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The Oxford Guide to
Australian Languages

EDITED BY
CLAIRE BOWERN

OXFORD GUIDES TO THE WORLD'S LANGUAGES



THE OXFORD GUIDE TO
AUSTRALIAN LANGUAGES

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*We acknowledge the contributions of the First Peoples of the
place now called Australia, who have never
ceded ownership over this land and its languages.*

Short contents

<i>Detailed contents</i>	<i>xii</i>
<i>Series preface</i>	<i>xlvi</i>
<i>Abbreviations and conventions</i>	<i>xlvii</i>
<i>The contributors</i>	<i>liv</i>
<i>Language maps</i>	<i>lvi</i>
<i>Australian language families and linguistic classifications</i>	<i>lxvii</i>
<i>Foreword</i>	<i>xcv</i>
KADO MUIR	
1. Introduction	1
CLAIRE BOWERN	
PART I: Background	7
<hr/>	
2. A history of the early description of Australian languages	9
CLARA STOCKIGT	
3. Documentation of Australian languages	23
NICHOLAS THIEBERGER	
4. Australian languages and syntactic theory	31
RACHEL NORDLINGER	
5. Australian languages and interdisciplinary approaches to the past	37
LUISA MICELI AND CLAIRE BOWERN	
6. Nineteenth-century classifications of Australian languages	46
CLARA STOCKIGT	
7. How many languages are and were spoken in Australia?	56
CLAIRE BOWERN	
8. Philological methods for Australian languages	65
JOHN GIACON AND HAROLD KOCH	
PART II: Structures	77
<hr/>	
A. Phonetics and phonology	
9. Articulatory and acoustic phonetics	81
MARIJA TABAIN	
10. Segment inventories	96
ERICH R. ROUND	
11. Phonotactics	106
ERICH R. ROUND	

SHORT CONTENTS

12. Morphophonology: Lenition and assimilation ERICH R. ROUND	120
13. Nasal cluster dissimilation ERICH R. ROUND	136
14. Lexical stress KATHLEEN JEPSON AND THOMAS ENNEVER	145
15. Intonation JANET FLETCHER	159
16. Sound change BARRY ALPHER	165
B. Morphosyntax	
17. Word classes OLIVER SHOULSON	187
18. The noun phrase DANA LOUAGIE	196
19. Noun classes AMALIA SKILTON	205
20. Ergativity VIVIEN DUNN AND FELICITY MEAKINS	217
21. Semantic case JANE SIMPSON	226
22. Possession MAÍIA PONSONNET	243
23. Demonstratives DANA LOUAGIE	253
24. Pronouns ALICE GABY AND OLIVER SHOULSON	268
25. Adjectives and adverbs JUHYAE KIM	278
26. Complex predication and serialization DAVID OSGARBY AND CLAIRE BOWERN	291
27. Conjugation classes HAROLD KOCH	309
28. Agreement morphology PARKER BRODY	319
29. Suppletion XAVIER BACH AND ERICH R. ROUND	328
30. Valency change and causation STEF SPRONCK	344

31. Reflexives and reciprocals	360
ALICE GABY	
32. Tense and aspect	378
JAMES BEDNALL	
33. Modality and mood	392
JAMES BEDNALL	
34. Negation	411
JOSH PHILLIPS	
35. Word order	424
MAGDA ANDREWS-HOKE AND PARKER BRODY	
36. Questions	434
JUHYAE KIM AND CLAIRE BOWERN	
37. Subordination	446
MARIE-ELAINE VAN EGMOND	
38. Relative clauses	457
RACHEL HENDERY	
39. Antipassives	468
JESSICA DENNISS	
40. Morphological change	482
BARRY ALPHER AND CLAIRE BOWERN	
C. Semantics, pragmatics, and discourse	
41. Quantification	499
MARGIT BOWLER AND IVAN KAPITONOV	
42. Direction and location	513
DOROTHEA HOFFMANN	
43. Kinship, marriage, and skins	520
PATRICK MCCONVELL	
44. Toponyms	530
KATHERINE ROSENBERG, JANE SIMPSON, AND CLAIRE BOWERN	
45. Discourse and social interaction	538
JOE BLYTHE AND ILANA MUSHIN	
46. Narrative	548
FRANCESCA MERLAN	
47. Interjections	564
MAÏA PONSONNET	
48. Insults and compliments	573
MICHAEL WALSH	

SHORT CONTENTS

49. Language names	579
KATHERINE ROSENBERG AND CLAIRE BOWERN	
PART III: Sociolinguistics and language variation	589
<hr/>	
50. The verbal arts in Indigenous Australia	591
JENNIFER GREEN, INGE KRAL, AND SALLY TRELOYN	
51. Sociolinguistic variation	601
JOHN MANSFIELD	
52. Australian Indigenous sign languages	612
JENNIFER GREEN	
53. Gender-based dialects	628
JOHN BRADLEY AND ALICE GABY	
54. Multilingualism	637
JILL VAUGHAN	
55. Code-switching	645
AMANDA HAMILTON-HOLLAWAY	
56. Language contact	656
DENISE ANGELO	
57. Kriol	667
GREG DICKSON	
58. Young people's varieties	680
CARMEL O'SHANNESY	
59. Restricted respect registers and auxiliary languages	689
MICHAEL WALSH	
60. Language input and child-directed speech	697
LUCINDA DAVIDSON, BARBARA KELLY, GILLIAN WIGGLESWORTH, AND RACHEL NORDLINGER	
PART IV: Language in the community	705
<hr/>	
61. Language policy, planning, and standardization	707
ROB AMERY	
62. Indigenous children's language practices in Australia	720
GILLIAN WIGGLESWORTH AND SAMANTHA DISBRAY	
63. Technology for Australian languages	728
CATHERINE BOW	
64. Language revival	738
MARYANNE GALE	

65. Language, land, identity, and wellbeing ROB AMERY AND MARYANNE GALE	754
PART V: Structural sketches of languages, subgroups, and families	763
66. Contact language case studies DENISE ANGELO	765
67. The Gunwinyguan languages NICHOLAS EVANS AND ALEXANDRA MARLEY	781
68. Anindilyakwa MARIE-ELAINE VAN EGMOND	796
69. Languages of the Kimberley region STEF SPRONCK	812
70. The Maningrida languages MARGARET CAREW AND DAVID FELIPE GUERRERO BELTRAN	825
71. Living languages of Victoria K. EIRA	845
72. Lamalamic (Paman) JEAN-CHRISTOPHE VERSTRAETE	855
73. The Bandjalangic languages and dialects MARGARET SHARPE	865
74. Noongar DENISE SMITH-ALI, SUE HANSON, GEORGE HAYDEN, CLAIRE BOWERN, AKSHAY AITHA, LYDIA DING, AND SARAH MIHUC	876
75. The Wati (Western Desert) subgroup of Pama-Nyungan SARAH BABINSKI, LUIS-MIGUEL ROJAS-BERSCIA, AND CLAIRE BOWERN	893
76. Ngumpin-Yapa languages FELICITY MEAKINS, THOMAS ENNEVER, DAVID OSGARBY, MITCH BROWNE, AND AMANDA HAMILTON-HOLLAWAY	918
77. Wajarri DOUG MARMION	933
78. The revitalization of the sleeping Tasmanian Aboriginal languages <i>palawa kani</i> ANNIE REYNOLDS AND THERESA SAINTY	950
<i>References</i>	958
<i>Language and Language Family index</i>	1061
<i>Index of places mentioned</i>	1072
<i>Subject index</i>	1074

Detailed contents

<i>Series preface</i>	xlvi
<i>Abbreviations and conventions</i>	xlvii
<i>The contributors</i>	liv
<i>Language maps</i>	lvi
<i>Australian language families and linguistic classifications</i>	lviii
<i>Foreword</i>	xcv
KADO MUIR	
1. Introduction	1
CLAIRE BOWERN	
1.1 Introduction: the languages of Australia	1
1.2 Overview of the volume	1
1.2.1 Summary of parts	1
1.2.2 Coverage of topics	2
1.2.3 Authors' approach	3
1.2.4 Supplementary materials and data archiving	3
1.3 Conventions and context	3
1.3.1 Terminological conventions	3
1.3.2 Referring to Australian languages	3
1.4 Overview of the languages of Australia	4
1.4.1 Language and descent groups	4
1.4.2 Language and European settlement	5
1.4.3 Language classification	5
1.4.4 Contemporary language use	5
1.5 Conclusion	6
Acknowledgements	6
PART I: Background	7
<hr/>	
2. A history of the early description of Australian languages	9
CLARA STOCKIGT	
2.1 Introduction	9
2.1.1 The first descriptive era: pre-1930	10
2.1.1.1 Description of non-Pama-Nyungan languages	11
2.1.1.2 Linguistics and ethnology	11
2.1.2 The second descriptive era: 1930–1960	12
2.1.3 The third descriptive era: 1960–	13
2.2 Early analyses of Pama-Nyungan languages	14
2.2.1 Phonology and orthography	17
2.2.2 Descriptive models	19
2.2.3 Schools of morphological description	20
2.3 Concluding comment	22

3. Documentation of Australian languages	23
NICHOLAS THIEBERGER	
3.1 Introduction	23
3.2 Why documentation?	23
3.3 What records of Australian languages are there and how much is there for each language?	25
3.4 Where to look for records of Australian languages	26
3.5 Accessing and presenting early sources on Australian languages	28
3.6 Loss of documentation	30
3.7 Conclusions	30
Acknowledgements	30
4. Australian languages and syntactic theory	31
RACHEL NORDLINGER	
4.1 Introduction	31
4.2 Phrase structure and nonconfigurationality	31
4.3 Ergativity	32
4.4 Case stacking	33
4.5 Subordination	34
4.6 Conclusion	35
Acknowledgements	36
5. Australian languages and interdisciplinary approaches to the past	37
LUISA MICELI AND CLAIRE BOWERN	
5.1 Introduction	37
5.1.1 Overview	37
5.1.2 An aside: the Australian past as ‘deep history’	37
5.2 Problems within linguistics	38
5.2.1 Missing information	38
5.2.2 Sound change	38
5.2.3 Language contact	39
5.2.4 Stasis	40
5.3 Linguistics and genetics and where they disagree: a case study of three trees	41
5.3.1 Domain specificity and assumptions about change	41
5.3.2 Are the language dates too young?	42
5.3.3 Are the genetic dates too old?	44
5.4 Conclusions	45
6. Nineteenth-century classifications of Australian languages	46
CLARA STOCKIGT	
6.1 Introduction	46
6.2 The relatedness of Australian languages	47
6.3 Early grammatical typologies supporting the notion of relatedness	47
6.3.1 Dissemination of information about Australian languages	50
6.3.2 Development of terminology referring to linguistic entities	51
6.3.3 Northern and southern mainland languages	52
6.3.4 Subgroups of ‘southern’ languages	54
6.3.5 Early rankings of Australian subgroups	55
6.4 Concluding comment	55

7. How many languages are and were spoken in Australia?	56
CLAIRE BOWERN	
7.1 Introduction	56
7.2 The number ‘250’	57
7.3 Calculating the number of languages	58
7.3.1 Sources of names	58
7.3.2 Variants in naming	59
7.3.3 Languages and dialects	59
7.3.4 Using phylogenetics and classifications to evaluate similarity	60
7.3.5 Languages with no sources	61
7.4 Problems with the language/variety model	61
7.5 Number of languages and sources of under- or over- counting	62
7.6 Changes in the number of languages over time	63
7.6.1 Pre-colonial period	63
7.6.2 The colonial period	64
7.7 Conclusion	64
8. Philological methods for Australian languages	65
JOHN GIACON AND HAROLD KOCH	
8.1 What is philology?	65
8.2 Sources	66
8.2.1 Types of sources	66
8.2.2 Limitations of records and sources of errors	67
8.3 Practical steps in philological analysis	68
8.3.1 Background knowledge	68
8.3.2 General processes	68
8.3.3 Issues with wordlists	69
8.3.4 Phonology and the interpretation of spelling	70
8.3.5 Interpreting grammar	73
8.3.6 Interpreting texts	73
8.4 Philology and language revival	74
8.4.1 The completeness of philological descriptions	74
8.4.2 The products of philological analysis	75
8.4.3 The ‘philological spiral’	75
8.5 Summary and conclusions	76
PART II: Structures	77
<hr/>	
A. Phonetics and phonology	
9. Articulatory and acoustic phonetics	81
MARIJA TABAIN	
9.1 Introduction	81
9.2 Articulation of lingual consonants	82
9.3 A special consideration of apical consonants	88
9.4 Some acoustic correlates of coronal consonant production in Australian languages	91
9.5 Conclusion	94
Acknowledgements	95

10. Segment inventories	96
ERICH R. ROUND	
10.1 Main parameters of variation in consonant inventories	96
10.2 Additional consonantal segment types	98
10.2.1 Fricatives	98
10.2.2 Glides, laterals, and vibrants	99
10.2.3 Additional places of articulation	99
10.2.4 Labialized consonants	99
10.3 Uncommon absences from consonant inventories	100
10.4 Diversity in two-series stop systems	100
10.5 Vowels	102
10.6 Prospective	103
10.7 Sources	103
Acknowledgements	105
11. Phonotactics	106
ERICH R. ROUND	
11.1 Consonant phonotactics: main parameters of variation	106
11.1.1 Dixon's and Hamilton's generalizations	106
11.1.2 Laryngeal consonants	107
11.1.3 Superlaryngeal clusters across the continent	108
11.2 Statistical harmony of vowels in adjacent syllables	111
11.2.1 Statistical front-back harmony in non-low vowels	111
11.2.2 The *iCu constraint on non-low vowels	111
11.2.3 Statistical mid-vowel metaphony	112
11.3 Australian contour segments: at the edge of segment and sequence	112
11.3.1 Initial nasal+stop	113
11.3.2 Stop+lateral	114
11.3.3 Stop+nasal	115
11.4 Prospective	117
11.5 Sources	117
Acknowledgements	119
12. Morphophonology: Lenition and assimilation	120
ERICH R. ROUND	
12.1 Materials and methods	120
12.2 Lenition	121
12.2.1 Participation of stops in lenition alternations, by place of articulation.	121
12.2.2 Pairings between stops and lenis alternants	122
12.2.3 One-to-many and many-to-one pairings	123
12.2.4 Ranges of places of articulation for lenition	124
12.2.5 Phonological triggers	125
12.2.6 Morphological conditioning	126
12.2.7 Discussion: synchronic analysis as lenition or fortition	126
12.2.8 Summary	128
12.3 Assimilation	128
12.3.1 Assimilation between consonants	128
12.3.1.1 Hypotheses based on static phonotactics	129
12.3.1.2 Place assimilation	130
12.3.1.3 Manner assimilation	132
12.3.1.4 Assimilation of both place and manner	132

DETAILED CONTENTS

12.3.2	Assimilation between vowels in adjacent syllables	132
12.3.2.1	Front-back assimilation between i and u	133
12.3.2.2	Assimilatory raising of a	133
12.3.2.3	Copying of the trigger vowel, irrespective of its quality	134
12.3.3	Summary and discussion	134
12.4	Conclusion	134
12.5	Language sample	134
	Acknowledgements	135
13.	Nasal cluster dissimilation	136
	ERICH R. ROUND	
13.1	Progressive NCD nasal deletion in Gurindji	136
13.2	Dimensions of cross-linguistic variation	137
13.3	Triggers of NCD deletion	137
13.3.1	Heterorganic triggers	137
13.3.2	Nasal+nasal clusters as non-triggers	138
13.3.3	Morphological idiosyncrasy of triggers	138
13.3.4	Heteromorphemic triggers	138
13.4	Targets of NCD deletion	138
13.4.1	Restrictions on place and individual morphemes	138
13.4.2	Heteromorphemic targets	140
13.4.3	Optionality	140
13.5	Distant and multiple application	140
13.5.1	Distant application	140
13.5.2	Blockers	141
13.5.3	Chains of triggers and targets	142
13.6	Interaction with other processes	142
13.7	Summary and discussion	143
13.8	Language sample	144
	Acknowledgements	144
14.	Lexical stress	145
	KATHLEEN JEPSON AND THOMAS ENNEVER	
14.1	Introduction	145
14.2	Previous surveys of Australian stress systems	145
14.3	Stress patterns and their variations	146
14.3.1	Location of stress	147
14.3.2	Quantity sensitivity	149
14.3.3	Morphological sensitivity	149
14.3.4	Variable systems	150
14.4	Lexical stress and segmental alternations	151
14.4.1	Lenition	151
14.4.2	Initial dropping	152
14.4.3	Contrastive vowel length restrictions	152
14.5	Impressionistic studies of lexical stress	153
14.5.1	Reported cues to stress	153
14.6	Acoustic studies of lexical stress	155
14.6.1	Fundamental frequency	155
14.6.2	Vowel formants and duration	156
14.6.3	Consonant related phenomena	156
14.7	Chapter summary	158

15. Intonation	159
JANET FLETCHER	
15.1 Introduction	159
15.2 Prosodic structure and intonational categories in Australian languages	159
15.3 Sentence modality and grammatical structure	160
15.4 Alignment with grammatical constituents	162
15.5 Discourse and information structure	163
15.6 Conclusions	164
16. Sound change	165
BARRY ALPHER	
16.1 Introduction	165
16.2 Changes in consonant inventories: manners	166
16.2.1 Innovation of contrastive obstruent manners	166
16.2.1.1 Contrastive stop series possibly due to vowel-length merger	166
16.2.1.2 Stop manner contrasts possibly originating from loanwords	167
16.2.1.3 Manner contrast in non-apical stops	167
16.2.1.4 Manner contrast in apical stops only	167
16.2.1.5 A three-way obstruent manner contrast	167
16.2.1.6 Contrastive fortis stops conditioned by adjacent sonorants	167
16.2.1.7 Contrastive voiced stops originating from prestopped nasals	168
16.2.2 Other obstruent series: spirants and prenasalized stops	168
16.2.2.1 Spirants	168
16.2.2.2 Spirants originating from nasal-stop clusters	169
16.2.2.3 Prenasalized stops	169
16.3 Lenition conflating stops and liquids with corresponding glides	169
16.3.1 Lenition of initial stop	169
16.3.2 Lenition of medial stops	169
16.3.3 Lenition of liquids to glides	170
16.3.4 Chain shifts	170
16.4 Changes in vowel inventories	170
16.4.1 A couple of four-vowel systems	170
16.4.2 Development of some five-vowel systems	171
16.4.3 Separate development of structurally identical six-vowel systems	172
16.4.4 Loss and reinstatement of vowel-length contrasts	173
16.5 Vowel assimilation across consonants	173
16.5.1 Regressive	173
16.5.2 Progressive	173
16.5.3 Progressive assimilation preceding initial-dropping	174
16.6 Initial-dropping	174
16.6.1 Segmentally conditioned C-loss	174
16.6.2 Stress-conditioned C-Loss (Blevins 2001b: 484–5)	175
16.7 Alterations of consonant clusters	176
16.8 Loss of unstressed vowels, including rhythmic reduction	178
16.9 Mergers and other changes with laminals and apicals	179
16.10 Consonant fortitions not creating new manner series	180
16.10.1 Fortition of initial C	180
16.10.2 Fortition of intervocalic C	181
16.10.3 Fortition of a C adjacent to a C	181
16.10.4 Fortition of a word-final C	182
16.11 Creation of individual sounds not previously in the inventory	182

DETAILED CONTENTS

16.11.1	Apical stops with trilled release	182
16.11.2	Flapped laterals	182
16.11.3	Glottal closure (/ʔ/)	183
16.11.4	Voiced velar spirant (/ɣ/) in the Arandic languages	183
16.12	Conclusion	183
	Acknowledgements	184
B. Morphosyntax		
17.	Word classes	187
	OLIVER SHOULSON	
17.1	Introduction	187
17.2	Major word classes	187
17.2.1	Verbal word classes	188
17.2.1.1	Matrix verbs	188
17.2.1.2	Auxiliaries and light verbs	188
17.2.1.3	Preverbs	189
17.2.2	Nominals	190
17.2.2.1	Nouns	191
17.2.2.2	Adjectives	191
17.3	Pro words	192
17.3.1	Pronouns	192
17.3.2	Pro-verbs	193
17.3.3	Demonstratives and articles	193
17.4	Minor word classes	194
17.4.1	Adverbs	194
17.4.2	Conjunctions	194
17.4.3	Negation particles	194
17.5	Changes in word class	195
17.5.1	Roots that belong to more than one word class	195
17.5.2	Derived classes	195
17.6	Conclusions	195
18.	The noun phrase	196
	DANA LOUAGIE	
18.1	Introduction	196
18.2	Syntactic unithood	197
18.2.1	Word order in the NP	197
18.2.2	Case marking	198
18.2.3	Second position markers as diagnostics	199
18.2.4	Interaction of criteria: Different construals	199
18.2.5	Discontinuity	200
18.2.6	Questions	200
18.3	Determiners	201
18.3.1	Form of determiner slot	201
18.3.2	Elements that function as determiners	202
18.3.3	Optionality	203
18.3.4	Questions	203
18.4	Conclusion	204
	Acknowledgements	204

19. Noun classes	205
AMALIA SKILTON	
19.1 Introduction	205
19.2 Types of noun classification system	205
19.2.1 Noun class systems	205
19.2.2 Classifiers and generic-specific constructions	206
19.3 Noun class systems	206
19.3.1 Geographical and genetic distribution	207
19.3.2 Number of noun classes	207
19.3.3 Basis of noun class assignment	207
19.3.3.1 Semantic basis	207
19.3.3.1.1 Human nouns	207
19.3.3.1.2 Animal species	207
19.3.3.1.3 Inanimates	208
19.3.3.1.4 Identifying a default noun class	209
19.3.3.2 Phonological basis	209
19.3.4 Covert vs. overt noun class	210
19.3.5 Interactions between noun class and number	211
19.3.6 Targets of noun class agreement	212
19.4 Strict semantic noun class systems	213
19.4.1 Strict semantic noun class systems in non-Pama-Nyungan languages	213
19.4.2 Strict semantic noun class systems in Pama-Nyungan languages	213
19.5 Classifiers and generic-specific constructions compared to noun class	214
19.5.1 The classifier system of Murrinhpatha	214
19.5.2 Other intersecting systems of nominal classification	215
19.6 Further reading	215
19.7 Conclusion	215
20. Ergativity	217
VIVIEN DUNN AND FELICITY MEAKINS	
20.1 Introduction	217
20.2 Morphological ergativity	217
20.3 Syntactic ergativity	218
20.4 Split ergativity	221
20.5 Optional ergativity	223
20.6 Conclusion	225
21. Semantic case	226
JANE SIMPSON	
21.1 Introduction	226
21.1.1 Types of case	226
21.1.2 History of terminology	229
21.2 Forms	231
21.2.1 Allomorphy	231
21.2.1.1 Cardinal directions and place names	231
21.2.1.2 Case formatives built on other case formatives	233
21.2.2 Derivation	233
21.3 Syntactic properties	234
21.3.1 Position within the nominal phrase	234
21.3.2 Position within adpositional phrase	234

DETAILED CONTENTS

21.3.3	Case-stacking	234
21.4	Meanings	235
21.4.1	Location in space at, to, and from	235
21.4.1.1	Location	236
21.4.1.2	Motion/direction/orientation towards	237
21.4.1.3	Motion from, source	237
21.4.2	Purpose	238
21.4.3	Association	238
21.4.3.1	Affixed to the possessor	238
21.4.3.2	Affixed to the possession or property	239
21.4.3.3	Affixed to the place	239
21.4.3.4	Accompaniment	240
21.4.3.5	Instrument	240
21.4.3.6	Lacking	240
21.4.4	Resemblance	241
21.5	Conclusion	242
	Acknowledgements	242
22.	Possession	243
	MAÏA PONSONNET	
22.1	Introduction	243
22.1.1	Language sample	243
22.1.2	Definitions and labels	243
22.2	Proprietary and privative suffixes	244
22.3	The Pama-Nyungan profile	244
22.3.1	Dependent-marking constructions	245
22.3.2	The part-whole construction	245
22.4	Non-Pama-Nyungan trends	247
22.4.1	Adnominal strategies	247
22.4.1.1	Head-marking constructions	247
22.4.1.2	Dependent-marking constructions	247
22.4.1.3	Complex systems	248
22.4.1.4	Part-whole constructions and their historical traces	248
22.4.2	Clausal marking	248
22.4.3	Kin terms	250
22.4.4	Summary on inalienability in non-Pama-Nyungan languages	250
22.5	Inalienability and possession classes in Australian languages	251
22.5.1	Possession classes vs. noun classes	251
22.5.2	Trans-continental semantic patterns	251
23.	Demonstratives	253
	DANA LOUAGIE	
23.1	Introduction	253
23.2	Morphosyntax	253
23.2.1	Free and bound forms	253
23.2.2	Distribution and categorial status	254
23.2.3	Inflectional possibilities	256
23.2.3.1	Case	256
23.2.3.2	Noun class	257
23.2.3.3	Number	257
23.2.3.4	Person	258
23.2.4	Relation to third person pronouns	258
23.2.5	Use in nominal expressions	259

23.2.5.1	Word order tendencies	259
23.2.5.2	Determiner slots	259
23.3	Semantics and use	260
23.3.1	Exophoric function: Spatial (and non-spatial) deixis	260
23.3.2	Anaphoric, cataphoric, and discourse deictic functions	262
23.3.3	Recognitional function	264
23.4	Signs of grammaticalization	265
23.5	Conclusion	266
	Acknowledgements	267
24.	Pronouns	268
	ALICE GABY AND OLIVER SHOULSON	
24.1	Introduction	268
24.2	Paradigms of personal pronouns	268
24.2.1	Person	268
24.2.2	Number	268
24.2.3	Gender and class	270
24.2.4	Case	270
24.2.5	Tense, aspect, and mood	271
24.2.6	Kinship	271
24.3	Morphosyntax of personal pronouns	272
24.3.1	Bound pronouns	272
24.3.1.1	Verbal prefixes	272
24.3.1.2	Enclitic pronouns	273
24.3.1.3	Auxiliaries	273
24.3.2	Pronouns and the noun phrase	274
24.4	Other kinds of pronoun	274
24.4.1	Possessive pronouns	274
24.4.2	Intensifier pronouns	275
24.4.3	Reflexive and reciprocal pronouns	275
24.4.4	Demonstrative pronouns	275
24.4.5	Interrogative and indefinite pronouns	276
24.5	Pronouns in diachronic context	276
	Acknowledgements	277
25.	Adjectives and adverbs	278
	JUHYAE KIM	
25.1	Introduction	278
25.2	Adjectives: A distinctive class?	278
25.2.1	Adjective identification criteria	279
25.2.1.1	Semantic criteria	279
25.2.1.2	Distributional criteria	280
25.2.1.3	Syntactic criteria	280
25.2.1.4	Morphological criteria	281
25.2.1.5	No distinction	282
25.2.2	Summary of adjective classifications	282
25.2.3	Adjective reduplication	283
25.2.3.1	Form	283
25.2.3.2	Semantic effect	283
25.2.4	Adjective derivations and their relation to other word classes	284

DETAILED CONTENTS

25.3	Adverbs	286
25.3.1	Forms of adverbs	286
25.3.1.1	Particles	286
25.3.1.2	Derivations	287
25.3.1.3	Word order	288
25.3.2	Semantics of adverbs	288
25.3.2.1	Locative and spatial	288
25.3.2.2	Temporal	289
25.3.2.3	Manner and degree	289
25.3.2.4	Miscellaneous categories	290
25.4	Conclusion	290
26.	Complex predication and serialization	291
	DAVID OSGARBY AND CLAIRE BOWERN	
26.1	Introduction	291
26.1.1	Serial verb constructions and light verb constructions	292
26.1.2	Related structures	294
26.1.2.1	Multiclausal constructions	294
26.1.2.2	Peripheral modification	294
26.1.2.3	Auxiliaries (TAM, valency, associated motion)	294
26.1.2.4	Noun incorporation	295
26.1.2.5	Lexical compounds	295
26.2	Form	296
26.2.1	Composition	296
26.2.1.1	Symmetrical	296
26.2.1.2	Asymmetrical	296
26.2.1.3	Classes of major and minor members	296
26.2.2	Marking	297
26.2.2.1	Concordant marking	298
26.2.2.2	Single marking (major member)	298
26.2.2.3	Single marking (minor member)	299
26.2.2.4	No marking	299
26.2.3	Contiguity and wordhood	300
26.2.4	Multipartite complex predicates	301
26.2.4.1	Additional major member	301
26.2.4.2	Additional minor member	302
26.3	Function	302
26.3.1	Valency	303
26.3.2	Aktionsart	304
26.3.3	Vectorial configuration	305
26.3.4	Lexical semantics	306
26.4	Conclusion	307
	Acknowledgements	308
27.	Conjugation classes	309
	HAROLD KOCH	
27.1	Introduction	309
27.2	Pama-Nyungan languages with robust conjugations	309
27.3	Languages with two classes	314
27.4	Languages with no classes	314
27.5	Languages with inadequate information	315
27.6	Historical-comparative discussion of Pama-Nyungan	316

28. Agreement morphology	319
PARKER BRODY	
28.1 Preliminaries	319
28.2 Anatomy of agreement	319
28.3 Agreement in the verbal domain	321
28.4 Agreement in the nominal domain	323
28.5 Conclusion	327
29. Suppletion	328
XAVIER BACH AND ERICH R. ROUND	
29.1 Introduction, definitions	328
29.2 Materials and methods	329
29.3 Verbal suppletion	329
29.3.1 Tense and aspect	329
29.3.2 Mood (including imperatives)	331
29.3.3 Number	331
29.3.4 Other categorical types	332
29.3.5 Non-categorical suppletion	335
29.3.6 Lexical meanings	335
29.4 Suppletion beyond verbs	335
29.4.1 Pronouns, demonstratives, determiners, and directionals	336
29.4.2 Kin terms	337
29.4.3 Nominal and adjectival incorporation and compounding	338
29.4.4 Other nominal and adjectival roots	341
29.5 Conclusion	343
30. Valency change and causation	344
STEF SPRONCK	
30.1 Transitivity	344
30.1.1 Valency change	345
30.1.2 Causation	346
30.1.2.1 Internal causation	347
30.1.2.2 External causation	347
30.1.2.3 Other types of causation	348
30.1.3 Applicatives	348
30.2 Sampling	348
30.3 Causatives in Australian languages	349
30.3.1 Causative affixes	349
30.3.2 Periphrastic constructions	352
30.3.2.1 Light verbs and auxiliaries	352
30.3.2.2 Serial verb constructions	353
30.3.2.3 Indirect causation	353
30.3.3 Distribution of causatives	354
30.4 Applicatives and other valency extensions	355
30.4.1 Applicative functions	355
30.4.2 Distribution of applicatives	358
30.5 Anticausatives	358
30.6 Implications: Discussion and conclusion	359
Acknowledgements	359

DETAILED CONTENTS

31. Reflexives and reciprocals	360
ALICE GABY	
31.1 Introduction	360
31.2 Coding strategies	360
31.2.1 Lexical reflexives and reciprocals	361
31.2.2 Transitivity frame shift	362
31.2.3 Combining strategies	363
31.2.4 Non-reflexive/reciprocal clauses	364
31.3 Semantics	365
31.3.1 Core reflexives	365
31.3.1.1 Partitive object	365
31.3.1.2 Autocausative	367
31.3.1.3 Oblique reflexives	368
31.3.2 Core reciprocals	368
31.3.2.1 Oblique reciprocals	369
31.3.2.2 Extended reciprocal senses	369
31.3.3 Absence/backgrounding of Actor	370
31.3.4 Foregrounding of Actor	372
31.3.5 Collective	373
31.3.6 Multiplicity of subevents	374
31.4 Conclusions	376
Acknowledgements	377
32. Tense and aspect	378
JAMES BEDNALL	
32.1 Introduction	378
32.2 The verbal complex	379
32.3 An overview of inflectional verbal tense/aspect marking	381
32.3.1 Inflectional tense/aspect marking in non-Pama-Nyungan languages	382
32.3.2 Inflectional tense/aspect marking in Pama-Nyungan languages	384
32.4 Selected topics in aspectuo-temporal expression	384
32.4.1 Temporal expression	384
32.4.1.1 Widespread temporal distinctions	384
32.4.1.2 Distinctions of remoteness	385
32.4.1.3 Scalar tenses	385
32.4.1.4 Non-verbal inflectional temporal marking	385
32.4.1.4.1 Case marking	385
32.4.1.4.2 Inflectional temporal marking on pronouns	387
32.4.2 Aspectual expression	387
32.4.2.1 Inflectional viewpoint aspect	387
32.4.2.2 Serialized verb constructions	389
32.4.2.3 Reduplication	389
32.4.2.4 Prosodic lengthening	390
32.5 Lexical, pragmatic, and discourse marking tense/aspect strategies	390
32.5.1 Lexical expression	390
32.5.2 Pragmatic and discourse-structural tense/aspect strategies	390
32.6 Conclusion	391
Acknowledgements	391

33. Modality and mood	392
JAMES BEDNALL	
33.1 Introduction	392
33.2 Modality and mood: Some preliminaries	392
33.3 Modal marking in Australian languages: A brief overview	393
33.4 Inflectional modal marking in Australian languages	395
33.4.1 Non-Pama-Nyungan languages	396
33.4.1.1 Form of inflectional modal marking in non-Pama-Nyungan languages	396
33.4.1.2 Irrealis and realis	398
33.4.1.3 Semantics of inflectional modal marking in non-Pama-Nyungan languages	399
33.4.1.3.1 Open possibilities	399
33.4.1.3.2 Foreclosed (counterfactual) possibilities	404
33.4.2 Pama-Nyungan languages	406
33.4.2.1 Form of inflectional modal marking in Pama-Nyungan languages	406
33.4.2.2 Semantics of inflectional modal marking in Pama-Nyungan languages	406
33.4.2.2.1 Epistemic modality	406
33.4.2.2.2 Deontic modality	407
33.4.2.2.3 Dynamic modality (incl. ability modals)	408
33.4.2.2.4 Teleological-intentional and bouletic modality	408
33.4.2.2.5 Apprehensive modality	409
33.4.2.2.6 Foreclosed counterfactuals	409
33.4.2.2.7 Negation	409
33.5 Sentential mood	410
33.6 Conclusion	410
Acknowledgements	410
34. Negation	411
JOSH PHILLIPS	
34.1 Introduction	411
34.2 ‘Standard’ (clausal) negation	411
34.2.1 The analytic standard negator	411
34.2.2 Fusion: The status of negation in the verbal paradigm	413
34.2.2.1 Fusion of tense and polarity	413
34.2.2.2 Tense marking under negation	413
34.2.2.3 The irrealis negator	414
34.2.2.4 Negation, ‘reality status’ and the verbal paradigm	415
34.2.3 Negation and ‘nonrealized’ moods	417
34.3 Negative imperatives	417
34.4 Nominal negation	419
34.4.1 Negative existentials	420
34.4.2 The privative	421
34.5 Suppletive/lexical negatives	422
34.6 Conclusion	423

DETAILED CONTENTS

35. Word order	424
MAGDA ANDREWS-HOKE AND PARKER BRODY	
35.1 Introduction	424
35.2 Word order at the sentence level	424
35.2.1 Typology of basic word orders	424
35.2.2 Preferred word order	425
35.2.3 Variability in constituent order	427
35.2.4 Nonconfigurationality	428
35.2.5 <i>Newness</i> and <i>newsworthiness</i> as determining factors on word order	430
35.2.6 Interrogatives	430
35.2.7 Adpositions	431
35.3 Word order in noun phrases	432
35.4 Conclusion	433
36. Questions	434
JUHYAE KIM AND CLAIRE BOWERN	
36.1 Introduction	434
36.2 Question strategies	434
36.2.1 Intonation in questions	435
36.2.2 Interrogative words	436
36.2.2.1 Indefinites and interrogative pronouns	436
36.2.2.2 Interrogative verbs	438
36.2.3 Clitics and particles	438
36.3 Syntax of questions	440
36.3.1 Yes/no polar questions	440
36.3.2 Content questions	440
36.3.3 Tag questions	442
36.3.4 Embedded questions	443
36.3.5 Sign language questions	443
36.4 Semantics and pragmatics of questions	444
36.4.1 Polarity in yes/no responses	444
36.4.2 Pragmatics of question words	444
36.4.3 Rhetorical questions	445
36.5 Conclusions	445
37. Subordination	446
MARIE-ELAINE VAN EGMOND	
37.1 Introduction	446
37.2 Hale's (1976a) 'adjoined relative clause' and Nordlinger's (2006b) reply	448
37.3 Non-finite subordination	449
37.4 Switch-reference in non-finite clauses	450
37.5 Finite subordination	451
37.6 Complementizer case	452
37.7 Subordination and polysynthesis	453
37.8 Summary	455
Acknowledgements	456
38. Relative clauses	457
RACHEL HENDERY	
38.1 Introduction	457

38.2	Defining relative clauses	458
38.3	Relative clauses in typological perspective	459
38.4	Adjoined relative clauses	459
38.5	Nominalized and participial relative clauses	462
38.6	Relative clause position and word order	463
38.7	Relative clause markers	465
38.8	Relative clauses In Kriol	466
38.9	Conclusions	466
39.	Antipassives	468
	JESSICA DENNISS	
39.1	Introduction	468
39.2	Morphosyntax	469
39.2.1	Case marking and agreement	469
39.2.2	Verb marking	469
39.3	Semantic functions	470
39.3.1	Aspectual readings	471
39.3.2	Modal readings	473
39.3.3	Lexical shifts	474
39.3.4	Non-individuated objects	475
39.4	Syntactic functions	477
39.5	Grammaticalization patterns	478
39.6	Other semi-transitive constructions	478
39.7	Conclusion	481
	Acknowledgements	481
40.	Morphological change	482
	BARRY ALPHER AND CLAIRE BOWERN	
40.1	Introduction	482
40.2	Changes involving clitics	482
40.2.1	Change in morphological marking and categories	482
40.2.2	Distribution of dative clitics in Eastern Daly	483
40.3	Change in the semantic organization of paradigms	484
40.3.1	Functional change with no linear change	484
40.3.2	Adaptation of morphemes from other paradigms	485
40.3.3	Introduction of a person-number form from one paradigm where it is regular into another where it creates an irregularity	485
40.3.4	Reshaping of paradigms: Loss of agreement	486
40.4	Nominal tense and aspect in Pama-Nyungan languages	486
40.4.1	Tense marking on pronouns	486
40.4.2	Development of tense-marking by ablaut of the root vowel	487
40.5	Initial consonant mutation in Iwaidja	488
40.6	Reanalysis	489
40.6.1	Reanalysis of a monomorphemic form as root plus derivational suffix	489
40.6.2	Reanalysis of an uninflecting form as an inflecting one	489
40.6.3	Reanalysis of affixes and the RR conjugation	490
40.7	'Lost Wax', a sudden morpheme-replacement process	492
40.8	Morphemic constituent order	494
40.9	Conclusion	495

C. Semantics, pragmatics, and discourse

41. Quantification	499
MARGIT BOWLER AND IVAN KAPITONOV	
41.1 Introduction	499
41.2 General morphosyntactic properties of quantificational expressions	499
41.3 Semantic findings	500
41.3.1 Expressing ‘many’/‘much’	500
41.3.2 Expressing ‘all’/‘every’	501
41.3.3 Expressing ‘several’/‘a small amount’	503
41.3.4 Expressing partitive ‘some’	504
41.3.5 Constituent (nominal) negation	505
41.3.6 Indefinite pronouns	506
41.3.7 Temporal quantifiers	508
41.3.8 Expressing ‘how many’/‘how much’	509
41.3.9 Quantifier interaction	510
41.3.10 Lexical item for ‘to count’	511
41.4 Conclusion and future directions	511
Acknowledgements	512
42. Direction and location	513
DOROTHEA HOFFMANN	
42.1 Introduction	513
42.2 Systems of Spatial Reference: Location	513
42.2.1 Topological relations	513
42.2.2 Frames of Reference	514
42.2.3 The role of toponyms	515
42.2.4 Spatial deixis	515
42.3 Motion in Australian languages	516
42.3.1 Lexicalization patterns: Verb-, satellite, and equipollent-framing	516
42.3.2 Spatial language in Dreamtime narratives	517
42.4 Multimodal representations of space	517
42.5 Conclusions	518
Acknowledgements	519
43. Kinship, marriage, and skins	520
PATRICK MCCONVELL	
43.1 Introduction	520
43.2 Kinship systems of Australia	520
43.2.1 Classificatory systems	520
43.2.2 Radcliffe-Brown’s typology and ‘Kariera’	520
43.2.3 Other system types: Aranda, asymmetrical, Aluridj	521
43.3 Marriage	521
43.4 Kinship in context	523
43.5 Rare kinship phenomena in Australia	523
43.5.1 Trirelational terminology	523
43.5.2 Kinship marked pronouns	524
43.6 ‘Skins’ (social categories)	524
43.6.1 Moieties	524
43.6.1.1 Descent moieties	524

43.6.1.2	Non-descent Moieties	525
43.6.1.3	Moiety Names	525
43.6.2	Sections	525
43.6.2.1	Structure of section systems	525
43.6.2.2	The Kariera (western) section system	525
43.6.2.3	Function of sections	525
43.6.3	Subsections	526
43.6.3.1	Structure of subsections	526
43.6.3.2	The function of subsections	526
43.6.4	The distribution of section and subsection systems	527
43.7	Prehistory of kinship in Australia	527
43.8	Prehistory of ‘skins’ in Australia	528
43.9	The significance of Australian kinship and skins in anthropology	529
44.	Toponyms	530
	KATHERINE ROSENBERG, JANE SIMPSON, AND CLAIRE BOWERN	
44.1	Introduction	530
44.2	Semantic and historical aspects of toponyms	530
44.2.1	Meaning	531
44.2.2	Types of features that are named	531
44.3	Structure of toponyms	532
44.3.1	Syntax	532
44.3.1.1	Bare nouns	532
44.3.1.2	Compounds	532
44.3.1.3	Relative clauses	533
44.3.1.4	Sentential names	533
44.3.1.5	Toponym-specific syntax	533
44.3.2	Morphology	533
44.3.2.1	Locatives	533
44.3.2.2	Comitatives and proprietives	534
44.3.2.3	Toponym-specific morphology	534
44.3.3	Transparency	534
44.4	Further discussion	534
44.4.1	Opacity and interpretation of place name meaning/etymology	534
44.4.2	Multiple names	535
44.5	Mapping place names	535
44.6	Aboriginal place names in Australian English	536
44.7	Conclusion	537
45.	Discourse and social interaction	538
	JOE BLYTHE AND ILANA MUSHIN	
45.1	Introduction	538
45.2	Discourse analysis in grammatical description	538
45.3	Social interaction	540
45.3.1	Intercultural communication and ethnomethodology	540
45.3.2	Turn-taking and action sequencing	541
45.3.3	Grammar in interaction	546
45.4	Conclusion	547
	Acknowledgements	547

DETAILED CONTENTS

46. Narrative	548
FRANCESCA MERLAN	
46.1 Narrative and time	548
46.1.1 Australianist views of narrative	548
46.1.2 Indigenous-language scope of this chapter	550
46.2 Narrative vocabularies	551
46.3 The ‘emplaced story’	552
46.4 Multimodality	556
46.5 Spacetime of Indigenous narrative	557
46.6 Character/s	558
46.7 Narrative moral content	560
46.8 Narrative means	562
46.9 Conclusions and prospects	563
Acknowledgements	563
47. Interjections	564
MAÍA PONSONNET	
47.1 Introduction	564
47.1.1 Identifying interjections	564
47.1.2 Classifying interjections	564
47.1.3 Results	565
47.2 Classes of interjections	566
47.2.1 Conventional classes: Conative, phatic, and expressive interjections	566
47.2.2 Additional classes: Conative and social interjections	566
47.3 Conative interjections	567
47.3.1 Attention seekers	567
47.3.2 Frequent conative interjections	567
47.3.3 Others	568
47.4 Phatic interjections	568
47.4.1 ‘Yes’ and ‘no’	568
47.4.2 Agreeing and seeking information	569
47.4.3 Epistemic interjections	569
47.4.4 Managing communication	569
47.5 Expressive interjections	569
47.5.1 Generic exclamations	569
47.5.2 Valence-oriented generic interjections (dissatisfaction and satisfaction)	570
47.5.3 Specific states	570
47.5.3.1 Surprise and pain	570
47.5.3.2 Compassion	571
47.5.4 Marginal categories	571
47.5.5 Primary and secondary emotions	572
47.6 Conclusion	572
48. Insults and compliments	573
MICHAEL WALSH	
48.1 Preamble	573

48.2 Mock insults and the joking relationship	574
48.3 Insults more generally	574
48.4 Nicknames	575
48.5 Compliments	576
48.6 Post-classical	577
48.7 Harvesting material from early sources	578
48.8 Summary	578
Acknowledgements	578
49. Language names	579
KATHERINE ROSENBERG AND CLAIRE BOWERN	
49.1 Introduction	579
49.1.1 Language names	579
49.1.2 Data collection	580
49.2 General principles concerning language names	581
49.2.1 Wohlgemuth (2015)	581
49.2.2 McConvell (2006b)	581
49.2.3 Sutton (1979)	582
49.3 Types of language names	582
49.3.1 Hierarchical classification	582
49.3.2 Feature exclusivity	585
49.3.3 Non-exhaustivity	585
49.4 Naming conventions across Australian languages	585
49.4.1 Overall findings	586
49.4.2 Overlapping categories	586
49.4.3 Classifying by subfamily	586
49.5 Potential areal influences	587
49.6 Conclusion	588
PART III: Sociolinguistics and language variation	589
<hr/>	
50. The verbal arts in Indigenous Australia	591
JENNIFER GREEN, INGE KRAL, AND SALLY TRELOYN	
50.1 Introduction: The scope of verbal arts	591
50.2 Narrative practices	591
50.3 Children's games	593
50.4 Speech play	594
50.5 Song	595
50.5.1 Early documentations of songs	595
50.5.2 Other song collections	595
50.5.3 Types of songs	596
50.5.4 Formal features of Indigenous songs in Australia	597
50.5.5 Songs for children	597
50.5.6 Sung and spoken language	598
50.5.7 Contemporary song and poetry	598
50.6 Conclusions	600
Acknowledgements	600

DETAILED CONTENTS

51. Sociolinguistic variation	601
JOHN MANSFIELD	
51.1 Introduction	601
51.2 Sociolinguistic variation in traditional society	602
51.2.1 Speech community and dialect	602
51.2.2 Individuals and identity	604
51.2.3 Kin relations and seniority	605
51.3 Sociolinguistic variation after town settlement	606
51.3.1 Yolngu	606
51.3.2 Western Desert	608
51.3.3 Murrinhpatha	608
51.4 Discussion	610
52. Australian Indigenous sign languages	612
JENNIFER GREEN	
52.1 Introduction	612
52.1.1 Early documentations of sign	612
52.1.2 Renewed interest in Australian Indigenous sign	613
52.2 Contexts of Indigenous sign language use	613
52.3 Features of signs	616
52.3.1 Overview	616
52.3.2 Handshape	617
52.3.3 Sign lexicons and sign polysemy	618
52.4 Some examples	619
52.4.1 Signs for kin	620
52.4.2 New signs	620
52.4.3 Multi-sign utterances	620
52.5 Other features of signing practices	622
52.5.1 Relationships to speech	622
52.5.2 Signs and marking respect	623
52.5.3 Mixing and matching	623
52.6 Community sign resources	624
52.7 Discussion	625
Acknowledgements	627
53. Gender-based dialects	628
JOHN BRADLEY AND ALICE GABY	
53.1 Introduction	628
53.2 Overview of Yanyuwa noun classes	629
53.3 Patterns of isomorphism	631
53.3.1 ♂ male/masculine = ♀ male	631
53.3.2 ♂ male/masculine = ♀ masculine	632
53.3.3 ♂ male/masculine ≠ ♀ male or masculine	632
53.3.4 ♀ male = ♀ masculine	632
53.3.4.1 ♂ male/masculine = ♀ male/masculine	633
53.3.4.2 ♂ male/masculine ≠ ♀ male/masculine	633
53.3.5 ♂ male ≠ ♂ masculine	633
53.3.5.1 ♂ male ≠ ♂ masculine ≠ ♀ male ≠ ♀ masculine	633
53.3.5.2 ♂ male ≠ ♀ male ≠ ♀ masculine = ♂ masculine	634
53.4 Stylistic differences	634

53.5 Discussion	634
Acknowledgements	636
54. Multilingualism	637
JILL VAUGHAN	
54.1 Introduction	637
54.2 Work on multilingualism in Aboriginal Australia	637
54.3 Multilingualism in historical perspective	639
54.3.1 Pre-colonial language repertoires	639
54.3.2 Language, land, and kinship	639
54.3.3 The social lives of languages	641
54.3.4 Receptive multilingualism	641
54.4 Contemporary multilingualism	642
54.4.1 Contemporary language repertoires and changing language ecologies	642
54.4.2 Urbanization, mobility, and modernity	643
54.5 Conclusions	644
55. Code-switching	645
AMANDA HAMILTON-HOLLAWAY	
55.1 Introduction	645
55.2 Defining code-switching	645
55.3 Switching multi-word phrases and clauses	646
55.3.1 Switching for social meaning	647
55.3.2 Switching for discourse structure	649
55.4 Switching single words and morphemes	650
55.4.1 Switching at the syntactic periphery	650
55.4.2 Switching within the clausal core	651
55.5 Conclusion	655
56. Language contact	656
DENISE ANGELO	
56.1 Overview	656
56.1.1 Australian contact languages old and new	656
56.1.2 Previous research	656
56.1.3 Notes on terminology	657
56.2 Historical background to Australian contact languages	657
56.2.1 Pastoral industries	657
56.2.2 Maritime industries	658
56.2.3 Other enterprises	658
56.2.4 Towns, settlements, and missions	659
56.3 Contemporary contexts of contact languages	660
56.3.1 Indigenous contact language ecologies and multilingualism	660
56.3.2 Speaker views of contact languages	660
56.3.3 Sporadic inclusion in policy	660
56.3.4 Mistaken identity: English-lexified contact languages and Standard English	661
56.3.5 Employment, education, and training	661
56.3.6 Media and literature	662
56.4 Englishes spoken by Aboriginal and Torres Strait Islander peoples	663
56.4.1 Aboriginal English(es) and Torres Strait English(es)	663
56.4.1.1 Disparate definitions of Aboriginal English in research	663

DETAILED CONTENTS

56.4.1.2	Local vs. generic naming	664
56.4.1.3	Practical and research issues	664
56.4.2	Standard Australian English learned as an additional language or dialect	665
56.4.2.1	The place of English in Indigenous multilingualism	665
56.5	Conclusion	666
57.	Kriol	667
	GREG DICKSON	
57.1	Introduction	667
57.1.1	Kriol, its origins, emergence, and current distribution	667
57.1.2	Kriol, its speakers and ethnolinguistic vitality	668
57.2	Genetic affiliations	670
57.2.1	Relationship to other contact languages	670
57.2.2	Relationship to English	670
57.2.3	Relationship to traditional Australian languages (substrate languages)	670
57.3	Structural aspects	671
57.3.1	Phonology	671
57.3.2	Morphology and syntax	673
57.3.3	Lexicon and semantics	675
57.3.4	Pragmatics and discourse	677
57.3.5	Variation and dialects	678
57.4	Concluding remarks	678
	Acknowledgements	679
58.	Young people's varieties	680
	CARMEL O'SHANNESY	
58.1	Introduction	680
58.2	Contexts of continuity with change	681
58.2.1	Pitjantjatjara	681
58.2.2	Bininj-Kunwok	682
58.2.3	Murrinhpatha	682
58.3	Emergence of new languages and varieties	683
58.3.1	Yolngu Matha	683
58.3.2	Mixed languages	683
58.3.3	Tiwi	685
58.4	Contexts of language obsolescence	686
58.5	Types and paths of change	687
58.6	Attitudes to change	688
58.7	Summary	688
	Acknowledgements	688
59.	Restricted respect registers and auxiliary languages	689
	MICHAEL WALSH	
59.1	Introduction	689
59.2	Avoidance/'mother-in-law languages'	689
59.3	Initiate styles	693
59.4	Bereavement styles	694
59.5	Joking styles	694
59.6	Teenagers' language	694

59.7 Baby talk	695
59.8 Conclusion	695
Appendix I: Warlpiri avoidance registers (Laughren 2001: 223)	696
60. Language input and child directed-speech	697
LUCINDA DAVIDSON, BARBARA KELLY, GILLIAN WIGGLESWORTH, AND RACHEL NORDLINGER	
60.1 Introduction	697
60.2 A brief overview of CDS study in Australian languages	697
60.3 CDS as a specialized register	698
60.3.1 Phonological features	699
60.3.2 Prosodic features	699
60.3.3 Lexical features	700
60.3.4 Semantic features	700
60.3.5 Morphosyntactic features	700
60.3.6 Caregiver ideas around CDS registers	700
60.4 Verbal routines and socialization practices	701
60.5 Situating CDS in Australian languages cross-linguistically	702
60.6 Conclusion	703
Acknowledgements	703
PART IV: Language in the community	705
<hr/>	
61. Language policy, planning, and standardization	707
ROB AMERY	
61.1 Introduction	707
61.2 The language policy framework	707
61.2.1 National Indigenous Languages Policy 2009	708
61.2.2 Funding implications	708
61.2.3 State-based language policy	709
61.2.4 Indigenous language laws	709
61.2.5 Language planning and language revival	710
61.3 Language planning perspectives	710
61.3.1 Status planning	710
61.3.2 Place names	711
61.3.2.1 Dual naming	711
61.3.3 Corpus planning	711
61.3.3.1 Lexical expansion and new terminology	711
61.3.4 Coordination of language work	713
61.3.4.1 Language centres	713
61.3.5 Language-in-education planning	713
61.4 Kurna case study	714
61.4.1 Kurna status planning	714
61.4.1.1 Kurna place names	714
61.4.1.2 Kurna Language Week, 2014	715
61.4.2 Corpus planning	715
61.4.3 Education planning	715
61.4.4 Standardization of Kurna	717
61.4.5 A Kurna language planning authority—KWP and KWK	718
61.5 Conclusion	718

64.5.9.1	Resource Network for Linguistic Diversity (RNLD) – now Living Languages	748
64.5.9.2	Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS)	748
64.5.9.3	First Languages Australia	748
64.6	Approaches and methods of revival	748
64.7	Ngarrindjeri case study	749
64.8	Conclusion	750
	Appendix: Community language programmes which won funding from Indigenous Languages & The Arts (ILA) from 2015 onwards	750
	New South Wales	751
	Victoria	751
	South Australia	751
	Western Australia	751
	Queensland	752
	Northern Territory	752
	National programmes	753
65.	Language, land, identity, and well-being	754
	ROB AMERY AND MARY-ANNE GALE	
65.1	Introduction	754
65.2	Language, land, and identity	755
65.3	Defining the concept of ‘wellbeing’	756
65.4	Closing the gap on Indigenous disadvantage	757
65.5	The health and well-being of first language speakers of Indigenous languages	758
65.6	What promotes wellbeing?	759
65.7	Health, wellbeing, and language revival	760
65.8	Examples of Kurna language revival aiding wellbeing	761
65.9	Conclusion	762
PART V:	Structural sketches of languages, subgroups, and families	763
66.	Contact language case studies	765
	DENISE ANGELO	
66.1	Australia’s shifting langscapes	765
66.2	North-eastern affiliated creoles—a language contact and diffusion zone: Yumplatok, Cape York Creole, and Lockhart River Creole	765
66.2.1	Language contact and contact languages in the north-east	765
66.2.2	Yumplatok (Broken, Torres Strait Creole)	766
66.2.3	Cape York Creole	766
66.2.4	Lockhart River Creole	767
66.2.5	Language features of the north-eastern creoles	767
66.3	Superdiverse Indigenous settlements—multiple languages in contact over time: <i>Woorie Talk</i> and <i>Yarrie Lingo</i>	769
66.3.1	Language contact in the Superdiverse Indigenous Settlements in Queensland	769
66.3.1.1	Early investigations	769
66.3.1.2	Re-positioning as contact languages: Reasons and methods	770
66.3.2	Woorie Talk	770

DETAILED CONTENTS

66.3.3	Yarrie Lingo	771
66.4	Mixed languages—language contact with input from one traditional language: Light Warlpiri, Gurindji Kriol, and Modern Tiwi	772
66.4.1	Mixed languages and their language ecologies	772
66.4.2	Light Warlpiri and Gurindji Kriol	773
66.4.3	Modern Tiwi	773
66.4.4	Novel developments not replicas	774
66.5	The Kriol sphere of influence: Language contact on the periphery of the Kriol <i>Sprachraum</i>	775
66.5.1	Examining Kriol influence	775
66.5.1.1	The unclear extent of the Kriol <i>Sprachraum</i>	775
66.5.1.2	Nomenclature	775
66.5.2	To the north	775
66.5.3	To the south	776
66.5.3.1	Southern Barkly contact languages	776
66.5.3.1.1	Wumpurrarni English: A style drawing on multilingual resources	776
66.5.3.1.2	Alyawarr English: Shifting and blending	777
66.5.3.2	In the centre	777
66.5.4	To the east	778
66.5.4.1	Mornington Island in the Gulf of Carpentaria	778
66.5.4.2	Far western Queensland	779
66.5.4.3	Western Cape York: Kowanyama	779
66.5.5	To the west: Northern Western Australia	780
	Acknowledgements	780
67.	The Gunwinyguan languages	781
	NICHOLAS EVANS AND ALEXANDRA MARLEY	
67.1	Introduction	781
67.2	Classification	783
67.3	Typological features	784
67.3.1	Phonology	784
67.3.1.1	Phonological features	784
67.3.1.2	Syllable structure	784
67.3.2	Polysynthetic verbal morphology	785
67.3.3	Genders	787
67.3.4	Case	788
67.3.5	Pronominal categories	789
67.4	Outstanding questions	794
	Acknowledgements	795
68.	Anindilyakwa	796
	MARIE-ELAINE VAN EGMOND	
68.1	Introduction	796
68.2	Phonology	797
68.2.1	Phonological changes	798
68.2.1.1	Sound changes shared with Wubuy	798
68.2.1.2	Sound changes unique to Anindilyakwa	799

68.3 Noun classification systems	803
68.3.1 Noun classes and genders	803
68.3.2 Incorporated body parts and classifiers	805
68.3.2.1 Suppletion	805
68.3.2.2 Polysemy	805
68.4 Nominal derivation	806
68.4.1 Inalienable possession	806
68.4.2 Alienable possession	807
68.5 Subordination strategies	808
68.5.1 Nominalization	808
68.5.2 Complementizer case	809
68.6 Conclusions	810
Acknowledgements	811
69. Languages of the Kimberley region	812
STEF SPRONCK	
69.1 History and current status of languages of the Kimberley region	812
69.1.1 First contacts	812
69.1.2 Missions, mines, cattle stations, and boarding schools	813
69.1.3 Language vitality	813
69.1.4 Reclamation	814
69.2 Overview of previous research	815
69.2.1 Linguistic research	815
69.2.2 Archival materials	816
69.3 Classification	817
69.3.1 Internal classification	817
69.3.1.1 Introduction	817
69.3.1.2 Nyulnyulan	817
69.3.1.3 Worrorran	817
69.3.1.4 Bunuban	818
69.3.1.5 Jarrakan family	818
69.3.1.6 Pama-Nyungan	818
69.3.2 Language contact in the Kimberley	818
69.4 Structural features	820
69.4.1 Verbal morphology	820
69.4.2 Nominal morphology	821
69.4.2.1 Syntactic features	823
69.4.2.2 Speech styles and avoidance languages	823
69.5 Open questions	824
Acknowledgements	824
70. The Maningrida languages	825
MARGARET CAREW AND DAVID FELIPE GUERRERO BELTRAN	
70.1 Introduction	825
70.2 Genetic affiliation and dialectology	825
70.2.1 Classification	825
70.2.2 Lects	827
70.3 Phonology	827
70.3.1 Phoneme inventory	827
70.3.2 Phonotactics	828
70.4 Nominals	829

DETAILED CONTENTS

70.4.1	Nominal words	829
70.4.1.1	Simple nouns	829
70.4.1.2	Part classifiers	829
70.4.1.3	Prefixed nominals	830
70.4.2	Possession classes	832
70.4.3	Nominal classification and gender	833
70.4.4	Case-marking	835
70.4.4.1	Local case	835
70.4.4.2	Direct case	836
70.4.4.3	Oblique and possessive	836
70.4.5	Noun phrases and nominal groups	837
70.5	Simple predicates	837
70.5.1	Argument-indices	838
70.5.1.1	Person and number	838
70.5.1.2	Person and clusivity	839
70.5.2	Tense, aspect, mood, and modality	840
70.5.3	Nominal predicates	840
70.5.4	Verbal predicates	841
70.6	Complex predicates	841
70.6.1	Serial verb constructions	842
70.6.2	Light verb constructions	842
70.6.3	Multiclausal constructions	843
70.7	Ethnolinguistic vitality	844
70.8	Conclusions	844
71.	Living languages of Victoria	845
	K. EIRA	
71.1	Introduction	845
71.2	Baselines	847
71.2.1	Language families	847
71.2.2	Language sources	848
71.2.3	Typological comments	849
71.3	Language in Victoria in the present	851
71.3.1	Language context	851
71.3.2	Language revival activities	851
71.3.3	Systems and structures supporting language	852
71.3.4	Language characteristics	853
71.4	Closing remarks	854
72.	Lamalamic (Paman)	855
	JEAN-CHRISTOPHE VERSTRAETE	
72.1	Introduction	855
72.2	Phonology	856
72.2.1	Root structure	856
72.2.2	Phoneme inventories	857
72.2.3	Phonotactics	860
72.3	Morphology	861
72.3.1	Morphophonological alternations	861
72.3.2	Inflectional morphology	862
72.4	Syntax	863
	Acknowledgements	864

73. The Bandjalangic languages and dialects	865
MARGARET SHARPE	
73.1 Name and location of the language	865
73.1.1 The BNJ origin story	865
73.1.2 Social organization	866
73.1.3 Initiation marking and the Huchet line	866
73.2 Phonology	867
73.3 Verbs	867
73.3.1 'Old' verbs	868
73.3.2 Aspect in BNJ verbs	868
73.3.3 The verb forms and suffixes	870
73.3.3.1 First order suffix <i>-ba</i>	870
73.3.3.2 Second order suffix <i>-ndi</i>	870
73.3.3.3 Third order: The reflexive/reciprocal and antipassive suffix <i>-li</i>	870
73.3.3.4 Fourth order past action <i>-dja</i>	871
73.3.3.5 Fourth order <i>-ma</i> 'causative'	871
73.3.3.6 Fourth order <i>-wa</i> 'repetitive'	871
73.3.3.7 Fifth order suffixes: The aspect suffixes	872
73.3.3.7.1 <i>-hn</i> 'imperfect'	872
73.3.3.7.2 <i>-hny</i> 'imminent' or 'potential'	872
73.3.3.7.3 <i>-h</i> 'imperative'	872
73.3.3.7.4 <i>-hla</i> 'progressive'	872
73.3.3.7.5 <i>-nyun</i> 'synchronous action'	872
73.3.3.7.6 <i>-nah/-hna</i> 'antechronous action'	873
73.3.3.7.7 <i>-luhr/-lugu</i> 'progressive in the past'	873
73.3.3.7.8 <i>-De</i> 'potential'	873
73.3.3.7.9 <i>-yan</i> 'progressive participle'	873
73.3.3.7.10 <i>-n</i> 'permissive'	873
73.3.3.7.11 <i>-niban</i>	873
73.3.3.7.12 <i>-ni</i> 'perfect, completive'	873
73.4 Other grammatical points	874
73.4.1 Pronouns	874
73.4.2 The demonstrative distinctions	874
73.4.3 Tense marked noun suffixes	874
73.4.4 Gender in BNJ	875
74. Noongar	876
DENISE SMITH-ALI, SUE HANSON, GEORGE HAYDEN, CLAIRE BOWERN, AKSHAY AITHA, LYDIA DING, AND SARAH MIHUC	
74.1 Introduction	876
74.2 Varieties of Noongar	876
74.2.1 Previous work	876
74.2.2 Three dialects?	877
74.3 Phonetics and phonology	878
74.3.1 Consonant inventory	878
74.3.2 Voicing	879
74.3.3 Places of articulation	879
74.3.4 Vowel inventory	879
74.3.5 Vowel length	879
74.3.6 Centralization (or not) under stress	880
74.3.7 Orthography	880
74.3.8 Phonotactics	880

DETAILED CONTENTS

74.3.9	Stress	881
74.4	Word classes	881
74.4.1	Nominals	881
74.4.1.1	Nouns	881
74.4.1.2	Adjectives	881
74.4.1.3	Pronouns	882
74.4.1.4	Interrogative pronouns	882
74.4.1.5	Numerals	882
74.4.2	Demonstratives	883
74.4.3	Verbs	883
74.4.4	Adverbs	883
74.4.5	Interjections	884
74.5	Nominal morphology	884
74.5.1	Core case marking	884
74.5.1.1	Nominative case	884
74.5.1.2	Accusative case	885
74.5.1.3	Ergative-absolutive marking on first person pronouns	885
74.5.2	Oblique case marking	885
74.5.3	Variable application of case marking	886
74.5.4	Differential object marking	887
74.6	Verbal morphology	887
74.6.1	Aspect	887
74.6.2	Mood	888
74.7	Clause structure	888
74.7.1	Attested word orders	888
74.7.2	Factors influencing word order	889
74.7.3	Copular clauses	889
74.7.3.1	Predicate nominals	889
74.7.3.2	Locatives and existentials	890
74.7.3.3	Possessives	890
74.7.4	Negation	890
74.7.4.1	Non-imperative clausal negation	890
74.7.4.2	Imperative clausal negation	891
74.7.4.3	Privative constituent negation	891
74.7.4.4	Double negation	891
74.7.5	Coordination	891
74.8	Clause combinations	892
74.8.1	Subordination	892
74.8.2	Coordination	892
75.	The Wati (Western Desert) subgroup of Pama-Nyungan	893
	SARAH BABINSKI, LUIS-MIGUEL ROJAS-BERSCIA, AND CLAIRE BOWERN	
75.1	Introduction	893
75.2	Western Desert varieties	893
75.2.1	Previous discussions	893
75.2.2	Speaker awareness of dialect differences	895
75.3	Phonology	895
75.3.1	Phonemic inventory	895
75.3.2	Phonotactics	896
75.3.3	-pa suffix usage across varieties	896

75.4	Sound change	897
75.5	Case morphology	899
75.5.1	Ergative	899
75.5.2	Absolutive	900
75.5.3	Dative, purposive, and genitive	902
75.5.4	Locative	902
75.5.5	Ablative	904
75.5.6	Allative	905
75.6	Pronouns	907
75.6.1	Free pronouns	907
75.6.2	Bound pronouns	909
75.7	Verbs	912
75.7.1	Verb classes	912
75.7.2	Imperative	913
75.7.3	Present/progressive	913
75.7.4	Past perfective/completive	915
75.7.5	Habitual/characteristic	915
75.7.6	Future	916
75.8	Conclusions	916
76.	Ngumpin-Yapa languages	918
	FELICITY MEAKINS, THOMAS ENNEVER, DAVID OSGARBY, MITCH BROWNE, AND AMANDA HAMILTON-HOLLOWAY	
76.1	Introduction	918
76.2	Genetic affiliation	919
76.3	Structural properties	920
76.3.1	Phonology	920
76.3.1.1	Phoneme inventory	920
76.3.1.2	Phonotactics	921
76.3.1.3	Nasal cluster dissimilation	922
76.3.2	Argument structure	922
76.3.2.1	Case marking	923
76.3.2.2	Bound pronouns	924
76.3.3	Complex predicates	926
76.4	Interesting questions	927
76.4.1	Nonconfigurationality	927
76.4.2	Bound pronoun clitic placement	929
76.4.3	Language contact, old and new	930
76.5	Conclusion	932
	Acknowledgements	932
77.	Wajarri	933
	DOUG MARMION	
77.1	Introduction and overview	933
77.1.1	Background: The language and its speakers	933
77.1.2	Linguistic type	933
77.2	Phonology	933
77.2.1	Consonant inventory	933
77.2.2	Vowel inventory	934
77.2.3	Phonotactics	934
77.2.4	Orthographic conventions	935

DETAILED CONTENTS

77.3	Nominal morphology	935
77.3.1	Overview	935
77.3.2	Nominal suffixes	935
77.3.2.1	Ergative	935
77.3.2.2	Instrumental usage of ergative	936
77.3.2.3	Nominative	936
77.3.2.4	Accusative	936
77.3.2.5	Purposive/Genitive	936
77.3.2.6	Locative	937
77.3.2.7	Allative	937
77.3.2.8	Ablative	937
77.3.2.9	Proprietary - <i>nyuwa</i>	937
77.3.2.10	Privative - <i>gurru</i>	937
77.3.2.11	Semblative - <i>nguny</i>	938
77.3.2.12	Resultative - <i>ganu</i>	938
77.3.2.13	Associative - <i>manu</i>	938
77.3.2.14	Side - <i>gardi</i>	938
77.3.2.15	Habitat - <i>jirri</i> ~- <i>jiyi</i>	938
77.3.2.16	Disapproving - <i>wily</i>	938
77.3.2.17	Pair of kin - <i>yarra</i>	938
77.4	Pronouns and demonstratives	939
77.4.1	Free personal pronouns	939
77.4.2	Bound personal pronouns	940
77.4.3	Demonstrative pronouns	940
77.4.4	Interrogative/indefinite pronouns	941
77.5	Verbal morphology	942
77.5.1	Conjugation classes	942
77.5.2	Intransitive verbs	942
77.5.3	Transitive verbs	942
77.5.4	Semi-transitive and ditransitive verbs	942
77.5.5	Inflectional categories	943
77.5.5.1	Overview	943
77.5.5.2	Present tense	943
77.5.5.3	Past tense	943
77.5.5.4	Future tense	943
77.5.5.5	Imperative	943
77.5.5.6	Imperative continuous	943
77.5.5.7	Past habitual	944
77.5.5.8	Habitual	944
77.5.6	Verb deriving morphology	945
77.5.6.1	Inchoative suffix - <i>yi</i> ~ - <i>wi</i> ~ - <i>i</i>	945
77.5.6.2	Collective subject - <i>ji</i>	945
77.5.6.3	Associated motion - <i>gayi</i>	945
77.5.6.4	Put - <i>ju</i>	945
77.5.6.5	Causative - <i>ma</i>	945
77.5.6.6	Reciprocal/reflexive - <i>marri</i>	946
77.5.7	Subordinate clauses	946
77.5.7.1	Overview	946
77.5.7.2	Circumstantial same subject	946
77.5.7.3	Circumstantial different subject	946
77.5.7.4	Verbal purposive	947

77.5.7.5	Apprehensive	947
77.5.7.6	Origin - <i>thanu</i>	947
77.6	Adverbs, particles, and interjections	947
77.6.1	Overview	947
77.6.2	Adverbs	947
77.6.3	Particles	948
77.6.4	Interjections	948
	Acknowledgements	949
78.	The revitalization of the sleeping Tasmanian Aboriginal languages <i>palawa kani</i>	950
	ANNIE REYNOLDS AND THERESA SAINTY	
78.1	<i>palawa kani</i> means ‘Tasmanian Aborigines speak’	950
78.2	Tasmanian Aboriginal languages	950
78.3	Tasmanian Aboriginal Language Project	951
78.3.1	<i>palawa kani</i> Language Program	952
78.3.2	Community language workshop 1994	952
78.4	Sources of recorded language	952
78.4.1	Glossaries	953
78.4.2	The sounds of the original Tasmanian Aboriginal languages	953
78.4.3	Assessing recorders’ value	954
78.4.4	Was Robinson a good recorder? A linguistic analysis of Robinson’s value as a recorder	954
78.5	Regions, speakers, and places	954
78.5.1	Language regions	954
78.5.2	Aboriginal speakers	955
78.5.3	Names of places	955
78.6	Reconstructing words	955
78.7	Grammar and conventions	956
78.7.1	Plurals	956
78.7.2	Word order	956
78.7.3	Affixes and suffixes	956
78.7.4	Tense	956
78.7.5	Adaptation and new words	956
78.7.6	Stress	957
78.7.7	Capital letters	957
78.8	Domains of use	957
	<i>References</i>	958
	<i>Language and Language Family index</i>	1061
	<i>Index of places mentioned</i>	1072
	<i>Subject index</i>	1074

Series Preface

We know that the close study of individual language families and linguistic areas is vital both to the synchronic and diachronic study of language and to cognitive science more widely. Comparative investigations of this type stimulate exciting synergies between different subdisciplines of linguistics, such as language change, contact linguistics, sociolinguistics, linguistic typology, textual philology, and microvariation in grammar, sound, and meaning within and across languages. Besides reflecting and encouraging the links between these subdomains, the fundamental goal of the series is to publish high-quality, substantial reference works which represent a set of theoretically informed and systematic guides to what is known about the world's languages.

Each *Guide* focusses on a particular language family, subfamily, or areal grouping, and is edited by leading authorities, who bring together contributions from the best international scholars in the field. The *Guides* aim to show the more general theoretical significance of the languages' history, linguistic and sociolinguistic characteristics, and overall to provide an indispensable reference tool both to specialist scholars and students and to professional linguists. The approach adopted in all the *Guides* is systematic and comparative, informed by the latest research and theoretical and methodological perspectives, and, where appropriate, the authors draw on relevant work in such fields as anthropology, archaeology, and cognitive science.

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Abbreviations and conventions

<	acted on by	AMB	ambulative
>	acting on	AMBIPH	ambiphoric
1	first person	ANA	anaphor
1"	first person non-minimal	ANAPH	anaphoric
1 2	exclusive person	AND	connector, conjunction 'and'
12	first person inclusive	ANIM	animate object
12"	first person inclusive non-minimal	APAS	antipassive
1+2	first person inclusive	APP	apprehensive
1.FOC	first person focalization marker	AOR	aorist
1PES	first person plural exclusive subject	AP	antipassive
1SS	first person singular subject	APPL	applicative
1st	verbal inflection class	APPLIC	applicative
2	second person	ART	article (Heath 1980b)
3	third person transitive subject <i>a</i> acting over object <i>b</i>	ASP	aspectual suffix
3	third person	ASS	associative case
3PO	third plural object	ASS	assertive
3PS	third plural subject	ASSERT	assertive
a	augmented	ASSOC	associative
A	agent	ATT	attenuative
A	alveolar	AUG	augmented number
A	Assimilation	AUX	auxiliary
A	animate	AUXC	auxiliary (continuous aspect) (Heath 1980b)
A	subject of transitive clause	AVER	averative
A/P	antipassive	AWY	motion away
AA	AusPhon-Alternations (dataset)	BBA	Bouckaert, Bowern, and Atkinson (2018)
ABC	Australian Broadcasting Corporation	BEN	benefactive
ABL	ablative	BGN	Burarra/Gun-nartpa language
ABS	absolute	C	catalyst
ACC	accusative	C	contemporary tense
ACS	accessory	C/T	contemporary?
ACT	active	C ₁	initial consonant of a word
ACT	actual	CARD	cardinal pronoun
ADD	additional	CATAPH	cataphoric
ADES	adessive	CAUS	causative
ADJ	adjective	CC	circumstantial clause
ADJ	adjacent demonstrative	CFACT	counterfactual
ADMON	admonitive	CHAR	characteristic
AGM	augmented number	CL	classifier
AIATSIS	Australian Institute of Aboriginal and Torres Strait Islander Studies	CLASS2VERB	class 2 verb stem forming affix
ALL	allative	CLC	clitic
		CLF	classifier
		CM	conjugation marker

ABBREVIATIONS AND CONVENTIONS

CNSW	Central New South Wales	DU	dual
CofR	change of referent	DUB	dubitative
COLL	collective	DUR	durative
COM	comitative	E	extended argument
COMIT	comitative	E	English
COMP	complementizer	ED	edible gender
CON	concomitative	EDGE	edge, side
CON	contemporary tense	EFF	effector
CONJ	conjunction	EL	elative
CONT	continuative aspect	ELA	elative
CONTR	contrastive focus	EMA	electromagnetic articulography
CP	compulsional	EMP	emphatic clitic
CS	changed state	EMPH	emphatic
CSL	causal	EN	epenthetic nasal
CTF	counterfactual	Eng	English borrowing
CTR	contrast	EP	epenthetic morpheme
CTRP	centripetal	ERG	ergative
CTS	continuous, non-moving	EX	exclusive
CV	coverb suffix	EXC	exclusive
CYP	Cape York Peninsula	EXCL	exclusive
D	dental	F	feminine gender
D	distal (deictic)	FACT	factive
D	directional	FEM	feminine gender
d.b.	dative/benefactive	FF	father's father
DAT	dative	F.KPOSS	morpheme cross-referencing female propositus of a kin relationship
DC	direct case	FM	father's mother
DEC	deceased	FOC	focus
DEF	definite	FOC	contrastive focus
DEIC	deictic suffix	FORE	foregrounding clitic
DEM	demonstrative	FUT	future
DEM(n)	demonstrative (neuter)	G	Gugada
DER	derivational ¹	G	goal
DES	desiderative	GEN	genitive
DESID	desiderative	GENEVT	generic event
DETR	detransitivizer	GENT	gentilic
DI	desiderative-intentional suffix	GENTIL	gentilic
DIREC	directional	GER	gerund
DIST	distal	GG	Gurr-goni
DL	dual	gun	gun noun class
DM	demonstrative marker	GUR	Gurindji
DO	direct object	GW	Gunwinyguan
DPF	'departing from' affix	H	high tone ²
DS	different subject	H	higher object ³
D.TERM	direction, terminative	HAB	habitual
DTR	de-transitivizer		

¹ In Chapter 70 this is glossed as 'derivative affix', which it is assumed is identical to 'derivational'.

² For additional annotations associated with ToBI transcription conventions, see Beckman et al. (2006).

³ In interlinear glossing

HABIT	habitual	jin	jin-marked noun class
HAVE	have suffix	KIN	kinship marker
HESIT	hesitation particle	KPOSS	kinship possession
HIST	historical past	Kr	Kriol borrowing
HITH	hither	Ku	Kukatja
HYP	hypothetical	L	labial
I	inanimate	L	lenition ⁴
I	Iwaidjan	L	local ⁵
IE	Indo-European	L	low tone ⁶
ID	identifiable	L/I	locative instrumental
IDEO	ideophone	LCT	locative
I-IV	numbered noun classes	LIG	possessor ligative
IM	immediacy	LIM	limitative
IMM	immediate (past)	LL	land gender
IMM	immediacy	LOC	locative
IMP	imperative	LOC/I	local/instrumental case
IMPERFSS	imperfective tense/aspect same subject	LOCT	locational case
IMPF	imperfective	LOTS	grammatical morpheme meaning ‘lots’
IMPIPFV	imperative imperfective	LVC	light verb constructions
IMPL	implicated	M	Manyjilyjarra
IMPLIC	implicative	M	minimal (number) ⁷
INC	inclusive	M	masculine gender
INCEP	inceptive	MA	masculine gender (Singer 2006a)
INCH	inchoative	M.AL.P	masculine alienable possessive
INCHO	inchoative	MASC	masculine gender
INCL	inclusive	MASC	masculine noun class
IND	indicative	MED	medial
IND	individuation	MED	medial demonstrative
INDF	indefinite	MF	mother’s father
INF	infinitive	MIN	minimal (number)
INS	instrumental	MJ	major member
INST	instrumental	M.KPOSS	morpheme cross-referencing male propositus of a kin relationship
INSTR	instrumental	MLOC	marked locative
INT	interrogative	MM	mother’s mother
INTENS	intensifier	MN	minor member
INTER	interrogative	MOBL	modal oblique
INTERR	interrogative	MOTIV	motivative
INTR	intransitive	MOV	continuous, moving
INV	inverse	Mp	manipulative
IO	indirect object	M.POSS	morpheme cross-referencing a male class possessor of a body part
IPFV	imperfective	MPROP	modal proprietive
IR	irrealis	MSC	masculine class
IRR	irrealis		
ITRV	iterative aspect		

⁴ In Chapter 12 only

⁵ Languages attesting cognates of a particular etymon but lacking coherence as a phylogenetic group.

⁶ In Chapter 14

⁷ In Chapter 70

ABBREVIATIONS AND CONVENTIONS

MSC.KPOSS	morpheme cross-referencing masculine class propositus of a kin relationship	OBJ	object
MSC.POSS	morpheme cross-referencing a masculine class possessor of a body part	OBJCOMP	object complementize
MU	MU-class	OBL	oblique
MUT	marker of symmetrical information access from speaker perspective	OBLIG	obligative
N	noun	OBLIQ	oblique
N	neuter gender	OLAC	Open Language Archives Community
nact	non-actual (irrealis) mood	OP	object-promoting suffix
NA _{der}	noun class marker	OPT	optative mood
NAR	narrative	OR	originative (case)
NC	nasal + stop cluster	ORIG	originative
NC	noun classifier	ORIG	origin case
NCD	nasal cluster dissimilation	OVV	O'Grady, Voegelin, and Voegelin (1966)
NDJ	Ndjébanna	P	Paman
NEG	negative	P	past tense
NEU	neuter gender	P	patient-like argument
NEUT	neuter noun class	P	plural pronoun
NF	non-feminine	pa	paucal number enclitic (in the vp)
NF	non-future	PAIR	pair suffix
NFUT	non-future	PARADISEC	Pacific and Regional Archive for Digital Sources in Endangered Cultures
Ngaany	Ngaanyatjarra	PART	participial
Ngal	Ngalia	PART	partitive
NITV	National Indigenous Television (Australian TV network)	PARTIC	participle
NK	Na-Kara	PASS	passive
NLZ	nominalization	PAST	past tense
NM	non-masculine (Nordlinger 1998a)	PAST PUN	past punctual
NMLZ	nominalizer	PAST.PUNCT	past punctual
NMR	nominalizer	PAUC	paucal
NMZR	nominalizer	pc	past completive
NOM	nominative	PC	past continuous
NOMLSR	nominalizer	PC	pre-contemporary tense
NOW	temporal/contrastive clitic 'now'	PCON	past continuous
NP	non-past	PERF	perfective
NPN	non-Pama-Nyungan	PERL	perlative
NPP	non-past progressive	PERS	personalizer
NPROX	non-proximal demonstrative	PES	plural exclusive subject
NPRS	non-present	PF(v)	perfective
NPST	non-past	PHAB	past habitual
NS	non-subject	PI	prior information
NSG	non-singular number	PI	past imperfective
NUM	numeral	PIMP	past imperfective
NVIS	non-visible	Pitj	Pitjantjatjarra
Ny	Nyungic	P-L	Pintupi-Luritja
Ny2	Nyulnyulan	PL	plural
O	object	PLUP	pluperfect
		PLUR	plural
		PN	Pama-Nyungan
		PNy	Pama-Nyungan

ABBREVIATIONS AND CONVENTIONS

POSS	possessive	REDUP	reduplication
POSSD	possessed noun	REFL	reflexive
POT	potent	REFLEX	reflexive
POT	potential	REFR	referential
PP	past perfective	REL	relative
P.PFV	past perfective	REL.DS	relative (different subject)
pPN	Proto-Pama-Nyungan	REL.SS	relative (same subject)
pPNy	Proto-Pama-Nyungan	REM	remote
PR	present	REMEMB	item previously mentioned
PR	present (Harvey 2002)	REM.PST	remote past
PRE	precontemporary tense	RESUM	resumptive
PRECCOMP	preceding event complementizer	RLS	realis
PRES	present	RM	reflexive/reciprocal
PRIV	privative	ROUND	rounded form
PRM	prominence marker	RPA	remote past
PRO	(personal) pronoun	RR	reflexive/reciprocal
PROG	progressive	S	single argument of canonical intransitive verb (subject)
PROH	prohibitive	S	singular
PROM	prominence	S	subject
PROP	proprietary	SA	intransitive/transitive subject
PROX	proximal demonstrative	SBJ	subject
PROX	proximate	SEL	selective enclitic
PRS	present	SEQ	sequential
PRT	part suffix	SEQ.SS	sequential, same subject
PST	past tense	SER(IAL)	serial
PST.COMPL	past completed	SG	singular
PST.CONT	past continuous	SIDE1	locating referent in small locational context (cardinal)
PST.DEF	past definite	SIDE2	locating referent in large locational context (cardinal)
PST.INDEF	past indefinite	SP	'speed' form (action undertaken before departing)
PTCP	participle	SS	same subject
PUNCT	punctiliar (Birk 1976)	STAT	state of affairs (contrast action)
PUR	purposive (Heath 1980b)	STEM	stem-forming affix (McKay 1975)
PURP	purposive	SUB	subordinate
PURPCOMP	purposive [subsequent] event complementizer	SUBJ	subject
PURPs=0	purpose subordinate subject is main clause object	SUBORD	subordinate
Q	interrogative	SUBSECT	subsection (skin)
QUAL	quality nominalizer, Jaminjung	SVC	serial verb construction
QUAL'R	qualifier	TAG	tag question
QUES	question particle (Sharp 1998)	TAM	tense/aspect/mood
R	retroflex	TEXD	text deictic
R/A	realis/assertive	TH	thematic
RDP	reduplication	TH	temporal clitic
RE	realis	THEN	temporal/contrastive clitic 'then'
REAL	realis	TO	motion towards
REC	recognitional		
RECOG	recognitional		

ABBREVIATIONS AND CONVENTIONS

TOO	'too' clitic (Simpson 1991)	V	vowel
TOP	topic	V ₁	initial vowel of a word
TPA	today past (inflection)	VAL	valence increaser (Reid 1990)
TR	transitive	VB	verbalizer
TR	transitive conjugation marker	VBLZ	verbalizer
TRANS	transitive	VCOMP	sentential complement index
TRE	temporal relative	VEG	vegetable noun class
TRVZ	transitivizer	W	wife
TWD	towards (directional)	w	celestial class
ua	unaugmented	WALS	World Atlas of Language Structures
UA	unit augment	Wang	Wangkajunga
uaP	unit augmented Past	Warn	Warnman
UAUGM	unit augment	WITH	associative
UNF	unfamiliar	WL	Wafer and Lissarrague (2008)
UNM	unmarked [verb form]	WU	WU-gender
UNMKD	unmarked	Ya	Yankunytjatjara
UP	verticality	YK	'you know' clitic
USP	underspecified, phonologically null TAM	Yul	Yulparija
V	velar		

Abbreviations of kin terms

These abbreviations are used widely in anthropology.

F	'father'	Z	'sister'
Fa	'father(s)' ⁸	H	'husband'
M	'mother'	W	'wife'
Ma	'mother(s)'	e	'elder', e.g. eB 'elder brother'
S	'son'	y	'younger' e.g. yZ 'younger sister'
D	'daughter'	m	'male propositus' e.g. mZ 'male's sister'
B	'brother'	f	'female propositus' e.g. fB 'female's brother'

Symbols are concatenated to form complex kin terms e.g. MBDS 'mother's brother's daughter's son'

Other conventions:

- morpheme boundary
- = clitic boundary

- . 'when a single object-language element is rendered by several metalanguage elements (words or abbreviations)'

Ages of children are expressed in the format years;months

⁸ This (and 'Ma' for 'Mother') are from Carew and Beltran, Chapter 70. Since they use F for 'feminine gender' and M for 'minimal' noun marking, non-standard abbreviations are used for kinship terms.

Transcription conventions

The individual papers in this volume use several sets of conventions in spelling language examples (International Phonetic Alphabet, standardized language orthographies, and ad hoc researcher conventions). These are explained in the chapters themselves. However, there are a number of conventions that apply across many chapters, which are detailed here.

Consonants

Transcription of consonants, listed left-to-right in the order bilabial, lamino-dental, apico-alveolar, apico-postalveolar (retroflex), lamino-alveopalatal, and dorso-velar, are notated as follows. Notational variants are separated by a comma. See Round, [Chapter 10](#), this volume, for further details.

Stops	p	th	t	rt	c, ty	k
	b	dh	d	rd	j, dy	g
Fricatives	β	ð				ɣ
Nasals	m	nh	n	rn	ñ, ny	ng, ŋ
Liquids		lh	l	rl	ʎ	
		rr				
Glides	w	yh		R, r	y	

n.g is a heterorganic nasal+stop cluster, as distinguished from the digraph **ng**.

h and **ɦ** are glides, respectively without and with voicing.

rr is a tap or a trill; where the two are distinguished **rrh** is used for the trill.

R is glide (IPA /ɹ/), reserving single lowercase r for diacritic use to indicate retroflexion of stops, nasals, and laterals.

ʔ is glottal closure, classed as a stop, glide, or prosodic boundary marker as appropriate for individual languages. This is also represented as ʔ or ' in some languages.

l^f and r^l are flapped laterals

t^r, r^t, d^r, and r^d are trill-released stops

ⁿp, ⁿt etc. are prenasalized stops

T** is an initial apical non-nasal (t**, ***n**, ***l**, ***r**, ***rr**) in a cited reconstruction in which the initial consonant is not material to the discussion.

| (vertical stroke) separates material in a daughter-language that is additional to the reconstructed form of an etymon.

I use the template **C₁V₁C₂V₂C₃V₃...**, where **C₂** and **C₃** can represent any intervocalic consonant or cluster, to show syllabic structure, omitting subscripts as appropriate.

Vowels:

i	u
e	o
a	

v (IPA /ə/) is an unstressed mid-to-high central vowel, not the same as ɜ, a (primary or secondary) stressed mid-to-high central vowel. For the Arandic languages, orthographic <e> is used for the stressed non-low vowel, as in the sources.

The front-rounded vowel symbols ø and œ are used as in the original transcription sources.

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Language maps

The following maps were based on a compilation of sources made over the period 2008–2020. The maps show language family locations to the extent known. The drawing of the language maps and decisions about which varieties and names to represent is described in more detail in Chapter 7. The following notes should be taken into account especially.

As should be clear, the placement of languages in physical space is an abstraction and an idealization. Languages are used by people, who are often multilingual. While some Indigenous groups view language as being particularly associated with geographical regions (that is, that tracts of land belong to certain languages and people speak those languages by virtue of being in that space; see Rumsey 1993, Rigsby 2005, Sutton 1978, for example; see further discussion in Chapters 1 and 49 of the current volume), not all groups view language in that way.

These maps are also ‘atemporal’; that is, they are not a specific snapshot of a particular point in time. Language locations change over time. All Indigenous language locations have been affected, to varying degrees, by colonial settlement (cf. Department of Infrastructure, Transport, Regional Development and Communications (DoITRDC), Australian Institute for Aboriginal and Torres Strait Islander Studies (AIATSIS), and Australian National University (ANU) 2020). This is not a map of contemporary language use, but it’s probably also not a map of traditional language locations for some parts of the country. At best, it could be a reconstruction for some areas, contemporary continuation for others, and contemporary change in yet other areas. These maps should be considered as a way to relate linguistic groups to one another in space. It should help to visualize the approximate distances between groups, abstracting away from multilingualism, population density, and Indigenous settlement patterns.

This map represents my best attempt to reconcile the myriad of conflicting information about Australian languages and their traditional and contemporary locations. It is important to note that even ‘reliable’ sources are sometimes irreconcilable. Reasons for conflicting information include a difference in the time period represented, working with different groups or individuals, different ideas of what constitutes a ‘language’, different choices of which named linguistic varieties to group together, vagueness in prior maps, and aesthetic mapping choices that change information. For these and other reasons, I may have come to different decisions than others about how to represent language–land relationships in Australia, although for the most part, this map is broadly similar to others. Perhaps the biggest difference is the number of languages represented: 490, rather than the ‘250’ that linguists have tended to work with, as further discussed in Chapter 7.

The language map is keyed to the classification beginning on page lxi. Since that is a classification of *languages* (rather than all named *varieties*), only *languages* are shown on the map. This means that groups where the language name and the name of the group are different, show the language names rather than the group names. For some parts of the country, the ethnonyms and the language names are identical (this is true for most, though not all, of the Western and Central blocs of Pama-Nyungan, for example). In parts of Eastern Australia, however, language names were not identical to names for social groups.

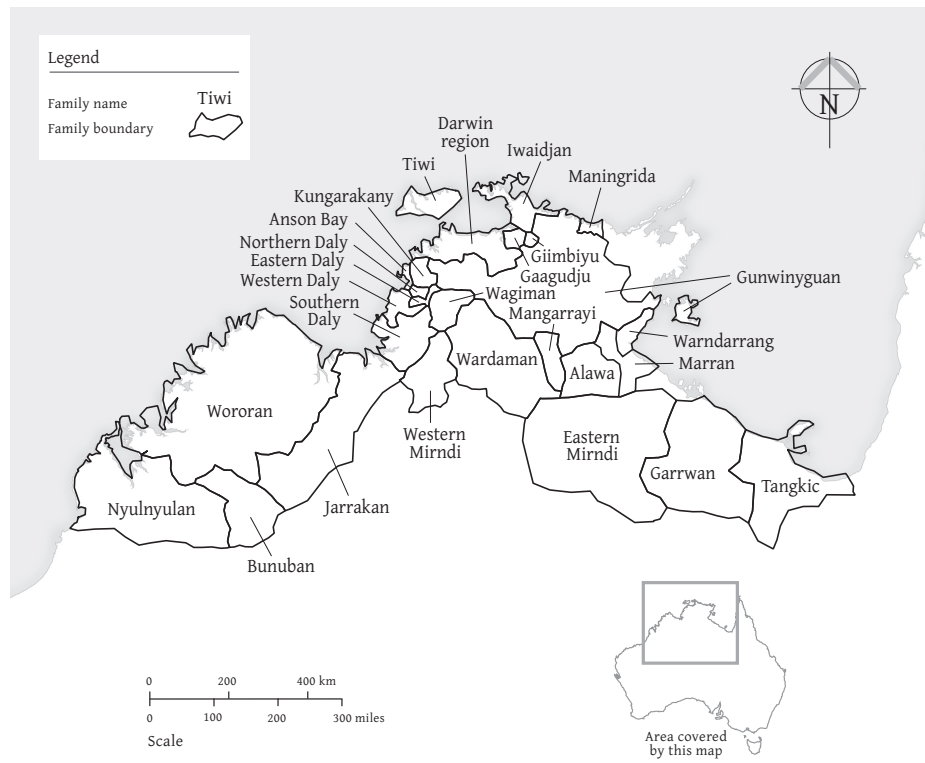
Maps 1 and 2 include classification information, such as families and subgroups. Pama-Nyungan subgroup boundaries are represented by dashed lines; language families have

solid lines. These subgroups of Pama-Nyungan are the ones most familiar to Australianists. They descend from the earlier classifications of roughly 30 groups that were originally not classified more closely together (cf. the Pama-Nyungan rake model described in Bovern and Atkinson 2012). The classification presented on the map is somewhat conservative. For example, it does not show substructure within Paman or Maric in Map 2. The map was designed with historical linguistic uses in mind (for example, units for reconstruction). It does not show groups with cultural affinities to one another (for example, the languages of the Victoria River district) or other ways of grouping languages.

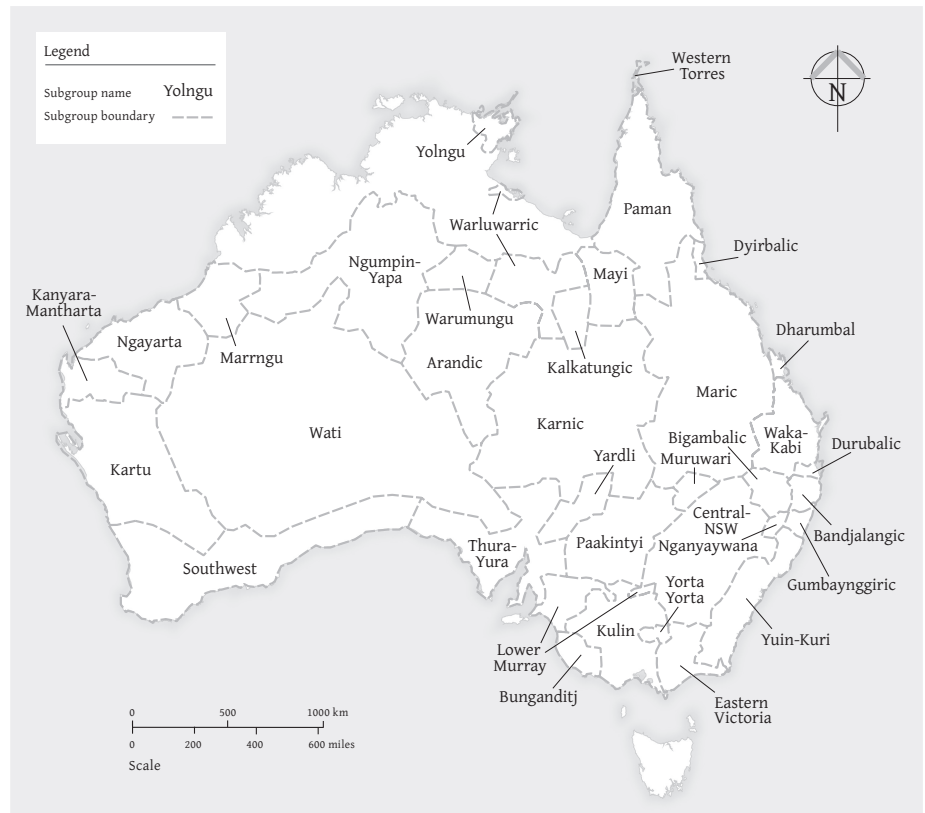
Map 3 does not present boundaries between individual languages. This decision was not undertaken lightly. It was done because it is impossible to represent boundaries accurately in too many cases. In some places, the boundaries themselves are unknown; single fixed boundaries are not the best way to represent the way languages in particular regions shaded into one another; boundaries are disputed; boundaries have changed over the last few hundred years; and other reasons. Of course, the boundaries given in Maps 1 and 2 are derived from language locations presented in Map 3 and are subject to some of the same types of considerations. They should be treated as indicative rather than definitive.

The process of compiling information was as follows. The starting point for this project was the compilation of a language map and list of ‘standardized’ language names for use in the Chirila database (Bovern 2016a). The language map included both centroid (point) locations and polygons showing the approximate boundaries of languages. In order to be as complete as possible, data were compiled from all available sources on language locations, as well as the language names used in general sources about Australian languages. Numerous compilations exist in the prior literature, with the most important continent-wide surveys including O’Grady, Wurm, and Hale (1966), Tindale (1940; 1974), Wurm and Hattori (1981), and Dixon (2002). Regional surveys were also important, and included both published sources (e.g. McGregor 2004; Wafer and Lissarrague 2008) and unpublished or locally published maps and pamphlets from regional Aboriginal language centres (for example, the Pama Language Centre, VACL, Wangka Maya, the Goldfields Language Centre, and Noon-gar Boodja Aboriginal Culture Language Centre). The maps were overlaid and geocoded in Google Earth to facilitate comparison. These were checked against the Austlang website from the Australian Institute of Aboriginal and Torres Strait Islander Studies. Some decisions about mapping are given in the notes to the classification, starting on page lxi. In general, I privileged information from Language Centres and from specific reference grammars over the older maps such as Tindale (1974). For the most part, sources were in broad agreement, as might be expected since they were not compiled independently. However, there were substantial minor differences, particularly around boundaries.

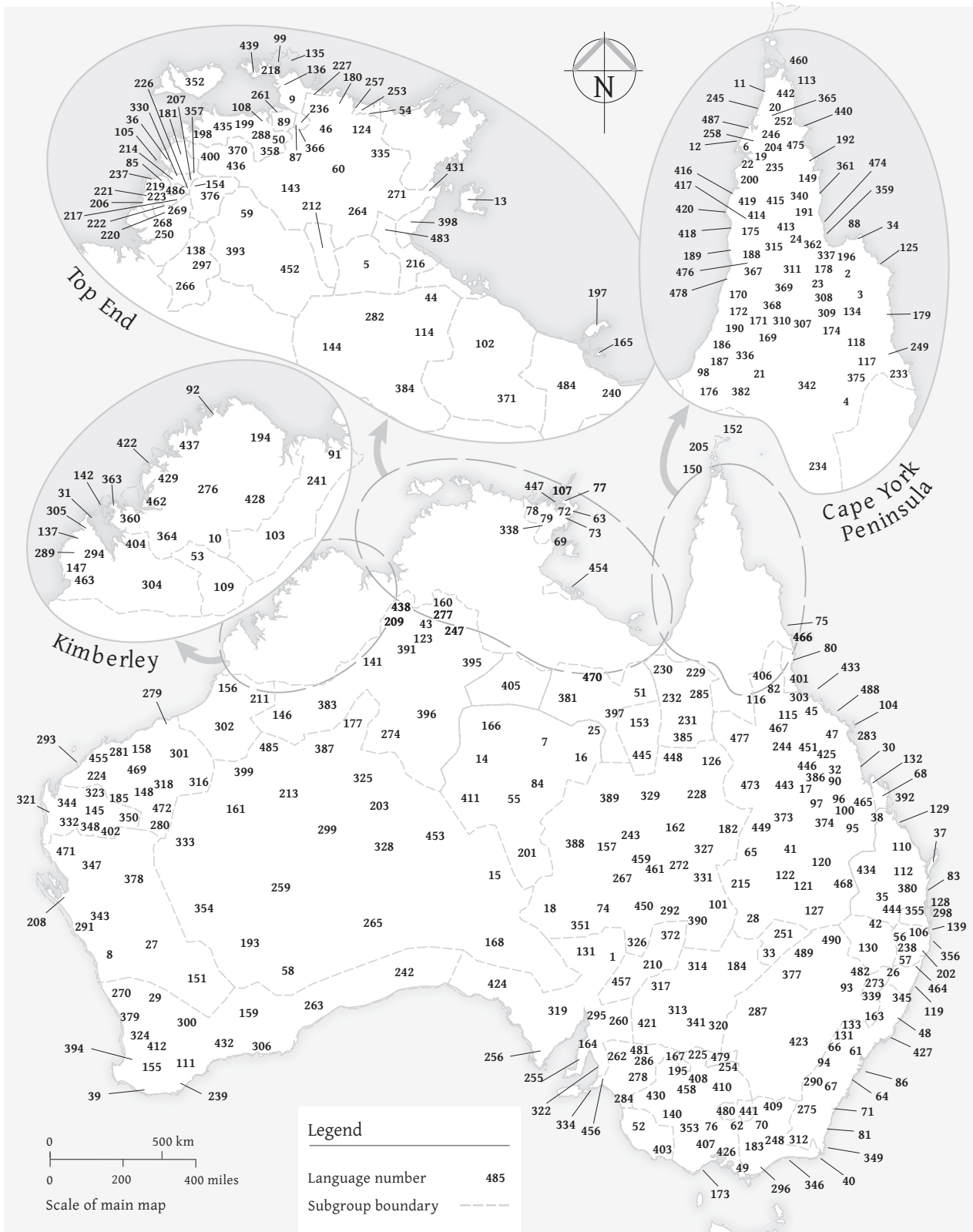
1. Non-Pama-Nyungan language families



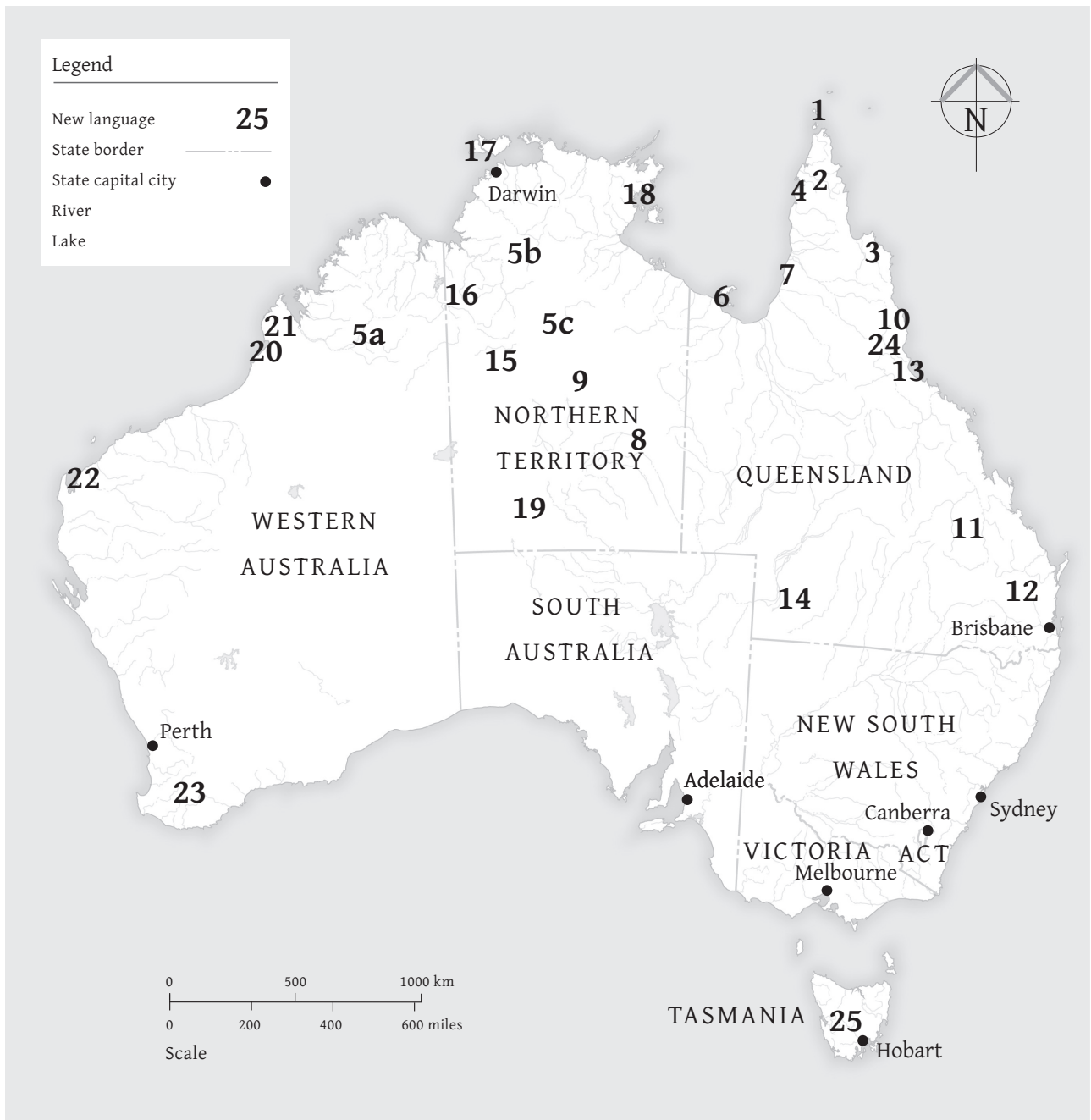
2. Major subgroups of Pama-Nyungan



3. Language locations



4. New Indigenous languages (see p xciii)



Key to language maps

Name	Map No.	Name	Map No.
Adnyamathanha	1	Bilinarra	43
Aghu Tharnggala	2	Binbinka	44
Agu Aloja	3	Bindal	45
Agwamin	4	Bininj Kunwok	46
Alawa	5	Biri	47
Alngith	6	Birrpayi	48
Alyawarr	7	Boonwurrung	49
Amangu	8	Bukurnidja	50
Amurdak	9	Bularnu	51
Andajin	10	Bunganditj	52
Angkamuthi	11	Bunuba	53
Anguthimri	12	Burarra	54
Anindilyakwa	13	Central Arrernte	55
Anmatyerr	14	Condamine-Upper-Clarence	56
Antakirinya	15	Copmanhurst Language	57
Antekerrepenhe	16	Cundeelee Wangka	58
Ara-ara	17	Dagoman	59
Arabana	18	Dalabon	60
Aritinngithigh	19	Darrkinyung	61
Atampaya	20	Daungwurrung	62
Athima	21	Dhangu	63
Awngthim	22	Dharawal	64
Awu Alaya	23	Dharawala	65
Ayapathu	24	Dharuk	66
Ayerreyenge	25	Dharumba	67
Baanbay	26	Dharumbal	68
Badimaya	27	Dhay'yi	69
Badjiri	28	Dhudhuroa	70
Balardung	29	Dhurga	71
Barada	30	Dhuwal	72
Bardi	31	Dhuwala	73
Barna	32	Diyari	74
Barranbinya	33	Djabugay	75
Barrow Point	34	Djadjawurung	76
Barunggam	35	Djangu	77
Batjjamalh	36	Djinang	78
Batyala	37	Djinba	79
Bayali	38	Djirbal	80
Bibbulman	39	Djirringany	81
Bidawal	40	Dungaloo	82
Bidjara	41	Duungidjau	83
Bigambal	42	Eastern Arrernte	84

KEY TO LANGUAGE MAPS

Name	Map No.	Name	Map No.
Emmi	85	Ikarranggal	134
Eora	86	Ilgar	135
Erre	87	Iwaidja	136
Flinders Island	88	Jabirrabirri	137
Gaagudju	89	Jaminjung	138
Gabalbara	90	Janday	139
Gajirrebeng	91	Jardwadjali	140
Gamberre	92	Jaru	141
Gamilaraay	93	Jawi	142
Gandangara	94	Jawoyn	143
Gangulu	95	Jingulu	144
Ganulu	96	Jiwarli	145
Gara-gara	97	Jiwarliny	146
Garandi	98	Jukun	147
Garig	99	Jurruru	148
Garingbal	100	Kaanju	149
Garlali	101	Kala Lagaw Ya	150
Garrwa	102	Kaalamaya	151
Gija	103	Kalaw Kawaw Ya	152
Giya	104	Kalkatungu	153
Giyug	105	Kamu	154
Gold Coast Pimpana	106	Kaniyang	155
Golpa	107	Karajarri	156
Gonbudj	108	Karangura	157
Gooniyandi	109	Kariyarra	158
GoorengGooreng	110	Karlaaku	159
Goreng	111	Karranga	160
Gubbi Gubbi	112	Kartujarra	161
Gudang	113	Karuwali	162
Gudanji	114	Katthang	163
Gudjal	115	Kurna	164
Gugu Badhun	116	Kayardild	165
Gugu Djangun	117	Kaytetye	166
Gugu Wakura	118	Keramin	167
Gumbaynggir	119	Kokatha	168
Gungabula	120	Kokiny	169
Gunggari	121	Koko Bera	170
Gunya	122	Koko Dhawa	171
Gurindji	123	Koko-Babángk	172
Gurr-goni	124	Kolakngat	173
Guugu-Yimidhirr	125	Koogobatha	174
Guwa	126	Kugu Nganhcara	175
Guwamu	127	Kukatj	176
Guwar	128	Kukatja	177
Guweng	129	Kuku Thaypan	178
Guyambal	130	Kuku Yalanji	179
Guyani	131	Kunbarlang	180
Guynmal	132	Kungarakany	181
Hunter River Lake Macquarie	133	Kungkarri	182

Name	Map No.	Name	Map No.
Kurnai	183	Mayi-Yapi	232
Kurnu	184	Mbabaram	233
Kurrama	185	Mbara	234
Kurtjar	186	Mbeiwum	235
Kuthant	187	Mengerrdji	236
Kuuk Thaayorre	188	Menthe	237
Kuuk Yak	189	Middle Clarence	238
Kuuk-Narr	190	Minang	239
Kuuku Yani	191	Minkin	240
Kuuku-Ya'u	192	Miriwoong	241
Kuwarra	193	Mirniny	242
Kwini	194	Mithaka	243
Ladji Ladji	195	Miyan	244
Lamalama	196	Mpakwithi	245
Lardil	197	Mpalityan	246
Larrakia	198	Mudburra	247
Limilngan	199	Muk-Thang	248
Linngithigh	200	Muluriji	249
Lower Aranda	201	Murrinhpatha	250
Lower Richmond	202	Muruwari	251
Luthigh	203	Muthanthi	252
Luthigh	204	Nakara	253
Mabuiag	205	Nari Nari	254
Magati Ke	206	Narrungga	255
Malak Malak	207	Nauo	256
Malkana	208	Ndjébbana	257
Malngin	209	Ndra'ngith	258
Malyangapa	210	Ngaanyatjarra	259
Mangala	211	Ngadjuri	260
Mangarrayi	212	Ngaduk	261
Manjiljarra	213	Ngaiawang	262
Maranunggu	214	Ngajumaya	263
Margany	215	Ngalakgan	264
Marra	216	Ngalia	265
Marramaninjsji	217	Ngaliwuru	266
Marrgu	218	Ngamini	267
Marri Ammu	219	Ngan'gikurunggurr	268
Marri Dan	220	Ngan'gityemerri	269
Marri Tjevin	221	Nganakarti	270
Marri Ngarr	222	Ngandi	271
Marrithiel	223	Ngantangarra	272
Martuthunira	224	Nganyaywana	273
MathiMathi	225	Ngardi	274
Matngele	226	Ngarigu	275
Mawng	227	Ngarinyin	276
Mayawali	228	Ngarinyman	277
Mayi-Kulan	229	Ngarkat	278
Mayi-Kutuna	230	Ngarla	279
Mayi-Thakurti	231	Ngarlawangga	280

KEY TO LANGUAGE MAPS

Name	Map No.	Name	Map No.
Ngarluma	281	Pungupungu	330
Ngarnka	282	Punthamara	331
Ngaro	283	Purduna	332
Ngarrindjeri	284	Putjarra	333
Ngawun	285	Raminyeri	334
Ngintait	286	Rembarrnga	335
Ngiyambaa	287	Ribh	336
Ngomburr	288	Rimanggudinhma	337
Ngumbarl	289	Ritharrngu	338
Ngunawal	290	Southern Anaiwan	339
Nhanda	291	Southern Kaantju	340
Nhirrpi	292	Southern Paakantyi	341
Nhuwala	293	Takalak	342
Nimanburu	294	Thaagurda	343
Nukunu	295	Thalanyji	344
Nulit	296	Thanggatti	345
Nungali	297	Thangguai	346
Nunukal	298	Tharrayi	347
Nyaanyatjarra	299	Tharrgari	348
Nyaki Nyaki	300	Thawa	349
Nyamal	301	Thiin	350
Nyangumarta	302	Thirarri	351
Nyawaygi	303	Tiwi	352
Nyikina	304	Tjapwurrung	353
Nyulnyul	305	Tjupan	354
Nyunga	306	Turrbul	355
Ogh Awarrangg	307	Tweed-Albert	356
Ogh-Alungul	308	Tyerraty	357
Ogh-Angkula	309	Umbugarla	358
Ogunyjan	310	Umbuygamu	359
Olkola	311	Umiida	360
Omeo language	312	Umpila	361
Paakantyi	313	Umpithamu	362
Paaruntyi	314	Unggarrangu	363
Pakanh	315	Unggumi	364
Palyku	316	Uradhi	365
Pantyikali	317	Urningangk	366
Panyjima	318	Uw El	367
Parnkala	319	Uw Oyklangand	368
Parrintyi	320	Uw-Olgol	369
Payungu	321	Uwinymil	370
Peramangk	322	Waanyi	371
Pinikura	323	Wadikali	372
Pinjarup	324	Wadjabangayi	373
Pintupi-Luritja	325	Wadjigu	374
Pirlatapa	326	Wagaman	375
Pirriya	327	Wagiman	376
Pitjantjatjara	328	Wailwan	377
Pitta-Pitta	329	Wajarri	378

Name	Map No.	Name	Map No.
Wajuk	379	Worla	428
WakaWaka	380	Worrorra	429
Wakaya	381	Wotjobaluk	430
Walangama	382	Wubuy	431
Walmajarri	383	Wudjari	432
Wambaya	384	Wulguru	433
Wanamara	385	Wuli Wuli	434
Wangan	386	Wulna	435
Wangkajunga	387	Wulwulam	436
Wangkangurru	388	Wunambal	437
Wangkayutyuru	389	Wurlayi	438
Wangkumara	390	Wurrugu	439
Wanyjirra	391	Wuthathi	440
Wapabara	392	YabulaYabula	441
Wardaman	393	Yadhaykenu	442
Wardandi	394	Yagalingu	443
Warlmanpa	395	Yagara	444
Warlpiri	396	Yalarnga	445
Warluwarra	397	Yambina	446
Warndarrang	398	Yan-nhangu	447
Warnman	399	Yanda	448
Warray	400	Yandjibara	449
Warrgamay	401	Yandruwandha	450
Warriyangga	402	Yangga	451
Warrnambool	403	Yangman	452
Warrwa	404	Yankunytjatjara	453
Warumungu	405	Yanyuwa	454
Warungu	406	Yapurarra	455
Wathawurrung	407	Yaraldi	456
WathiWathi	408	Yardliyawarra	457
Waywurru	409	Yari-Yari	458
Wemba Wemba	410	Yarluyandi	459
Western Arrarnta	411	Yatay	460
Wiilman	412	Yawarrawarrka	461
Wik Iyanh	413	Yawijibaya	462
Wik Me'anh	414	Yawuru	463
Wik Mungkan	415	Yaygirr	464
Wik-Alkan	416	Yetimarala	465
Wik-Ep	417	Yidiny	466
Wik-Ngathan	418	Yilba	467
Wik-Ngatharr	419	Yiman	468
Wik-Paacha	420	Yindjibarndi	469
Wilyakali	421	Yindjilandji	470
Winjarumi	422	Yingkarta	471
Wiradjuri	423	Yinhawangka	472
Wirangu	424	Yiningayi	473
Wirri	425	Yintyingka	474
Woiwurrung	426	Yinwum	475
Worimi	427	Yir Yoront	476

KEY TO LANGUAGE MAPS

Name	Map No.	Name	Map No.
Yirandhali	477	Yukulta	484
Yirrk Thangalkl	478	Yulparija	485
YithaYitha	479	Yunggurr	486
YortaYorta	480	Yupngayth	487
Yu-Yu	481	Yuru	488
Yugambal	482	Yuwaalaraay	489
Yugul	483	Yuwaliyaay	490

Australian language families and linguistic classifications

This material presents classification information for the Indigenous languages of Australia. They include languages spoken in the area now known as Australia prior to 1788, as well as subsequent languages which have arisen through language contact. Languages are grouped by relationship, using the non-Pama-Nyungan/Pama-Nyungan distinction for convenience.

I compare the current ‘Bowern’ classification with three others: Dixon (2002), Wurm (1972), and O’Grady, Voegelin, and Voegelin (1966). Other classifications could be used, and others also vary somewhat in the details, but as Walsh (1997b) has noted, the overall number of languages and broad principles of classification have not changed substantially since O’Grady, Voegelin, and Voegelin (1966). That is apparent here, too: though some details vary, and some individual languages are placed in different subgroups or families, there is broad consensus across the classifications. The main difference is in the number of languages, discussed in more detail in Chapter 7 of this volume. This comparison has both some historical value, in seeing how classifications of Australian languages have changed over time and should orient the reader to how the current classification compares to others established in the literature.

The internal structure of some of the subgroups is simplified for ease of display. Some of the names have been adapted to make comparisons easier across sources (e.g. I do not list the Yibian Subgroup in OVV, using simply ‘Wardaman’ as the name). I have rearranged the order of families from previous classifications so as to align the classifications more clearly. I have kept Dixon’s names, though I have abbreviated them in places so as to make the items clearer, since Dixon does not follow the naming conventions of previous literature in many cases. Note that while groups within cells are comparable, the languages may occur in different orders within cells.

The ‘Bowern’ classification presented here is based in part on results published in Bouckaert et al. (2018), which in turn is one publication from approximately 12 years’ work on language relationships, particularly in Pama-Nyungan (and between Pama-Nyungan and non-Pama-Nyungan families). That is, the current classification was compiled from a combination of prior sources (evaluated for reliability), inspection of primary materials, including cognate coding, and the results of phylogenetic work published in Bouckaert et al. (2018). However, here I present a fairly conservative classification, especially as regards to groupings between Pama-Nyungan subgroups. I do not list all internal structure within Bouckaert et al. (2018), except where it is well established from previous classifications. Though the Bowern classification is ‘flat’ (in not showing relationships within, for example, the Northern languages in Pama-Nyungan), this is for ease of reference and because the details of the more remote relationships within Pama-Nyungan are tentative, not because I believe they don’t exist.

This handbook does not focus on the classificatory work done on Australian languages in the 20th century, mostly because there are already substantial reviews of these classifications in the work of Koch (2014a; Koch and Nordlinger 2014) and Bowern and Koch (2004: Chapter 2). The main classifications of the second half of the 20th century—O’Grady, Voegelin, and Voegelin (1966), Wurm (1970), Oates and Oates (1970), Oates (1975), Tindale (1974), Dixon (1980), Wurm and Hattori (1981), and Dixon (2002)—build on one another and

are based, to some extent, on similar methodologies. This sets them apart from the earlier classifications, such as Schmidt's (1919a) and others described by Stockigt (Chapters 2 and 6, this volume), on the one hand, and the phylogenetic classifications of Bowern and colleagues on the other.

The phylogenetic classifications of Bowern (Bowern and Atkinson 2012, and Bouckaert et al. 2018) for Pama-Nyungan are based on inferring a tree from basic vocabulary from sources from across the country. Details on the methods of phylogenetic classification have been published elsewhere (not least, in the publications themselves, though see Bowern and Atkinson 2012 in particular). In brief, the classification is based on vocabulary, that is, the cognacy (or presumed cognacy) of vocabulary on a 200 item word list. The cognate codings produce approximately 6,500 character sets (as well as approximately double that number of character sets where the word in the language has no known cognates; these are uninformative for subgrouping). We then use an evolutionary framework to model changes in characters over time, which gives probabilistic language classifications, approximate branching times, and (through Bayesian MCMC) an estimate of the confidence of subgroupings. Because the classification is based on 6,500 cognate sets, it is relatively robust to individual data errors.

There are four situations where this classification method performs poorly. One is where loan rates are very high. In such cases, classifications may be swamped by similarities due to loans. This is possibly the case with the Bowern and Atkinson (2012) internal classification of Ngumpin-Yapa, for example. The second is where the languages are very similar. In that case, there is little to choose between conflicting hypotheses (that is, if the varieties differ in only a few words, they will clearly group together, but their internal subgrouping may be poorly resolved). The third situation is where the number of overall cognates is very low. For the Western Torres group, for example, two-thirds of the etyma under consideration were either unique or words shared with Papuan languages, which aren't part of the classification (and so are coded as unique for the purposes of classification within Pama-Nyungan). In such cases, classification tends to be contingent on very few etyma. The final issue is languages where the only good cognates are those which are also shared by a large number of other languages (such as Western Torres and Anaiwan). In the case of Anaiwan, the classification is poorly resolved, because there are no or few solid innovations by which to group the languages. The language is clearly Pama-Nyungan, but shares small numbers of words with several subgroups. All these problems result in low posterior probabilities. These points are noted in the classification below. Nonetheless, Bowern and Atkinson (2012) recovered all but four of the main subgroups of Pama-Nyungan, as established in the prior literature and classifications such as Wurm's and Dixon's.

It should be noted that there is a fair amount of agreement between the four classifications discussed here. There is some difference for non-Pama-Nyungan languages, which is to be expected given that, at the time the Wurm (1972) and OVV classifications were developed and published, there were relatively few in-depth studies of linguistic relationships within non-Pama-Nyungan families, and many of the resources relied on here were published after 1975. The classifications differ primarily in the number of languages (see Chapter 7), as well as in the assignment of some individual languages to subgroups, particularly among the Eastern languages.

Finally, discussion is needed of Proto-Australian, Pama-Nyungan's relationship to other language families, and relationship between non-Pama-Nyungan families. I consider Proto-Australian 'not proven'. This is not the majority view of Australianists, it must be said: Australianists have presumed that all languages of Australia are ultimately related to one another, even if at too great a time depth to be demonstrable at this point. Another point I consider beyond investigation (at this point) is whether the (putative single) ancestor of

all current Australian families (including Tasmanian) is the same as the language(s) of Australia's original settlers, more than 60,000 years ago. In Australia, as elsewhere, languages change sufficiently fast that they are a crucial source of information for the Holocene, but not for further back in time. Thus I treat the 30 traditional language families of Australia (five from Tasmania, and 25 from the mainland) as distinct entities, at least for the purpose of this classification.

Some speculation on language family relationships—between Pama-Nyungan and other families, as well as between non-Pama-Nyungan families—is given in Bowern (2020). Australianists have tended to rely heavily on morphological evidence for demonstrating strengths of relationship between language groups. For example, Harvey and Mailhammer (2017) discuss non-Pama-Nyungan nominal classification markers as evidence for a single Australian family, and Evans (1995c) and Blake (1990b) classify Tangkic as non-Pama-Nyungan (that is, not a subgroup within Pama-Nyungan) primarily (though not exclusively) on the basis of pronouns and verbal morphology. But as I point out in Bowern (2020), the morphological evidence isn't absolutely solid. After all, Yolngu pronouns also show some changes from Proto-Pama-Nyungan (e.g. 1sg *narra* as compared to Proto-Pama-Nyungan **ɲayu*, conflation of 2dl and 2pl, replacement of 3pl **thana* with *walal(a)* in some varieties, for example). Verb morphology and lexicon show Yolngu to be solidly Pama-Nyungan, but across the family there are enough morphological differences that on those grounds alone Tangkic is difficult to exclude.

The problem deepens further when we consider lexicon. Australianists, as noted by Campbell (2004), tend to distrust lexical arguments for classification because lexicon is susceptible to borrowing. Yet as Bowern et al. (2011) showed, Australian loan rates are comparable to the rest of the world: some languages have a lot of loaned basic vocabulary, while others do not. Almost all languages have some identified loans, but few languages have many loans. Therefore lexical information should be, like all evidence, interpreted with caution, but that caution also applies to morphological data. After all, morphology is also borrowable, especially where language contact is extensive. And the lexicon, because it contains both stable and borrowable items, is a good place to evaluate contact claims. For example, if two languages do not share lexical items which are stable, but they share other vocabulary, that is good evidence that the shared vocabulary is due to language contact. The converse, on the other hand (sharing of basic but not non-basic vocabulary) is potential evidence of shared (if remote) genetic relationship.

Some clearly Pama-Nyungan languages nonetheless have few lexical items in common with other languages in different parts of the family. And yet there are non-Pama-Nyungan families with apparent conservative cognates with widely found Pama-Nyungan items. Consider the vocabulary in Nyulnyulan that is shared with Pama-Nyungan languages. Various languages of the Nyulnyulan family have words that are clearly loans from Pama-Nyungan languages. Bardi *yagoo* 'brother-in-law', for example, is a recent loan because it does not undergo either the lenition sound change or the loss of the initial glide that inherited words in Bardi undergo. If this word were truly cognate with **yaku* (e.g. Nyangumarta 'wife's brother, sister's husband', Wardandi *yaku* 'wife', Pitta-Pitta *yaku* 'elder sister', Yulparija *yakurti* 'mother', Mayi-Yapi *yakurti* 'mother', etc.), its form in Bardi should be *o /ɔ/* or *awoo /awu/*. Likewise, Nyikina *kampi* 'egg' is probably a loan, even though there are no diagnostic sound changes to identify it as such, simply because, although it is widespread in Pama-Nyungan, Nyikina is the only one of the Nyulnyulan languages to show it, and it is securely reconstructed within Pama-Nyungan but not Nyulnyulan.

Other words are probably loaned into Proto-Nyulnyulan (or at least a stage of the family that predates the breakup of all the languages we see today). Yet others are widespread in Nyulnyulan but are also regional Wanderwoerter, such as *lungkurta* 'blue-tongue lizard' and *baarni* 'goanna' (see Haynie et al. 2014). However, there are yet other words that are

inherited into Proto-Nyulnyulan, in that they show the expected sound changes in the daughter languages and are well integrated into Nyulnyulan morphology, and yet are similar or identical to words in similar meanings which are widespread and reconstructible in the Pama-Nyungan family, either to Proto-Pama-Nyungan or to an intermediate (but high-level) branch of the family. Some cases from basic vocabulary are given in (1) below.

- (1) Proto-Nyulnyulan reconstructions
- *ni-lirr ‘3SG.POSS-mouth’
 - *ngayu ‘1SG’
 - *ngamana ‘breast’
 - *kapali ‘father’s mother’
 - *ni-marla ‘hand’ (*mara⁹)
 - *tyamu ‘mother’s father’ (*tyamu, *tyami)
 - *kamarta ‘mother’s mother’ (*kamarta)
 - *waalka ‘sun’ (*walngka)
 - *kutyarra ‘two’ (*kutyarra)
 - *ma-kunbira-n ‘urinate’ (*kunpi)
 - *mayi ‘vegetable food’
 - *ma-ni-n ‘sit’ (*nhi-)
 - *ma-wa-n ‘give’ (*wa-)

Nyulnyulan shares more basic vocabulary with Pama-Nyungan languages than it does with Wororan. There are also loans between Wororan languages and Nyulnyulan languages, as would be expected given the history of the region (cf. Bowern 2018a). However, there are no clear recurrent or systematic similarities between Nyulnyulan and other non-Pama-Nyungan families of the region, as discussed in Bowern (2004b).

Now, no one to my knowledge has ever proposed that Nyulnyulan is closely related to Pama-Nyungan, and, to be clear, this is not a claim I’m making here. Grammatically and morphologically, Nyulnyulan languages are not at all similar to Pama-Nyungan languages, though one should also note that they are rather different typologically from other non-Pama-Nyungan Kimberley languages too. I discuss this case not as a claim that Nyulnyulan is Pama-Nyungan, but as a way to evaluate the context of claims for Tangkic relationships, both lexically and grammatically. Nyulnyulan shares as many Pama-Nyungan words as Tangkic does; therefore any investigation of language relationships between Pama-Nyungan and other families needs to look more broadly. Better criteria are needed for evaluating claims of language relationship when the evidence is sparse.

⁹ Though in Ngumpin-Yapa, *r* > *rl* in this position; cf. Warlpiri *marla* (see further McConvell and Laughren 2004).

Australian Families apart from Pama-Nyungan

Bowern	Dixon (2002)	Wurm (1972)	O'Grady, Voegelin, and Voegelin (1966)
Tiwi ²	Tiwi	Tiwi	Tiwi (Wanuk)
Iwaidjan ³ Amurdak ⁴ Iwaidjic Iwaidja Mawng Garig Ilgar Wurrugu Marrgu	North-west Arnhem Land subgroup Mawung-Iwaydja Mawung Iwaydja Amurdag Marrgu Popham Bay (=Iyi)	Iwaidjan Wargbi Iwaidji Maung Maung Amarag Margu Garik	Iwaidjan Amaragic Iwaidjic Iwaidji Maung Margu
Gunwinyguan ⁵ Gunwinygic Kunbarlang Bininj Kunwok ⁶ Dalabon Jawoyn Warray Uwinymil Wulwulam Rembarrnga- Ngalakgan Rembarrnga Ngalakgan East Arnhem Wubuy Anindilyakwa ⁷ Ngandi	Arnhem Land ⁸ Rembarrnga/Ngalakan Rembarrnga Ngalakan Far east Arnhem Ngandi Nunggubuyu Aninhdhilyagwa Dalabon Gunwinjgu Gunwinjgu Gunbarlang Jarroyn/Warray Jawoyn Warray Uwinjmil	Gunwingguan Gunwinggic Gunwinggu Gunbalang Dangbon Dalabon Ngalagan Ngandi Rainbarngo Djawan Yangman Yangman Wardaman Wageman	Gunwingguan Gunwinggic Bininy Gunwiggu Gundangbon Muralidban Gunbalang Boun-Dalabon Ngalakgan Ngandi Rembarrnga Jawoyn Yangmanic Yangman Wardaman
Kungarakany ⁹	Gungarakanj	Warrai	Wardaman
Mangarrayi ¹⁰	Mangarrayi	Nunggubuyu	Nunggubuyu
Gaagudju ¹¹	Gaagudju	Andilyaugwa	Groote Eylandtan
Maningrida ¹² Ndjébbana Nakara Gurr-goni Burarra	Maningrida Burarra Gurr-goni Nakkara Ndjébbana	Kungarakany	
		Mangarai	Mangarai
		Kakadju	Kakaduan
		Gunavidjian Gunavidji ¹³	Gunavidjian (Gunabidji)
		Nagaran (Nagara)	Nagaran (Nakara)
		Bureran Burera Gorogone	Bureran Burarra-Gunnartpa Gorogone
Wagiman	Wagiman-Wardaman Wagiman	¹⁴	¹⁵

AUSTRALIAN LANGUAGE FAMILIES AND LINGUISTIC CLASSIFICATIONS

	Wardaman		
Alawa ¹⁶	Alawa	Maran	Alawa
Marran Yugul Marra	Marra/Warndarrang Marra Warndarrang	Mara Nawariyi Wandarang Alawa	Maran Mara Wandaran
Warndarrang			
Wardaman Wardaman Yangman Dagoman ¹⁷		¹⁸	¹⁹
Garrwan ²⁰ Garrwa Waanyi	Waanji/Garrwa subgroup ²¹ Waanji Garrwa	Karawan Karawa Wanyi	Karwan Karawa Wanji
Darwin Region ²² Larrakiyan Wulna ²³ Larrakia Limilngan Umbulgarlan Umbugarla Ngomburr Gonbudj Bukurnidja Ngaduk ²⁴	Darwin Region Umbugarla Limilngan-Wulna Limilngan Wuna Larrakiya	Larakian Larakia Wuna	Larakic Larakia Wuna
Jarrakan Gija Miriwoong Gajirrebeng	Kitja/Miriwung subgroup (ND*) Kitja Miriwung	Djeragan Gidjic Gidja Guluwarin Lungga Miriwunic Miriwun Gadjerong	Djeragan Gidjic Gidja Guluwarin Lungga Miriwunic Miriwun Gadjerong
Bunuban Bunuba Gooniyandi	South Kimberley Subgroup (NF*) Bunuba Guniyandi	Bunaban Bunaba Gunian	Bunaban Bunaba Gunian
Wororan ²⁵ Wunambalic Kwini Wunambal	North Kimberley Areal Group (NG) Worrorra Ungarinjin	Wororan Wunambalic Wunambal Gambre	Wororan Wunambalic Wunambal Gambre

AUSTRALIAN LANGUAGE FAMILIES AND LINGUISTIC CLASSIFICATIONS

Gamberre Worrorric Unggumi Umiida Unggarranggu Worrorra Yawijibaya Winjarumi Ngarinyinic Worla Ngarinyin Andajin	Wunambal	Bagu/Gwini Wororic Worora Mailnga Unggumi Umida Unggarangi Yaudjibara Ngarinyinic Ngarinyin Munumburu Manungu	Bagu/Gwini Wororic Worora Mailnga Unggumi Ungarinyinic Ungarinyin Munumburu Wolyamidi
Nyulnyulan ²⁶ Western Jawi ²⁷ Bardi Nyulnyul JabirrJabirr Nimanburru ²⁸ Eastern Yawuru Ngumbarl ²⁹ Nyikina Djukun Warrwa	Fitzroy River Subgroup (NE*) Njigina Baardi	Nyulnyulan Nyulnyul/Bardi Yawuru Nyigina Warwa	Nyulnyulan Nyulnyul/Bard Jauor Nyigina Warwa
[Pama-Nyungan] ³⁰		Yanyulan	Yanyulan ³¹ (Yanyula)
Tangkic ³³ Lardil Yukulta Kayardild Minkin	Tangkic subgroup (NA*) Lardil Kayardild/Yukulta Kayardild Yukulta Minkin	[Pama-Nyungan] ³² Tangic Lardil Gayardilt Minkinan (Minkin)	Pama-Nyungan Tangkic Lardil Gayardilt Minkinan (Minkin)
Mirndi ³⁴ Western Ngaliwuru Nungali Jaminjung Eastern Ngarnka Binbinka Gudanji	NCa Mindi West Mindi Djamindjung/Ngaliwuru Nungali East Mindi Djingulu Ngarnka Wambaya	Djingili-Wambayan Djingili Wambayic Wambaya Ngarndji Djamindjungan Djamindjung Jilngali Ngaliwuru	Tjingilu Wambaya Djamindjungan Djamindjung Jilngali Ngaliwuru

AUSTRALIAN LANGUAGE FAMILIES AND LINGUISTIC CLASSIFICATIONS

Wambaya Jingulu		Nungali	Nungali
Southern Daly ⁴³ Murrinhpatha ⁴⁴ Ngan'gikurunggurr ⁴⁵	Daly River areal group ⁴⁶ Southern Daly Murrinhpatha Ngan.gi-tjemerri	Murinbatan Murinbata	Garaman Garaman Murinbata
Western Daly Marramaninyshi Marrithiyel ⁴⁷ Marri Ngarr ⁴⁸ Maranunggu ⁴⁹	Western Daly Emmi Marrithiyel Marri Ngarr	Daly Moil Ngangikurrungur Brinken Maramanandji Maredan Marengar	Nangumiri Brinken Marithiel Maramanindji
Eastern Daly Kamu Matngele ⁵⁰	Eastern Daly Matngele Kamu	Daly Yunggor-Matngala	
Anson Bay Batjjamalh Pungu Pungu Kiyuk ⁵¹	Patjtjamalh		
Northern Daly Malak Malak Tyerratj	Malak-Malak	Wagaty Wadjiginy ⁵² Maranunggu Ame Mulluk Mullukmulluk Djeraity	Mullukmulluk
Giimbiyu ⁵³ Erre Mengerdji Urningangk	Giimbiyu	Urningangk Mangerian Mengerai	Uningank Mangerian Mengerai

¹⁰ See, for example, (Osborne 1974; Wilson 2013).

¹¹ Per Evans (2000a).

¹² See further Handelsmann (1991); Mailhammer (2008).

¹³ See Evans (2003a) and much subsequent work.

¹⁴ Bininj Gunwok (or simply Gunwok) includes Kunwinjku, Kune, Mayali, and other varieties, per Evans (2003a). I treat these as varieties rather than listed languages for reasons of consistency with other areas of the country, but a case could be made for including more varieties here.

¹⁵ See van Egmond (Chapter 68, this volume) and for more detail on Anindilyakwa's genetic position, van Egmond (2012) and van Egmond and Baker (2020).

¹⁶ Though Dixon (2002) groups many of the languages of Arnhem Land together in a single group, I do not consider there to be sufficient evidence of genetic relationship to do so at this point. Dixon (2002) gives both genetic and ‘areal’ groupings. I stick with genetic relationships as I do not consider Dixon’s groupings either consistent or sufficiently supported by evidence.

¹⁷ See Parrish (1983); for this and other isolates of North Australia, see also Bowern (2017a).

¹⁸ The position of Mangarrayi is uncertain—as well as considering it an isolate, some have assigned it to Gunwinyguan (e.g. Alpher, Evans, and Harvey 2003), some to Marran (e.g. Merlan 2003).

¹⁹ See Harvey (2002).

²⁰ See Carew and Beltran (Chapter 70, this volume). See Green (2003) for possible arguments around the relationships between the Maningrida languages and others in Arnhem Land.

²¹ This is the same language as Ndjébbana.

²² Included in Gunwinyguan.

²³ Included in Gunwinyguan.

²⁴ Alawa and Marran (including Marra, Yukul, and Warndarrang) was proposed in OVV and followed by Heath (1978a) and Sharpe (1976b). Harvey (2012) shows that the relationship between Marra and Warndarrang is not close, and the similarities are most likely due to language contact. Sharpe (1976b) is agnostic about the relationship between Alawa and Marra. I follow Harvey (2012) here in treating these languages as three separate families (two isolates, and Marra related to Yukul, following Harvey 2012 and Baker 2010).

²⁵ Tentative as separate language; could also be considered a variety of Wardaman.

²⁶ Subgroup of Gunwinyguan and listed there.

²⁷ Subgroup of Gunwinyguan and listed there.

²⁸ See Harvey (2009). I consider this ‘not proven’ (see also notes on Tangkic below) and thus conservatively keep Garrwan as a separate group, distinct from Pama-Nyungan for now.

²⁹ Dixon’s (2002) intent is unclear here. Dixon calls this a ‘subgroup’, but does not say which higher-order group it belongs to. In terms of alpha-numeric classification, this group is included with groups which other authors include as Pama-Nyungan; however, given that Dixon (2002) does not accept the unity of Pama-Nyungan, is it unclear on what basis we should assign Garrwan to that grouping.

³⁰ Harvey (2001: 9) considers this group a Sprachbund, and should be considered very tentative.

³¹ Also known as Wuna (cf. Harvey 2001).

³² Treatment as a distinct language is tentative.

³³ Classification for Wororan broadly follows (Clendon 2014; McGregor and Rumsey 2009). That there are three branches is not in doubt, but the divisions within each group are unclear. See also Spronck (Chapter 69, this volume), who includes more varieties.

³⁴ See Bowern (2012a).

³⁵ Jawi is listed as distinct from Bardi. Though the two varieties are now close, there is considerable evidence that the two have partially merged over the 20th century, given extensive language contact on Sunday Island and the great loss of Jawi people, particularly to influenza and diphtheria. That is, the languages were likely much more different, both lexically and morphologically, than the most recent records suggest.

³⁶ Treated as distinct by Bowern (2023) on the basis of material collected by A. R. Peile, which is the only extensive material for the language. The material in Nekes and Worms (1953) for Nimanburru appears to be much more similar to Nyulnyul.

³⁷ Ngumbarl is sometimes said to be a variety of Djukun (cf. Nekes and Worms 1953), but work with Bates’s Ngumbarl material recorded from Billinge (cf. Coyne 2005) suggests that it is sufficiently different from Djukun and Yawuru that it should be treated as a distinct language.

³⁸ See below for Pama-Nyungan groups.

³⁹ In Pama-Nyungan in subsequent classifications; see Yanyuwa (Warluwarric).

⁴⁰ Tangkic is Pama-Nyungan in this classification but Minkin is non-Pama-Nyungan and a distinct family.

⁴¹ Bowern (2020) discusses the variable placement of Tangkic as a sister to Pama-Nyungan or a subgroup within it. While early classifications (e.g. O’Grady, Wurm, and Hale 1966) placed Tangkic as one of the primary subgroups of Pama-Nyungan on primarily typological grounds, since Evans (1990; 1995c) and Blake (1990), it has been customary to treat Tangkic as non-Pama-Nyungan, albeit a close relative (the closest family apart from Garrwan; though see Harvey (2009) for discussion). Evans’s basis for classification was the pronominal system, with the reconstructions of Tangkic forms being rather different from those typically reconstructed for Pama-Nyungan (e.g. by Blake 1990). That in itself might not be evidence against shared genetic relationship however, since, after all, pronouns do change, and other Pama-Nyungan subgroups (e.g. Yolŋu, Karnic) are reconstructed with at least some forms other than those reconstructed to Proto-Pama-Nyungan (Schebeck 2001; Bowern 1998). Bouckaert, Bowern, and Atkinson (2018) include Tangkic among the groups discussed in their phylogeny of Pama-Nyungan. In their tree, Tangkic is a subgroup within Pama-Nyungan, not a sister to the Pama-Nyungan family. This classification is based on sparse lexical cognates, but ones which might a priori be thought to be indicative of shared genetic relationship. We might therefore say that Tangkic is a ‘sparse evidence’ question—that is, there are sufficient differences between the reconstructed pronominal systems to cast doubt on the genetic affiliation. Lexical data is historically distrusted in Australia (see e.g. Alpher 2004a). The best we might say at this point is that the claim is ‘not proven’. BBA (2018) also includes Nguburindi, Yangkaal/Yangarella, and Ganggalida as additional varieties. The placement of Minkin is doubtful; see Evans (1990).

⁴² See Harvey (2008b).

⁴³ Daly language families are per dalylanguages.org (by Ian Green and Rachel Nordlinger). Please note the language/dialect classification given there: ‘Language names listed vertically are considered by us, as linguists, to be in a dialectal relationship with each other. However, it is important to remember that from a community perspective, all of the varieties listed here are different languages, with those listed vertically just being “close” to each other’. For consistency with the rest of the map I have used the ‘language’ level relationships and listed the first of the names on the map; other names are given in the notes.

⁴⁴ Also includes Murrinh Kura.

⁴⁵ Also includes Ngen’giwumirri and Ngan’gimerri, per dalylanguages.org.

⁴⁶ Dixon (2002) groups all languages of the Daly together as a single family but I follow Green and Nordlinger’s extensive research on the languages in question.

⁴⁷ This also includes Marri Tjevin, Marri Ammu, and Marri Dan, per dalylanguages.org. One language name is given for reference in the classification but others are included on the language map.

⁴⁸ Also includes Magati Ke, per dalylanguages.org.

⁴⁹ Also includes Emmi, Menthe, per dalylanguages.org.

⁵⁰ Also includes Yungurr.

⁵¹ The status of this language is unclear. The language name is solely known from other groups, who say that it was different from the closest languages to the mainland. It is therefore tentatively included. See further Ford (1990) and Bowern, Chapter 7, this volume, for discussion. Note that Kiyuk is not listed in dalylanguages.org, which is otherwise the main source both classification and mapping of languages of the Daly region (see also Tryon 1974).

⁵² This is the name of the tribe/group of which Batjmalh/Bachamal is the language name. Wakac is a Batjmalh word for ‘beach’, hence ‘Wagaty’ (Ford 1990).

⁵³ See Campbell (2006).

Tasmanian

Classifications generally do not discuss Tasmanian along with other Australian languages (though they do include Meryam Mir, which is Papuan, which is something of an inconsistency in my view). See Bower (2012c) and discussion of sources in that paper for prior classifications. See also Chapter 77, this volume. Tasmanian languages are not classified in Dixon (2002) or O’Grady, Voegelin, and Voegelin (1966); Wurm (1972: 169) provides two classifications, one based on material by Schmidt and Capell; the other attributed to Geoffrey O’Grady and Rhys Jones. The two differ in geographic boundaries and in higher-level classifications. Both recognize the groups listed here; but O’Grady/Jones contrasts Northern vs. the other groups, whereas Schmidt/Capell group Northern with Western. Note that this classification is tentative and simply repeats information published elsewhere. Glottolog 4.3 (Hammarström et al. 2020) also includes specific classification of Tasmanian languages, based on Bower 2012c and other sources. Here we include classifications based on published sources but emphasise that they do not take into account the substantial amount of unpublished work completed by the Tasmanian Aboriginal Centre.

Bower (current volume)	Dixon (2002)	Wurm (1972)	O’Grady, Voegelin, and Voegelin	Glottolog 4.3
Southeastern Tasmanian Bruny Island Southeastern mainland Tasmanian		Southeastern		South-Eastern Tasmanian Bruny Island Southeastern Tasmanian Hinterland
Oyster Bay Oyster Bay Swanport		Mideastern		Oyster Bay Big River Little Swanport
Northeastern Tasmanian Ben Lomond Northeastern		Northeastern		North-Eastern Tasmanian Ben-Lomond-Cape-Portland NE Tasmanian Dialect Chain
Northern Tasmanian Port Sorrell Northern Tasmanian		Northern		
Western Tasmanian Northwestern Southwestern		Western		Western Tasmanian Port Sorell Western Coastal Tasmanian

Pama-Nyungan language subgroups

Macro groups are given as per Bouckaert, Bower, and Atkinson (2018), but should be regarded as tentative, as some of these groupings are not well supported in the tree. The ‘Western’ node, for example, is well supported, except for whether Yolngu and Warluwaric are included.

AUSTRALIAN LANGUAGE FAMILIES AND LINGUISTIC CLASSIFICATIONS

Bowern (current volume)	Dixon (2002)	Wurm (1972)	O'Grady, Voegelin, and Voegelin
Western			
Yolngu ⁴⁶ Northern Djinang Djinba Yan-nhangu Djangu Dhangu/Rirratjingu Golpa Southern Ritharrngu	Yolngu Southern Dhuwal Dhay'yi Ritharrngu Northern Nhangu Dhangu Djangu Western	Murngic ⁴⁷ Yulngu Gubabuyngu Djambarr-puyngu Riraidjangu Ritarngu Waramiri Dalwongo Yulngo Yarnango	Murngic Yulngu Gobabingo Riraidjangu Ritarungo Wan'guri Dalwongo Yolngo Jarnango Djarwidji
Central Dhay'yi Dhuwal Dhuwala	Djinang Djinba	Djinang Djinba	Jandjinung Yulngi Djinba
Warluwaric ⁴⁸ Yanyuwa Southern Warluwarra Bularnu Wakaya Yindjilandji	Ngarna Yanyuwa Southern Ngarna Wagaya Bularnu Warluwara	Yanyula [non-Pama-Nyungan] Wakaya-Warluwaric Wakaya Warluwara	Yanyula [non-Pama-Nyungan] Warluwaric Warluwara Wakayic Wakaya
Warumungu ⁴⁹	Warumungu	Waramungic (Warumungu)	Warumungic (Warumungu)
Ngayarta Yapurarra Ngarluma Ngarlawangga ⁵⁰ Nhuwala Martuthunira Panyjima Palyku, Nyiyaparli ⁵¹ Nyamal Kurrama Jurruru Kariyarra Ngarla Yindjibarndi Yinhawangka	Gasoyne River to Pilbara Pilbara/Ngayarta Nhuwala Martuthunira Panyjima Yintjiparnrti Ngarluma Kariyarra Tjurruru Palyku Nyamal Ngarla	Southwest ⁵² Ngayarda Ngarla Nyamal Bailko Kurrama Kariera Mardudunera Binigura Noala	Southwest Ngayarda Ngarla Nyamal Bailko Kurrama Kariera Mardudunera Binigura Noala
Kanyara-Mantharta Kanyara Thalanyji Payungu Purduna Pinikura	Mantharta Kanjara Payungu Thalantji	Kanyara Talandji Bayungu Wadiwangga Mantharda Warienga	Kanyara Talandji Bayungu Targari Wadiwangga Mantharda

AUSTRALIAN LANGUAGE FAMILIES AND LINGUISTIC CLASSIFICATIONS

<p>Thiin Mantharta Warriyanga Tharrgari Jiwarli Tharrayi</p>		<p>Tenma Djiwali Thargari</p>	<p>Warienga Tenma Djiwali</p>
<p>Kartu Nhanda cluster Malgana Nhanda Amangu⁵³ Wajarri Kaalamaya⁵⁴ Badimaya Thaagurda⁵⁵ Yingkarta⁵⁶</p>	<p>Moore River to Gascoyne Watjarri Watjarri Parti-maya Cheangwa Nana-karti Natingero Witjaari Nhanda Malkana Yingkarta</p>	<p>Kardu Maia Inggarda Malgana Nanda Muliara Wadjeri</p>	<p>Kardu Maia Inggarda Malgana Nanda Muliara Wadjeri</p>
<p>Southwest Ngatju Cluster Ngatyumaya Galaagu⁵⁷ Mirniny⁵⁸ Nyungar Cluster⁵⁹ Southern Nyunga Wudjari Goreng Minang Southwestern Bibbulman Wardandi Kaniyang Pinjarup Wiilman Northern Wajuk Nyaki Nyaki Balardung Nganakarti</p>	<p>Western Bight Mirning Kalaaku Karlamay</p>	<p>Nyungar Watjari Mirniny Mirniny</p>	<p>Nyunga Mirniny Mirning Kalamai</p>
	<p>Nyungar</p>		
<p>Western Desert (Wati)⁶⁰ Warnman Northern: Manjiljarra Kukatja Wangkajunga Yulparija Southeastern:</p>	<p>Western Desert language</p>	<p>Wati Wanman Kardutjara and others</p>	<p>Wati (Western Desert) Wanman Kardutjara and others</p>

AUSTRALIAN LANGUAGE FAMILIES AND LINGUISTIC CLASSIFICATIONS

Southeastern: Antakirinya Kokatha Kartujarra ⁶⁹ Putjarra Ngalia Ngaanyatjarra Nyaanyatjarra Pitjantjatjara- Yankunytjatjara Pintupi-Luritja Tjupan Kuwarra Cundeelee Wangka			
Marrngu ⁷⁰ Karajarri Nyangumarta Mangala	Mangunj Marrngu subgroup Njangumarta Karatjarri Mangala	Marngu Nyangumarda Karadjeri Mangala	Marngu Nyangumarda Karadjeri Mangala
Ngumpin-Yapa ⁷¹ Ngumpin Walmajarri Bilinarra Karranga Ngarinyman Wurlayi Gurindji Mudburra Jaru Malngin Wanyjirra Jiwarliny Ngaridi Yapa Warlmanpa Warlpiri	Northern Desert Fringe Edgar Range to Victoria River Walmartjarri Djaru Gurindji Mudburra Yapa Warlpiri Ngaridi Warlmanpa	Ngarga Walmanba Walbiri Ngaridi Wanayaga Ngalia ⁷² Ngumbin Mudbura Gurindji Djaru Malngin Ngarinman Bunara Tjiwarliny-Wolmeri Nyangga ⁷³ Wirangu Yura subgroup ³²	Ngarga Walmanba Walbiri Ngaridi Wanayaga Ngalia ³³ Ngumbin Mudbura Gurindji Djaru Malngin Ngarinman Bunara Tjiwarli-Wolmeri Nangga ³² Wirangu Yura subgroup ³²
Northern			
Western Torres ⁷⁴ Kala Lagaw Ya Kalaw Kawaw Ya	A Torres Strait group ⁷⁵ A1 West Torres A2 East Torres ⁷⁶	Mabuiagic Kaurareg Dauan-Saibai	Maguiagic Kaurareg Dauan-Saibai
Kukatj ⁷⁷	[in Paman]	Kalibamu Kukatyi ⁷⁸	Kalibamu
Greater Maric ⁷⁹ Dharambali ⁸⁰ Dharumbal ⁸¹ Guynmal Mbabaram	Lower Burdekin ⁸⁷ Cunningham Gorton O'Connor	Pama-Maric Mari Mandandanji Koa Ilba	Pama-Maric Mari Mandandanji Koa Ilba

AUSTRALIAN LANGUAGE FAMILIES AND LINGUISTIC CLASSIFICATIONS

Wulguru	Rockhampton/Gladstone		
Wulguru	Darambal		
Coonambella ⁷⁴	Bayali ⁸⁰		
Bindal	Greater Maric		
North Maric	Maric proper		
Gudjal	Bidjara		
Gugu Badhun	Biri		
Warungu	Warungu		
East Maric	Ngayungu		
Giya	Yirandhali		
Ngaro	Mbabaram		
Yuru	Mbabaram		
Biri ⁷⁵	Agwamin		
Biri	Proserpine		
Yilba	Ngaro		
Yangga	Giya		
Miyan	Guwa/Yanda ⁸¹		
Wirri	Guwa		
Barna	Yanda		
Yetimarala	Kungkari		
Gabalbara	Kungkari		
Garinybal	Pirriya		
Barada			
Yambina			
Wangan			
Yiman			
Ganulu			
Gangulu			
Gayiri			
Dhungaloo ⁷⁶			
South Maric			
Wadjabangayi			
Yandjibara			
Badjiri			
Gunggari ⁷⁷			
Guwamu			
Wadjigu			
Gungabula			
Bidjara			
Gunya			
Margany			
Yiningay			
Yagalingu			
Yirandhali ⁷⁸			
Paman ⁸²	B* North Cape York	Central Pama	Yara
Northern Paman	Northern Paman	Oykangand	Nawagi
Lingithigh	Gudang	Okunjan	Atherton Pama

AUSTRALIAN LANGUAGE FAMILIES AND LINGUISTIC CLASSIFICATIONS

Yinwum	Uradhi	Aghu Tharnggala	Tjapukai
Yatay	Wuthati	North-eastern Pama	Idinji
Gudang	Luthigh	Ompila	Eastern Pama
Luthigh	Yinwum	Kandju	Koko Imudji
Anguthimri ⁹¹	Anguthimri	Koko Ya'ο	Muluridji
Ndra'ngith	Ngkoth	Northern Pama	Bay Pama
Alngith	Aritinngithigh	Uradhi	Lamalama
Aritinngithigh	Mbiywom	Mpalitjan	Northern Pama
Yupngayth	Andjingith	Yinwun	Otati
Muthanthi	Umpila	Awngthim	Mpalitjan
Mpakwithi	Wik	Alngith	Jinwun
Mpalityan	Wik-Ngathan	Nggoth	Awngthim
Mbeiwum	Wik-Me'nh	Aritinngithig	Nggoth
<i>Uradhi group:</i>	Wik-Mungknh	Mbeiwum	Aritinngithig
Yadhaykenu	Kuku-Muminh	Middle Pama	Mbeiwum
Uradhi	Bakanha	Wik Munkan	Middle Pama
Atampaya	Ayabadhu	Wik Muminh	Ompila
Wuthathi		Wik Mean	Kandju
Angkamuthi	Western CYP	Wik Epa	Wikmunkan
Middle Paman	Upper SW	Wik Ngatara	Wik Muminh
<i>Ump.-Yinty.</i>	Thaayorre	Bakanha	Wikmean
Umpithamu ⁹²	Oykangand	Western Pama	Wikepa
Yityingka	Ogh-Undjan	Yir Yoront	Wikngatara
<i>Northeastern</i>	Coastal SW	Thaayorr	Taior
Kuuku-Ya'u	Yir-Yoront	Coastal Pama	Western Pama
Kaanju	Koko Bera	Koko Pera	Jir Yoront
Umpila	Kok Thaw(a)	Gulf Pama	Koko Pera
Kuuku Yani	Kok Narr	Kunggara	Gulf Pama
Wik	Norman Pama		Kunggara
Wik Alkan	Kurtjar		Southern Pama
Wik Paacha	Kuthant		Ogondyan
Wik Ep		Mbabaram	Aghu Tharnggala
Wik Ngathan		Karantic	
Wik Me'anh		Karanti ⁹⁹	
Wik Ngatharr	Cairns	Yidinic	
Wik Mungkan	Djabugay	Yidin	
Wik Iyanh	Yidinj	Dyabugay	
Kugu-Muminh			
Ayapathu	Kuku-Yalanji	Yalanjic	
Pakanh		Gugu Yalanji	
Kugu Nganhcara		Koko Yimidhir	
Alaya-Athima ⁹³		Koko Buyundji	
<i>Thaypanic</i>		Koko Yawa	
Aghu-Tharnggala	Umbindhamu	Lamalamic	
Kuku Thaypan ⁹⁴	Southeast Cape York	Umbuykamu	
<i>Others</i>	Lama	Umbindhamu	
Ikarranggal	Morroba-Lama	Umbuykamu	

AUSTRALIAN LANGUAGE FAMILIES AND LINGUISTIC CLASSIFICATIONS

Ogh-Alungul	Lama-Lama	Wurungung	
Ogh-Angkula	Rimang-Gudinhma	Parimankutinma	
Agu Aloja	Rimang-Gudinhma	Wurungung	
Koogobatha	Kuku-Wara	Lamalama	
Takalak	Bathurst Head	Coastal Lamalama	
Ogunyjan	Flinders Island	Tablelands	
Koko Dhawa	Marrett River	Lamalama	
Ogh-Awarrangg	Guugu Yimidhirr		
Kokiny	Guugu Yimidhirr		
Athima	Barrow Point		
Awu Alaya	Thaypan		
Southwest Paman	Kuku-Thaypan		
<i>RR past group</i>	Kuku-Mini		
Kuuk Thaayorre	Takalak		
Uw-Oykangand	Walangama		
Uw-Olgol	Mbara		
Uw-Olkola	Kukatj		
Kuuk-Narr			
<i>NT past</i>		Walangama ?	
Koko Bera			
Yir Yoront			
Yirrk-Mel			
<i>Norman Pama</i>			
Kuthant			
Garandi			
Kurtjar			
Ribh			
Walangama ⁸⁷			
Lamalamic			
Umbuygamu			
Lamalama			
Rimanggudinhma ⁸⁸			
Flinders Island ⁸⁹			
Barrow Point			
Guugu-Yimidhirr			
Mbara			
Kuuk Yak			
Agwamin			
Yalanji ⁹⁰			
Kuku Yalanji			
Muluriji			
Gugu Wakura			
Gugu Djangun			
Wagaman			
Yidinyic			
Yidiny			
Djabugay			

AUSTRALIAN LANGUAGE FAMILIES AND LINGUISTIC CLASSIFICATIONS

Mayi ⁹² Wanamara Ngawun Mayi-Kulan Mayi-Kutuna Mayi-Yapi Mayi-Thakurti	Mayi Ngawun Mayi-Kutuna	Mayapic Maykulan Wanamara Mayapi	Mayapic Maykulan Wanamara Mayapi
Dyirbalic Dyirbal Nyawaygi Warrgamay	Herbert River Dyirbal Warrgamay Nyawaygi Manbara ⁹³	Nyawigic Nyawigi Wulgurukaba Dyirbalic Dyirbal Wargamay Bandyin ?	⁹⁴
Kalkatungic ⁹⁵ Yalarnnga Kalkatungu	Kalkatungu Areal group Kalkatungu Yalarnnga	Kalkatungic Kalkatungu Yalarnngic ⁹⁶ Yalarnnga	Kalkatungic Kalkatungu Yalarnngic Jalanga
Southeastern			
Waka-Kabi Wuli Wuli Barunggam Bayali Waka Waka Duungidjau Batyala Guweng Gubbi Gubbi Gooreng Gooreng	Central Eastern Waka-Gabi Dappil Gureng-Gureng Gabi-Gabi Waga-Waga Bigambal Yugambal Bandjalang Gumbaynggirr	Waka-Kabic Miyan Dungidjau Djakunda- Korenggoreng Than Dalla-Batjala Taribeleng Kingkel Wadja Darambal	Waka-Kabic Miyan Keinjan (Dungidjau) Djakunda- Korenggoreng Than Dalla-Batjala Taribeleng Kingkel Wadja Darambal
Turubulic ⁹⁷ Nunukul Turrubul Yagara Janday Guwar ⁹⁸	Yagara Guwar	Durubulic Gowar Djendewal Yagara(bal)	Durubulic Gowar Djendewal
Muruwaric ⁹⁹ Muruwari Barranbinya	<with Yuin-Kuri>	Marawari	Muruwari
Central-NSW Ngiyambaa Wailwan Wiradjuri Gamilaraay ¹⁰⁰ Yuwalijaay Yuwaalaraay		Wiradjuric Main Wiradjuri Wonggaibon Kamilaroi Yualyai Wiriwiri ¹⁰¹	Wiradjuric Main Wiradjuri Wonggaibon Kamilaroi Yualyai Wiriwiri

AUSTRALIAN LANGUAGE FAMILIES AND LINGUISTIC CLASSIFICATIONS

		Nguri ? Barunggama ?	Nguri Barunggam
Bigambal ¹¹⁰ Bigambal Guyambal Yugambal	<with Waka-Kabi>	Miyal Bigumbil	Miyal Bigumbil
Bandjalangic ¹¹¹ <i>Gold Coast</i> Pimpama Southport Burleigh Heads <i>Condamine/Upper-Clarence</i> Geynyan Gidhabal Dinggabab Galibal <i>Middle Clarence</i> Waalubal Biriin Wudjehbal <i>Lower Richmond</i> Wiyabal Nyangbal Bandjalang <i>Tweed-Albert</i> Minyangbal Yugambah Nerang Ck Ngahnduwal <i>Copmanhurst</i>		Bandjalangic Gidabal Giabalic Giabal Keinyan	Bandjerangic Bandjarang
			Bandjalangic Giabal Yugumbal
Nganyaywana ¹¹² Nyanyaywana Southern Anaiwan	<with NSW>	Aniwan	
Lower Murray ¹¹³ Yitha Yitha Keramin, Kureinji Ngintait, Ngarkat, YuYu Ngaiawang Ngarrindjeri, Yaraldi Peramangk	Lower Murray Yaralde Ngayawang Yuyu Keramin Yitha-Yitha	Narrinyeric Korni Tanganekald Mirili Nganguruku- Ngaiawang Ngult Maraura-Ngintait	Narrinyeric Korni Tanganekald Mirili Nganguruku- Ngaiawang Ngult Maraura
Yuin-Kuri Dhanggatti Sydney-Central Coast ¹¹⁴ Darkinyung Dharug	N Central New South Wales ¹¹⁹ Awabakal/Gadjang Awabagal Kattang Djan-gadi/Nganjaywana Thangatti	Yuin-Kuric Yuin Dhawa Dharawal Ngarigu Ngunawal	Yuin-Kuric Yuin Thaua Thurawal Ngarigo Ngunawal

AUSTRALIAN LANGUAGE FAMILIES AND LINGUISTIC CLASSIFICATIONS

<p>Kuri</p> <p><i>HRLM</i>¹¹⁵</p> <p>Awabakal</p> <p>Wanarruwa</p> <p><i>Lower North Coast</i></p> <p>Birrpayi</p> <p>Worimi</p> <p>Katthang</p> <p>Yuin¹¹⁶</p> <p><i>Northern Inland</i></p> <p>Ngun(n)awal</p> <p>Gandangara</p> <p><i>Northern Coastal</i></p> <p>Dharawal</p> <p>Dhurga</p> <p>Dharumba¹¹⁷</p> <p><i>Southern Inland</i></p> <p>Ngarigu</p> <p>Omeo language¹¹⁸</p> <p><i>Southern Coastal</i></p> <p>Thawa</p> <p>Djirringany</p>	<p>Nganjaywana</p> <p>Central Inland NSW</p> <p>Gamilaraay</p> <p>Wiradhurri</p> <p>Ngiyambaa</p> <p>Muruwari</p> <p>Barranbinja</p> <p>O Sydney</p> <p>Dharuk</p> <p>Darkinjung</p> <p>P Southern NSW</p> <p>Southern tablelands</p> <p>Gundungurra</p> <p>Ngarigo</p> <p>NSW Coast</p> <p>Dharawal</p> <p>Dhurga</p> <p>Djirringani</p> <p>Thawa</p>	<p>Kuri</p> <p>Gandangara</p> <p>Darkinung</p> <p>Wanarua</p> <p>Kattang</p> <p>Ngamba (Dangadi)</p> <p>Yukambal¹²⁰</p>	<p>Gandangara</p> <p>Kuri</p> <p>Darkinung</p> <p>Wanarua</p> <p>Worimi</p> <p>Ngamba (Dangadi)</p> <p>Jukambal¹²¹</p>
<p>Gumbaynggiric</p> <p>Gumbaynggir</p> <p>Yaygirr</p> <p>Baanbay</p>	<p><with Waka-Kabi (Central/Eastern)></p>	<p>Gumbainggaric</p> <p>Gumbainggar</p> <p>Yegir</p>	<p>Kumbainggaric</p> <p>Kumbainggar</p> <p>Yegir</p> <p>Yegir</p>
<p>Eastern Victoria</p> <p>Kurnai group¹²²</p> <p>Kurnai</p> <p>Muk-Thang</p> <p>Nulit</p> <p>Thangguai</p> <p>Bidawal</p> <p>Dhudhuroa¹²³</p> <p>Waywurru¹²⁴</p>	<p>(Q) Muk-thang (Kurnai)</p> <p>(R) Upper Murray</p> <p>Pallanganmiddang</p> <p>Dhudhuroa</p>	<p>Yaithmathangic</p> <p>Yaithmathang</p> <p>Duduruwa</p> <p>Pallangamiddah</p>	<p>Kurnic</p> <p>Brataulong¹²⁵</p> <p>Yaitmathangic</p> <p>Jaitmathang</p>
<p>Kulin¹²⁶</p> <p>Bunganditj</p> <p>Kolakngat¹²⁷</p> <p>Wathawurrung</p> <p>Western¹²⁸</p> <p>Tjapwurrung</p> <p>Jardwadjali</p> <p>Djadjawurung</p> <p>Mathi¹²⁹</p> <p>Ladji Ladji</p> <p>Mathi-Mathi</p>	<p>West Victorian areal group</p> <p>Kulin</p> <p>Wemba-Wemba</p> <p>Wadha-wurrung</p> <p>Wuy-wurrung</p> <p>Buwandik</p> <p>Buwandik</p> <p>Kuurn-Kopan-Noot</p> <p>Kolakngat</p>	<p>Kulinic</p> <p>Kulin</p> <p>Wergaia</p> <p>Wudjawuru</p> <p>Woiwuru</p> <p>Narinari</p> <p>Drual</p> <p>Marditjali</p> <p>Gulyan</p> <p>Kurung</p> <p>Kurnic¹³²</p>	<p>Kulinic</p> <p>Kulin</p> <p>Djadjala</p> <p>Wudjawuru</p> <p>Taungurong</p> <p>Drual</p> <p>Marditjali</p> <p>Tjapwurrung</p> <p>Gulyan</p> <p>Kurung</p>

AUSTRALIAN LANGUAGE FAMILIES AND LINGUISTIC CLASSIFICATIONS

<p>Yari-Yari Wathi-Wathi¹²² Wemba Wemba- Wemba¹²³ Nari Nari Warrnambool Wotjobaluk Eastern Woiwurrung Boonwurrung Daungwurrung</p>		<p>Brataolung</p>	
<p>Yortayortic Yorta Yorta Yabula Yabula</p>	<p>Yota/Yabala Yota-Yota Yabala-Yabala</p>	<p>Yotayotic Yotayota Eastern Banygarany</p>	<p>Yotayotic Jotijoti Baraparapa Jabulajabula</p>
<p>Central¹²⁵</p>			
<p>Yardli¹²⁶ Malyangapa Yardliyawarra Wadikali</p>		<p>Yalyi Nadikali-Malyangapa¹²⁷</p>	<p>Yalyi Karenggapa/Wadikali</p>
<p>Thura-Yura¹²⁸ Ngadjuri Nauo Parnkala Nukunu Adnyamathanha Kurna Narrungga Guyani Wirangu</p>	<p>Spencer Gulf Kadli Yura Parnkalla Adnjamathanha Wirangu</p>		<p>[Southwest] Nangga Wirangu Yura Nawu Pangkala Kuyani Wailpi/ Adhnyamathanha Jadliaura/Nukuna</p>
<p>Paakantyi¹²⁹ Kurnu Paaruntyi Pantiykali Paakantyi Southern Paakantyi Parrintyi Wilyakali</p>	<p>Baagandji</p>	<p>Darling Kurnu</p>	<p>Darling Kula/Kurnu</p>
<p>Arandic Kaytetye Aranda Anmatyerr Alyawarr Antekerrepenhe Ayerreyenge Central Ar rernte</p>	<p>Arandic Arrernte Kaytetj</p>	<p>Arandic Artuya Kaititj Urtwa Alyawarra Lower Aranda</p>	<p>Arandic Artuya Kaititj Urtwa Iliaura Lower Aranda</p>

AUSTRALIAN LANGUAGE FAMILIES AND LINGUISTIC CLASSIFICATIONS

Western Arrarnta Eastern Arrernte Lower Aranda ¹³⁸			
Karnic ¹³⁹	Lake Eyre Basin (WA)	Pittapittic	Pittapittic
Northern	North and West	Ulaolinya	Ulaolinya
Pitta-Pitta	Pitta-Pitta	Wangkadjera-Pittapitta	Wangkadjera-Pittapitta
Wangkayutyuru	Wangka-yutjuru		
Arabana		Mitakudic	Mitakudic
Wangkangurru	Arabana/Wangkangurru	Mitakudi	Mitakudi
Central	Central	Arabanic	Arabanic
Mayawali	Yandruwandha	Arabana	Arabana
Karuwali	Diyari		
Mithaka	Ngamini	Yandic	Yandic
Karangura	Midhaga	Yanda	Janda
Western	South-west		
Pirlatapa	Wangkumara		
Thirarri	Galali		
Diyari	Badjiri		
Ngamini		Dieric	Dieric
Yarluyandi		Karna	Karna
Yawarrawarrka		Dieri	Dieri
Yandruwandha		Pilatapa	Pilatapa
Nhirrpi		Jauraworka	Jauraworka
Kungkarric		Karendala	Karendala
Kungkarri		Ngura	Ngarna
Pirriya		Punthamara	Punthamara
Eastern		Badjiri ¹⁴²	Kalali
Wangkumara ¹⁴⁰			Badjiri ⁵⁶
Ngantangarra			
Garlali/Kullilli			
Punthamara			
Yandic ¹⁴¹			
Guwa			
Yanda			

⁵⁴ This grouping is tentative. Central and Southern Yolngu are clear (and group together), but it is not clear whether Northern Yolngu is a group of its own, or rather a set of languages that branch off sequentially from Proto-Yolngu, and therefore do not form a discrete subgroup of their own. Or rather, it is clear that some 'Northern' languages group together, but it is not clear that all of them do. BBA (2018), for example, find no single Northern group, but rather a series of splits. Note further that the position of Yolngu, Warluwarric, Kalkatungic, and Arandic are poorly supported in the BBA tree and so the classification of those groups with respect to other Pama-Nyungan groups should be regarded as tentative.

⁵⁵ Wurm (1972: 149) also gives a classification based on work by Bernard Schebeck, but it's not clear how the clan lect mapping relates to the classification given here, since Wurm does not make it clear which names he considers equivalent to one another.

⁵⁶ BBA (2018) strongly supports earlier classifications where Warluwarra and Bularnu are a group, Wakaya and Yindjilandji are a group, and those two groups go together as a sister to Yanyuwa (with the groups of similar time depths).

⁵⁷ Warumungu is usually treated as a family-level isolate within Pama-Nyungan. Both Bowern and Atkinson (2012) and Bouckaert, Bowern, and Atkinson (2018) found that Warumungu was grouped within Ngumpin-Yapa; the possibility of loans influencing the classification means that I treat this as tentative and here use the more conservative classification.

⁵⁸ Doug Marmion (pers. comm.) comments that classification of this language is very uncertain and should perhaps be in a group on its own with Nyiyaparli. Austlang suggests that Ngarla, Ngarlawangga, and Yinhawangka are either the same language or closely related varieties. Since there appears to be some uncertainty here, I retain distinct names but do so tentatively. Classifications of 'Yinhawangga' have varied substantially (between Wati, Ngayarta, and Wajarri group, per Austlang). On the placement of Nyiyaparli and the names Nyiyaparli and Palyku, see also Battin (2019).

⁵⁹ Equivalent to Nyiyaparli per Austlang, following Dench (1998b,c).

⁶⁰ Both OVV and Wurm have a large 'South-west' group which covers most of the Pama-Nyungan languages of Western and South Australia. It is not exactly equivalent to the 'Western' group in BBA (2018), though Wurm and OVV's South-west, plus Warumungu, is a monophyletic group in BBA.

⁶¹ Amangu is sometimes classified as a Noongar variety; it also appears to be an alternative name for Nganakarti (which is clearly Noongar). The grouping within Kartu is per Blevins (2001a).

⁶² Classification is tentative.

⁶³ It is not clear whether Thaagurda is closely related to Malgana or is a distinct language (cf. Austlang W15).

⁶⁴ Yingkarta is a sister to Kanyara-Mantharta in Bouckaert, Bowern, and Atkinson (2018). Kartu and Kanyara-Mantharta are not particularly close relatives; Kartu is sister to the South-west languages, while Kanyara-Mantharta is sister to Ngayarta in a 'Pilbara' group. Those two clusters form a group. I retain the Kartu classification here pending further research.

⁶⁵ Some group Galaagu and Marlpa together with Ngatjumaya as a single language (or use Marlpa as the cover term for the language).

⁶⁶ There seems some disagreement about whether the name is spelled Mirniny or Mirning. I have used Mirniny per the Goldfields Language Centre.

⁶⁷ Within the Nyungar/Noongar group, it is clear that there are at least three distinct groups. However, it is not clear which varieties go with which, and sources differ on how the varieties are divided. These groups follow Dench (1994); Douglas (1976) also uses three groupings, but not the same three (the differences concern where the South-western languages group). See Chapter 74, this volume, for further discussion. BBA (2018) used ten word lists across the south-west and recovered the three-way Natju-Mirniny-Nyungar grouping. Within Nyungar/Noongar, subgroupings were less clear, in part because south-western was over-represented compared to the other varieties. Amangu appears in Noongar classifications but per Blevins (2001a) is classified as Kartu. Amangu is also an alternative name for Nganakarti, a Noongar variety. Language locations and named varieties are based on the Noongar learner's guide, using their map *Noongar boodja wongki – Noongar dialect map (Noongar waangkiny 2014)*, but have been adapted slightly given other information from surrounding regions (including the relationship between the names Amangu and Nganakarti, for example).

⁶⁸ See Babinski et al., Chapter 75, this volume, for a note on the subgroup name. There is more structure in the group than is presented here, but as with Nyungar/Noongar above, sources disagree. There is, for example, agreement that the northern Wati languages are different from the south-eastern ones. Others have discussed Western Desert as a dialect chain; sources also agree that Warnman is different from the other languages in the group. The Goldfields Language Centre gives four regions for Western Desert varieties. Babinski et al. (Chapter 75, this volume) discuss data from 11 varieties and show how subgrouping within the Wati group is difficult. Language placement for the map should be considered approximate, since sources provided conflicting information.

⁶⁹ The remaining Wati/Western Desert varieties are not yet classified.

⁷⁰ See Weber (2009).

⁷¹ See McConvell and Laughren (2004).

⁷² Classified as Western Desert in Bowern.

⁷³ See Thura-Yura in the Central group.

⁷⁴ See Alpher et al. (2008) for discussion surrounding views over whether the Western Torres Strait group is Pama-Nyungan.

⁷⁵ Dixon (2002): 'These are Papuan languages, not closely related to each other. A1 has a significant Australian substratum'.

⁷⁶ Listed below in 'Other' languages in Bowern's classification, since per Piper (1989) and Alpher et al. (2008), Eastern Torres is a Papuan language related to other Trans Fly languages, and Western Torres is Pama-Nyungan. In Bouckaert, Bowern, and Atkinson (2018) and Bowern and Atkinson (2012), Western Torres's closest relative is Kukatj (see below), but the lexical evidence is very slim, so that is not followed here.

⁷⁷ Breen's (1976: 151) contrastive study of Gog-Nar and Gugadj has some discussion of classification. Wurm (1972) places Kukatj in a group on its own; Breen suggests it is possibly part of Pama-Maric (based on lexical comparison); he suggests that its closest neighbours in terms of classification are not the Norman Paman languages which are geographically closest.

⁷⁸ Said in Wurm (1972) to be of doubtful existence, along with Walangama and Karanti. See Breen (1976) for other discussion.

⁷⁹ The comments made above for Western Desert/Wati and Nyungar/Noongar about complexities of classification also apply here. For the term 'Greater Maric', see Barrett (2005), though my composition of 'Greater Maric' is not the same as his. He includes Pirriya, Kungkarri, and Guwa as 'Greater Maric', whereas I class them within an expanded Karnic group. Barrett's (2005) classification of Maric has three groups: North, East, and South; but there are numerous other varieties which are not included in his classification, particularly in the north-west of the Maric area where data are sparse. Note that both OVV and Wurm (1972) only include three Maric languages (though with other dialects listed), whereas even Dixon (2002), who normally 'lumps' rather than 'splits', includes five in his 'Maric proper' and eight others in other affiliated groups. Sutton (1973: 12) includes 34 Maric languages. BBA has South and East Maric as a group, but North Maric groups with Dyrbalic and the (previously unnamed) group including Bindal, Wulguru, and Coonambella. I consider this as tentative and flag this part of the classification as needing further clarification and detailed work with all available sources, and I note that even in this area, linguists differ about the number of varieties according to a 'linguistic' classification. Note that Bowern's classification includes many more Maric varieties than previous classifications, part of the cause of differences in the number of languages recognized overall (see Chapter 7, this volume, for some discussion).

⁸⁰ The grouping of Dharumbal within Maric is tentative. As Terrill (2002) notes, Dharumbal appears to have a number of Pama-Nyungan retentions which are not otherwise found in Maric languages, implying it should be a primary group within Pama-Nyungan, rather than a group within Maric.

⁸¹ According to Terrill (2002), the language of Great Keppel Island, Wapabara, has considerable differences from Dharumbal. It could therefore be tentatively considered a distinct language.

⁸² Austlang quotes Dixon (2002) and Donohue (2007) as treating Coonambella as a dialect of Wulguru; however, there appear to be sufficient lexical differences in the sources to treat them as different languages here.

⁸³ I am agnostic at present on the number of languages here. Clearly the dialectology of this area was complex. Breen (2009) includes the 'Biri dialects' within a single language, but treats the rest as distinct (though with similar caveats to those given here).

⁸⁴ This name Dungaloo or Dhungaloo is known only, as far as I know, from a word list of 76 items by Hatfield at AIATSIS (PMS 4902). It is clearly a Maric language, and is here tentatively grouped with Biri and varieties. It is, however, sufficiently distinct to be included here, at least tentatively.

⁸⁵ There is doubt about whether Mandandanyi is a distinct language (see further Chapter 7, this volume). It is used as a language name in Barrett (2005), and is listed in Tindale (1974); Tindale gives Kogai as a language name and Mandandanji, Kunggari, and Barrungam as group names. However, Barunggam (per Kite and Wurm 2004 and earlier Holmer 1983) spoke Waka-Waka. Given this uncertainty, I retain Mandandanyi and Gunggari as distinct (though tentatively). Note that there are two language varieties known as 'gunggari' (which is a word for 'east' in part of Queensland; Gunggari is therefore most likely an exonym). The language spelled Kungkarri (more closely related to Karnic) here is clearly distinct from the Maric language known as Gunggari. Map information for this area is based primarily on Breen (2009). Breen uses different spellings of several varieties (e.g. Barana for Barna); I retain the more commonly used ones.

⁸⁶ Beale (1975) also includes a language Manjira with Yirandhali. The name does not appear in Austlang; presumably it is the same as the 'Mungerra' source for Yirandhali given in Curr (1886). See also Breen (2009).

⁸⁷ Bowern finds no concrete evidence for a distinct Burdekin group. The three word lists in Curr (1886), from which Dixon derives the three languages of the group, appear to be Yuru (see Terrill 1998), a Maric language, possibly including words from Bigambal.

⁸⁸ Bowern places Bayali in Waka-Kabi. See also Breen (2009).

⁸⁹ This is a separate group within Karnic in Bowern's classification.

⁹⁰ See Black (1980); Hale (1976c,d,e); Hale (1964). Thanks to J. C. Verstraete, Peter Sutton, and Barry Alpher for discussion of language placements and classification for Paman.

⁹¹ Same as Awngthim.

⁹² For Middle Paman, see Verstraete and Rigsby (2015) and Verstraete (2020) for evidence. The grouping of Umpithamu and Yintyingka is given in Verstraete and Rigsby (2015: 192–4), they also include Umpila with many of the changes that characterize Yintyingka and Umpithamu within Middle Paman.

⁹³ Gugu Mini was included in an earlier version of this classification but is not included here since it appears to be a cover term for a number of groups, including Kokiny and Athima.

⁹⁴ Also known as Awu Alaya.

⁹⁵ Placement within the group is unclear.

⁹⁶ There is also material known as Kuku-Warra (lit. 'bad language') but this appears to be an exonym for the languages of the Princess Charlotte Bay region (Barry Alpher pers. comm.).

⁹⁷ Also known as Oko Wurrima.

⁹⁸ Note that I have fewer language distinctions than the Pama Language Centre, who also includes Kuku Jakandji and Wulpuru.

⁹⁹ Kuthant in Bower's classification, following Black's work on Norman Paman.

¹⁰⁰ See Breen (1981b).

¹⁰¹ This term is equivalent to Wulguru, which is probably a cover term for several varieties spoken on Palm Island, Cleveland Bay, and Magnetic Island (per Austlang).

¹⁰² OVV place Dyirbalic within the Paman subgroup.

¹⁰³ See Blake (1979a).

¹⁰⁴ 'The language is structurally similar to Kalkatungu which constitutes the Kalkatungic Group' (Wurm 1972: 131).

¹⁰⁵ Per information provided by the Yugara-Yugarapul Aboriginal Corporation, they consider there to be a single Yuggara language, spoken by groups who identify as Miguntyun and Chepara. Gowar (Moreton Island language) is considered separate, and Turrbul is possibly based on a misnaming in the 1850s. Austlang gives Yuggera/Yagara as the cover term for three languages: Moondjan (spoken by Nunukul people); Jandai (spoken by Goenpul people); and a third variety spoken by Turrbul people. However, Austlang also gives an (unsourced) alternative: Yuggera and Koopenul; Nunukul and Goenpul; and Ngugi (Moreton Island). These groups are together known as Quandamooka.

¹⁰⁶ Jeffries (2011) treats Guwar as a Bandjalangic language which has been heavily influenced by Yagara.

¹⁰⁷ See Oates (1988), and (Oates 1988: 198–9) for the classification of Barranbinya as closer to Muruwari than Central New South Wales.

¹⁰⁸ WL (2008: 215) has Gamilaraay and five other varieties as a single language, called 'Darling Tributaries language'.

¹⁰⁹ Wiriwiri, Nguri, and Barungama are Waka-Kabi in the current classification. See Breen (2009) and Terrill (2002) for discussion.

¹¹⁰ See Bower, Chapter 7, this volume, and Wafer and Lissarrague (2008: 333–4) for some discussion of the variation in classification of this subgroup. These languages have been variously classified as Yuin-Kuri, Central NSW, Waka-Kabi, and Bandjalangic. BBA shows that they are a distinct subgroup.

¹¹¹ See Sharpe (1985; 2005; Chapter 73, this volume). The classification of this dialect chain is complex. Crowley (1978: 158, 196) gives maps of the Bandjalang languages which are redrawn and adapted by Sharpe (1985: 103). This classification is followed by WL (2008: 352ff.). Note that the two maps in Sharpe (1985) are not reconcilable to one another, as the shape of the area given as Bandjalangic differs from one map to the other. The dialect labelled Galibal is bisected by the line that divides the Upper Clarence from Middle Clarence. I use the dialect placements from Map 2 imposed on the classification of Map 3, as per WL and Crowley (1978). Shaun Davies (at the 2022 Australian Languages Workshop) provided good evidence that prior classifications have over differentiated.

¹¹² I follow Wafer and Lissarrague (2008) and Crowley (1976) in recognizing two languages here.

¹¹³ Classification based on the materials in Horgen (2004) and Wafer and Lissarrague (2008). Blake (2011b), Dixon (2002), Wafer and Lissarrague (2008), and Horgen (2004) have five Lower Murray Languages. I also include Peramangk. This name is not mentioned by Wafer and Lissarrague and Horgen. Austlang says that classification is uncertain (AIATSIS code S5). Note that Horgen's (2004) map is misleading, since it labels the area coloured as Yitha Yitha as Mathi Mathi. I take location information primarily from Wafer and Lissarrague (2008) rather than Blake (2011b). Blake places Mathi Mathi on the Lachlan River and Yitha Yitha around Mildura, while Wafer and Lissarrague (2008) has Yitha Yitha on the Lachlan River and Yari Yari (a Mathi language) near Mildura. This also accords more closely with Horgen (2004). I give several dialect names for each language so as not to privilege one name above another.

¹¹⁴ Thanggatti is grouped with the Nganyaywana languages in Wafer and Lissarrague (2008). However, in the BBA (lexical) classification, Thanggatti is grouped solidly within Yuin-Kuri, while Nganyaywana did not clearly group with any particular subgroup or language. For now I retain grouping of Thanggatti within Yuin-Kuri, pending further research. Per members of the Dharug Dhalang project, comparative research of the archival sources and of more contemporary linguistic writings shows that varieties termed Dharug/Dharuk, Eora/Yura, 'Sydney Language' (Troy 1993), and Steele (2005) represent data of one language, named here 'Dharug', with some dialectal variations.

¹¹⁵ That is, Hunter River-Lake Macquarie, per WL.

¹¹⁶ I follow Wafer and Lissarrague (2008: 105) and Koch (pers. comm.) in using a four-way distinction between inland and coastal, and northern and southern to describe this complex dialect chain.

¹¹⁷ This is the language of the group known as Wandandian (cf. Eades 1976: 4).

¹¹⁸ See Wafer and Lissarrague (2008: 67) for the uncertainty surrounding the names and classifications of the Omeo vocabularies. I follow Wafer and Lissarrague in using the name ‘Omeo language’ and Koch (pers. comm. to Wafer and Lissarrague) in classifying it as Yuin.

¹¹⁹ Note that the name Central NSW here in Dixon’s formulation does not refer to the same languages as the Central New South Wales group established in other classifications.

¹²⁰ Treated with Bigambal as own primary subgroup by Bowern.

¹²¹ Treated with Bigambal as own primary subgroup by Bowern.

¹²² Classification per Hercus (1987) and Clark (2005); see also Fesl (1985).

¹²³ Map placement of these languages is uncertain. Blake (2011b) clearly treats both Pallanganmiddang (Waywurru here) and Dhudhuroa as only extending as far as the Murray River. Bower (2002: 134–8) says that Waywurru extended north of the Murray River (‘east of Albury’). See Wafer and Lissarrague (2008: 64–7) for issues around the naming of Dhudhuroa, Waywurru, Pallanganmiddang, and Yaitmathang.

¹²⁴ This is the name of the language spoken by the Pallanganmiddang people.

¹²⁵ Kulin in Wurm (1972)

¹²⁶ See (Blake 2011a; Blake and Reid 1994). Note that the Victorian Aboriginal Corporation for Languages (VACL) has a somewhat different classification, organized partly by geography. See also Eira (Chapter 74, this volume).

¹²⁷ Also called Gulidjan.

¹²⁸ Werkaya is another name also used for these languages.

¹²⁹ See Blake et al. (2011) for discussion. Hercus (1992b) gives three groupings of dialects for this area. Wafer and Lissarrague (2008) have different language placements in some areas. For example, Hercus (1992b) is clear that Wadi-Wadi is downstream of Swan Hill, whereas Wafer and Lissarrague’s (2008: 63) map places the name upstream. Hercus’s (1986: 5) map of Baagandji (Paakantyi) and neighbours has Southern Paakantyi country extending as far south as Kureinji (that is, almost to the Murray River), whereas Horgen (2004) extends Mathi Mathi into that area. I have followed Hercus here, except that I also follow Blake et al. (2011) in extending Mathi territory north of the Murray.

¹³⁰ There are two different Wathi-Wathi varieties: Swan Hill and Piangil, cf. in Blake et al. (2011).

¹³¹ Also Baraba-Baraba.

¹³² In East Victoria in Bowern’s classification.

¹³³ Note that this is not a monophyletic group in BBA (2018) but is rather a set of subgroups which are not a stable phylogenetic group. However, they do share some features; for example, all the central subgroups have lost verb conjugation classes (cf. Brody 2020), though it is not clear whether this is a shared innovation, since other languages in the family have also lost them.

¹³⁴ See Hercus and Austin (2004). While many language placements are (at least approximately) according to Wafer and Lissarrague (2008), some placements were irreconcilable with other information (for example, concerning the placement of Wadikali and Pirlatapa).

¹³⁵ Nadikali is presumably a typographical error for Wadikali.

¹³⁶ See Simpson and Hercus (2004).

¹³⁷ Wafer and Lissarrague’s (2008) map of Paakantyi and Darling River varieties varies substantially from the map in Hercus (1986: 5). The locations given on this map are closer to Wafer and Lissarrague’s in most (but not all) respects. Hercus (1986: 8ff.) gives five main divisions between varieties, which would seem to correspond to closely related languages (or different dialects). Wafer and Lissarrague (2008: Chapter 10) give two main divisions. I have probably over-differentiated varieties here.

¹³⁸ See Hale (1962): classified as a branch coordinate with other ‘Aranda’ (i.e. all except Kaytetye); see also Koch (Koch 1997a,b; Koch 2004b).

¹³⁹ For the difficulties of classifying Karnic, see Breen (2007), responding to Bowern (2001).

¹⁴⁰ Wangkumarra ‘southerners’ is both a specific name and a more general name for the people of this area. The geographical placement of Wangkumarra here is subject to some uncertainty. Hercus (1986) says that the Wangkumarra, Punthamarra, and Kungadityu were the northern neighbours of Paakantyi people.

¹⁴¹ See Breen (1990b).

¹⁴² Classified as Maric by Bowern.

Papuan Language

Meryam Mir (Piper 1989); Eastern Trans-Fly (Papuan).

New Indigenous Languages¹⁴³

- **Creole Languages**

- **Yumplatok and affiliated north-eastern creole languages**

1. Yumplatok; also known in the literature as Torres Strait Creole, Broken (Shnukal 1988; 1991)
2. Cape York Creole; from the Northern Peninsula Area of Cape York (Crowley and Rigsby 1979, with some commentary in Harper 2001)
3. Lockhart River Creole (Mittag 2016)
4. Napranum Creole (Carter, Angelo, and Hudson 2019)

- **Kriol and the Kriol sphere of influence¹⁴⁴**

5. Kriol (Schultze-Berndt et al. 2013; 5a. Fitzroy Valley Kriol: Hudson 1985; 5b. Bamyili/Barunga and Ngukurr Kriol: Sandefur 1979; Barkly: Graber 1988)

Eastern periphery

6. Mornington Island Creole (Nancarrow 2014; Community negotiated project, Language Perspectives 2015a)
7. Kowanyama Creole (Community negotiated project, Language Perspectives 2018)

Southern periphery

8. Alyawarr English (potentially also described as a blended language; Dixon 2017; 2018)
9. Wumpurrarni English (potentially also described as a blended language; Disbray and Simpson 2004; Disbray 2008a; 2016)

- **Superdiverse Aboriginal settlements¹⁴⁵**

10. Yarrie Lingo (Angelo Fraser and Yeatman 2019; Mushin, Angelo, and Munro 2016; Community-negotiated project, Language Perspectives 2009)
11. Woorie Talk (Munro and Mushin 2016; Community-negotiated project, Language Perspectives 2015b)
12. Cherbourg Lingo (Mushin, Angelo, and Munro 2016; Community-negotiated project, Language Perspectives 2009)
13. Palm Island (Dutton 1964; 1965)
14. Murdi Language (south-western Queensland; Community-negotiated projects, Language Perspectives 2009)

¹⁴³ This classification is reproduced (with additions) from Angelo, D., O'Shannessy, C., Simpson, J., Kral, I., Smith, H., and Browne, E. (2019). *Well-being & Indigenous Language Ecologies (WILE): A strengths-based approach. Literature Review for the National Indigenous Languages Report, Pillar 2*. Canberra: The Australian National University. doi 10.25911/5dd50865580ea. Available from <http://hdl.handle.net/1885/186414>: Appendix 2, pp. 115–16. There are no doubt other contact languages which are not in this classification, but which are yet to be documented.

¹⁴⁴ See also Dickson (Chapter 57, this volume) and Angelo (Chapter 66, this volume).

¹⁴⁵ See Angelo (Chapter 66, this volume) for more information.

• **Mixed languages**

15. Light Warlpiri (O’Shannessy 2005; 2009; 2013, and much other work)
16. Gurindji Kriol (McConvell 1988a, 2002; McConvell and Meakins 2005; Meakins 2008b; 2010, and much other work)
17. Modern Tiwi (Lee 1987; McConvell 2010; Wilson, Hurst, and Wigglesworth 2018)

• **Languages not otherwise classified**

18. Dhuwaya (Amery 1985)
19. Areyonga Teenage Pitjantjatjara (Langlois 2004)
20. Broome Pearling Lugger Pidgin (Hosokawa 1995)
21. Broome Aboriginal Englishes (Hosokawa 1995)¹⁴⁶
22. Pidgin Ngarluma (Dench 1998a)
23. Contemporary/New Noongar (Douglas 1968 [1976]; Rooney 2011)
24. Jambun English (Schmidt 1985)
25. Palawa Kani

Sign Languages

After much consideration, Sign Languages are not further differentiated in this classification. This is because it is currently very unclear how many Sign Languages are and were present in Aboriginal Australia, and how best to delineate them. See Green, Chapter 52, this volume, for discussion.

Acknowledgements

Numerous people have assisted with this classification in various ways over almost 15 years. In particular, I thank Barry Alpher, Peter Sutton, and J. C. Verstraete for discussion of Paman; Barry Alpher for discussion on the relationship between Paman and Maric; David Nash and Harold Koch for innumerable points; Denise Angelo, Nick Evans, Jenny Green, Mark Harvey, Luise Hercus, Amanda Lissarrague, Patrick McConvell, Doug Marmion, Rachel Nordlinger, Kazuko Obata, Erich Round, and Jane Simpson. They are not responsible for any errors that remain here, and in some cases we have no doubt come to different conclusions and would not necessarily agree with the classification and maps presented here.

¹⁴⁶ Aboriginal English is shown on the map in North-Western Australia but it should be noted that there are many varieties of Aboriginal English.

Foreword

It is with a great sense of humility and pride that I write the foreword for this important work.

The survival and continuation of Australian languages, the Aboriginal and Torres Strait Islander languages of Australia, is a matter of global significance. In my lifetime I have personally witnessed the agonizing death of my language family and my language group, simply through the forces of interaction and engagement with modern society, represented by the colonial settler society of Australia.

In my language community, Ngalia, my mother and her parents were the first generation to have contact with white Australia. As each of my elders passed, I witnessed the progressive disappearance of the language of my childhood—language that carried all the meanings of my connection to country, language that held the wisdom and insight of countless generations before me, language that allowed us to flourish in a hostile environment. Our language united us through family, kinship, and knowledge of country. It enabled us to communicate not just to survive but to flourish as a society. It is a long, slow, and painful journey with each passing, as the realization dawns that you can no longer speak to those around you, you can no longer share your understandings and insights of the world around you in the same language. Instead you take on the words, ideas, and mannerisms of the languages spoken around you. Sometimes this means speaking other Aboriginal languages, but more commonly in my region it's the adoption of English, or the Aboriginal English dialect, as the primary means of communication.

When you arrive at that accursed destination of being the last speaker, you can never truly express the joy, the pleasure, of hearing and speaking your mother tongue again. Every sound triggers the synapses in your brain. Pleasure courses through your body as you hear the words of your mother tongue. They roll off your tongue, bringing a sensation of immense relief at speaking and connecting with another soul. This is usually the pleasure of a rare and temporary interaction with a linguist or language worker, coming to frame your language into the archive of the world's lost treasures. It's not ideal, but it's an important contribution.

This significant work focussing on Australian Indigenous languages carries the stories of individuals, families, and countries and the histories of spirit, art, and culture. The history of First Nations languages in Australia is mired in genocide, soaked with the blood of the frontier. It survives under the hammer of in-built bias and prejudice and the socially perpetuated oppression of language communities. The numbers speak for themselves: multiple hundreds of languages were spoken prior to contact—some say 200, others up to 700—and yet today only 20 remain as living languages. With the passing of each year, that number moves closer to the precipice. This work commits to record an insight into those languages once spoken and those that still survive today. I hope it will inspire the survival of Australia's First Nations language communities into the future.

Pick it up, read it. Wonder, be inspired, and treasure each word.

Palunya.

Ngula nyaku.

Kado Muir
Ngalia language speaker

Introduction

CLAIRE BOWERN

1.1 Introduction: the languages of Australia

This is a book about the Indigenous languages of Australia: the more than 500 languages, including Sign languages, Pidgin, Creole, and Mixed languages, which have been used on the Australian mainland, Tasmania, and the Torres Strait Islands from more than 50,000 years ago to the present.¹ At the time of the 1788 European invasion, one language family—Pama-Nyungan—covered roughly 90% of the Australian mainland. Twenty-seven other language families, now known collectively as non-Pama-Nyungan, were found in the north, from the Kimberley region in the north-west to the Gulf of Carpentaria. There were also probably five Tasmanian language families, containing multiple languages. This linguistic diversity accrued over thousands of years.

The contemporary linguistic landscape of Australia is different. Many of the languages which were in use at the time of European invasion and settlement are no longer spoken. What happened to the Aboriginal people of Australia in the years following 1788 was genocide. Even a purely academic approach to the linguistics of Aboriginal Australia cannot overlook this—it is embedded in the circumstances of documentation, in the types of examples recorded, and in who shapes the record. The Indigenous peoples of Australia are still here, and that is also celebrated and reflected in this volume.

This book grew out of a wish to provide an up-to-date compendium of knowledge on the languages of Australia, particularly including material not covered in the handbooks from the past. To date, there have been several single-authored handbooks of Australian languages (Schmidt 1919a; Capell 1956; Blake 1987a; Dixon 1980; 2002; Wurm 1972), as well as several edited volumes comprising collections of papers about different aspects of language (Koch and Nordlinger 2014; Dixon 1976a; Walsh and

¹ Traditional figures place the number at 250; see Walsh (1997b) and Bower (Chapter 7, this volume) for discussion about the number of languages and why the higher figure is more accurate.

Yallop 1993). Because of the need to broaden focus on the ‘landscape’ (see Angelo, Chapter 66, this volume) as well as questions of linguistic structure, this handbook has not only chapters on typological topics in phonology, morphology, and syntax, but also a substantial number of chapters on semantics and pragmatics, as well as on sociolinguistic topics, on language use, and on linguistic ecology. We also present work on language change across the continent, as well as on the history of research and classification. Additionally, there are chapters with discussion of language areas, families, and selected individual languages. In this way, the handbook both represents the state of the art on Australian language work and reflects the concerns of linguists working on Australian languages.

1.2 Overview of the volume

Given the number of chapters in the handbook, they are not all summarized here. Instead, I first summarize the sections, and then briefly highlight some of the common themes that authors raise.

1.2.1 Summary of parts

The first part (‘Background’) provides information about the history of research, classification and language history, and documentation and philological methods. These chapters present information about the forces that have shaped contemporary documentation practices for Australian languages, as well as an overview of the landscape of languages to be discussed in subsequent sections.

Part 2 concerns typology and grammatical structure. The chapters cover phonetics, phonology, morphology, syntax, semantics, pragmatics, and discourse. These chapters build on the long empirical tradition of Australian language documentation and grammar writing to provide a state of the art overview of these aspects of language. These chapters

contain a variety of case studies and typological approaches, depending on the availability of material.

Part 3 is devoted to sociolinguistics and language variation. It includes an array of topics related to language use, including code-switching and multilingualism, child-directed speech (also known as ‘baby talk’) and auxiliary registers, as well as language contact and contact varieties (including Kriol).

The five chapters in Part 4 involve language in the community—that is, applied linguistic topics around language policies, language acquisition, and language revival and reclamation. Finally, Part 5 provides additional case studies of many of the themes brought up in previous chapters by discussing individual languages, language areas, and language families. These areas were picked to illustrate particular points in the handbook, as well as to highlight a few of the languages or regions which lack good overviews in other handbooks.

1.2.2 Coverage of topics

Several documentation themes run through the volume. Most authors mention at some point in their chapter that they did not have enough data, or that relevant facts had not been recorded for enough languages. Almost every author points out that some aspect of their topic is understudied—even the topics that have been well researched by Australianist standards.

In compiling the chapters for this volume, my aim was to cover ‘Australian (Indigenous) languages’ as broadly as possible. This meant including not just the languages which were spoken prior to the European invasion, but also Indigenous languages in current use, such as Kriol and other contact varieties. A further aim was to not focus simply on grammatical topics—that is, the study of languages of Indigenous Australia involves a lot more than typological and historical study, important though that is. Language variation and sociolinguistics, for example, has been a chronically understudied area of Aboriginal linguistics. It is my hope, that by including in a single book work on language policy, language acquisition, language revival, language variation, code-switching, signed languages, auxiliary languages, and similar topics, along with work on phonology, morphology, syntax, and semantics, that the connections between grammatical description and linguistics with a social focus will be more apparent.

For all that breadth, there were a number of topics that I would have liked to have represented in this handbook, but which could not be included. This was either due to lack of information, or in some cases, due to lack of space.

For example, there is no chapter on syntactic change because there has not been sufficient reconstruction already done to allow us to synthesize results. There are very few publications on comparative syntactic reconstruction, and the synchronic typology of syntax has focussed on a couple of areas—in particular, adjoined relative clauses, nominal classification systems, and complex predication. Not even nonconfigurationality, which has long been associated with Australian languages (Austin and Bresnan 1996; Hale 1983; Simpson 1991; amongst others), has received a thorough comparative treatment within Australia. Some topics are addressed in passing but would warrant treatment in more detail, such as clusivity (see Gaby and Shoulson, Chapter 24, this volume, in the broader context of pronominals).

In other cases, we have tried to present a more nuanced view of ‘facts’ (or perhaps more accurately, ‘factoids’) about Australian languages—that is, aspects of the language which have been treated as received wisdom but are either factually incorrect, trivially true of human language in general, or require more discussion and explanation (see Bowerman 2017b for further discussion of this topic). One example involves adjectives. ‘Received wisdom’ is that Australian languages typically lack a robust distinction between nouns and adjectives. However, as Kim (Chapter 25, this volume) shows, half the languages in her survey have some type of morphological or syntactic distinction between (referential) nominals and adjectives (see also Louagie 2017b). Therefore, we cannot simply maintain an opinion that Australian languages do not have morphological or syntactic distinction between nouns and adjectives (cf. Dixon 2002: 67), when so many clearly do; and where for others, a lack of distinction has been asserted without detailed investigation.

In yet other cases, chapters in this handbook are the first in their respective topic to attempt to synthesize work across the country. For example, suppletion in Australian languages is severely understudied (see Bach and Round, Chapter 29, this volume). In further cases, chapters of this handbook provide some overview on certain aspects of language, but fuller treatments of individual languages await. Formal semantics and negation, for example, lack detailed treatments for most languages of the continent, and these chapters (Bednall, Chapter 32, and Phillips, Chapter 34, for example) are a first general survey that will form a foundation for others to build on.

Unfortunately, several topics needed to be omitted, mostly due to lack of space. Associated motion (Koch 1984; 2021), for example, is a phenomenon that is robustly attested in several groups of Australian languages but relatively rare (though not unknown) elsewhere in the world (cf. Guillaume and Koch 2021). An ideal volume without page constraints would have included more work on lexicography,

grammar writing, and lexical semantics beyond a few key areas, such as kinship (McConvell, Chapter 43), toponyms (Rosenberg, Simpson and Bowern, Chapter 44), and language names (Rosenberg and Bowern, Chapter 49). Also missing, though not by design, are Aboriginal voices around their language work (see Woods and Gaby 2021, for some discussion of this topic). While Miceli and Bowern (Chapter 5) discuss a few ways in which linguistics is part of multidisciplinary approaches to the past, we have not done justice to the many ways in which linguistics and anthropology have been combined over the history of work on Australian languages (cf. Stockigt 2020).

Some other areas are ripe for further analysis and need a fuller study. We have no information about gesture or reference construction where gesture is part of the utterance (though cf. Green 2014). For example, Dahmen (2020) found, in a small-scale study of Jaru, that half the pronouns in the conversational corpus are accompanied by gestures, clearly indicating that gesture and speech are jointly signalling reference. Thus, even though this book is large, it is not, by any means, a fully ‘comprehensive’ study.

1.2.3 Authors’ approach

As is expected from a volume of this scope, different chapters take different approaches to covering their topics. Many authors present a typological overview from a sample. The size of the sample varies, depending mostly on the availability of material or the sampling approach. For example, both Kim and Spronck (Chapters 26 and 30, respectively) have samples of around 40 languages; Kim’s is due to problems with material, while Spronck’s relates to sampling from major lineages across the continent. Other samples are samples of convenience, used to illustrate particular points but the whole continent was not systematically reviewed. Finally, some other chapters focus on particular, well-studied languages (Tabain’s EMA work in Chapter 9; Bradley and Gaby on gender in Chapter 53) to illustrate the phenomenon under discussion.

1.2.4 Supplementary materials and data archiving

Many of the chapters have electronic supplementary materials. These supplements contain the data or source materials that were used in the compilation of the typological surveys. These items can be found at <https://zenodo.org/communities/ogal-supplement/>.

Although all data on which this volume is based came originally from Aboriginal and Torres Strait Islander people,

some analyses are based on primary work with individuals, while others are based on secondary analyses or archival materials, such as fieldnotes. Many of these materials are archived in three repositories: the library of the Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS), the Endangered Language Archive (ELAR) repository through SOAS, and the PARADISEC digital archive.

1.3 Conventions and context

In the course of approximately 200 years of academic writing about Australian languages, conventions have arisen which may be unfamiliar to people working in other areas of the world. This section explains some of those conventions and notes the approach of the volume.

1.3.1 Terminological conventions

One consideration has been the extent to which a book like this should use the conventions that are most familiar to Australianists, vs. situating the languages in the broader typological literature. For example, for many years, Australianists spoke of three types of Australian languages (that is, in typological terms): prefixing, suffixing, and ‘affix-transferring’ (Capell 1972). The prefixing languages are the non-Pama-Nyungan languages in the north of the country; the suffixing languages are all Pama-Nyungan, with the exception of the Tangkic, Garrwan, and Eastern Mirndi families. The affix-transferring languages are mostly from the Ngumpin-Yapa and Marrngu subgroups of Pama-Nyungan; they have pronominal argument morphology that usually attaches to a second position clitic (termed a ‘catalyst’). We have referenced such material in order to increase the interpretability of earlier literature, while also keeping, as much as possible, within the functional-typological vocabulary most familiar to readers (thus, ‘ergative’ case rather than ‘operative’, for example, and ‘head/dependent marking’ rather than ‘affix-transferring’; see e.g. Nichols 1986).

1.3.2 Referring to Australian languages

There are many spelling conventions for referring to Australian languages. In some cases, there are different standards in the anthropological and linguistic literature (Dieri vs. Diyari, for example). In other cases, there have been several spellings according to author (cf. Anindilyakwa

vs. Enindhilyakwa vs. Anindhiljaugwa). In further instances, the conventions represent minor differences in orthography, such as whether voiced or voiceless letters are used to represent the stop series (e.g. Bindubi vs. Pintupi, Nhanda vs. Nhanta) or how lamino-palatals are transcribed (e.g. Walmajarri vs. Walmatjari). Some examples are described in Bower (Chapter 7, this volume).

Over the course of descriptive and analytical work on Australian languages, a number of other language naming patterns have developed.² Some names are traditional; others are the result of research practices by non-Indigenous linguists. For example, it has become customary to refer to subgroups of Pama-Nyungan after the word for ‘man’ or ‘person’ (viz. Karnic, Wati, Thura-Yura, Yolŋu, Yuin-Kuri, etc.). In some cases, this has led to problematic conventions. For example, ‘Wati’ is often used for the subgroup of Pama-Nyungan languages of the Western Desert and adjacent regions of Western Australia, South Australia, and the Northern Territory (see Babinski et al., Chapter 75, this volume). However, *wati* is not a neutral term meaning ‘man’ or ‘person’—in at least some of these varieties, it refers particularly or exclusively to an initiated man. Personal communication with women who speak these languages reveals that they are uncomfortable with the term, which both excludes them as speakers and implies that the language is solely the domain of initiated men. This naming convention apparently arose because of an assumption that many Australian languages have a homonymy between ‘man’ and ‘person’—which is not borne out. That is to say, while researchers have sought to use a consistent strategy for language naming that includes material from Indigenous languages, those conventions can end up as problematic.

Another potentially problematic naming convention is to name a subgroup or family after a particular language (e.g. Gunwinyguan, Nyulnyulan, Warluwarric, Worrorran, and the like). These names sometimes appear to language users to prioritize one variety over another. An alternative convention is to use topographic features (cf. the ‘Flinders Island language’). Dixon’s (2002) classification makes extensive use of this practice, replacing names that were previously in common use with names based on such features (e.g. ‘South Kimberley Subgroup’ for ‘Bunuban’). While this avoids the problems of names based on single languages or words for ‘man’, they tie Aboriginal languages to English-based naming systems.

In order to make it easier to refer to languages throughout the text, we have somewhat standardized the spelling of language names. We have tried to use the form that is, to our knowledge, the accepted form within the language community, or failing that, in the linguistics literature (e.g.

² See also Rosenberg and Bower (Chapter 49, this volume) on language names.

in the Austlang database, found at austlang.aiatsis.gov.au. Notes on variants in spellings are given in the index. This is the most seamless way to be consistent across the volume while acknowledging that those using the volume may try to find information about particular languages in many different ways. We have retained the familiar subgroup names and families while recognizing that this is problematic.

1.4 Overview of the languages of Australia

1.4.1 Language and descent groups

Some important details of language tenure and land tenure may be unfamiliar to some readers of this book, and so are summarized briefly here. Naturally, details vary across the country, but the following schema is broadly applicable.

Language is said to have been placed on the land by ancestral culture heroes, during the Dreamtime (a translation of a term known by various names throughout the country, including *jukurrpa*, *bukarri(karra)*, *altyerre*, and *milon*, among many others). This ‘beforetime’ is the foundation of law and lore, morality, and many other aspects of social organization. However, it is not localizable in a particular time; as Stanner (1979: 24) wrote, it is ‘everywhen’, and an ‘unchallengeable, sacred authority’. Perkins’s (2016) frontispiece provides a very effective explanation of Dreamtime through language and images (Muecke and Roe 2021 is also evocative). Country is often said to be linguistically and culturally aware—aware of languages spoken on it, responsive to knowledge and proper address, a stance shown in Bawaka Country et al. (2019: 683), where Bawaka Country itself is given authorship on the article:

This paper is authored by Bawaka Country. For Yolŋu people, Country means homeland. It means home and land, but it means more than that too. It means the seas, and the waters, the rocks and the soils, the animals and winds and all the beings, including people that come into existence there. It means the connections between these things, and their dreams, their emotions, their languages and their Rom (Law). It means the ways we emerge together have always emerged together and will always emerge together. This co-becoming manifests through songspirals, known more commonly as songlines or dreamings. Songspirals are rich and multi-layered articulations, passed down through the generations and sung by Aboriginal peoples in Australia to make and remake the lifegiving connections between people and place.

(Bawaka Country et al., 2019)

As Hobbles Danaiyarri³ succinctly explained: ‘Everything come up out of ground ~ language, people, emu, kangaroo, grass. That’s Law’. M. K. Turner (2010: 194) puts it this way:

The Land needs words ... It’s not only words that’s sacred but also it comes from our own Land, and comes from our Ancestors. It’s a gift from that Land for the people who join into that Land – fathers, and brothers, and sisters, and brothers-in-law, and also our children. We come from the Land, and the language comes from the Land. And everything that grows from the Land, it really relates to our language as well ... *Akarre* is a sacred tongue because it comes from the Land and it’s part of us, and because we use it to do things, to say things. *Ane akalye anthurre angkentye ikwerenheke. Ane angkentye itethe atnerte mpwepe-arenye apeke re.* And that person knows his language, and he knows that his language is born out of the living flesh of that Land.

A person’s primary linguistic affiliations come from country (Sutton 1978; Rumsey 1993). That is, because language comes from country, one’s language ownership (or custodianship) comes along with the custodianship of country. Deborah Bird Rose (1992: 118) summarizes a discussion with Yarralin people, ‘Language, too, is a way of defining country, and thus of defining people who belong to that country. Speaking the language of one’s identity is not an issue here. People belong to the area defined by the Karangpurru language, for example, because one or both of their parents were Karangpurru, and this is so regardless of what languages they speak’.

1.4.2 Language and European settlement

Works about Australian languages are accustomed to use the date of European settlement (or invasion) of Australia (1788) as a reference point, and they are written as though we are simply trying to recover as much as possible about the life of Indigenous Australians from several hundred years ago. In this volume, however, I have tried to strike a balance between discussing Australian languages across their histories (reconstruction and change over the course of the last 5,000 years or more) and the very rapidly changing linguistic landscape of the last 50–230 years. Linguists try to use descriptions of languages from points in time at which those languages were still in daily use. However, it is simply a reality that many languages of the Australian continent were described by linguists and the last speakers and signers of those languages, at points when the languages had already fallen out of use as everyday means of communication. In some cases, this was because communities shifted to other

³ A Mudburra man of Yarralin (Northern Territory), quoted to Rose (1996: 9); see also Rose (1992).

languages. More often, though, the shift was brought about because communities were dispersed or ‘disrupted’ (to use a common euphemism), children were forcibly removed from their families, and individuals were punished for speaking their ancestral languages. This has consequences, because how last speakers use their languages may be quite different from speakers at the time of the invasion; therefore, care must be taken in comparing earlier and later records, even if they appear to refer to the same speech varieties.

It is traditional to talk about ‘pre-contact’ Australia, referring to the contact between Europeans and Aboriginal and Torres Strait Islanders. But of course, as Vaughan notes (Chapter 54, this volume), linguistic and cultural contact predates European arrival, and even after 1788 is not limited to contact with speakers of English. Other pre-European encounters include (but are not limited to) contact with Macassans who fished along coastal Arnhem Land in northern Australia for trepang (sea cucumber) from the late seventeenth century, as well as contact with Malay, Japanese, and Chinese pearlers in the early twentieth century in the coastal Kimberley region of western Australia (see further Urry and Walsh 1981; Walker and Zorc, 1981; Evans 1992a). Wood (2018) has made arguments for contacts between speakers of Austronesian languages and Paman languages on eastern Cape York Peninsula.

1.4.3 Language classification

In this volume, authors give language family classification information for non-Pama-Nyungan languages; for members of the Pama-Nyungan family, authors give the subgroup they belong to. A few chapters also make use of the primary divisions in Pama-Nyungan discussed by Bower and Atkinson (2012). This book does not have a detailed discussion of the history of classification of Australian languages, though aspects are covered in brief in Stockigt (Chapter 2, this volume) and in detail for the 19th century in Stockigt (Chapter 6, this volume). Twentieth Century classifications have been covered in detail by Koch (2014a), as well as in the introduction to Bower and Koch (2004). The front matter and Chapter 7 of the present volume gives some discussion of methods.

1.4.4 Contemporary language use

These days, Indigenous languages in Australia are used in many different ways. Some languages are the primary languages of their communities; others are still present (but used less commonly), or used by a small number of people. Others are known, and still important, but not used as

a primary or daily language of communication. Others are currently being awakened.

Many handbooks of languages treat language as disembodied. This handbook attempts to show language as both elegant structures and as important parts of the lives of people. Along with reading this volume for linguistic information and understanding, I hope that readers of this volume will also mourn, witness, remember, respect, celebrate: mourn what has been lost, and the circumstances under which that happened; witness the consequences and remember what has happened; respect individuals and communities for the choices they make about their lives, land, and languages; and celebrate the work currently being done so these languages continue across the land and are handed on.

1.5 Conclusion

The editor and authors of individual chapters wish to acknowledge that the contents of this volume have been compiled based on the knowledge of expert Indigenous speakers. Given the number of languages considered throughout, these experts cannot all be cited individually, and we had to list the compilers of knowledge as authors in the table of contents, following academic practice. It must nonetheless be recognized that the linguistic knowledge compiled here comes exclusively from Indigenous speakers and signers. The relative absence of Indigenous contributors as authors of these chapters makes it very clear that we have a long way to go to make linguistics more accessible

and desirable as a path of study for Australian Indigenous people (see also Gaby and Woods 2021 for discussion of linguistics in an Australian social justice context).

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PART I

Background

A history of the early description of Australian languages

CLARA STOCKIGT

2.1 Introduction

The development of understanding about the diversity, internal relationships, and structure of the estimated 400 languages spoken in Australia at the time of British colonization in 1788 (Bower, Chapter 7, this volume) has paralleled the exploration and encroachment of the coastal and vast interior regions of *Terra Australis Incognita*. Colonization was slow, and initial struggles were sometimes abandoned.

That the mere thirteen Australian Aboriginal languages which continued to be acquired by children in 2014 (Marmion et al. 2014: xii; Bower, Chapter 7, this volume) belong to areas of the country remote from large population centres and early European settlement, and typically with unproductive soils and inhospitable climates, tells of the detrimental impact that European occupation has had on Australia's original inhabitants and on their languages. Aboriginal people who have survived the colonial onslaught long enough to have shared their languages with linguists in recent decades tend to originate from parts of Australia, or 'countries', which are remote, sparsely inhabited, and infrequently visited. Languages which have been lost before any record of them had been made, or for which only a fragmentary record was taken, tend to be those belonging to country close to European centres of population. While there are historically interesting exceptions to these tendencies—for example, Arrernte is heard today on the streets of Alice Springs, and Unggumi is no longer spoken despite belonging to country far from centres of European population—the pattern is nevertheless evident.

The earliest written records of Australian languages pre-date colonization. The first was taken by William Dampier (1998 [1697]), who in 1688 landed close to Cygnet Bay on the northwest of the continent where he recorded the single Bardi word 'gurry'—probably *ngaarri* 'devil' (Metcalf 1979: 197) without translation, but which he described (Dampier 1998: 222) as being cried by people running 'away as fast as they could'. The window which this single entry provides into Aboriginal experience of early European contact

is apparent in other early linguistic documents. In 1840, for example, Teichelmann and Schürmann gave an example sentence in Kurna, spoken close to Adelaide, which they translated as: 'Don't hang the black man, that the European be not charmed [ensorcelled]'.

The next and more detailed records of an Australian language were collected in 1770 by members on board the Royal Navy research vessel the *Endeavour* commanded by Lieutenant James Cook (Banks 1770; Cook 1893 [1770: 322–3]), who recorded 'words' in Guugu-Yimidhirr, or a closely related variety, spoken on the northeast coast. Banks's wordlist contains what is probably the best-documented (Roth 1901: 6; Breen 1970; Haviland 1974) pathway by which an Australian lexical item entered the English language. Members of the crew of the *Endeavour* were taught the Guugu-Yimidhirr word 'kangaroo' (*gangurru*) referring to the large black or grey marsupial, and the term subsequently entered the English language and came to be used across Australia where related species had their own Indigenous names.

Following the colonization of New South Wales, Australia's earliest established colony, records were made of the Yuin-Kuri languages spoken in coastal regions north and south of Port Jackson (Sydney). William Dawes's documentation of the 'Sydney language' (see Wilkins and Nash 2008) is remarkable in having been written so soon after the colonization of New South Wales yet decades before any subsequent grammatical description.

In 1834 Congregationalist Missionary Lancelot Threlkeld published a grammar of a language spoken near Lake Macquarie, north of Sydney. Threlkeld's work may be considered the earliest extant Australian grammar, since Dawes did not describe case morphology on nouns or on pronouns, although he did conjugate verbs. Following Threlkeld's grammar came the MS grammars of Wiradjuri, written soon after the 'opening-up' of agricultural lands west of the initially impenetrable Great Dividing Range. Wiradjuri materials written by the Basel Mission Institute-trained missionary James W. Günther (1838; 1840) were based on now lost

analyses by the Basel-trained J. C. S. Handt and the Church Missionary Society missionary William Watson (Bridges 1978: 414–15).¹ Threlkeld's and Günther's grammatical analyses were later published in an important edited volume of grammars produced in Australia by John Fraser (1892a). Fraser's collation rescued much early grammatical material from oblivion, and printed other material for the first time, including Hugh Livingstone's grammar of Minjambal (1892). After the closure of Wellington Valley mission in 1842, the grammatical structure of languages spoken in New South Wales received little further attention until the Presbyterian Rev. William Ridley began describing Gamilaraay, spoken north of Wiradjuri, in 1852 (1855; 1856b; 1866; 1875).

Note here that the terminology employed today by non-Aboriginal and Aboriginal people to refer to Australian languages—for instance 'Awabakal', 'Kaurna', 'Ngarrindjeri', and 'Arrernte'—is the product of post-colonial linguistic and anthropological investigation. These terms were not recorded in the early sources. The language Threlkeld described was named 'Awabakal' in 1892 by Fraser (1892a), the term being derived from the name of Lake Macquarie *Awaba* marked with the associative suffix *-kal*. The language is nowadays also referred to as 'Hunter River and Lake Macquarie language' (Lissarrague 2006; Wafer and Carey 2011). The mechanisms by which many language names, and all their variant spellings, have come to be the accepted descriptors of languages, and of the people speaking them, remain generally not well understood (see Sutton 1979: 89), and can be difficult to retrieve from the historical record (Stockigt, Chapter 6, this volume; Rosenberg and Bownern, Chapter 49, this volume).

McGregor's (2006b: 2–20) 'history of the histories of Australian languages' finds most Australian linguistic researchers agreeing that the 1930s and 1960s were watershed decades in the history of the description of Australian languages, which McGregor usefully considers as spanning three periods: a first pre-dating 1930; a second between 1930 and 1960; and a third post-1960. Each is defined by the types of linguistic materials collected, the context in which they were sourced, and the types of technical linguistic training brought to the analysis.

2.1.1 The first descriptive era: pre-1930

The record of Australian languages collected in the pre-academic descriptive era, prior to 1930, was recorded predominantly by missionaries (Stockigt 2015: 336–8). Records taken by explorers, pastoralists, men appointed

¹ Rev. W. Ridley held a copy of Watson's Wiradjuri grammar and vocabulary, which he describes as being in two volumes, and which he returned to the Colonial Secretary of New South Wales sometime before 1873 (Ridley 1873: 275–6).

to the office of Protector of Aborigines, and interested individuals are—in comparison with the missionaries' contribution—likely to be shorter, and to contain no grammatical analysis. Notable exceptions include George Fletcher Moore's detailed *Descriptive Vocabulary* (1842) of Noongar spoken around the Swan River Colony (Perth), the numerous grammars by R. H. Mathews (Koch 2008: 211–16) of languages spoken predominantly in Victoria and in New South Wales, and Daisy Bates's record of many languages from Western Australia. Non-missionary scholars of Australian Aboriginal people and languages were often natural scientists, for example, Robert Brough Smyth, Walter Roth, and Charles Chewings, who were trained to observe and record empirical data, and whose work provided necessary contact with Aboriginal people.

But the efforts of early missionaries who were motivated to acquire and describe Australian languages are atypical of the broader picture. Fewer than five percent of Australian languages were grammatically described before 1930. Most missionaries in Australia paid no attention to Aboriginal languages (Harris 1994: 805). Their disinterest might be seen to sit within what the missionary Threlkeld (1850: 10) described:

[T]he almost sovereign contempt with which the Aboriginal language of New South Wales has been treated in this Colony, and the indifference shown toward the attempt to gain information on the subject, are not highly indicative of the love of science in this part of the globe, ... for which it is difficult to account.

A lack of linguistic data emanating from Australia in the nineteenth century was noted in Germany (H. C. von der Gabelentz 1861: 489; F. Müller 1867: 241; 1882: 2; G. von der Gabelentz 1891: 403). As late as 1946 the Austrian linguist and ethnologist Wilhelm Schmidt (1946: 941) described 'a desolate lack of scientifically recorded materials for most Australian languages'. More scathingly, in a review of Schmidt's 1919 classification of Australian languages, the American anthropologist A. L. Kroeber observed (1921: 226) that the international contribution to Australian linguistics stood in contrast to the apathy of linguistic researchers in Australia: 'Perhaps the realization that the first scholarly attempt to deal seriously with these tongues was made in German by an Austrian priest [Wilhelm Schmidt] will stir Australians into effort'.

Missionaries who were linguistically active held individual views about the complementarity of linguistic study, anthropological study, and proselytization, and their views were sometimes at odds with views held by Church officials under whose authority they worked. The missionary Siebert, at the Bethesda Lutheran mission in South Australia, for instance, was forced to defend himself to the South Australian mission board against charges of having spent

too much time pursuing academic collaborative research with the Australian anthropologist Alfred Howitt at the expense of Christian evangelization with the Diyari (Nobbs 2005). The role of linguistic study within philosophical approaches to mission practice are not easily categorized by particular Church denominations. In 1907, for instance, the French Trappist Catholic missionary at Beagle Bay in Western Australia, Joseph Bischofs, took part in a local ceremony ‘blackened from head to foot and adorned with ochre and feathers’ (Mary Durack, quoted in Akerman 2015: vii), while at the nearby Lombadina mission on the Dampier Peninsula German Pallottine Catholics translated scriptures but forbade all ceremonial activity.²

Some recent histories (Graetz 1988: 9; Kneebone 2005: 362; Kenny 2013: 87) have emphasized that the Lutherans’ missionary activity occurred within a philosophical tradition hailing from J. C. Herder, in which understanding a people’s language provided a window into their *Volksgeist* that was necessary for successful conversion. Such accounts have, however, obscured the fact that similar convictions were held within other evangelical denominations, as well as by Catholic missionaries, who dominated the description of the linguistically diverse non-Pama-Nyungan languages from the north of Australia.

Missionaries of different denominations in Australia shared the post-Reformation conviction that Christian conversion occurs *sola scriptura* (through scripture alone) and were expected to learn Aboriginal languages in order to carry out two interrelated evangelical tasks: the translation of religious texts, and the preparation of materials for use in vernacular literacy programmes. The missionary Threlkeld’s linguistic achievements were made as part of an established tradition of London Mission Society Bible translation (Roberts 2008: 107). The missionary Watson, of the Church Mission Society, who established the Wellington Valley Mission in 1832, was instructed to ‘learn the language and reduce it to writing’ (Bridges 1978: 297). Congregationalist missionary George Taplin similarly wasted no time in advancing the grammatical descriptions of Ngarrindjeri, and Moravian missionaries in Australia were trained and also expected to learn the local language (Edwards 2007: 319). In 1836 Threlkeld produced *An Australian spelling book in the language as spoken by the Aborigines...*; in 1856 Rev. Ridley produced a Gamilaraay primer (1856a); and in 1885 Jesuit missionaries at Rapid Creek, close to Darwin in the Northern Territory, printed primers in Larrakia (Harris 1994: 461).

² In 1934, in order that Phyllis Kaberry conduct Australian National Research Council funded fieldwork among Aboriginal women in the Kimberley, Adolphus P. Elkin, Professor of anthropology at the University of Sydney, had to negotiate with Western Australian authorities due to a perception that anthropological investigation led to a revival of ceremonies that thwarted the missionaries’ efforts (Gray 2002: 33–4).

2.1.1.1 Description of non-Pama-Nyungan languages

Tasmanian languages and non-Pama-Nyungan Australian languages are defined by their negative membership within the Pama-Nyungan (henceforth PN) family and are spoken over much smaller areas of north-western mainland Australia. Non-Pama-Nyungan languages were scarcely described before the 1930s. In 1898 Sidney Ray attempted to address this ‘scanty knowledge of the tribes and languages of the north-west’ by tabulating (pp. 347–8) extant materials, and presenting vocabularies that had been sent by a ‘Mr E. B. Rigby’ to Ray’s collaborator, the Cambridge anthropologist Alfred C. Haddon.

As was the case across the vast majority of the continent where PN languages were spoken, early grammatical analyses of non-PN languages are outnumbered by a plethora of wordlists of variable quality. They include an 1846 vocabulary of Iwaidja by Fr Angelo Confalonieri, and the lexical records of non-Pama-Nyungan languages by Daisy Bates, whose almost insurmountably chaotic but extremely valuable lexical and ethnographic legacy was recorded in the early 1900s (see Thieberger 2016a). J. W. O. Bennett’s vocabulary of Larrakia, initially published as a pamphlet (1869), was the only non-PN wordlist appearing in Woods’s 1879 (Part VII) compilation of material from South Australia, which until 1911 incorporated the Northern Territory. Of the 239 wordlists appearing in Curr’s three volumes of compiled lexical material (1886–1887), only six are of non-PN languages from the north of the country,³ with vocabularies of Tasmanian languages appearing in an appendix (appendix A, vol. 3).

Although the French Trappist missionary Fr Alphonse Tachon had written a grammar of Nyulnyul by 1895, and the Jesuit missionary Adolf Kristen had written a grammar of Malak Malak by 1899, these works remained unpublished manuscripts, and the material was not assimilated into Australian linguistic thought. Ray (1897), for instance, was not aware of Tachon’s 1895 Nyulnyul grammar.

2.1.1.2 Linguistics and ethnology

A strong tradition of integrated study of linguistics and ethnology existed in Australia before 1930. Many first-era grammarians made both linguistic and anthropological descriptions of the people they worked with. In the 1840s, Lutheran missionary-grammarians who published inaugural grammars of languages spoken in South Australia (Teichmann and Schürmann 1840; Meyer 1843; Schürmann

³ The non-Pama-Nyungan languages included by Curr are Larrakia, Wulna, Iwaidja, Unalla, Yawuru, and a variety from Roper River (Curr 1886–1887, vol. I: 250–77).

1844) each produced ethnographic publications describing the ‘manners and customs’ of the people speaking languages about which they had earlier published an account (Teichelmann 1841; Schürmann 1846; Meyer 1846). Congregationalist missionary George Taplin and Rev. W. Ridley published linguistic and anthropological material about the Ngarrindjeri in South Australia and the Gamilaraay in New South Wales respectively. The detailed grammar of Pitta-Pitta, spoken in south-west Queensland by Walter Roth (1897), who was practising medicine in the area (Stockigt 2020), appeared as the first chapter of a much larger and influential ethnographic work. Roth later pursued linguistic and ethnological studies in his role as Protector of Aborigines (Breen 2008). But the integration of the two disciplines in this era is most famously represented in writings of the Neuendettelsau-trained Lutheran missionaries Carl Strehlow, father of T. G. H. Strehlow, and to a lesser extent, Johann G. Reuther. Both produced multi-volumed opuses (Strehlow 1907–1920; Reuther 1903–1908), which detailed the language, mythology, and religious beliefs of the Arrernte and the Diyari respectively.

Kenny (2013) argues that C. Strehlow’s study of *Volk und Sprache* (1907–1920) was born out of a particularly German philosophical tradition. But causal links between beliefs of a particularly German nature and descriptive practices in Australia remain tenuous and elusive. Strehlow’s relationship with German Humanist philological traditions is better described as ‘secondary and indirect’ (Gibson 2016: 636) or ‘osmotic’ (Sutton 2015: 257). The scholarly investigation of language made by these German missionaries may have sat within the German study of *Ethnologie*, with a focus on ‘the relationship between cultural groups in historical and geographical perspective ... [and on the study of] material culture, as well as mythology, ritual and language’ (Peterson and Kenny 2017: 4), but a dispassionate comparison of the ethnological practices of German Lutheran missionaries with other groups in Australia blurs a clear-cut national or religious philosophical distinction.

2.1.2 The second descriptive era: 1930–1960

By the 1930s, Aboriginal populations had been reduced by almost ninety percent, with many surviving communities residing at government depots and missions where they experienced limited autonomy. The second descriptive era of linguistic research in Australia (c.1930–1960) is described by Stephen Wurm (1972: 17) as having focussed ‘strong attention on structural and typological features’. Its onset is demarcated by three typological studies: the study of Australian languages made by the British linguist Sidney Ray

(1925), who had previously written grammars of Paman languages (1893; 1907), and the studies produced in 1937 by the Australian anthropological and linguistic researchers Arthur Capell and A. P. Elkin, both of whom steered Australian linguistics towards the modern era. Ranging freely over descriptions of Australian languages written before 1930, Ray, Elkin, and Capell collated and synthesized data recorded in the earlier, pre-academic descriptive era. Their works provide valuable insight into the understanding of Australian linguistic structures that was discoverable at the time.

Improved understanding of non-PN languages was advanced in this middle descriptive era largely through the writings of Capell (1938; 1940; 1942), and missionary-grammarians in Western Australia including Presbyterian minister J. R. B. Love (1938 [1933]) and the Pallottine missionaries Hermann Nekes and Ernest Worms’s (2006 [1953]) investigations of Bardi and Nyulnyul collated on the Dampier Peninsula in the 1930s (see McGregor 2000a; 2006b). Capell (1937) advanced the typological distinction between PN and non-PN languages, terming the latter either ‘incorporating’, due to the fact that verbs tend to mark agreement for the number and case of the subject/agent and the object, or ‘prefixing’ (p. 43), because morphemes can attach as prefixes to the stem, which does not generally occur in the ‘suffixing’ PN languages.

The beginnings of the 1930s saw the earliest institutionalized academic investigation into Australian languages. Capell conducted his research within the department of anthropology at The University of Sydney, where Elkin, the department’s third professor (1933–1956), had arranged for him to lecture in linguistics. In 1926 A.R. Radcliffe-Brown had been appointed as Australia’s first chair of anthropology at the University of Sydney, the position having been funded by the American Rockefeller Foundation.

The establishment of a Rockefeller chair of anthropology in Sydney had been competed for by The University of Adelaide, where anthropological investigation was instead pursued by the Board for Anthropological Research (henceforth BAR) and funded by the Australian National Research Council. The BAR mounted multi-disciplinary expeditions into Central Australia between 1927 and the 1970s, when it was disbanded. In 1930–1931 three members of the BAR formed ‘a small language committee’ (Tindale 1935: 261). They were Norman Tindale—the entomologist and later curator of anthropology at the South Australian Museum—the geographer Charles Chewings, and John A. FitzHerbert, Hughes Professor of Classics at The University of Adelaide between 1928 and 1957. Around this time FitzHerbert was supervising the earliest grammars of Australian languages written for academic degrees in Australia. These were T. G. H. Strehlow’s MA thesis ‘An Aranda Grammar’ (1938), published as part of

'Aranda Phonetics and Grammar' (1944), which Elkin (1944: 1) introduced as 'the first complete phonetic and grammatical study of an Australian language', and J. R. B. Love's (1938 [1933]) grammar of the non-PN language Worrorra. Both were published in *Oceania*, as was Presbyterian missionary R. M. Trudinger's grammar of Pitjantjatjara (1943), spoken in South Australia. As noted by McGregor (2006b: 5) the founding of *Oceania* in 1930 provided 'one of the very few outlets for articles on Australian languages'. By contrast, nineteenth and early twentieth-century linguistic works tended to be published by the Government Printers operating in capital cities.

Grammatical material known to have been produced outside South Australia in the 1930s occurred under the direction of Radcliffe-Brown. In 1926, Radcliffe-Brown contacted Edward Sapir at The University of Chicago, whom he would have known had studied unwritten American languages, and suggested that Sapir come to Australia to study Australian Aboriginal languages. Sapir instead sent his student Gerhard Laves, who subsequently made a survey of numerous Australian languages, and in-depth studies of Gumbaynggir, Karajarri, Bardi, Goreng, Matngele, and Ngan'gimerri, while travelling around Australia between 1929 and 1931 (Nash 1993; 2006).

The earliest analyses of Australian languages informed by modern linguistic method were Laves's manuscript Australian materials, and the manuscript grammar of Wik-Mungkan, spoken in Queensland, made by Ursula McConnel. McConnel, whose anthropological studies were supervised by Radcliffe-Brown, had studied linguistics under Sapir and others at Yale. Thus, Radcliffe-Brown can be credited for attempting to address the dearth of erudite early description of Australian languages, which is likely to have initially motivated his 1926 contact with Sapir.

But Laves's manuscript notes made between 1929 and 1931 travelled with Laves back to America, where they remained largely unpublished, until being returned to Australia and deposited in the AIATSIS library in the 1980s (Nash 1993; 2006). While McConnel published 'Wikmungkan phonetics' in 1945, her manuscript grammar of Wik-Mungkan, written close to 1940 based on anthropological fieldwork conducted between 1927 and 1934 (Peter Sutton, pers. comm.) similarly had no immediate impact on the development of linguistic thought in Australia. This document was rescued from imminent destruction in 2006 (Sutton 2010b).

The integration of linguistic and anthropological study practised by McConnel (1940; 1945; 1959) in this period is evident in the polymath abilities of Donald Thomson, who similarly worked on Wik-Mungkan (1935; 1936; 1946), and in Ernest Worms's contribution to Nekes and Worms (2006 [1953]), described by McGregor (2017: 341–2)

as philosophically aligned with the Whorfian tradition. Subsequent to these studies, the integrated investigation of language and culture waned within Australian academic institutions, to the extent that the re-introduction of linguistic anthropology into Australia by Bruce Rigsby from America in the 1970s has been perceived as a 'new' approach in Australia (Anderson 2016: 320).

2.1.3 The third descriptive era: 1960–

Thoroughgoing linguistic investigation commenced in Australia after 1960, when chairs of linguistics were established at Australian universities. With the appointment of Stephen Wurm as Senior Fellow in Linguistics at Sydney University in 1957, and of Göran Hammarström as professor of linguistics at Monash University in 1965, the discipline was no longer largely the province of linguistically inclined clergy and members of the general public. That said, the technically excellent salvage work of Victorian languages made by Luise Hercus during the 1960s (1969; see Koch, Austin, and Simpson 2016) was initially not institutionally driven, but rather sustained by a perceived sense of urgency. The establishment in 1961 of the Australian Institute of Aboriginal Studies (AIAS), the precursor to the present-day AIATSIS (Australian Institute of Aboriginal and Torres Strait Studies) greatly improved funding and research opportunities for Australian linguistic research.

This era of Australian linguistic research benefitted from the arrival of Ken Hale in 1959, which eventually placed Australian linguistic description in the sights of the Massachusetts Institute of Technology. But the era is branded most strongly by the grammars of R. M. W. Dixon (1972; 1977a) and the works of his students at The Australian National University, one of whom (Wilkins 1989: 59) describes the Dixonian lineage as being

highly eclectic as far as their reliance upon, and use of, theory is concerned, and they have drawn freely upon a wide range of approaches to linguistic description ... [They] have evolved in parallel with the evolution of theory and practice in linguistics over the past twenty years. While the grammars do little to build theories, they do test theories, and they frequently provide critiques on the ability of various theories to handle the particulars of the language being described.

Revealing of the significance of the body of work fostered by Dixon in the last decades of the twentieth century are the facts that the era prior to his involvement in the description of Australian languages is popularly referred to 'bB' (before Bob [Dixon]).

This third descriptive era saw the first generation of linguists with PhDs from Australian universities working on Australian languages, notably Donald Laycock, Peter Austin, Peter Sutton, and Terry Crowley. Before then, researchers were qualified either in England, for example, A. Capell (University of London, in 1938) or in America, K. Hale (Indiana University, in 1959), and G. O'Grady (Indiana University, in 1963).

At the same time, and outside the realm of the Australian National University research, the complementary study of language and anthropology, or anthropological linguistics, re-emerged in Australia, with Bruce Rigsby's arrival at the University of Queensland in 1972 and appointment in 1975 to the university's new department of anthropology. Rigsby, who had studied Sahaptin ethnology and language in America, brought 'a new and unique perspective that mixed an American ecological approach ... with a strong foundation in the cultural anthropology of Kroeber ... and the critical role of language and world view (Sapir 1921; Whorf 2012), all premised on a strong, field-based ethnographic approach' (Anderson 2016: 320). Under Rigsby's tutelage, accounts of the socio-geographic complex in Australian languages were developed by Rigsby's students (cf. Sutton 1978; Merlan 1981a). Since then, anthropological linguistics has been integrated into the research precincts of Aboriginal Native Title (Sutton 2003).

One might now conceive of a fourth era of Australian linguistic studies, commencing towards the end of the twentieth century, focussing on the description of language contact varieties (Meakins 2014a: 365–6; Angelo, Chapter 56 and Chapter 66, this volume), sociolinguistics (e.g. Mansfield, Chapter 51, this volume), language acquisition (Wigglesworth and Disbray, Chapter 62, this volume), historiography (McGregor 2008a; Stockigt 2017), and on the philological investigation of nineteenth-century records within language reclamation and revitalization movements gaining momentum among language owners whose forebears spoke their languages (Hobson et al. 2010; Gale, Chapter 64, this volume).

Rather than providing an overview of the analytical and descriptive achievements made within each of these descriptive eras, which would inevitably overlook significant contributions, and would in any case add little to previously arranged accounts of existing materials (Elkin: 1937a; Wurm 1972; McGregor 2008a), the following discussion focusses on the developing understanding of—and ability to describe—Australian linguistic structures in the nineteenth and early twentieth centuries, and the rise of schools of descriptive practice.

2.2 Early analyses of Pama-Nyungan languages

Figure 2.1 locates the Australian languages that were grammatically described before 1910 and marks them chronologically. The works of R. H. Mathews are not represented. Mathews's large body of work, previously assessed by Koch (2008) and described there (p. 181) as a 'bibliographer's nightmare', while broad in scope, is shallow in descriptive depth.

The clustering of early grammars in some regions and the absence of grammatical records from others is telling of the treatment of Aboriginal inhabitants in each of six pre-federation (1901) Australian colonies. The butchering of Aboriginal people inhabiting what became the penal settlement of Van Diemens Land, Australia's second oldest colony, resulted in a sparse lexical record and the absence of any grammatical analyses of Tasmanian languages (Capell 1970: 973; Crowley and Dixon 1981: 395; Bowern, Chapter 7, this volume).

In contrast to the scant linguistic record of Tasmanian languages is the record taken in the colony of South Australia, which between 1863 and 1911 encompassed the Northern Territory, and where early grammars and vocabularies were initially produced in quick succession. The swiftness with which missions were established in South Australia, after its founding in 1836, is atypical of the wider Australian experience, and benefitted the description of languages in this colony.⁴ In 1838, the founding chairman of the South Australian Company, George Fife Angas (1789–1879), assisted the passage to the colony of graduates from the *Evangelisch-Lutherischen Missions-Gesellschaft zu Dresden* (Evangelical-Lutheran Mission Society of Dresden) to work among the Aboriginal population (Lockwood 2014: 61–5). Lutheran missionaries consequently dominated the early grammatical description of South Australian languages, making comparatively detailed grammatical descriptions of seven languages before the turn of the twentieth century: Kurna, Ramindjeri, Barngarla, Diyari, Wangkangurru, Yandruwandha, and Arrernte.

In 1970 Elkin coined the term 'BIITL [before it is too late] research' to stress the necessity of prompt linguistic research in Australia. The sentiment is, however, nearly as

⁴ The 1834 South Australian colonization act was passed relatively late within British imperial history. Secretary of State to the Colonies, Lord Glenelg, was among a group of humanitarians who insisted in letters issued to the Colonization Commission in 1836 that the welfare and rights to land of Aboriginal people in South Australia be formally protected by the Colonial Office (Reynolds 1987: 94–102). Their dispossession proceeded anyway.

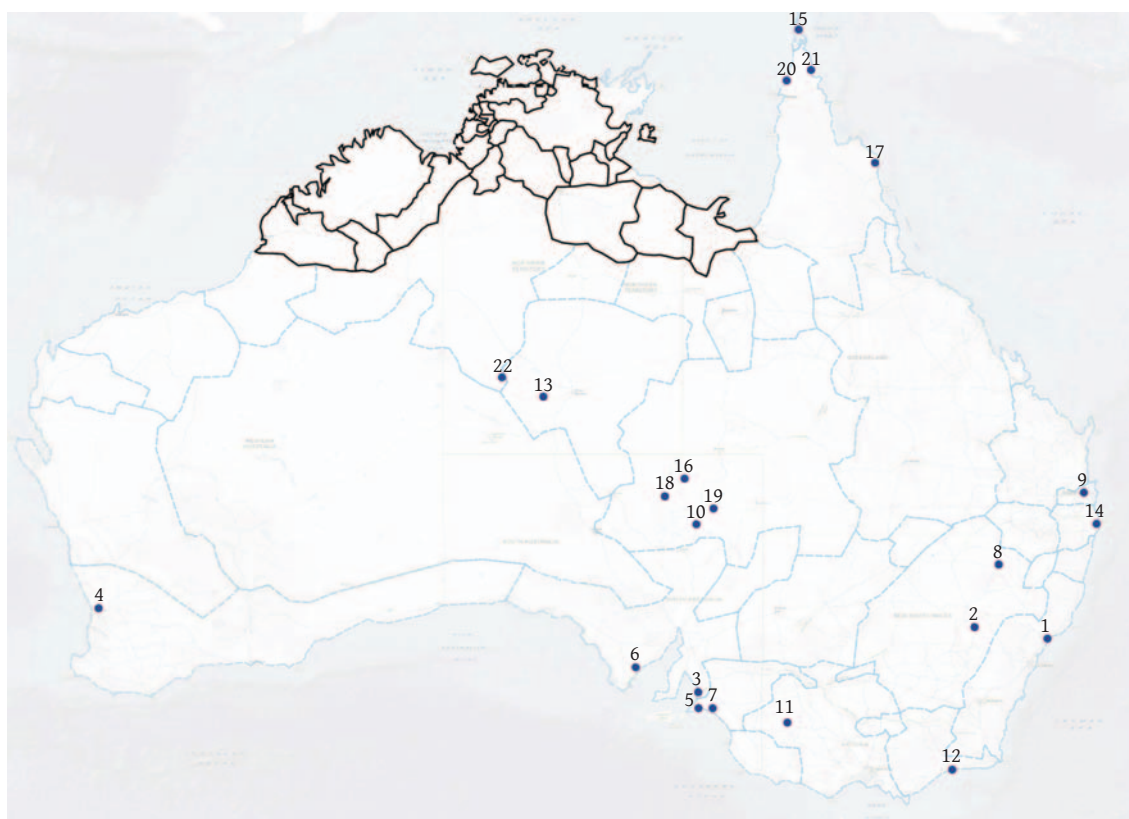


Figure 2.1 Map showing locations of languages described in the corpus, and lower-level PN subgroups.

Source: after [Bower and Atkinson 2012](#): 820, used with permission of the authors

	Language	Classification*	Spoken in the Colony of:	Early source material
1	Awabakal (HRLM language)	South-eastern: Yuin-kuri	New South Wales	Threlkeld 1834; Hale 1846
2	Wiradjuri	South-eastern: Central NSW	New South Wales	Watson no date (lost), Günther 1838, 1840; Hale 1846; Mathews 1904c
3	Kaurna	Central: Thura-Yura	South Australia	Teichelmann and Schürmann 1840
4	Nyungar	Western: Nyungic	Western Australia	Symmons 1841
5	Ngarrindjeri	South-eastern: Lower Murray	South Australia	Meyer 1843; Taplin 1874, 1872[1870], 1878
6	Barngarla	Central: Thura-Yura	South Australia	Schürmann 1844
7	Ngayawang	South-eastern: Lower Murray	South Australia	Moorhouse 1846
8	Gamilaraay	South-eastern: Central NSW	New South Wales	Ridley 1855, 1856a, 1856b, 1866, 1875; Mathews 1903b
9	Turrubul	South-eastern: Durubalic	Queensland	Ridley 1866
10	Diyari	Central: Karnic	South Australia	Koch 1868; Schoknecht 1947; Flierl 1880; Reuther 1899; Planert 1908; Gatti 1930
11	Wergaya	South-eastern: Kulin	Victoria	Hagenauer 1878; Mathews 1902 (Djadjala)

Continued

Continued

	Language	Classification*	Spoken in the Colony of:	Early source material
12	Ganai	South-eastern: Eastern Victoria	Victoria	Bulmer 1878
13	Western Arrernte	Central: Arandic	South Australia (Northern Territory)	Kempe 1891; C. Strehlow no date c.1907, 1908, 1910; Mathews 1907; Planert 1907; Riedel 1931 [c.1923]; T.G.H. Strehlow 1944[1938]
14	Minjangbal	South-eastern: Bandjalangic	New South Wales	Livingstone 1892
15	WTS	Northern: Paman	Queensland	Ray and Haddon 1893; Ray 1907
16	Pitta Pitta	Central: Karnic	Queensland	Roth 1897
17	Guugu-Yimidhirr	Northern: Paman	Queensland	Schwarz and Poland 1900; Roth 1901; Ray 1907
18	Wangkangurru	Central: Karnic	South Australia	Reuther 1901
19	Yandrruwandha	Central: Karnic	South Australia	Reuther 1901
20	Nggerikwidhi	Northern: Paman	Queensland	Hey 1903; Ray 1907
21	Yadhaykenu	Northern: Paman	Queensland	Ray 1907
22	Luritja	Western: Wati	Western Australia	Mathews 1907; C. Strehlow 1910
1	Nyualnyual	Non-PN	Kimberley	Tachon 1895
2	Malak Malak	Non-PN	Daly River region	Kristen 1899

* According to Bower and Atkinson 2012

old as the study of Australian languages itself. Against a devastatingly high rate of post-colonial linguistic extinction (Bower, Chapter 7, this volume), the description of Australian Aboriginal languages has, almost since its inception, been imbued with a resolve to record material from successive generations of ‘last fluent speakers’. The two earliest published grammatical accounts of Australian languages (Threlkeld 1834; Teichelmann and Schürmann 1840) were written by missionaries who continued to refine their analyses at a time when they perceived themselves to have outlived the languages’ last fluent speakers (Threlkeld 1850; Teichelmann 1857; 1858a, b). Salvage studies have played a weighty role in Australian linguistic description. Many of the earliest described languages ceased to be spoken before any subsequent substantial record was taken. Consequently, early grammars have recently received considerable attention from within the language reclamation and revitalization movement that has gained momentum among Aboriginal descendants of speakers (see Hobson et al. 2010) (Gale, Chapter 64, this volume; Amery and Gale, Chapter 65, this volume).

The nature of linguistic work carried out in Australia during the nineteenth century generally runs counter to the *Zeitgeist* of genealogical and typological linguistic classification. While similarities between words in Australia and those from around the world were observed

by researchers in Australia (Grey 1845; Taplin 1879a; Curr 1886–1887; Fraser 1892b) as part of what Capell (1970: 667) described as an ‘epidemic of origin hunting’, the early Australian grammars written *in the country* were predominantly synchronic, pedagogical, non-comparative, and non-classificatory.

That said, systematic attempts to collect linguistic materials for comparative purposes commenced in Australia in the 1870s. Within the earliest ‘survey era’ of Australian languages (O’Grady et al. 1966: 5; McGregor 2006b: 3) surveys were distributed among missionaries, police troopers, pastoralists, and others in contact with Aboriginal people resulting in important published collations of linguistic material, including Curr (1886–87), Brough Smyth (1878), Taplin (1879a), and Bates, the results of whose 1904 survey of Western Australian languages were not published until 1985 (Bates 1985). Curr’s four volume *The Australian Race* cast the broadest net of the four, and it is the most renowned of these survey works. Neither Curr nor Bates specifically elicited grammatical material from their informants, as did both Taplin and Brough Smyth. The linguistic material contained in Volume II of Brough Smyth’s (1878) two-volume work has been assessed by O’Grady, Voegelin, and Voegelin (1966: 5) as ‘quantitatively impressive but qualitatively appalling’. Yet the volume contains the most significant record of many Victorian languages. The data Taplin sought in his

	Labial	Inter-dental	Apico-alveolar	Retroflex, Apico-domal	Palatal	Velar
Stop	p	th	t	rt	ty	k
Nasal	m	nh	n	rn	ny	ng
Lateral		lh	l	rl	ly	
Trill			rr			
Glide	w		(r)	r	y	(h)

Figure 2.2 The inventory of consonant phonemes common to many PN languages. Phones separated by dashed lines tend to be orthographically undifferentiated in the early sources.

survey circulated in South Australia in 1874 (Taplin 1879a: 6) were largely anthropological, but the nature of the linguistic questions he posed indicates the developing understanding of Australian grammatical structure. (cf. Stockigt, Chapter 6, this volume).

2.2.1 Phonology and orthography

Australian languages have fairly similar phonemic systems by cross-linguistic standards. Systems with three vowel phonemes are common (cf. Round, Chapter 10, this volume). Consonants typically show a limited number of manner contrasts but a more extensive set of place of articulation contrasts. Figure 2.2 shows a maximally contrastive inventory.⁵ Early orthographic treatments of Australian phonologies tended to give a broad transcription of vowel quality, while phonemic articulation contrasts of consonants tended to be under-represented. Phones separated by dashed lines in Figure 2.2 tended to be orthographically undifferentiated in the early sources. Generally, the filter of the European ear saw the orthographic collapse of coronal consonant phonemes, with the letters ‘t’, ‘n’, ‘l’ used generically to represent stops, nasals, and laterals at all coronal articulatory places (cf. also Thieberger, Chapter 3, this volume; Giaccon and Koch, Chapter 8, this volume).

All early records of Australian languages were compromised by the inability to aurally distinguish certain types of segments, the absence of phonemic analysis, and the absence of a standardized system of orthographic representation. The first language of the recorder influenced the spelling of Australian languages. The German-speaking missionaries chose ‘j’ rather than the ‘y’

⁵ Diversions from these tendencies are too numerous to be dealt with comprehensively here, but of the early described languages it is notable that Arrernte and Diyari show additional distinctions, a series of pre-stopped and rounded consonants in Arrernte (Breen 2001), and a voicing distinction in Diyari restricted to apico-alveolar and retroflex stops in non-word-initial positions (Austin 1981a [2013: 13]). Guugu-Yimidhurr follows the pattern of many languages in the country’s eastern third in having no retroflex series.

to represent a palatal glide, for instance, and the Italian-speaking Benedictine Bishop Rosendo Salvado (1851) represented palatalized nasals and laterals as ‘gn’ and ‘gl’ respectively. The poor correspondence between sounds and letters in the writing system of English greatly impeded the unambiguous representation of Australian phonologies. Consequently, some early recorders (e.g. R. H. Mathews) purported to employ an Italian system of representing vowels, while others attempted to apply conventions established by the Royal Geographic Society (1831; 1885) for writing unwritten languages (see Moore 2013).

Threlkeld (1834: vi) adopted the spelling system employed in the description of languages from Polynesia, where he had spent six years at London Mission Society missions prior to coming to Australia, because he sensed propriety in adopting the ‘same character to express the same sounds used in countries which are adjacent’. Although Teichelmann and Schürmann (1840: v), Günther (1840: 338), and Ridley (1856b: 290) were subsequently able to reassure their readers that they followed Threlkeld’s ‘method of spelling words’, early researchers were aware of, and frustrated by, the inadequacy of writing systems.

Palatal stops were more likely than other coronal consonants to be distinguished, and were represented as ‘ty’, ‘tj’, or ‘ch’, followed by palatal nasals and laterals. A notable exception here is the identification of word-final palatalized nasals and laterals by Benedictine missionaries at New Norcia in Western Australia, who having Spanish as their first language were probably predisposed to hear the sounds.⁶ While the velar nasal was often undifferentiated from other nasals, or not represented word-initially, some very early grammatical sources (Dawes 1790–1791b: 1ff.; 1790–1791a; Hale 1846) represented the phone using engma (ŋ). Rhotic phonemes, of which Australian languages typically have two or more (Round, Chapter 10, this volume), were sometimes, but inconsistently, distinguished. Impressionistically, the phonemes least likely to be distinguished in the corpus grammars appear to have been the retroflex series and

⁶ Thanks to Peter Sutton for pointing this out.

Süd-Australisch. Teichelmann u. Schürmann of the Lutheran Miss. Soc.,
Outlines of a Gramm., Vocab. and Phraseology of the
aborig. langu. of South Australia, spoken in and around
Adelaide. Adelaide 1846.

<i>a ā</i>	<i>k (g) ŋ</i>	<i>y</i>	<i>aā</i>	<i>k (g) ŋg</i>	<i>y</i>
<i>e o</i>	<i>t (d) n</i>	<i>r l</i>	<i>e o</i>	<i>t (d) n</i>	<i>r l</i>
<i>i u</i>	<i>p (b) m</i>	<i>w</i>	<i>i u</i>	<i>p (b) m</i>	<i>w</i>
<i>ai au oi ui</i>			<i>ai au oi ui</i>		

Figure 2.3 Lepsius's (1855: 64) two-dimensional representation of Australian phonology based on Teichelmann and Schürmann's (1840) account of Kaurua.

SUMMARY.

The consonants, then, may be thus arranged :—

<i>Gutturals—</i>	<i>k</i>	<i>kh</i>	<i>g</i>	<i>gh</i>	<i>ḡ</i>	<i>h.</i>
<i>Palatals—</i>	<i>é</i>	<i>...</i>	<i>j</i>	<i>...</i>	<i>...</i>	<i>y.</i>
<i>Cerebrals—</i>	<i>ʔ</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>r.</i>
<i>Dentals—</i>	<i>t</i>	<i>th</i>	<i>d</i>	<i>dh</i>	<i>n</i>	<i>l.</i>
<i>Labials—</i>	<i>p</i>	<i>ph</i>	<i>b</i>	<i>bh</i>	<i>m</i>	<i>...</i>
<i>Liquids—</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>n</i>	<i>l.</i>

Figure 2.4 Fraser's (1892a: 8) grid of Australian consonants.

interdental nasals and laterals. Orthographic treatment of Diyari phonology was gradually improved by successive generations of missionaries at the Bethesda mission between 1866 and 1915. After decades of practice, missionaries introduced the representation of retroflex laterals, at least in some words, as with the ergative interrogative *warli*, 'who' shown as *warle* (Reuther 1894) as opposed to *wale* (Koch 1868).

Phonological science was slow to enter Australian description. The earliest presentations of the sounds of Australian languages in systematic diagrams—setting out consonant inventories in tables mapping place of articulation against manner of articulation, and vowels in triangular displays mapping height against backness—occur in descriptions of Australian languages published in Europe (Lepsius 1855: 64; 1863: 226; Müller 1867; 1882; Planert 1907; 1908; Gatti 1930: 1; Sommerfelt 1938: 42, 45) (Figure 2.3). These presentations of both consonants and vowels based on articulatory parameters made by German philologists appear not to have been read by grammarians in Australia, and if they were, not understood or assimilated into Australian practice. Aside from a confused attempt to show consonants in a grid made by Fraser (1892b: 8) (Figure 2.4), the earliest graphic representation of consonants published in Australia was Capell (1956: 8), and the earliest two-dimensional representation of vowel shape given in a grammar produced in

Australia appears in T. G. H. Strehlow's grammar in Western Arrernte (1944: 4 [1938]).

The first academic attempts to develop an orthographic system capable of consistently representing the phonological segments of Australian languages occurred on the cusp of the second descriptive era. The 'language committee' from The University of Adelaide, was described by Tindale (1935: 261) as having 'formulated after much consideration, a working list of phonetic symbols applicable to the general study of central Australian languages'.

This move was probably instigated by large lexical projects in which members of the BAR and the 'language committee' were engaged during the 1930s, which were buoyed by a long tradition of investigating Australian languages from Adelaide. Tindale was compiling a *Pitjandjara vocabulary* (1937b) which included 2,950 headwords in Western Desert varieties collected during the BAR expeditions (1935), and in 1931 Chewings had embarked on the ambitious undertaking to collate previously recorded Arrernte vocabularies into a single document (Chewings and FitzHerbert 1931–1932). The immediate problem of reconciling the different spellings for the same entry in multiple sources necessitated the development of an adequate writing system. The problematic orthographic treatment of Australian phonologies must have been at the forefront of FitzHerbert and Tindale's minds during a meeting with Laves, who

visited Adelaide in 1931 while conducting linguistic fieldwork during a trip around Australia (Nash 2006).

The ‘language committee’ used bold, italic, and plain script to disambiguate phonemes, which they recognized as inconsistently represented in earlier sources. The system clearly differentiated two rhotics, the approximant was placed in italics, and the trill in standard print. The committee also deliberated about using a single symbol to represent voiced and unvoiced stops at identical articulatory places, a practice that the American ethnologist Horatio Hale (1846: 485) (see also Stockigt, Chapter 6, this volume) had considered nearly a century earlier, but had similarly not instigated. While the phonetic system of the Adelaide language committee evinces a peri-phonemic analysis, some phonemes remained orthographically undifferentiated. Palatalized laterals were not recognized although palatalized nasals and stops were differentiated from their alveolar counterparts as digraphs with a final ‘j’, and the system had no systematized method of representing retroflex sounds.

Fitzherbert’s student T. G. H. Strehlow did not follow the system developed by his supervisor, but opted instead to create a broad phonetic orthography. Although Strehlow did not make a phonemic analysis of the languages, his diacritically embellished phonetic system distinguished all phones that were phonemically distinctive, and many more. An early attempt to reflect phonemic structure in the writing system of an Australian language is, however, given in an analysis of Arrernte made in the same year that T. G. H. Strehlow submitted his Master’s thesis. Alf Sommerfelt (1938: 42), informed by earlier published accounts of Arrernte, notably Planert (1907), postulated that the language ‘ha[d] at its disposal only three really distinct vowels: *a, i, u*’,⁷ and represented voiced and voiceless stops having the same articulatory place with a single symbol.

Tracing lineages of understandings of Australian phonemic systems through the careful analysis and comparison of orthographies is a rich field of historical enquiry which remains to be done. John McConnell Black (1917; 1920) recorded South Australian languages using a current phonetic transcription, which represented retroflex and some interdental consonants (Simpson et al. 2008: 93). His influence on the system used by the Adelaide language committee remains undetermined. The little that is known about the exchange of understandings and practices between those studying Australian languages in Adelaide and those studying Australian languages in Sydney suggests that the movement of ideas was limited and unidirectional.

⁷ ‘l’on constate que l’aranta ne dispose que de trois voyelles réellement distinctes: *a, i, u*’ (Sommerfelt 1938: 42).

U. McConnel’s 1945 publication titled ‘Wikmunkan Phonetics’, written within the realm of anthropology at the University of Sydney, acknowledges (p. 355) the assistance of FitzHerbert, professor of Classics at The University of Adelaide. She also thanks T. G. H. Strehlow. McConnel compares Wik-Munkan and Arrernte phonologies, referring the reader to Strehlow’s analysis throughout and noting where her orthographic choice differed from Strehlow’s.

2.2.2 Descriptive models

All early grammarians employed a model of grammatical description that was termed the ‘word and paradigm’ (henceforth WP) model by Hockett in 1954 (Robins 1959). The model Hockett named had developed in Europe to best convey the fusional and synthetic typology of European languages. The model takes the word rather than the morpheme as the minimal unit of analysis.⁸ The application of the WP descriptive model to Australian structure resulted in an effective representation of an important range of Australian morphosyntactic data.

But unlike the synthetic and fusional morphology of standard average European languages, Australian morphology is generally both synthetic and agglutinative (see further Shoulson, Chapter 17, this volume; Alpher, Chapter 40, this volume). Individual grammatical categories carried within the word tend to be inflected discretely. Thus, wholesale application of the WP model resulted in descriptions that were unnecessarily repetitive. T. G. H. Strehlow’s grammar of Arrernte (1944 [1938]) typifies how the indiscriminate application of the WP model might result in uneconomical descriptions. Presenting first full tables of declension for both indefinite nouns and definite nouns—i.e. those that are followed by a third person pronoun—after already having presented the case forms of third person pronouns in full tables of pronominal declension, he went on to provide full declensions for adjectives, which are syntactically undifferentiated from nouns (1944: 78–86 [1938]).

But most early PN grammarians, especially those who wrote detailed grammars and had learnt the language relatively well, blended two descriptive models when describing PN languages: the WP model, inherited from the classical description of fusional European languages, and a common-sense word-internal model befitting the agglutinative typology of the languages at hand. Meyer (1843) and Schürmann (1844), for instance, show a diminished reliance on the WP model to convey the function of case forms. They chose rather to list the multiple functions of nominal suffixes. In

⁸ Contemporary discussion of the word and paradigm model has developed different senses of the idea of the word and has introduced the notion of the lexeme (Koch 1990).

the introduction to his grammar of Minyangbal, [Livingstone \(1892: 3\)](#) justified his abandonment of the WP model on the basis of the agglutinative nature of Australian languages:

It is well known that the Australian dialects are agglutinative, everything in the nature of inflection being obtained by suffixes. To this, Minyuḡ is no exception; so that if I give an account of its suffixes, that is nearly equivalent to giving an exposition of its grammar. It will therefore, be convenient to take, first, such suffixes as are used with the noun and its equivalents, and, afterwards, those that may be regarded as verbal suffixes.

Sub-word units were commonly recognized and represented by the earliest PN grammarians, for example, [Günther 1838: 45](#); [Teichelmann and Schürmann 1840: 5](#) (Figure 2.5). This occurred prior to August Schleicher’s analysis of *wurzeln* ‘roots’ and *beziehungslauten* ‘inflections’—literally ‘relational sounds’—given in an 1859 description of Lithuanian, which [Blevins \(2013: 383\)](#) describes as ‘almost entirely without precedent in the classical tradition’.

TABLE OF AFFIXES.

<i>Sing.</i>	<i>Dual.</i>	<i>Plur.</i>
<i>Nom.</i>	la (rla, dla,)	nna
<i>Gen.</i> ko (nna,)	ko,	ko (itya)
<i>Dat.</i> nni,	nni,	nni
<i>Acc.</i>	la (rla, dla,)	nna
<i>Act.</i> } lo (rlo, dlo)		
<i>Abl.</i> }		

Figure 2.5 Teichelmann and Schürmann’s (1840: 5) presentation of case suffixes (Kaurna).

Some nineteenth-century grammarians in Australia not only recognized and represented sub-word units of meaning, but also innovated pre-theoretical practical descriptive responses that described the relative ordering of word-internal constituents either in terms of process or arrangement, without of course using these terms. In his description of Pitta-Pitta (1897: 8), W. E. Roth gave predictive syntagmatic statements about word internal constituents, instigating a distinctive method of conveying the relative ordering of inflections for number and case on nominals that was more efficient than the traditional exposition of the forms in lengthy paradigms.

The genesis of alternative descriptive models, which did not accord centrality ‘to the word as a fundamental unit in the grammar as a whole and as the basic syntactic unit’ ([Robins 1959: 118](#)) is generally associated (*ibid.*, 111–12) with the description of American Indian languages in the early decades of the twentieth century by [Boas \(1911\)](#) and [Sapir \(1921, esp. Chapter 4\)](#). There are nineteenth-century precedents in the description of Australian languages.

2.2.3 Schools of morphological description

Nineteenth-century Australian grammarians were aware that the description of Australian languages might be compromised by ‘categorical particularism’: ‘one of the major insights of structuralist linguistics of the 20th century (especially the first half) that languages are best described in their own terms ... rather than in terms of a set of pre-established categories that are assumed to be universal’ ([Haspelmath 2010: 2](#)). The realization that the study of language should be non-aprioristic is widely associated with [Boas \(1911: 81\)](#) ([Haspelmath 2010: 4ff.](#)), but is traceable to the writings of W. Humboldt (1827, quoted in [Morpurgo-Davies 1975: 105](#)). In 1844, Schürmann perceived a tension between the premises underlying received descriptive linguistic schemata and the new linguistic structures he encountered, and advised (1844: vi) that the description of Australian languages required authors to

divest their minds as much as possible of preconceived ideas, particularly of those grammatical forms which they may have acquired by the study of ancient or modern languages.

In the earliest grammar of an Australian language, Threlkeld was similarly aware that linguistic principles deduced from the study of classical languages did not have universal application and that Australian languages could not adequately be described by the existing descriptive framework. He wrote (1834: x):

The arrangement of the grammar now adopted, is formed on the natural principles of the language, and not constrained to accord with any known grammar of the dead or living languages. The peculiarities of its structure being such, as to totally prevent the adaptation of any one as a model.

But even with this awareness, the early grammarians’ descriptions were hampered by the absence of appropriate frameworks and terminology to describe the foreign structures. With reference to Threlkeld’s grammar of Awabakal (1834), H. Hale appreciated the difficulty in framing a ‘mass of information which is entirely new’ (1846: 482) without appropriately developed descriptive tools:

It is not surprising that the novelty and strangeness of the principles on which the structure of the language was found to rest, should have rendered a clear arrangement, at first a matter of difficulty; and some degree of obscurity and intricacy in this respect have caused the work to be less appreciated than its merits deserved.

Understanding of the structures the early grammarians were trying to convey involves stripping back the veil of arcane terminology and inappropriate descriptive

frameworks. The reimagining of the authors' logic when describing previously undescribed structures requires a consideration of the looking glass through which the skewing of the description of Australian linguistic structures occurred.⁹ Elkin (1937a: 9) described the process of retrieving material from the early sources as 'careful sieving'.

The early grammarians' knowledge of classical and modern European languages led them to anticipate the presence of grammatical features common to many European languages but absent in Australian languages. Hence early grammars include the description of categories inherent to the traditional descriptive framework but usually inapplicable when applied to Australian languages such as vocative case, articles, morphological marking of comparative and superlative degrees of adjectives, passive voice, and grammatical gender.¹⁰

On the other hand, early grammarians in Australia encountered an array of 'foreign' morphosyntactic features that could not easily be accommodated within the schema and descriptive models developed to describe the structure and typology of classical European languages. The description of these categories required grammarians to either extend themselves beyond what was descriptively familiar or to borrow techniques innovated by previous grammarians. Early grammarians were most likely to look for guidance from their predecessors' descriptions when describing structures that the traditional grammatical framework was powerless to convey. These areas of the grammar, for which the early missionary-grammarians were theoretically and terminologically ill equipped, are most likely to evince lineages of descriptive practice. Notable instances include the early grammarians' descriptions of the marking and function of the ergative case (see Stockigt 2015), systems of bound pronouns (Gaby and Shoulson, Chapter 24, this volume), the juxtaposition of constituents in inalienably possessed phrases (Ponsonnet, Chapter 22, this volume), the inclusive and exclusive pronominal distinction (Gaby and Shoulson, Chapter 24, this volume) and the large morphological case systems of PN languages.

Comparison of the descriptions of these features reveals three distinct schools of practice that developed in the pre-academic era of Australian linguistic description (Stockigt 2017). The first was instigated by Threlkeld (1834) and

is largely confined to grammars of languages spoken in New South Wales (Günther 1838; Ridley 1856b; Livingstone 1892 [1876–1886]). The second was instigated by Lutheran missionaries describing languages spoken near Adelaide in the early 1840s, particularly Teichelmann and Schürmann's (1840) grammar of Kaurua. Different aspects of Teichelmann and Schürmann's descriptive template, which had not been inspired by Threlkeld (1834), influenced a large body of South Australian grammatical description. This school is the most strongly attested of the three identified schools. It is defined by a greater number of shared descriptive practices, which are found in a larger body of work, and it endured for a longer period (1840–1938). T. G. H. Strehlow's grammar of Arrernte (1944 [1938]) is the culmination of this long history of Lutheran grammatical description (Stockigt 2017). The third school of early Australian grammatical description was instigated by W. E. Roth (1897). The features of Roth's template, which define the Queensland School of description subsequently utilized in later grammars of Guugu-Yimidhirr (Schwarz and Poland 1900; Roth 1901) and Nggerrikwidhi (Hey 1903), relate to the description of nouns and pronouns in peripheral cases.

Australian grammarians often worked in intellectual isolation from fellow grammarians posted across far-flung regions of the country. The only early grammar of a Western Australian PN language (Symmons 1841) appears not to have been read by any other early grammarians before republication in Fraser (1892a). Grammars of Diyari written by successive generations of Lutheran missionaries at Bethesda, of which Reuther (1899–1901) is the best known, remained obscure unpublished German MSS well into the twentieth century, and some (Koch 1868; Flierl 1880) remain so.¹¹ Roth's insightful and well-exemplified grammar of Pitta-Pitta (1897) makes no reference to earlier descriptions of Australian languages, including the Lutheran missionaries' analyses of Karnic languages related to Pitta-Pitta (e.g. Homann 1892; Reuther 1894; 1899). The style of Roth's grammatical description is unique, suggesting that like his ethnological investigation (Mulvaney 2008: 114), the grammar was uninfluenced by earlier analyses. That such a descriptively innovative work was written relatively late in the pre-academic era of grammatical description in Australia, with little or no recourse to previous analyses, reveals much about the development of linguistic ideas in the country.

Like Roth, T. G. H. Strehlow's (1944 [1938]) grammar of Arrernte presented morphosyntactic features as if they were

⁹ The metaphor is borrowed from Nowak's (1993) account of the early description of Inuktitut ergativity.

¹⁰ Minjangbal (Livingstone 1892) is the only PN language described in the pre-academic era that has grammatical gender. A relatively large proportion of the small group of about a dozen Pama-Nyungan languages that make a two-way gender distinction in third person pronouns (Dixon 2002: 461) were described in the pre-academic era. Early grammarians of Diyari (Homann 1892), Pitta-Pitta (Roth 1897), Minjangbal (Livingstone 1892), and Kalaw Lagaw Ya (Ray 1907) readily described the distinction (Stockigt 2014).

¹¹ The grammars of Diyari by Koch (1868) and Flierl (1880) written in German *Kurrentschrift* have in 2019 been transcribed and translated into English and deposited in AIATSIS as part of the Centre of Excellence in the Dynamics of Language, Language Documentation Grant, 'Pilot digital archive of historical sources in Australian languages'.