\] [IK1-170608_1SY-01]

b. *Benbe ninda ngunda ki-mabuluni \textit{ka-bum=ngurr.}
yesterday DEM.PROX.I not 3SG.IRR.PST-like.IRR.PST 3SG.NF-hit.PST=wash
intended: ‘He did not want to, but washed [the dishes].’ [ibid.]
8.4 Relativisation

Relative clauses are a type of subordinate clause which modify a main clause noun phrase (or some other aspect of the matrix clause, such as its temporal point). Thus, semantically they are used to characterise a participant of one event (the matrix clause event) through their participation in another event, described by the relative clause, which is subordinate (for various definitions and discussion see Keenan & Comrie 1977, Andrews 2007, Lander 2012: §0.1.1, among many others). Thus, prototypical relative clauses are clausal modifiers for nominals, although other kinds exist as well. Consider a Kunbarlang example (8.34):

(8.34) Mukka mabudj [mayi ka-rna ka-ngarrkun-wunj]
      it.ill cheeky_yam NM.ill 3SG.NF-sit.NP 3SG.NF-1INCL.OBJ-give.NP
      man-warri.
      ill-bad
      ‘The cheeky yam that he’s always giving us is rubbish.’
      [IK1-180606_2SY-01/01:16:59–17:05]

In (8.34), the main proposition is That cheeky yam is rubbish, expressed in Kunbarlang: Mayi mabudj manwarri. Its subject, mayi mabudj ‘the cheeky yam’ is modified by the relative clause mayi ka-rna ka-ngarrkun-wunj ‘which he’s always giving us’. The relative clause makes the reference more specific by describing the yam as the object in the situation of giving. This section goes into the details of how such clauses are built in Kunbarlang and what different types there are.

Languages vary in the strategies used for relative clause formation, but remarkably, all natural languages seem to have some kind of relativisation (Polinsky 2016: 20). Typological classifications include the following dimensions (cf. Bianchi 2002: 197; de Vries 2002: 17–18) offers a comprehensive list of 11 parameters):

- presence or absence of a head noun (i.e. headed vs. free relatives);
- the nature of the relativisation site (the position/grammatical function in the subordinate clause that corresponds to the characterised participant): a gap or a resumptive pronoun;
- the nature of the relative pronoun: phonologically overt or a null one;
- the syntactic relation between the head and the relative clause

It is important to keep in mind that relativisation in Australian languages has been the subject of some controversy: some have interpreted Hale’s (1976) seminal paper on the ‘adjoined relative clause’ (AdjRC) to mean that there are no relative clauses in
Warlpiri and other languages of the continent, and probably even no syntactic subordination (cf. the discussion by Nordlinger (2006), who calls this type of subordination ‘general modifying subordinate clause’). The structure that Hale described is a polyfunctional subordinate clause type that can have both adverbial and relative interpretations, and that — in the relative clause function — may be linearly disjoint from its head (8.35), indeed with a preference to appear on the edge of the matrix clause.

(8.35) Warlpiri (Hale 1976: 78)
ŋatjulu-ḷu ø-na yankiri pantu-ṇu, [kutja-lpa ɳapa ɳa-ṇu].
I-erg aux emu spear-pst comp-aux water drink-pst
‘I speared the emu which was/while it was drinking water.’

Example (8.35) illustrates two important characteristics of the AdjRC. One is the lack of linear adjacency between the head and the RC. The other is the interpretation, ambiguous between a relative (‘NP-relative’) and a co-temporal adverbial (‘T-relative’). Over time it has become the prevailing view that there is one major and uniform type of clause combination in Australian languages, one involving some kind of adjunction (instead of syntactic subordination). Recently, Nordlinger (2006) revisited the issue and forcefully argued (in particular, based on Wambaya data) for the following theses:

- Hale’s (1976) term embedded, a linear order notion, should not be confused with subordinate, a structural notion, so the fact that Hale describes clauses as not being embedded in the main clause, does not necessarily mean they are not subordinate structures

- despite the fact that many constructions share certain features of the AdjRC, the actual structures across different languages are much more diverse

- for a given structure, having properties of the AdjRC does not preclude syntactic subordination, and a subordinate analysis is appropriate at least for some Australian languages

With this in mind, I turn to Kunbarlang relativisation. I will arrive at conclusions similar to Nordlinger’s (2006): I find certain features of the AdjRC archetype in Kunbarlang, too, but argue that the Kunbarlang relative structures are truly subordinate. In what follows, I first present the taxonomy of Kunbarlang relative clauses (§8.4.1) and then argue for their true subordinate status (§8.4.2). The accessibility of various grammatical functions for relativisation is discussed in §8.4.3.

7. The transcription and glosses are original, boldface and bracketing mine — IK.
8.4.1 Types of Kunbarlang relative clauses

There are no dedicated morphosyntactic markers of relativisation in Kunbarlang: neither relative pronouns (words like the English *which*) nor complementizers (words like the English *that in the cat that meows*). The verb in the relative clause does not have any marking. Best diagnostics are syntactic, and are discussed in detail in §8.4.2. However, typically a noun marker (§4.7) is found with a relative clause, signalling that a fragment that looks like a clause is in fact nominal material syntactically.

I divide the relative constructions in Kunbarlang into two major types: the headed RCs (§8.4.1.1) and the free RCs (§8.4.1.2), based on the presence of a head noun in the matrix clause. The following sections discuss them in turn.

8.4.1.1 Headed relative clauses

A typical headed relative clause in Kunbarlang is exemplified in (8.36). Throughout this section I will enclose relative clauses in examples in square brackets with the subscript “RC”: \[RC\]. Besides that, heads are highlighted with **boldface** when they are present.

(8.36) Ngayi mimdom-mimdom kaddy-mabuluy nayi djurra \[RC \text{nayi}\] ngadudduwuy.

The substring of (8.36) that we are interested in here is *nayi djurra ngayi nga-buddu-wuy* ’the book that I gave them’. It showcases all the ingredients of a Kunbarlang noun phrase that contains a headed relative clause: a NOUN MARKER *nayi*, a head noun (*djurra* ‘paper, book’) and a fragment that would be a well-formed finite clause on its own: *ngayi ngabudduwuy* ’I gave [it] to them’. The relative clause predicate is finite, the full NP is absent from the relativisation site, but it is not at all unusual for a nominal phrase that encodes an argument to not be present. The noun marker agrees in the noun class with the head noun. A note is in order here on the noun markers, as they play an important role in both formation and identification of relative clauses in Kunbarlang.

Consider another example of a headed relative clause from spontaneous discourse (8.37):

(8.37) Ngayi mimdom-mimdom kaddy-mabuluy nayi djurra \[RC \text{nayi}\] ngadudduwuy.

The substring of (8.36) that we are interested in here is *nayi djurra ngayi nga-buddu-wuy* ’the book that I gave them’. It showcases all the ingredients of a Kunbarlang noun phrase that contains a headed relative clause: a NOUN MARKER *nayi*, a head noun (*djurra* ‘paper, book’) and a fragment that would be a well-formed finite clause on its own: *ngayi ngabudduwuy* ’I gave [it] to them’. The relative clause predicate is finite, the full NP is absent from the relativisation site, but it is not at all unusual for a nominal phrase that encodes an argument to not be present. The noun marker agrees in the noun class with the head noun. A note is in order here on the noun markers, as they play an important role in both formation and identification of relative clauses in Kunbarlang.

Consider another example of a headed relative clause from spontaneous discourse (8.37):
Again, in (8.37) one finds all the characteristic features of a Kunbarlang RC. The difference from (8.36) is that the head noun *kirdimarrk* 'man' is directly followed (rather than preceded) by the noun marker (*nayi*); then a clause (in this case consisting of a single verb *ka-ngandarlakwang* 's/he hurled it') follows the noun marker. The full NP is again absent from the relativisation site, namely the subject of the subordinate clause, but the subject agreement for that argument is in place and in its usual form. As far as the position of the noun markers is concerned, they enjoy the same freedom of placement as in other types of NPs. In example (8.40a) below the noun marker *mayi* occurs twice: immediately preceding the head noun and between the head and the rest of the relative clause. The general schema for the prototypical headed RC in Kunbarlang is thus as follows:

- NM—Head—RC (8.36)
- Head—NM—RC (8.37)
- NM—Head—NM—RC (8.39b)

Examples of headed relative clauses that do not use a single noun marker seem extremely rare (8.38) and are corrected to include one or two noun markers in elicitation (e.g. (8.39)).

(8.37) ...kadda-kalng || na-buk-ma dead body la kirdimarrk
3PL.NF-get.PST 1-PERSON-CONTR ENGLISH ENGLISH CONJ man
[RCnayi ka-ngandarlakwang].
NM.I 3SG.NF-hurl.PST
‘...they took the dead body and the man who threw the spear.’

[WLG 20060620IB03/18:37–18:46]

(8.38) Ngadda-bardidjarrang cuppa tea [RCkabba-ngarrun-wuy].
1PL.EXCL.NF-drink.PST ENG ENG 3NSG.NF-1NSG.OBJ-give.PST
‘We drank a cup of tea that they gave us.’ [20060901IB02/01:09–11]

(8.39) IK1-170620 lSY-01/05:22–36

   3SG.NF-get.PST man 3SG.NF-hurl.PST
   intended: ‘They took the man who threw the spear.’

b. Kadda-nganj-kidanj kadda-kalng nayi kirdimarrk [RCnayi
   3PL.NF-HITH-GO.PST 3SG.NF-get.PST NM.I man NM.I
   ka-ngandarlakwang].
   3SG.NF-hurl.PST
   ‘They came and took the man who threw the spear.’
As (8.39) shows, when offered relative clauses constructed without noun markers at all, a speaker would correct it, so that in this particular case there are two noun markers, one on either side of the head noun.

The following examples show noun marker agreement with the head for classes III (8.40a) and IV (8.40b):

(8.40) a. Ngal-buk marrek ki-djang mayi kandidjawa [RCmayi
ii-person not 3SG.IRR.NP-eat.IRR.NP NM.III bread NM.III
ngarrka ngarrk-karrme] la ngundjida-wunj mayi kandidjawa
we.INCL 1.INCL.NF-hold.NP CONJ 2PL.FUT-give.NP NM.III bread
[RCngal-buk ka-nganj-kankinj].
ii-person 3SG.NF-HITH-take.PST

‘She won’t eat the bread [that we have], give her the bread [that she brought].’ [IK1-160505_001-01]

b. Ngondo njunjuk [kuyi nayi kirdimarrk ka-bardi-rdam].
dem.prox.IV water NM.IV NM.I man 3SG.NF-liquid-put.PST

‘This is the puddle [that the man poured].’ [IK1-160505_001-01]

The fact that the noun markers agree with the head noun puts them closer to relative pronouns than relative complementizers (according to a classic diagnostic due to Kayne (1975)), but given their wider distribution, i.e. the ability to occur in all NPs, they cannot be classified as proper relative pronouns, in the sense of that being their defining function. Furthermore, their freedom of placement on both sides of the head noun is untypical of relative pronouns.

In terms of respective arrangement of the head and the RC, from a typological viewpoint, one can say that Kunbarlang headed relative clauses are POSTNOMINAL, or HEAD-INITIAL. In elicitations, however, other syntactic types were recorded as well: CIRCUMNOMINAL (HEAD-INTERNAL; 8.41) and, sometimes, PRENOMINAL (HEAD-FINAL; 8.42). 8

(8.41) a. Ngayi mimdom-mimdom kadda-mabuluy [RCngudda djurra
nm.pl rdp~old.person 3PL-like.PST you paper
ki-buddu-wuy].
2SG.NF-3PL.OBJ-give.PST

‘The elders liked the books that you gave them.’ [IK1-160505_001-01/9:12–18]

8. Sometimes speakers accept examples and translate them, but would not repeat (e.g. 8.41), but other times they repeat as well (e.g. 8.42). Crucially, these examples always had to be first constructed by the linguist.
In both examples in (8.41) the head noun (shown in boldface print) is located linearly within the relative clause, unlike being on its left edge, as we have seen in other relative clause examples, or right edge, as example (8.42) shows.

(8.42)  
\[
\begin{align*}
\text{RC Nayi malayi ka-nganj-ka] } & \quad \text{djawina} \\
\text{NM.I tomorrow 3SG.FUT-HITH-GO.NP friend} & \\
\text{ka-ngan-lerrk-rda-yinj benbe.} & \\
\text{3SG.NF-1SG.OBJ-WORD-PUT-REFL.PST yesterday} & \\
\text{That friend that’s coming tomorrow called me yesterday.’} & \\
[\text{IK1-160822_000-01/19:51–59]}
\end{align*}
\]

It must be pointed out that both head-internal and head-final RCs only seem to occur in elicitation sessions in Kunbarlang. That is, Kunbarlang appears to allow construction of circumnominal and (at least sometimes) prenominal RCs, but perhaps these types are not as natural as the postnominal RCs. At the same time, such a preference might have been shaped by the contact with English, which only has postnominal RCs.

I have established that Kunbarlang RCs are primarily head-initial, but can also be head-internal and head-final. These are all subtypes of embedded RCs, in the terminology of de Vries (2002). The embedded RCs are those which form a constituent with the head, or at least are linearly adjacent to the head. While a full-blown paradigm of constituency tests is not available at the moment, some observations on linear order suggest that unity of the head and the relative clause is found at least sometimes. The examples to this point are (8.41b) for head-internal and (8.43) for head-initial RCs. Notice that in both of them the matrix clause material surrounds the relative clause: the RC separates the matrix adverb malayi ‘tomorrow’ from the rest of the matrix clause.

(8.43)  
\[
\begin{align*}
\text{Ngayi nganj-bunj nayi durduk [RCnayi benbe ka-ngan-beyang]} & \\
\text{I 1SG.FUT-hit.NP NM.I dog } & \text{NM.I yesterday 3SG.NF-1SG.OBJ-bite.PST} \\
\text{malayi. tomorrow} & \\
\text{‘I will hit the dog [that bit me yesterday] tomorrow.’} & \text{[sy_rc_160811]}
\end{align*}
\]

9. In his thesis on the syntax of relative clauses de Vries (2002) offers a systematisation of the proliferated terminology in this field; cf. his Figure 1 on page 21.
De Vries (2002) further contrasts embedded RCs with co-relatives. These latter ones include extraposed (or right-dislocated) relative clauses and Hale’s (1976) adjoined relative clause. Unlike the linearly contiguous embedded RCs, the head of a co-relative is linearly disjoint with the RC (and thus does not form a constituent together with the RC). It is possible to form co-relatives in Kunbarlang as well. In the following examples (subject relative (8.44a) and object relative (8.44b)) the head is separated from the relative clause by the matrix verb.\(^\text{10}\)

\[(8.44)\]

\(a.\) Ngayi nayi **kornobolo** nga-djing \[\text{[RCnayi ka-bardi-djarrang]}\].

\[\text{I 1sg NF-speared.PST 3sg NF-liquid-eat.PST} \]

‘I speared a **wallaby** [that was drinking].’ \[IK1-160827_1PN-01\]

\(b.\) Ngayi nayi **kornobolo** nga-kinjang \[\text{[RCnayi ngudda} \]

\[\text{I 1sg NF-cook.PST 3sg you} \]

\[\text{ki-djing], 2sg NF-pierce.PST} \]

‘I cooked the **wallaby** [that you speared].’ \[IK1-160827_1PN-01\]

In terms of semantic interpretation, all examples so far have shown restrictive RCs. Restrictive RCs narrow down or specify the reference of the head noun, rather than just add some extra information about it. Consider the sentence (8.45):

\[(8.45)\]

\(\text{Nganj-buddu-wunj nayi kadda-buyu-bunjije (ngayi) **barrayidjidj**} \[\text{[RCngayi kanjbadda-nganj-ka malayi].} \]

\[\text{1sg.FUT-3PL.OBJ-give.NP 3PL.NF-PLURAC-lick.NP 3PL.NF kids} \]

\[\text{NM.PL 3PL.FUT-HITH-GO.NP tomorrow} \]

‘I’m going to give a lolly to the **kids** that come tomorrow [i.e., whoever comes tomorrow, and only those ones].’ \[IK1-160505_001-01/33:49-35:01\]

As the comment in the translation explains, the relative clause specifies the reference of the head noun *barrayidjidj* ‘kids’. Thus, it can be seen as providing an answer to the question ‘Which kids am I going to give a lolly?’, along the lines of ‘Exactly those kids that will come tomorrow, and no other ones’. An alternative meaning, if the RC could be interpreted as a non-restrictive one, would have been ‘I’m going to give a lolly to the kids, who will come tomorrow’, i.e. there is a set of kids defined by the context, and I will give all of them lollies, and there is additional knowledge that those kids will come tomorrow. However, that is not a possible interpretation in Kunbarlang, according to the speakers’ judgements.

\(\text{\textsuperscript{10} It is worth mentioning that the only examples of co-relatives in Kunbarlang I am aware of come from elicitation, just like the head-internal and head-final RCs.}\)

310
Evidence against the non-restrictive RCs in Kunbarlang is scarce. Example (8.46a) is suggestive, as it shows impossibility to attach a relative clause to the first person pronoun ngayi ‘I’. This is likely prohibited for the reason that uniquely referring NPs only allow non-restrictive modification. Example (8.46b) shows that attachment to pronouns should not be a problem per se.

   I NML.1 ISG.NF-sit.NP W. ISG.NF-get.PST two car
   ‘I stay at Warruwi, I’ve got two cars.’
   NOT: ‘I, who live in Warruwi, have two cars.’ [IK1-160818_1SY-01]

   he NML.1 W. 3SG.NF-sit.NP 3SG.NF-get.PST two car
   ‘This man who lives in Warruwi has got two cars.’ [Informant’s translation: “He staying at Warruwi, he got two vehicle.”] [IK1-160818_1SY-01]

Having presented the headed RCs in Kunbarlang, I turn to the free relatives.

8.4.1.2 Free relative clauses

A free relative clause is one where there is no nominal head but the clause itself appears in a position where a noun can appear — as an argument or an adjunct to a verb. An example from spontaneous Kunbarlang discourse is in (8.47):

(8.47) Kadda-maddjing ka-mankang korro [RCngadbe ngadda-rninganj].
   3PL.NF-pierce.PST 3SG.NF-fall.PST DEM.MED.LOC WE.EXCL 1PL.EXCL.NF-sit.PST
   ‘They shot [that plane] and it fell down (to) where we were staying.’
   [20060620IB03/6:12–6:19]

In (8.47) the string ngadbe ngadda-rninganj ‘we were staying’ should be considered a free relative clause with locative meaning (i.e. functionally, an adverbial clause). It is the complement of the generic preposition korro (in the present case interpreted as ‘to’), i.e. the clause is found in the nominal environment here. On the other hand, the specification of the location of the stay is missing, although the predicate -rna ‘sit; live’, when used in the sense ‘stay, live’, normally subcategorises for a locative adjunct; cf. (8.48):
‘They were sitting outside looking for him/waiting for him.’

(8.48) Kadda-rninganj korro rlobbel-rlobbel kadda-rdukidanj bi-rnungu.
3pl.NF-sit.PST DEM.MED.LOC RDP-outside 3pl.NF-wait.PST DAT-he.GEN

[20060620IB06/2:14–2:19]

But in (8.47), the locative adjunct of ‘stayed’ is relativised over, which makes the clause available to combine with the preposition. There are no formal indicators of its status as a relative clause other than its syntactic position following the demonstrative korro (which effectively functions as a locative preposition): in particular, there is no (overt) complementizer or relative pronoun.

Unlike the relativisation of the Locative thematic role, however, relativisation of other roles involves the use of a noun marker (8.49a). The variant in (8.49b) shows that the noun marker is obligatory. It may be the case that the demonstrative korro creates the required nominal context in an example like (8.47), but in its absence a noun marker is required for the same purpose.

(8.49) a. Dukulu ka-rlakwang bi-ngaybu [RC-nayi nga-kodjkodjrdayi].
wind 3sg.NF-throw.PST DAT-L.GEN NM.1 1sg.NF-head-put-refl.NP

‘Wind blew my hat off.’ [lit. ‘Wind threw off my (thing) that I insert my head into.’] [IK1-160805_000-01/1:18:48–1:19:09]

b. *Dukulu ka-rlakwang bi-ngaybu nga-kodjkodjrdayi.
wind 3sg.NF-throw.PST DAT-L.GEN 1sg.NF-head-put-refl.NP

Intended: ‘Wind blew my hat off me.’ [sy_rc_160811]

Example (8.49a) shows another use of free relatives—the formation of descriptions for novel concepts. Consider the noun phrase meaning ‘my hat’. Morphosyntactically, nayi nga-kodjkodjrdayi is a combination of a noun marker with a verb/clause, which literally means “that [which] I insert head [into]”. The phrase clearly refers to an entity, and the whole sentence cannot be interpreted as an asyndetic clausal conjunction ‘Wind blew [it] off me; I put my head in [it]’. Both this structure and this use resemble the clauses with noun class markers in Ngan’gityemerri, which are also like relative clauses (Reid 1997).

Such relative clauses as in (8.49a) can have possessors, which further demonstrates their ontological status as referring expressions. The possessor in (8.49a) is bingaybu, the dative form of the first person pronoun. Example (8.50) manipulates the person of the possessor to rule out the possibility of the dative pronoun being construed as the affected argument (maleficiary):
(8.50) Dukulu ka-rlakwang **bi-rnungu** [RC\text{\text{nayi}}]
wind 3SG.NF-throw.PST DAT-he.GEN NM.I
ka-nga-nuy nga-kodjkodj-rda-yinj].
3SG.NF-1SG.OBJ-give.PST 1SG.NF-head-put-refl.PST

‘Wind blew his hat off me.’ [lit. ‘Wind blew off his whatever he gave me that I put on.’] [sy\textunderscore rc\textunderscore 160811]

The possessor phrase in (8.50) is *birnungu* ‘his’, which confirms that a free relative clause in Kunbarlang can be a referring expression. Besides the meaning of the sentence, the possessor interpretation of that pronoun (rather than affected maleficiary) is evidenced by the person mismatch of this possessor pronoun and the personal prefixes on the embedded verb (which refers to the actual wearer).

Another example of this concept formation via free relative clauses is in (8.51), repeated from (8.45) above:

(8.51) Nganj-buddu-wunj [RC\text{nayi} kadda-buyu-bunjidje] \(\text{ngayi}\)
1SG.FUT-3PL.OBJ-give.NP NM.CLI 3PL.NF-PLURAC-lick.NP NM.PL
barrayidjidj \(\text{ngayi}\) kanjbadda-nganj-ka malayi.
kids NM.PL 3PL.FUT-HITH-GO.NP tomorrow

‘I’m going to give lolly to those kids that come tomorrow [whoever comes tomorrow, and only those ones].’ [IK1-160505\_001-01/33:49–35:01]

In (8.51), the NP with the meaning ‘(a) lolly’ is a free relative clause. In the discussion about how to express the concept of candy/lolly the speaker literally said the following: “when we say ‘lolly’, that’s *nayi kaddabuyubunjidje*, like ‘the one they chew’ ” (ik160505-001/25:15), a commentary that suggests transparency of that structure to the speakers of Kunbarlang. It is worth noticing, too, that the expression was given with the noun marker — additional (even though somewhat indirect) evidence that the noun marker belongs to the relative clause, rather than being a fragment of some other preceding constituent.

Finally, turning **kinship verbs** (§3.2.4.1) into referential expressions is still another use of Kunbarlang free RCs (8.52).

(8.52) Ngayi, Ngalbangardi, Nakangila la [RC\text{nayi} kabarra-rna],
I N N CONJ NM.II 3DU.NF-sit.NP
ngadda-rna.
1PL.EXCL.NF-sit.NP

‘I, Ngalbangardi, Nakangila and his partner, we are sitting here.’

[IK1-160726\_002-01/01:29–37]
The verb -rna 'to sit' in (8.52) is relativised, which enables it to be conjoined with other nouns within an argumental position.

### 8.4.2 Arguments for relativisation in Kunbarlang

There are a number of arguments in favour of postulating truly subordinate relative structures in Kunbarlang, as opposed to parataxis. These arguments may be grouped as follows:

- **syntactic**
  - RCs are clauses that appear in nominal environments
    - after/together with the noun markers (especially the headed RCs)
    - after the locative preposition korro (see §8.4.1.2)
  - it is impossible to overtly fill the relativisation site (see (8.53) below)
  - unavailability of the relativised argument for other operations (see (8.54) below)
  - the possibility to linearly embed the subordinate clause within the matrix clause (suggestive, but not compelling; (8.43))

- **semantic**: relative clause interpretation (less compelling than the syntactic arguments)
  - restrictive modification (cf. the discussion of (8.45) above)
  - anti-iconic temporal sequencing (8.55)
  - temporal restrictions with destruction verbs (8.56)

In the naturally occurring Kunbarlang relativisation there is no full NP in the position that is relativised over. Furthermore, in elicitation attempts to fill in that gap are prohibited. Consider the pair of examples in (8.53): the first one (8.53a) shows that the adverbial phrase korro 'there' can appropriately express location with the verb -rna 'sit'; the second one, a free relative clause in (8.53b), shows that when the location is relativised, korro becomes inappropriate.
I conclude that the relativisation site is a special position: the absence of the full NP in that position is principled and related to its subordinate syntactic status, but not reducible to a pro-drop and parataxis interpretation.

There is further evidence to that conclusion. In formal theories of the semantics of relativisation, it is standardly analysed in terms of an operator that binds into the relativisation site: $\lambda x [\text{Jack built } x]$, — thus turning a clause into a predicate.\footnote{See e.g.\textit{Heim \& Kratzer (1998: ch.5)}.} I use this idea to construct the test as follows. If there is no relativisation but just parataxis with pro-drop of the relevant argument, then that argument must be freely available for binding by other operators. One such operator is the reflexive, which binds the verb’s object (see §6.1.3). The parataxis view predicts that a putative relative clause can contain a reflexive; the relativisation view predicts incompatibility of the two. The data strongly support the relativisation view; consider (8.54):

\begin{enumerate}
\item[8.54a] \texttt{IK1-170620\_1SY-01/12:43–13:45}
\begin{itemize}
\item Ngayi nga-yawanj \textbf{doctor} [\texttt{RC)nayi nga-yi nga-\textit{ndukumung}].
\item Nga-yawanj nayi doctor [\texttt{RC)nayi nga-yi nga-rdikkumung}].
\end{itemize}
\end{enumerate}

The example at issue is (8.54a): we are testing if it has to have a relative clause construal (\textit{the doctor who I cut}) or can be construed paratactically, with the object of
the second clause routinely pro-dropped (I'm looking for a/the doctor; I cut [him/her/it]). If parataxis was possible in this structure, nothing would prevent reflexivisation of the second clause verb. However, (8.54b) shows that it is out (as its translation shows, this is exactly parallel to what happens in relative clauses in English, as well). The only way to express the idea of two events that do not share a participant is to coordinate clauses (8.54c).

Finally, I adduce two suggestive facts about the temporal interaction of the matrix and the relative clauses. One is the possible anti-iconic temporal sequencing of the clauses, which is thought to be a characteristic of subordinate structures (see footnote 19 on page 322). In example (8.55) the preceding (matrix) clause is in the future tense and the second (relative) clause is in the past, thus reverting the natural temporal progression.

(8.55) Nga\textit{yi nganj-kinje nayi kornobolo} [\textsubscript{RC}nayi ngudda ki-djung].
\begin{align*}
\text{I} & \text{ 1SG.FUT-cook.NP} & \text{NM.1 wallaroo} & \text{NM.1 YOU.SG} & \text{2SG.NF-pierce.PST} \\
\text{‘I will cook the wallaroo that you speared.’} & \text{[IK1-160505_1SM-01]}
\end{align*}

Building on this idea, one also finds that the extralinguistic knowledge of the natural progression of events constrains the temporal relation between clauses. Example (8.56) illustrates this for the natural progression of catching and cooking game:

(8.56) Nga\textit{yi nga-kinjang nayi kornobolo} [\textsubscript{RC}nayi ki-djung / \\
\begin{align*}
\text{I} & \text{ 1SG.NF-cook.PST} & \text{NM.1 wallaby} & \text{NM.1 2SG.NF-pierce.PST} \\
\text{#kinj-djuwa].} & \text{2SG.FUT-pierce.NP} \\
\text{‘I cooked the wallaby that you {speared / #will spear}.’} & \text{[IK1-160505_001-01]}
\end{align*}

On a paratactic reading, one could expect (8.56) with the future form \textit{kinj-djuwa} ‘you will spear it’ to mean \textit{I cooked a wallaby; you are going to spear a wallaby/something/it}. However, speakers do not accept such interpretation, and the infelicity suggests that there is a shared participant, i.e. the second clause is a relative that modifies the matrix clause object.

12. As suggested above, a formal analysis would suggest that two operators compete for one object and thus fail. This is known as the No Vacuous Quantification/Abstraction constraint (Potts 2002, citing Bittner 1999).

13. See also §8.5.1 on purpose/reason clauses.
8.4.3 Accessibility hierarchy

In terms of Keenan & Comrie’s (1977) Accessibility Hierarchy (8.57), Kunbarlang relativisation with a gap can target positions up to the Possessor (as there are no constructionalised comparatives, see §7.7.4).

(8.57)  SUBJECT > DIRECT OBJ > INDIRECT OBJ > OBLIQUE > POSSESSOR > STD. OF COMPAR.

In the terminology adopted in the present grammar (see §5.1), Keenan & Comrie’s direct object corresponds to the primary object of monotransitives and the secondary object of ditransitives, and Keenan & Comrie’s indirect object corresponds to the primary object of ditransitives, and their oblique corresponds to the benefactive and locative adjuncts.

The standard of comparison is not a grammatical function that is available in Kunbarlang (see §7.7.4). All other functions can be relativised. I give examples below in two groups, showing that both headed and free RCs can be formed from all those functions.

8.4.3.1 Headed relative clauses

Headed relative clauses in Kunbarlang can be formed from the subject (8.58b), the secondary object (Theme) of a ditransitive (8.59) (monotransitive objects are amply exemplified elsewhere in this section, e.g. (8.56)), the primary object (Recipient) of a ditransitive (8.60), the locative adjunct (8.61) and the benefactive object (8.62) (both Keenan & Comrie’s (1977) oblique), and the possessor (8.63)–(8.64).

(8.58)  a. Na-kaybi ka-ngan-marnanj-kalng nayi nga-djanga-rda-yi?  
        1-who 3SG.NF-1SG.OBJ-BEN-get.PST NM.I 1SG.NF-foot-put-REFL.NP
        ‘Who took my shoes?’ [lit. ‘Who took it on me, that which I insert my feet into?’]

        b. Nukka ka-kalng bi-nungku [RC 3SG.NF-get.PST DAT-YOU.GEN NM.I 3SG.NF-HITH-take.PST
        neyang].
        food
        ‘The guy who brought us food got your shoes.’ [lit. ‘He got them on you
        [who brought food].’]  

14. OBJ stands for ‘object’, STD. OF COMPAR. stands for ‘standard of comparison’.

317
Ngayi mimdom-mimdom kadda-mabuluy nayi djurra [RCngayi NM.PL RDP-old.person 3PL.NF-like.PST NM.I paper I nga-buddu-wuy].
1SG.NF-3PL.OBJ-give.PST
‘The elders liked the book that I gave them.’ [IK1-160505_001-01/7:03–7:25]

Nga-kalng=burdubebeminj nayi kirdimarrk [RCnayi nga-wuy 1SG.NF-get.PST=forget NM.I man NM.I 1SG.NF-give.PST djurra].
paper
‘I forgot who I gave the book to.’ [IK1-170621_1SY-01]

Ka-rna karra yalbi [RCkarra ngadda-ka].
3SG.NF-sit.NP DEM.MED.LOC country DEM.MED.LOC 1PL.EXCL.NF-go.NP
‘S/he lives in the country where we are going.’ [IK1-170620_1SY-01]

Nj-ngan-rdukbanjdje kirdimarrk [RCnayi ngudda ki-marnanj-kali 2SG.FUT-1SG.OBJ-show.NP man NM.I you.SG 2SG.NF-BEN-get.NP barbung].
fish
‘Show me the man that you are getting fish for.’ [IK1-170621_1SY-01]

Nayi djamun ka-bun-wardam kirdimarrk [RCnayi NM.I policeman 3SG.NF-3SG.OBJ-ask.PST man NM.I kadda-kalng=kubirribirrkuk kabbala].
3PL.NF-get=steal boat
‘The policeman asked the man whose boat was stolen.’ [IK1-170621_1SY-01]

Possessor relativisation in (8.63) is interesting in that it is almost identical in form to a subject RC. The masculine singular form of the noun marker (nayi) prevents the head noun kirdimarrk from being construed as a possible subject of the verb kaddakalng. If the noun marker had been plural (ngayi), however, the NP would have been ambiguous between ‘the men whose boat was stolen’ and ‘the men who stole the boat’. In the case of possessor relativisation, a resumptive pronoun is permitted in the RC (bolded in (8.64)), which is typical of the grammatical roles low on the scale, according to Keenan & Comrie (1977).
Free relative clauses in Kunbarlang can be formed from the subject (8.65), the primary object of a monotransitive (8.66) and the secondary object (Theme) of a ditransitive (8.67), the primary object (Recipient) of a ditransitive (8.68), the locative adjunct (8.69) and the possessor (8.70)–(8.71). I treat the relative clauses that begin with a demonstrative like the proximal class 1 *ninda* (e.g. (8.68), (8.70)) as free relatives, since they do not have a noun head.

(8.65) [RC*Ka-ngan-karrmeng* ka-karlmu-karrmeng ka-kidanj.](8.65) [RC*Ka-ngan-karrmeng* ka-karlmu-karrmeng ka-kidanj.]
3SG.NF-1SG.OBJ-hold.PST 3SG.NF-ear-hold.PST 3SG.NF-go.PST
'My father drove away.' [copybook notes, SY 2016-04-27]

(8.66) Nganj-buddu-wunj barrayidjidj [RC*nayi kadda-buyu-bunjdje].
1SG.fut-3PL.OBJ-give.NP kids NM.1 3PL.NF-RDP-lick.NP
'I'm going to give lollies to them.' [IK1-160505_001-01/24:56]

(8.67) Nga-rlakwang [RC*nayi ngudda ki-ngan-wuy].
1SG.NF-throw.PST NM.1 you.sg 2SG.NF-1SG.OBJ-give.PST
'I threw out what you gave me.' [IK1-170621_1SY-01]

(8.68) Nga-kalng-burdubebeminj [RC*ninda nga-wuy nayi djurra].
1SG.NF-get.PST=forget DEM.PROX.1 1SG.NF-give.PST NM.1 paper
'I forgot who I gave the book to.' [IK1-170621_1SY-01]

(8.69) Na-kaybi ka-ngan-marnanj-kalng [RC*nayi nga-djangar-da-ri].
1-who 3SG.NF-1SG.OBJ-BEN-get.PST NM.1 1SG.NF-foot-put-REFL.NP
'Who took my shoes?' [lit. 'Who took it on me, that which I insert my feet into?'] [sy_rc_160811]
The policeman asked the one whose boat was stolen.

Similarly to the headed example of the possessor RC above (8.63)–(8.64), in the possessor free relative a resumptive pronoun is permitted (8.71):

(8.71) Nayi djamun ka-bun-wardam [RC ninda
NM.I policeman 3SG.NF-3SG.OBJ-ask.PST DEM.PROX.I
kadda=kalng=kubirribirrkuk kabbala].
3SG.NF-get=steal boat

‘The policeman asked the one whose boat was stolen.’ [IK1-170621_1SY-01]

8.5 Adverbial clauses

Adverbial clauses are the clauses used as modifiers of predicates or propositions, such as the purpose clause in brackets in (8.72).

(8.72) Nga-yawanj story mankurddel [anu nganj-yolyolme
1SG.NF-seek.NP ENG giant so_that 1SG.FUT-talk_about.NP
bi-nungudbe].
DAT-YOU.PL GEN

‘I am looking for the story about mankurddel [e.g. in a book], so that I can tell you [that story about him].’ [IK1-170602_1SY-01/08:29–41]

Here I generally follow Diessel’s (2001) operational definition of adverbial clauses: he points out that they need to be distinguished (i) from other types of subordination (i.e. relative and complement clauses) and (ii) from clausal coordination. Contrasting adverbial clauses with other subordinate clauses, I assume that complement clauses are complements, while relative and adverbial clauses are adjuncts. Relatives, however, modify nouns, while adverbial clauses modify predicates/propositions. In addition to that, an externally headed relative clause contains a gap that cannot be filled, while an adverbial one does not have to have a gap. See more on relativisation in §8.4.

15 In fact, time and locative adverbial clauses in Kunbarlang are formally built as headless relatives. I single them out as functionally distinct headless relative clauses.
With coordination, however, the picture is less clear, as Diessel (2001: 437) himself admits (see ibid. for further references). Following recent crosslinguistic work on clause combining, I assume that (adverbial) subordination and (clausal) coordination form a continuum rather than two distinct types of interclausal connections. I classify juxtaposition and clauses connected with la ‘conj’ as coordinate structures, and it will be clear below that such structures can have the function of adverbial clauses.

As with the sentential complements (§8.3), the only formal marking of subordination of an adverbial clause found in Kunbarlang are free subordinating morphemes. Moreover, generally the functions that are typically carried out by subordinate adverbial clauses in the world’s languages, are often expressed in Kunbarlang with coordination or juxtaposition, rather than subordination. The following functional types of adverbial clauses have a conventionalised, if not always unique, form of expression in Kunbarlang:

(i) purpose and cause
(ii) locative
(iii) time
(iv) conditional

8.5.1 Purpose and cause clauses

There are two subordinators for expression of intention or prior cause, anu ‘so that’ and warri ‘because’. They are both infrequent, and other ways of indicating causal relations are often used (see below).

(8.73) Ka-ngan-yawanj [anu nganj-balkkikarrme].
3SG.NF-1SG.OBJ-seek.NP so_that 1SG.FUT-help.NP

‘S/he is looking for me so that I would help her/him.’

The subordinator anu expresses a genuine purpose relation and is not compatible with a simple sequence of two events (8.74a), where the simple temporal connective is appropriate (8.74b):

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16. Diessel cites a range of (morpho-)syntactic tests that help place a given construction towards one or the other end of the continuum (2001: 437–8), but application of these to Kunbarlang is also a task for future work.

17. Thompson, Longacre & Hwang (2007: 241) cite Otomanguean languages as an example of “languages in which juxtaposition of clauses with certain aspect markers is more commonly exploited as a signal of clause relationships than are subordinating constructions.”
The subordinator warri, which expresses the reason/cause, can introduce finite clauses, as in (8.75a), or nominals, as in (8.75b).

   3SG.NF-occur.PST 3SG.NF-seek.PST ENG so_that 3SG.NF-see.PST
   intended: ‘S/he was looking for the glasses, then s/he found them.’
   [IK1-170602_iSY-01/43:02–13]

   3SG.NF-occur.PST 3SG.NF-seek.PST ENG later CONJ 3SG.NF-see.PST
   ‘S/he was looking for the glasses, then s/he found them.’
   [ibid./41:59–42:05]

In addition to using the subordinating connectives anu and warri, the meaning of intention or causality can be encoded via, and inferred from, clause coordination with la. It is remarkable that the clause that expresses the cause usually linearly follows the one that expresses the effect, which is the reverse order compared to the real-world events. Consider examples in (8.76):

18. Given that the whole event of the example (8.75b) takes place in the past, munun is unlikely to be a predicative nominal ‘(it) was dark’, as a copula would be expected in that case (see §7.7.1).
19. The anti-iconic order of the clauses is more characteristic of subordinate structures than of coordination, according to Diessel (2001).
(8.76) a. Nga-mabulunj nganj-yuwa [la ngunda ngayi-yu
1SG.NF-like.NP 1SG.FUT-lie.NP CONJ not 1SG.IRR.PST-lie.IRR.PST
djininj].
properly
‘I want to sleep, [because; lit. ‘and’] I didn’t sleep enough.’
[IK1-160704_000-01]

 shooter

b. Burdubburdub ngay-kangkayini barbung la balkkime
often 1SG.IRR.PST-go.IRR.PST fish CONJ now
ngay-rnak-rna karra yalbi [la nga-buddu-wuy
1SG.NF-LIM-sit.NP DEM.MED.LOC country CONJ 1SG.NF-3PL.OBJ-give.PST
nayi kabbala].
NM.I boat
‘I used to go fishing a lot, but now I don’t go anymore, [because; lit. ‘and’]
I sold the boat.’
[IK1-160819_000-01/38:14–39:05]

Additionally, connectives are sometimes borrowed from English to express the reason/cause relations, as in (8.77). Borrowing of semantically specific subordinators is not typologically unusual (Thompson, Longacre & Hwang 2007: 267–9).

(8.77) Karlu ngayi ngunda ngarra-mabulu ngarra-rna
NEG.PRED I not 1SG.IRR.NP-like.IRR.NP 1SG.IRR.NP-see.IRR.NP
because nga-kelbungu nayi norno, nga-kelhme.
ENG 1SG.NF-afraid.NP NM.I snake 1SG.NF-fear.NP
‘No, I said, I don’t want to see it because I’m scared of snakes, I’m afraid.’
[20060814IB01/02:11–17]

Finally, clause juxtaposition without any formal indication of the purposive semantics can also be used, in which case the relation is only inferred. The verb -ka ‘to go’ is one that is frequently used in such a way (8.78):

(8.78) Na-kodjok ka-kidanj barbung kanj-kali.
I-skin.name 3SG.NF-go.PST fish 3SG.FUT-get.NP
‘Nakodjok has gone (to) get (some) fish.’
[Coleman 1982: 152; gloss mine]

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20. Probably such inferences are essentially conversational implicatures, but I have not done proper diagnostics, such as cancellation of the alleged implicature.
8.5.2 Locative clauses

The locative adverbial clauses in Kunbarlang are formally similar to relative clauses (§8.4) introduced by korro ‘DEM.MED.LOC’ (8.79). I mention them here as a distinct conventional way to realise the function of a locative adverbial.

(8.79) a. Wadjbud ka-bukayinj [korro ngurrum ka-dja].
    beach 3SG.NF-rise.pst DEM.MED.LOC casuarina 3SG.NF-stand.np
    ‘He landed at the beach where there are casuarinas.’
    [IK1-160624_000-01/02:09–12]

b. Kadda-kidanj kun-barrkidbe yalbi [korro njunjuk
    3pl.NF-go.pst iv-other country DEM.MED.LOC water
    ka-yuwa].
    3SG.NF-lie.np
    ‘They went to another country, where there is water.’
    [IK1-160726_000-01/07:30–40]

In these constructions there are no lexicalised/grammaticalised semantic distinctions, such as distance or direction.

8.5.3 Time clauses

Time adverbial clauses in Kunbarlang are classified as class iv, since they describe the abstract notion of time (see §4.1). Thus, the time adverbial clause is introduced by the class iv noun marker kuyi and are formally similar to class iv headless relative clauses (8.80):21

(8.80) a. Kukka ngorro [kuyi ka-warr-mi nayi mankurddel].
    it.iv DEM.MED.IV NM.IV 3SG.NF-bad-inch.np NM.I giant
    ‘That’s what happens when the mankurddel dies.’
    [20060901IB08/02:19–22]

21. This parallels exactly the time clause formation in Swahili, where there is a relative clause marker on the verb for class 16 (time/place), but no overt head noun which that marker would be agreeing with:

(i) u-li-po-fik-a...
    2sg-pst-rel.16-arrive-fv
    ‘When you arrived...’
    [Marten 2013: 55]
b. Ngadda-djarri [kuyi ngorro manberrk].
1pl.excl.irr.pst-eat.irr.pst NM.IV DEM.MED.IV mainland
‘We used to eat [all of that] when [we were] on the mainland.’
[20060620IB03/17:02–05]

c. Kinj-rnanj mayi birradja, [kuyi kanj-burleng-mi ngob]
2sg.fut-see.np NM.III rice NM.IV 3sg.fut-dry.np NP all
kinj-ngulukdombunj mayi wirdidj.
2sg.fut-extinguish.np NP NM.III fire
‘Watch the rice, when it’s absorbed all water turn off the heat.’
[IK1-170525_1JW-01/14:31–16:54]

However, very often similar meanings are expressed via juxtaposition/coordination of clauses, rather than subordination (8.81–8.84. There may be a logical connector such as la (8.81), babi la (8.82) or ngorro (8.83; see §4.4.3.1 for more on this demonstrative), or may be none (8.84). The clausal conjunct that corresponds to the temporal adverbial clause in the English translation is in bold.

(8.81) 1 Ngayi nga-marnbum marlorlorr 2 la ki-nganjkidanj.
Ngayi nga-marnbum marlorlorr la ki-nganjkidanj.
1sg.nf-make.pst fighting_spear conj 2sg.nf-hith-go.pst
‘I was making a spear and you came.’
prompt: ‘I was trimming a fighting spear when you came up.’
[IK1-160827_000-01/49:35–38]

(8.82) 1 Kangan-midjbum 2 nga-bing 3 babi la ya-yunganj.
Kangan-midjbum nga-bing babi la ya-yunganj.
3sg.nf-1sg.obj-wait.pst 1sg.nf-exit.pst conj 3sg.nf-lie.pst
‘She was waiting for me, I got there, and she went to bed.’
prompt: ‘She was waiting for me, and when I got home, she went to sleep.’
[ibid./42:25–32]

(8.83) 1 Ngadda-rninganj 2 ngorro war ka-bing.
Ngadda-rninganj ngorro war ka-bing.
1pl.excl.nf-sit.pst DEM.MED.IV ENG 3sg.nf-exit.pst
‘We were staying [there] when war arrived.’
[20060620IB03/05:30–37]
The connectives, when present, reflect a plausible logical relation between the clauses. For instance, in (8.81) it is a simple conjunction of the events, whereas in (8.82) it is temporal succession.

8.5.4 Conditional adverbial clauses

Following common practice in linguistics (see von Fintel 2011 for an overview), I distinguish between real (also known as indicative) and counterfactual (also known as subjunctive) conditionals. Their expression in Kunbarlang is similar, but not identical, and I shall review them in turn.

8.5.4.1 Real conditionals

Real conditionals are those which express an open possibility, i.e. where the protasis (the if-clause) describes some possible state of affairs. There is no specialised subordinator in Kunbarlang for use in the protasis or in the apodosis (then-clause) of a real conditional. However, the protasis is always marked by the class iv noun marker kuyi (the same as in the temporal adverbials), or by the irrealis form of the verb, or both (as in (8.85)). Sometimes the verb in the apodosis is also in the irrealis, and sometimes the apodosis includes the class iv demonstrative ngorro (8.86a below).

(8.85) Durduk kidda-rdam korro yirrk.

\[
\begin{align*}
\text{dog} & \quad \text{2pl.fut-put.np} \quad \text{dem.med.loc} \quad \text{inside} \\
[\text{Kuyi } \text{ki-ngan-beye}]_{prot} & \quad [\text{nganj-bunj}]_{apod} \\
\text{nm.iv} & \quad \text{3sg.iri.np-1sg.obj-bite.iri.np} \quad \text{2sg.fut-hit.np}
\end{align*}
\]

‘Keep that dog inside! If it bites me, I will kill it.’ [IK1-160828_1PN-01]
The apparent obligatoriness of the protasis marking via at least one feature (i.e. *kuyi* or irrealis) accords with Comrie’s (1986: 87) typological observation that “[o]vert marking of the protasis seems to be the commonest situation cross-linguistically”. Both strategies (that is, morphological and lexical marking) are well-attested. Example (8.86) shows that just one of the markers suffices: while (8.86a) has *kuyi* and the verb is in realis, (8.86b) only features irrealis marking but no *kuyi*.

(8.86) a. Kuyi ngudda kinj-rnekbe nayi djang, ngarrki-warr-mi
   NM.IV you.SG 2SG.FUT-step.NP NM.I dreaming.site 1INCL.NF-bad-INC.NP
   ngob, ngarrka ngorro ngarrki-warr-mi.
   all we.INCL DEM.MED.IV 1INCL.NF-bad-INC.NP
   ‘If you step on that dreaming site, we all will die.’
   [IK1-160802_000-01/40:58–41:12]

b. Kirri-mabulu kirri-karrme (la ngunda
   2SG.IRR.NP-like.IRR.NP 2SG.IRR.NP-hold.IRR.NP Conj not
   ki-ngun-beye).
   3SG.IRR.NP~2SG.OBJ-bite.IRR.NP
   ‘If you want to, you can hold it (it won’t bite you).’
   [IK1-170615_1SY-01/19:40]

Although the apodosis does not require any marking (cf. (8.85)), it may be marked via the irrealis form of the verb, as in (8.86b), or contain the class IV demonstrative *ngorro* in its discourse cohesion function, as in (8.86a).

### 8.5.4.2 Counterfactual conditionals

Counterfactual conditionals stand in contrast to the real ones in that the state of affairs described by them is known to be contrary to the fact. Like with the real conditionals, there is no dedicated subordinator for the counterfactuals in Kunbarlang. Both the protasis and the apodosis are in the irrealis past form (8.87), and the protasis may contain *kuyi* (8.87a) or the similitative particle *yimarne* ‘like’ (8.87b).

(8.87) a. Kuyi ngarrki-kangkayini hammer ngay-karmili or
   NM.IV 1INCL.IRR.PST-go.IRR.PST hammer 1SG.IRR.PST-hold.IRR.PST or
   rrabbi... la karlu.
   file Conj NEG.PRED
   ‘If we had have been going to go, I would’ve taken a hammer or a file... but nothing.’
   [20060814IB02/01:12–18]
b. Ngudda benbe yimarné ki-nganj-kangkayini ngayi you.sg yesterday like 2SG.IRR.PST-HITH-go.IRR.PST I

ngay-ngun-nguni
1SG.IRR.PST-2SG.OBJ-give.IRR.PST billmu ki-djarri.
2SG.IRR.PST-eat.IRR.PST

‘Had you come yesterday, I would’ve given you barramundi to eat.’

Both examples in (8.87) describe situations that are only hypothetical, but are known to be contrary to the fact. Marking counterfactual conditionals is one of the major functions of the irrealis past (§5.5.2.1), along with counterfactual wishes, negation and past habituals.

In concluding the discussion of the Kunbarlang adverbial clauses, I would like to point out that a whole range of (functionally) adverbial clauses are formally headless relatives (discussed back in §8.4.1.2): this is true at least of the temporal, locative and some conditional clauses. This is not at all unusual in the languages of the world, cf. the following quote from a typologically-oriented work on conditionals: “Some lexical protasis markers are relative pro-forms, the protasis being a free relative clause. An example are German wenn-clauses, which abstract out of the protasis clause the sum of conditions that are sufficient for the truth of the antecedent. Plugging them into another clause makes the proposition of the latter depend on precisely these conditions” Zaefferer (1991: 217). Just like in Kunbarlang, in German the same form of a free (i.e. headless) relative clause can describe the temporal location of the matrix clause it modifies or the conditions under which the situation described by the matrix clause holds. Notice that the German wenn ‘when; if’ displays the same polyfunctionality, as a temporal and a conditional subordinator, as the Kunbarlang kuyi, reflecting a more general affinity between conditional and temporal/modal meanings.22

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22. See Zaefferer (1991) for discussion and references to formal analyses that aim to capture this aspect of conditional semantics.
Chapter 9
Conclusion

In this chapter I provide a summary of the thesis and outline some directions for
further work. In a way it mirrors the Abstract of the thesis, in that I attempt to portray
Kunbarlang in a few strokes, highlighting its most crucial properties and placing them
in the areal and theoretical-typological context. At the same time, this chapter is written
to remind the reader of the journey just made.

This thesis offers a full description of the grammar of Kunbarlang, a Gunwinyguan
language of northern Australia whose number of speakers has decreased dramatically
in the last several decades. As is explained in the Introduction, the description and
analysis are based on three principal sources: the groundwork lain by previous research
(most importantly, Coleman 1982), my original field work in the Northern Territory, and
recordings made by other scholars. In terms of organisation, the description progresses
from smaller units to increasingly larger units of analysis: beginning with phonetics and
phonology, it then moves to morphology and morphosyntax of the Kunbarlang lexical
categories, and afterwards to intra-clausal and inter-clausal syntax of this language.
Semantics of the grammatical categories and constructions is treated in parallel with
discussion of their morphosyntax.

The analysis reveals a constellation of features both similar to many genetically
and areally related languages and distinct from them, ultimately combining to create
the unique and fascinating personality of Kunbarlang, just like it happens with every
human language. In the most general terms, Kunbarlang is a typical language of its
family (Gunwinyguan) and area (central-western Arnhem Land). That is, Kunbarlang
is a polysynthetic agglutinating language with a noticeable asymmetry between the
morphologically rich verb structure (which is holophrastic and self-sufficient, and
central to the organisation of the clause) and the near absence of morphology in the
nominal domain. Indeed, nominal morphology of Kunbarlang stands out among the
Gunwinyguan languages in how minimalistic it is. The only category that is obligatorily
expressed in the noun phrase is noun class (also known as grammatical gender; §4.1).
Noun class systems are frequently found in non-Pama-Nyungan languages, including
in the majority of Gunwinyguan languages. On the other hand, and quite unusually,
Kunbarlang lacks case marking on nominals other than pronouns (where by nominals I mean the constituents of the noun phrase), and the three-case system itself is more compact than in most Australian languages (§4.2). Accordingly, the Kunbarlang analytic case marking construction — the way noun phrases are licensed in certain oblique and adjunct positions — is quite unique (§4.3.2). These aspects of grammatical role marking distinguish it from most Australian languages. Yet in this domain there are clear similarities to other Australian languages, too, such as the licensing of some adjunct noun phrases via verbal applicative morphemes, or the relationship between the noun phrases and the personal prefixes in the verb. Basic alignment in Kunbarlang is nominative-accusative, and for the objects it is secundative, equating the goal, rather than the theme, of ditransitives with the sole object of an intransitive (§3.1).

Adding to the list of interesting features related to how argument structure is reflected in the verb, I should point out some facts about the personal prefixes. In all Gunwinyguan languages mono- and ditransitive verbs can index two arguments via personal prefixes, and it is a family trait that there is a high proportion of indivisible subject/object portmanteaux in this part of the paradigm. I have argued in this thesis that Kunbarlang stands out in the family in that its complex transitive paradigms can be analysed as fully separable into subject and object exponents (§5.2.1). This analysis comes at the price of postulating exuberant allomorphy, but I show that even that allomorphy reveals systematic patterns. In the course of investigating semantics and distribution of the individual exponents, I have found that the third person singular marking in Kunbarlang is general in its meaning, and not specifically singular (§5.2.2).

The highlights of the Kunbarlang verbal inflection other than agreement concern its composite TAM system. *Composite* here means that the TAM value encoding of a given verbal form is distributed between the subject personal prefix and the tense/mood suffix. All verb forms in Kunbarlang are finite. This inflection, when the values are combined, encodes mood (reality status) and tense, but neither viewpoint aspect nor illocutionary force (§5.3 and §5.4). Some aspectual distinctions can be expressed via an auxiliary verb construction (that uses mainly posture verbs, there are no dedicated auxiliaries; §7.2.1) or prosodically, by vowel lengthening (§7.2.2). Temporal and aspectual semantics is an area where more work is always welcome. Some directions for such research in Kunbarlang are the workings of Aktionsart and interaction of lexical aspect of predicates with the TAM categories; a better understanding of temporal and modal semantics of what I called here realis future; and, combining temporal structure and argument structure analyses, a wholistic picture of event structure of both simple and complex predicates (see below).

In the realm of derivation Kunbarlang also has interesting features: valency-changing derivations (§6.1), noun incorporation (§6.3), adverbial affixes (§6.4; but no affixal verbs or adjectives), and rather unique complex predicate constructions (§3.2.5 and §6.5). The inventory of valency-changing operations is typical of the Gunwinyguan family: benefactive, comitative and reflexive/reciprocal; unlike some Gunwinyguan
languages, Kunbarlang does not have morphological causatives. There are two classes of elements that collocate with verb stems to form complex predicates in two related, yet distinct constructions. One class (free preverbs; §3.2.5.2) is sourced as loans from English, and is the only way to borrow predicates, as verbs cannot be borrowed into Kunbarlang directly. The other class (enclitic coverbs; §3.2.5.1 and §6.5) contains a number of cognates to coverbs in some other Gunwinyguan languages, as well as the Iwaidjan language Mawng, with which Kunbarlang has been in close contact for a long time. The patterns of preverb and coverb constructions in Kunbarlang are quite unique typologically on a world-wide scale, but also show interesting differences to cognate patterns of nearby languages. It is planned to continue research on microvariation in the syntax of these and related complex predicate constructions in these genetically and areally connected languages. Another remaining issue is further detail of the interaction between the valency-changing operations and the effects of this interaction on argument realisation.

At the level of syntactic phrases and clause organisation, Kunbarlang shows its own particular set of manifestations of syntactic nonconfigurationality. These include extensive zero anaphora (§7.8), quite free, information-structure sensitive word order (§7.1) and apparently discontinuous noun phrases (§4.3.3). However, there is evidence for NP constituency, rather than purely semantically construed coherence among nominal elements (§4.3), and there are other configurational-type features, such as true subordination, including relative clauses with gaps (§8.4). This is an important finding in light of the previous research on nonconfigurationality and on the adjoined relative clause in Australian languages. Subordinate constructions are not heavily used in Kunbarlang discourse, in line with what has been observed in other polysynthetic languages, yet there is an inventory of diverse subordinate structures (§§8.3–8.5). The distinction between adverbial subordinate clauses and clausal coordination can be explored in more detail. Despite the said freedom of word order in the clause, I show that Kunbarlang has a tendency for subject–verb–object order (§7.1.1).

It is not only in morphology and syntax that Kunbarlang has features of interest, but in phonology as well. The phonological inventory of Kunbarlang (§2.4) is standard both for an Australian language in general and for Arnhem Land more specifically (e.g. it has a five-vowel system, whereas outside of the north three-vowel systems are more common). As mentioned above, Kunbarlang has minimal morphophonemics, resembling in this respect the closely related Bininj Kunwok. Two aspects of its morphophonology are quite striking, however. One has to do with clusters of nasals that may occur on morpheme boundaries (§2.7.3). Such clusters are not tolerated when an inflectional morpheme is involved, and are simplified. These simplification rules are remarkable in that they contradict the Australian-wide generalisations about harmonic cluster resolution. Additionally, it seems that the nasal clusters that occur between derivational morphemes and stems do not simplify, even when they are very marked on that Australian-wide harmonic scale. The other surprising behaviour is found with
retroflex consonants. While in most Australian languages retroflexion is lost following heterorganic consonants, in Kunbarlang it is largely retained (§2.5.3.1). Further work, especially involving high quality recordings and instrumental investigation, would be very important for a better understanding of Kunbarlang morphophonology and phonetic realisations more generally. Another area where further research is much needed is stress: both its acoustic correlates and the metrical structure.

I tried to make this description of Kunbarlang theory-neutral, so that it would be useful for a broad linguistic audience, and thus deliberately avoided getting deep into theoretical issues. It is clear, however, that across all areas of Kunbarlang grammar there are data of keen theoretical interest. Thus, a general direction for future work is a more in-depth theoretical analysis of the many interesting issues left. Is the morphological template all that there is to the verb’s organisation, or does it have a hierarchical, syntax-like structure? In particular, what is the nature of noun incorporation — is it syntactic? What are the details of the hierarchical organisation of noun phrases? Do personal prefixes mark agreement or are they true arguments of the verb, with the free pronouns and NPs being more adjunct-like? In referential semantics, what is the referential and discourse import of the determining pronouns and of noun markers? How did the coverb constructions develop historically, what were the directions of borrowing of coverbs between the Gunwinyguan and the Iwaidjan languages?

It is my hope that the work presented here will be of use and interest to a wide community; that it may help Kunbarlang people keep their language strong and pass it on to next generations; that it will enrich linguists’ understanding of the typological diversity and the regularities underlying human language, and inform our theoretical inquiry; that it can spark interest in other scholars to continue investigation of this fascinating language, and can serve as a useful basis for such research. It is also my hope that the Kunbarlang language thrives in the years to come.
Appendix A

Texts

A.1 Trip to the mainland

This is a fragment of a spontaneous narrative told by two Kunbarlang speakers in a
traditional fashion of narration with turn-taking. The storytellers are Ngalwamud Rita
Djimtu and Ngalwamud Linda Najinga, recounting memories of their trip from Warruwi
to Nakalarramba, Mayirri and Kurridja in Kunbarlang country on the mainland, which
took place in December 1974, overlapping with cyclone Tracy. The recording is archived
as IK1-160624_002-01.

(A.1)  Start yimarne karri-wam Nakalarramba.
      ENG  like  ipl.incl-go.pst N
      ‘Start from how we went to Nakalarramba.’
      [LN; karri-wam is a Kunwinjku verb, the gloss is mine — IK]

(A.2)  Ngadda-kidanj Nakalarramba.
      ipl.excl.nf-go.pst N
      ‘We went to Nakalarramba.’ [RDj]

(A.3)  And walk ngarrk-ngunda.
      eng eng 1.incl.nf-do.pst
      ‘And we walked.’ [LN]

(A.4)  Heading to ngarrk-ngunda Mayirri.
      eng eng 1.incl.nf-do.pst m
      ‘We were heading to Mayirri.’ [LN]
(A.5) Mayirri, then start ka-ngunda kubbunj kabarra-bum old man, M ENG ENG 3SG.NF-do.PST canoe 3DU.NF-hit.PST ENG ENG mammam, two, two mammam, Kodjok and Kunarr mammam. MF ENG ENG MF K ENG K MF

‘[We were/arrived at] Mayirri, then they two started to make a canoe, the two old men, two grandpa’s, Kodjok and Kunarr.’ [LN]

(A.6) Yoh.
yes
‘Yes.’ [RDj]

(A.7) And kakkak Mayawadjba and Kaun babi, karri-wam, eh ENG MM M ENG K later 1PL.INCL-go.PST ah “karri-wam” – ngarrk-kidanj. 1PL.INCL-go.PST 1.INCL.NF-go.PST

‘And then also with granny Mayawadjba and Kaun, we went.’ [LN; karri-wam is a Kunwinjku verb, notice the self-repair]

(A.8) Ngarrk-kidanj.
1.INCL.NF-go.PST

‘We went.’ [RDj]

(A.9) Kabarra-marnbum kubbunj, kabarra-baybum then walk ngarrk-ngunda 3DU.NF-make.PST canoe 3DU.NF-leave.PST ENG ENG 1.INCL.NF-do.PST ngarrk-kidanj. 1.INCL.NF-go.PST

‘They two made the canoe, then they left it and we went on foot.’ [LN]

(A.10) Heading ngarrk-ngunda Kurridja.
ENG 1.INCL.NF-do.PST K

‘We were heading to Kurridja.’ [LN]
(A.11) From karrakenda, Mayirri?
   'From where, from Mayirri?’ [RDj]

(A.12) Yoh, from Mayirri mukka ngorro kubbunj ngarrk-baybum then
yes ENG M it.III DEM.MED.IV canoe 1.INCL.NF-leave.PST ENG
   walk.
   ENG
   'Yes, from Mayirri, we left that canoe there, then walked.’ [LN]

(A.13) Kabarra-ngunda two mammam ngarrk-ka ngorro Kurridja, then
3DU.NF-do.PST ENG MF 1.INCL.NF-GO.NP DEM.MED.IV K ENG
   walk ngarrk-ngunda.
   ENG 1.INCL.NF-do.PST
   'The two grandpa’s said, We’re going to Kurridja, then we walked.’ [LN]

   ENG 1PL.EXCL.NF-do.PST
   'We walked.’ [RDj]

(A.15) Walk ngadda-ngunda then ngadda-kidanj.
   ENG 1PL.EXCL.NF-do.PST ENG 1PL.EXCL.NF-GO.PST
   'We walked and then we came.’ [LN]

(A.16) Ngadda-kidanj ngadda-riinganj then.
1PL.EXCL.NF-GO.PST 1PL.EXCL.NF-SIT.PST ENG
   'We came and then we stayed.’ [LN]

(A.17) Ngadda-kidanj kabarra-ngunda two old people.
1PL.EXCL.NF-GO.PST 3DU.NF-do.PST ENG ENG ENG
   'We came and the two old men said:’ [LN]
(A.18) Kenda ngorro ngarrki-rna nunu.  
DEM.PROX.LOC DEM.MED.IV 1.INCL.FUT-sit.NP all  
“We are all going to stay here.”  [LN]

(A.19) Ngadda-ninganj korro kabbal Kurridja, ngadda-marnbum  
1PL.EXCL.NF-sit.PST DEM.MED.LOC floodplain K 1PL.EXCL.NF-make.PST  
dolobbo.  
stringybark  
‘We stayed at the floodplain Kurridja, we made [shelter] from bark.’  [LN]

(A.20) Ngaddrarninganj djanbe, kurrambalk la balabbala.  
1PL.EXCL.NF-sit.PST platform shelter CONJ bed  
‘We stayed on wooden platforms, with a shade and a bed.’  [LN]

(A.21) Nukka ngorro cyclone ngorro ka-nganj-kidanj ready  
he.I DEM.MED.IV ENG DEM.MED.IV 3SG.NF-HITH-go.PST ready  
ngorro John Hunter ka-nganj-kidanj ka-ngunda  
dem.med.iv J H 3SG.NF-HITH-go.PST 3SG.NF-do.PST  
kin-burnunga two old people ka-nganj-ka dukulu.  
1/II-they.DU.GEN ENG ENG ENG 3SG.NF-HITH-go.NP wind  
‘That cyclone was ready and approaching, and then John Hunter came and told  
the two old men that wind was coming.’  [LN]

(A.22) And then […] kabarra-marnanj-ngunda that two mammam: bonj  
ENG ENG 3DU.NF-BEN-do.PST ENG ENG MF exactly  
ngandjidda-rna kun-mak.  
1PL.EXCL.FUT-sit.NP IV-good  
‘And then the two grandpa’s told him: “Ok, we’ll be fine.”’  [LN]

3DU.NF-tell.PST DEM.MED.IV 1PL.EXCL.NF-sit.PST IV-good  
‘They two told him that we were fine there.’  [RDj]
(A.24) And kabarra-wom ngorro walk kabarra-ngunda Mayirri kubbunj
eng 3DU.NF-return.PST DEM.MED.IV ENG 3DU.NF-do.PST M canoe
kabarrawarnbumbum mukka ngorro kabarra-rninganj.
3DU.NF-make.PST it.III DEM.MED.IV 3DU.NF-sit.PST
‘And they two went back to Mayirri for that canoe they were making.’ [LN]

we.INCL-LIM? DEM.MED.IV 1.INCL.NF-sit.PST all DEM.MED.LOC floodplain
‘We were staying on the floodplain.’ [LN]

(A.26) Yoh, ngorro kabbal ngadda-rninganj.
yes DEM.MED.IV floodplain 1PL.EXCL.NF-sit.PST
‘Yes, we stayed on a floodplain then.’ [RDj]

(A.27) Kabarra-marnbumbum mukka ngorro kubbunj, ngorro
3DU.NF-make.PST it.III DEM.MED.IV canoe DEM.MED.IV
kabarrawgorrodjanganj.
3DU.NF-turn_around.PST
‘They fixed/finished that canoe and then they came around.’ [LN]

(A.28) Yoh, kabarra-ngorrodjanganj korro creek.
yes 3DU.NF-turn_around.PST DEM.MED.LOC ENG
‘Yes, they came around up the creek.’ [RDj]

(A.29) Kurridja creek kabarra-ngorrodjanganj Mayirri kabarra-nganj-kidanj
K ENG 3DU.NF-turn_around.PST M 3DU.NF-HITH-go.PST
kabarrawbing Kurridja.
3DU.NF-exit.PST K
‘They came from Mayirri and up the Kurridja creek and arrived and landed at
Kurridja.’ [LN]

(A.30) Kunkarrnim, yoh, kabarra-walkki-bukayinj mukka ngorro kubbunj.
K yes 3DU.NF-COM-rise.PST it.III DEM.MED.IV canoe
‘They landed with that canoe at Kunkarrnim.’ [LN]


A.2 Making damper

This is a procedural text on making damper, the classic yeast-free bread of the outback cuisine, which is baked in hot ashes. The recording is made with Ngalngarridj Sandra Makurlngu at Bottle Rock, Warruwi, on June 26th, 2016. The recording is archived as IK1-160726_002-01.

(A.31) Nganj-yolyolhme bonj-bonj kuyi ngadda-burlkarrme mayi 1SG.FUT-tell_about.NP RDP-exactly NM.IV 1PL.EXCL.NF-knead.NP NM.III kandiddjawa.

bread

‘I am going to tell again how we make damper’.


NM.III 3SG.NF-heave.NP DEM.MED.LOC ENG

‘We put what in English is called plain [flour] and the "heaving" one, the self-raising.’

(A.33) Ka-bunj ngob, ngorro kongon ngadda-rdam. 3SG.NF-hit.NP all DEM.MED.IV milk 1PL.EXCL.NF-put.NP

‘You mix them, then we add milk’.

(A.34) Ka-marnbunj ngob. 3SG.NF-make.NP all

‘You mix them.’

(A.35) Ngorro ngadda-burlkarrme. DEM.MED.IV 1PL.EXCL.NF-knead.NP

‘Then we knead it.’
We knead it all for a while, then we make it into a round shape [lit. 'like the moon'].

Well, then we put it into the hot ashes.

It bakes first on the top and then on the other side in turn, we turn it around and it bakes completely.

Then it bakes, and when it’s ready, we take it out from the ashes.

It sits [cooling down], we cut it in pieces, then we eat it, we share it.

We came here to Ngaminali [Bottle Rock].
(A.42) Ngadda-rna ngadda-kinje.
1PL.EXCL.NF-sit.NP 1PL.EXCL.NF-cook.NP
'We are cooking.'

(A.43) Ngayi, Ngalbangardi, Nakangila la ngayi kabarra-rna, ngadda-rna.
I  N  N CONJ NM.II 3DU.NF-sit.NP 1PL.EXCL.NF-sit.NP
'I, Ngalbangardi, Nakangila and his partner, we are sitting here.'

(A.44) Ngadda-midjbunj manda ngorro kandiddjawa,
1PL.EXCL.NF-wait.NP DEM.PROX.III DEM.MED.IV bread
ka-bun-djinj.
3SG.NF-3SG.OBJ-eat.NP
'We are waiting for this damper, it’s baking.'

(A.45) Kanj-bun-djinj ngob babi la nganj-nguluk-kali ngorro.
3SG.FUT-3SG.OBJ-eat.NP all later CONJ 1SG.FUT-ash-get.NP DEM.MED.IV
'It is going to bake through. Afterwards I’ll pull it out.'

(A.46) Nganjdjidda-rukku-rukkume, nganjdjidda-djinj, babi ngorro la
1PL.EXCL.FUT-RDP-cut.NP 1PL.EXCL.FUT-eat.NP later DEM.MED.IV CONJ
nganjdjidda-rdokme korro yalbi.
1PL.EXCL.FUT-rdokme DEM.MED.LOC country
'We shall cut it into pieces and eat it, and after that we shall go back home.'

(A.47) Yoh, kun-mak.
yes IV-good
'Yes, good.'

A.3 Spot-the-Difference game dialogue

This is a fragment of a dialogue elicited with the help of Spot-the-Difference picture sets (originally designed by Masha Kyuseva for elicitation of physical properties descriptions;
see Kyuseva 2019). Two Kunbarlang speakers, Ngalngarridj Sandra Makurlngu and Nakodjok George Manmurulk, each had a picture from a pair of similar-looking pictures with some manipulated differences, such as the size or number of items shown. Their task was to find as many differences as they could without looking at each other’s pictures, but through discussing them. The recording is archived as IK1-170610_2SM-01.


nm.III house dem.prox.III nm.III house 3sg.nf-stand.np

‘The house. There’s that house.’ [GM]

(A.49) Ngudda birlinj ka-ngundje nayi ka-bakkidja kaddum?
you.sg how 3sg.nf-do.np nm.1 3sg.nf-stand_vertically.np above

‘In your picture, what are the chimneys like?’ [lit. ‘What is it doing, that which stands up at the top?’] [GM]

(A.50) Kaburrk, na-walk~walak.
two 1-rdp~small

‘Two, small ones.’ [SM]

(A.51) Mandjad?
straight

‘Straight?’ [GM]

(A.52) Na-kudji… ay, kaburrk, na-walk~walak.
1-one ah two 1-i-rdp~small

‘One… ah, two, little ones.’ [SM]

(A.53) La ngudda birlinj?
conj you.sg how

‘What about you?’ [SM]

(A.54) Na-kudji, nayi… na-rlengbinbin.
1-one nm.1 1-big

‘One, it is a… big one.’ [GM]
(A.55) Yoh. La na-barrkidbe birlinj ka-ngundje? Na-wanjak? yes CONJ 1-other how 3SG.NF-do.NP 1-little
   'And what is the other like? Little one?' [SM]

(A.56) Yoh, na-wanjak.
   yes 1-little
   'Yes, a little one.' [GM]

(A.57) Aku, la ngayi nukka ka-birrinja.
   ah CONJ I he.I 3SG.NF-same.NP
   'Ah! But mine are similar.' [SM]

(A.58) Nayi na-rlelbinbin, na-barrkidbe na-wanjak.
   NM.I 1-big 1-other 1-little
   'A big one, and the other a little one.' [GM]

(A.59) Ngayi nukka ka-birrinja.
   I he.I 3SG.NF-same.NP
   'I have similar ones.' [SM]

(A.60) Birlinj, kodbarre bonj-bonj?
   how house RDP~exactly
   'What else, the house itself?' [GM]

   you.SG 2SG.FUT-1SG.OBJ-ask.NP
   'You ask me!' [GM]

(A.62) Ngayi kodbarre korro kaddum, barninda, ka-ngundje yimarne
   I house DEM.MED.LOC above IGNOR 3SG.NF-do.NP like
   mulubin.
   blood
   'In my picture, the roof of the house is red [lit. ‘it does like blood’].’ [SM]
(A.63) La nayi ngarrki-rdabirrdjuwa, na-kudji.
   CONJ NM.1 1.INCL.NF-open.NP 1-one
   ‘And one door.’

(A.64) Nukka=bonj ka-birrinja.
   he.1=exactly 3SG.NF-same.NP
   ‘This one is the same.’

(A.65) Nayi norno kenda ka-dja kaburrk bala na-kudji.
   NM.1 snake DEM.PROX.LOC 3SG.NF-stand.NP two LNK 1-one
   ‘Of the snakes, there are three.’

(A.66) Kuyi ngudda?
   NM.IV you.SG
   ‘In your picture?’

(A.67) Yoh.
   yes
   ‘Yes.’

(A.68) Ngayi kaburrk nayi norno.
   I two NM.1 snake
   ‘In mine, two snakes.’

(A.69) La ngemek nayi kadda-karebihbimbunj, or ngarrk-karebihbimbunj,
   CONJ yet NM.1 3PL.NF-write.NP ENG 1.INCL.NF-write.NP
   yiwanj ka-bakkidja korro kundulk ku-wanjak.
   DISC.PTCL 3SG.NF-stand_vertically.NP DEM.MED.LOC tree iv-little
   ‘And also the pencils that sit on top of the little log.’

(A.70) Kaburrk bala na-kudji.
   two LNK 1-one
   ‘Three.’
(A.71) Ngayi nukka ngayi ngarrk-karebihbimbunj kundulk kaburrk.
I he.i NM.PL 1.INCL.NF-write.NP tree two
‘I have two pencils on the log.’ [GM]

(A.72) Kaburrk; ngayi kaburrk bala na-kudji.
two I two LNK 1-one
‘Two; I’ve got three.’ [SM]

(A.73) Yiwanj...
DISC.PTCL
‘Then...’ [SM]

(A.74) La mayi kundulk ka-dja mayi kaburrk.
CONJ NM.III tree 3SG.NF-stand.NP NM.III two
‘And there are two trees.’ [GM]

(A.75) Kaburrk bonj~bonj.
two RDP~exactly
‘Also two.’ [GM]

(A.76) Ka-birrinja?
3SG.NF-same.NP
‘The same?’ [GM]

(A.77) Yoh, ka-birrinja kaburrk.
yes 3SG.NF-same.NP two
‘Yes, also two.’ [SM]

(A.78) Aku.
DISC.PTCL
‘I see!’ [GM]
(A.79) Burru-ngadju.
    arm=she.GEN
    ‘The branches [lit. ‘her arms’].’                      [SM]

(A.80) Man-kudji burru-ngadju ka-karrme kaburrk la kaburrrk, ay
    III-one arm= she.GEN 3SG.NF-hold.NP two conj two ah
    ka-rnak-birrinja, kaburrk la kaburrrk.
    3SG.NF-LIM-same.NP two conj two
    ‘One of them has four branches, ah, just the same, four.’ [SM]

(A.81) Yoh, ka-rnak-birrinja ngobbu.
    yes 3SG.NF-LIM-same.NP both
    ‘Yes, both are just the same.’                      [GM]
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349


351


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