

*Forty years on
Ken Hale
and
Australian languages*



Ken, Sally and Whit Hale, in the backyard of their house on the Todd River, Alice Springs, winter 1959. Photo by Alice Moyle.

Forty years on: Ken Hale and Australian languages

edited by

Jane Simpson, David Nash, Mary Laughren,
Peter Austin and Barry Alpher



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Table of contents

<i>Contributors to this volume</i>	viii
<i>Acknowledgments</i>	x
<i>Abbreviations</i>	xi
<i>Introduction</i>	xii
1 Bibliography of Ken Hale and Australian languages Compiled by David Nash	1
2 Reminiscences of the trip to Australia 1959–1961 Sara Whitaker Hale	19
3 ‘Both sides of the bitumen’: Ken Hale remembering 1959 Jennifer Green, ed.	29
4 The wonders of Arandic phonology Gavan Breen	45
5 Basic vocabulary of the Arandic languages: from classification to reconstruction Harold Koch	71
6 Common sense: continuing in the comparative tradition Jennifer Green and Myfany Turpin	89
7 On the love of languages Aram A. Yengoyan	113
8 Critical reflections on the history of bilingual education in Central Australia Robert Hoogenraad	123
9 Semantic contrasts in Warlpiri verbal morphology: a Warlpiri’s verbal view Robin Japanangka Granites and Mary Laughren	151
10 The School of Australian Linguistics Paul Black and Gavan Breen	161
11 Rhetoric and diction in the oral epic: Molly Tasman Napurrurla’s <i>Jajirdikirli</i> Lee Cataldi	179
12 Explaining typological differences between languages: de facto topicalisation in English and Warlpiri Tim Shopen	187

13	What Warlpiri 'avoidance' registers do with grammar Mary Laughren	199
14	Tribute to Ken Hale: our 1960 collaboration Geoff O'Grady	227
15	Hale and O'Grady's 1960 SA and WA vocabularies David Nash and Geoff O'Grady	231
16	The trickle becomes a flood: some of the context of the Hale–O'Grady work and its after-effects Margaret Sharpe	239
17	Karnic classification revisited Claire Bower	245
18	The tragedy of Nauo Luise Hercus and Jane Simpson	263
19	Two southern Australian vocabularies: Parnkalla (Barngarla) and Karlamayi Geoff O'Grady	291
20	Word order in a free word order language: the case of Jiwarli Peter K. Austin	305
21	Wangka Maya, the Pilbara Aboriginal Language Centre Janet Sharp and Nick Thieberger	325
22	Non-verbal predicative possession in Nyulnyulan languages William McGregor	337
23	On the syntax and semantics of trying Alan Rumsey	353
24	"Ken Hale would just love this": finding the 31st Ngan'gityemerri finite verb Nicholas Reid	365
25	Form and context in Jawoyn placenames Francesca Merlan	367
26	On the typological and genetic affiliation of Jingulu Rob Pensalfini	385
27	Wambaya in motion Rachel Nordlinger	401
28	The noun phrase in Australian languages Barry J. Blake	415
29	Reminiscences of my meeting and working with Ken Hale in Australia Stephen A. Wurm	427
30	Leerdil Yuujmen bana Yanangarr (Old and New Lardil) Norvin Richards	431
31	Learn Yir-Yoront †Ngerr-Thuy and Barry Alpher	447
32	Talking language Peter Sutton	453

33	Playing songs can be dangerous Barry Alpher and Kevin Keefe	465
34	The morphodirectional sphere Ephraim Bani	477
35	Where have all the onsets gone? Initial consonant loss in Australian Aboriginal languages Juliette Blevins	481
36	The complete person: networking the physical and the social Nick Evans and David Wilkins	493
	<i>Index of languages</i>	523

List of maps

Introduction

	Map 1: Australia, showing travel route and places where Hale recorded languages	xv
	Map 2: Central Australia locations	xvi
	Map 3: Arandic languages and some neighbouring languages	xvii
8	Hoogenraad	
	Map 1: Schools and communities referred to in text	126
15	Nash and O'Grady	
	Map 1: Locations where language was recorded by O'Grady and Hale in March–April 1960	232
17	Bowern	
	Map 1: Languages of the Lake Eyre Basin	246
18	Hercus and Simpson	
	Map 1: Sketch map of Eyre Peninsula from Berndt (1985:129)	268
	Map 2: Sketch map of Eyre Peninsula from Tindale (1938–39:1031)	269
	Map 3: The southern dialects of Australia, from Grey (1845)	273
21	Sharp and Thieberger	
	Map 1: Approximate location of indigenous languages of the Pilbara region (Wangka Maya)	326
26	Pensalfini	
	Map 1: Jingulu and its neighbours	386
32	Sutton	
	Map 1: Cape York Peninsula: places and language groups referred to	456

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Abbreviations

Abbreviations used in references:

AIAS	Australian Institute for Aboriginal Studies (now AIATSIS)
AIATSIS	Australian Institute of Aboriginal and Torres Strait Islander Studies
ANU	Australian National University
ARC	Australian Research Council
ASEDA	Aboriginal Studies Electronic Data Archive, AIATSIS
ATSIC	Aboriginal and Torres Strait Islander Commission
BLS	Berkeley Linguistics Society
CUP	Cambridge University Press
IAD	Institute for Aboriginal Development, Alice Springs
MIT	Massachusetts Institute of Technology, Cambridge, Mass.
NTDE	Northern Territory Department of Education
OUP	Oxford University Press
SIL	Summer Institute of Linguistics
Warlpiri Dictionary	A dictionary of Warlpiri begun in digital form in 1980 at MIT; draft versions have had limited distribution and have been deposited at AIATSIS as card files, printouts, and digital files
Imperial units:	1 mile = 1.6 km (approx.)

States and territories of Australia

ACT	Australian Capital Territory	SA	South Australia
Tas	Tasmania	NSW	New South Wales
Vic	Victoria	NT	Northern Territory
WA	Western Australia	Qld	Queensland

Introduction

Ken Hale's involvement in the study of Australian Aboriginal languages began in February 1959 when he and Sally Hale arrived in Sydney with their young son Whit. By April 1959 Ken had begun fieldwork on Arrernte and Warlpiri in Alice Springs. In the forty years since, he has studied the structure and use of dozens of Australian languages, written and published numerous papers on theoretical and descriptive topics, and made his field records (notes and sound recordings) available to several generations of linguists. This volume explores Ken's role in shaping research on Australian languages and in influencing Australian studies in other ways, including encouraging native speakers of these languages in maintaining them. Ken has also used his Australian research to inform theoretical and typological linguistics, contributing to our cross-linguistic understanding of phonology, morphology, syntax, semantics, language and culture, and historical linguistics. His contributions to theory are also reflected in the papers assembled here.

The volume gets under way with Sally (Sara Whitaker Hale) telling her story of their first visit to Australia, 1959–61. Setting the scene for the presentation of the papers in this volume, the narrative introduces Alice Springs and central Australia, where the Hales spent most of 1959. We then hear Ken's own reminiscences of that year, in an interview he gave during a visit to Alice Springs in 1994, underlining his early interest in the Arandic languages. They were the subject of Ken's first publication on Australian languages, which appeared in 1962, appropriately in a volume edited by Arthur Capell, the linguist at the University of Sydney who had triggered his Australian visit. That paper is the subject of Harold Koch's contribution; Ken's work on Arandic languages is also the starting point for the contributions by Breen, and by Green and Turpin. Aram Yengoyan's first meeting with the Hales occurred in Alice Springs (on their next visit in 1966), and he provides an appreciation of Ken's intellectual standpoints on language, linguistics, and politics.

Ken's concern for education led in 1974 to a commission with Geoff O'Grady to advise the Federal Government on bilingual education. Their policy advice is Robert Hoogenraad's starting point as he assesses developments over twenty-five years of NT bilingual education. Ken's particular involvement with Yuendumu School and Warlpiri included fostering native-speaker contributions exemplified in Robin Japanangka Granites' work, presented here by Mary Laughren. Robin was also a student at SAL (the School of Australian Linguistics), an institution inspired by Ken's vision, and Paul Black and Gavan Breen tell their story of it. The focus on central Australia closes with three papers on varied aspects of Warlpiri (the Australian language Ken studied and documented in depth in 1966–67): Lee Cataldi on high style in narratives, Tim Shopen on topicalisation, and Mary Laughren on the grammar of Warlpiri respect registers.

From this beginning in the Centre, the contributions continue in a spatial sequence, covering languages and language groups in pretty much the order that Ken documented them. There is no better person to take us on the next stage than Geoff O'Grady, who travelled with Ken in March and April 1960. In those two months they recorded between them material in twenty-seven languages. O'Grady's overview is complemented by Margaret Sharpe's personal account of how the work by Hale and O'Grady fits into Australianist studies, from the beginnings to recent times. Claire Bower's reclassification of the Karnic languages belongs here, as Ken had already made brief notes on two of them (Arabana and Diyari) from speakers in Alice Springs, and O'Grady spent a day working on Wangkangurru in Port Augusta about the time he and Ken met up there.

The geographic sweep from the Hale–O'Grady meeting in Port Augusta begins with Barngarla (Parnkalla), the first language the pair jointly recorded, presented here by O'Grady, and its close relative Nauo, whose meagre records (1842–1927) are exhaustively assessed here by Luise Hercus and Jane Simpson. We swing west from Eyre Peninsula across the Nullarbor to Karlamayi (whose record is paired with that of Barngarla in O'Grady's paper), then north around the WA coast. Hale and O'Grady's Pilbara work is marked here by Peter Austin's analysis of word order in Jiwarli, which also builds on Ken's theoretical proposals about non-configurationality. Janet Sharp and Nick Thieberger tell of Wangka Maya, the Pilbara Aboriginal Language Centre, from their involvement in its founding, decades after the Hale–O'Grady trip but derived in part from Hale and O'Grady's encouragement. In the closing stage, Hale and O'Grady passed quickly through the Kimberley and the Northern Territory, and so does the sweep of the volume, with contributions focused on non-Pama-Nyungan languages: Bill McGregor on the expression of possession in Nyulnyulan and Alan Rumsey on the expression of 'try' in Ngarinyin (but also Yidiny), recalling Ken's attention to the Warlpiri conative. These are followed, crossing into the NT, by Nick Reid's memoir of his fun with Ngan'gityemerri and Francesca Merlan's explication of Jawoyn placenames.

In mid-1960 the Hales moved to the Barkly Tableland, and Ken then recorded non-Pama-Nyungan languages including Jingulu (the subject of Rob Pensalfini's paper) and Wambaya (discussed by Rachel Nordlinger). Further east, in western Queensland, are languages studied later by Barry Blake, whose paper in this volume starts from Ken's 'Person marking in Walbiri' and discusses Kalkatungu noun phrases. The Hales went from Cloncurry to Mornington Island, where Ken immersed himself in Lardil. This period is recalled here by Stephen Wurm, as the Wurms and Hales overlapped there for a month or so. The changes in Lardil from Ken's first stay to later visits in 1966, 1981, and 1996 are the topic of Norvin Richards' paper on Old and New Lardil. From Mornington Island Ken hitched a ride on a boat to western Cape York Peninsula, where he documented more languages in less time than on any other segment of his two-year visit. Peter Sutton shows us how extraordinary Ken's visit to Aurukun and Weipa must have been. One western Cape York Peninsula language Ken did not encounter is Yir-Yoront. Barry Alpher presents Ngerr-Thuy's taste of that language; then Barry teams with Kevin Keefe for the one musical contribution to the volume, looking to Ken's well-known paper on song transmission in central Australia. Next Ephraim Bani, a graduate of SAL, presents a system of spatial terms in his own tongue, the Western Torres Strait Language. Cape York Peninsula is also the obvious starting point for Juliette Blevins' survey of initial consonant loss in Australian languages. Blevins begins with Ken's recognition of initial dropping, which incidentally later allowed Ken to quickly see the

etymology of Mbabaram *dog* 'dog' (Dixon 1983:129). The volume concludes appropriately with Nick Evans' and David Wilkins' continent-wide analysis of the semantics of 'person' words.

Very few linguists still active were studying Australian languages before Hale began in 1959, and two have contributed to this volume: Wurm and O'Grady.

The contributions cover the gamut of Ken's own work on Australian languages: phonology, syntax, semantics, development of linguistic theory, applied linguistics, language policy, lexicography, songs, auxiliary languages, and historical and comparative analysis. Some themes recur in several of the papers or memoirs. One is Ken's involvement in encouraging native speakers' linguistic awareness, surveyed by Black and Breen, and exemplified by Granites and Laughren, and Bani. An early statement of Ken's view is:

Experience with informants in the context of research on generative grammars has convinced me that the deepest insights into particular grammatical problems are gained when the informant is, in some sense, functioning as a linguist. It does not, in principle, seem at all unreasonable to suppose that informants could be systematically trained to view language in the way a linguist does. In fact, some efforts in this direction have already shown promise. Of course, when we speak of informants who are trained in this sense, we are no longer speaking of "unsophisticated informants." The question then is, should a linguist persist in working with unsophisticated informants throughout the field work period? Or should a large part of his effort be devoted to removing his informants from the ranks of the linguistically unsophisticated? (Hale 1966:808)

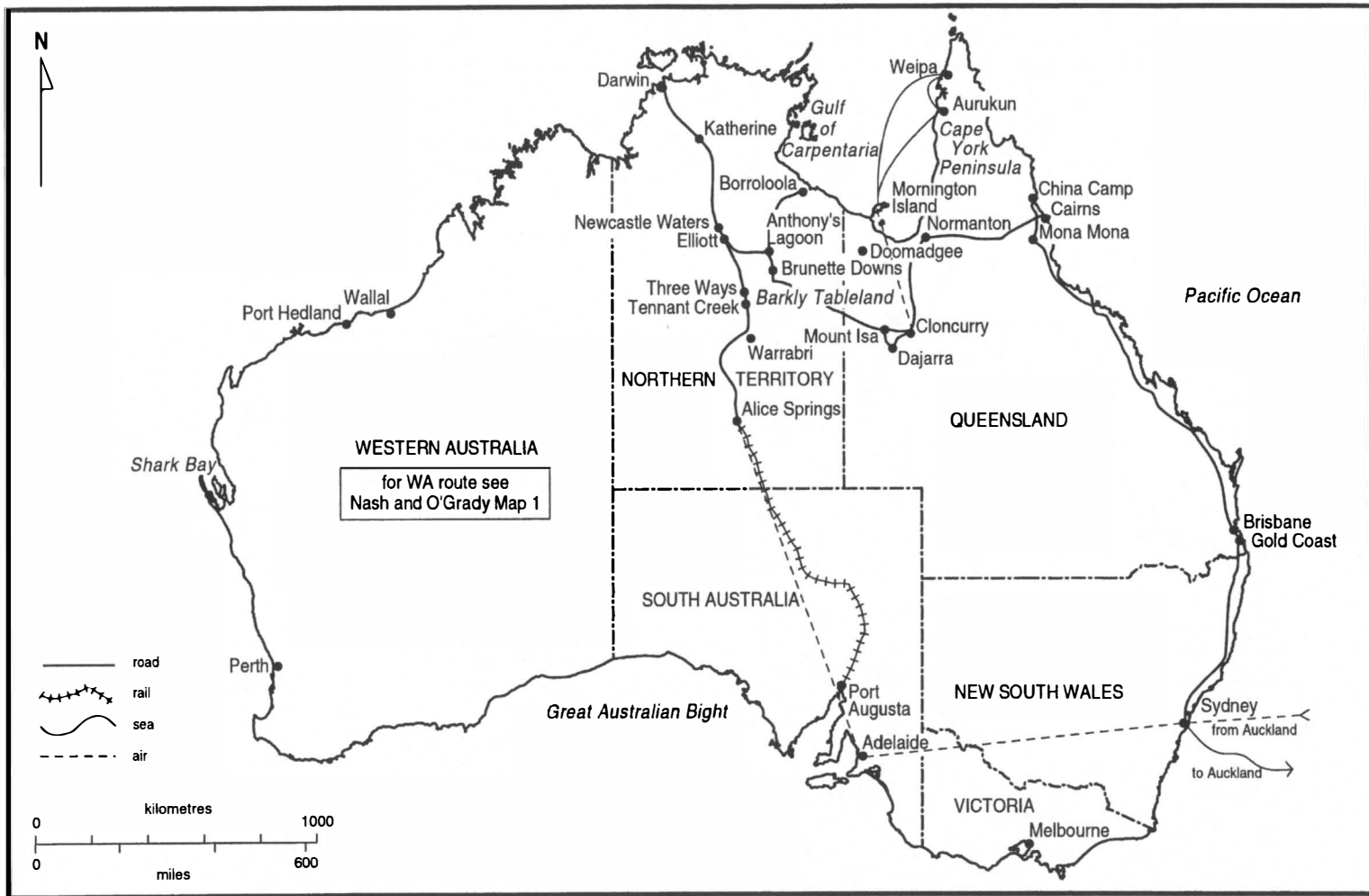
Another theme is Ken's insight into linguistic patterns, and the way he has used data from languages in concert with linguistic theory to both advance theory, and to draw out of data patterns that had not hitherto been suspected. For instance, in 1974 the Australian Institute of Aboriginal Studies (AIAS) hosted a landmark conference in Canberra, and "almost every linguist currently working on Australian languages took part" (Dixon 1976:14). Ken was able to make his third visit to Australia then, and contributed several major papers in the two linguistics symposia, but another of his contributions was unplanned:

The most exhilarating moment of the conference was undoubtedly when Ken Hale went to the blackboard and explained how ergative and locative alternants (-*ngu* ~ -*lu*, -*ngə* ~ -*la*) might have evolved. (Dixon 1976:10)

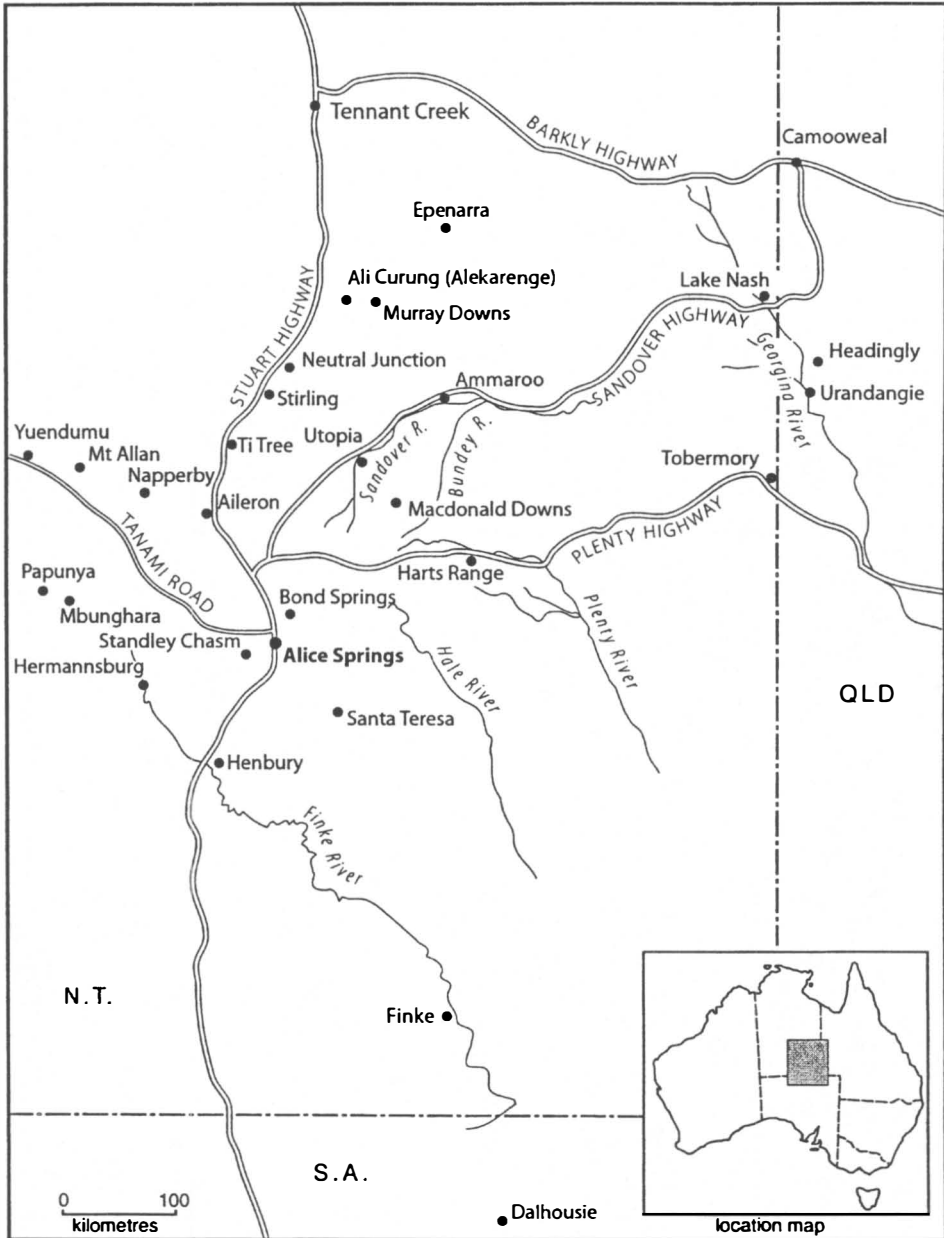
Much of Ken Hale's contribution to the study of Australian languages still awaits elaboration by later scholars, such as his grasp of phonetic detail and of intonational systems, his grammatical analyses such as of the adjoined relative clause, his language teaching, and his work on interpreting and translation. Such has been the breadth and depth of Ken's documentation and understanding of Australian languages and their speakers.

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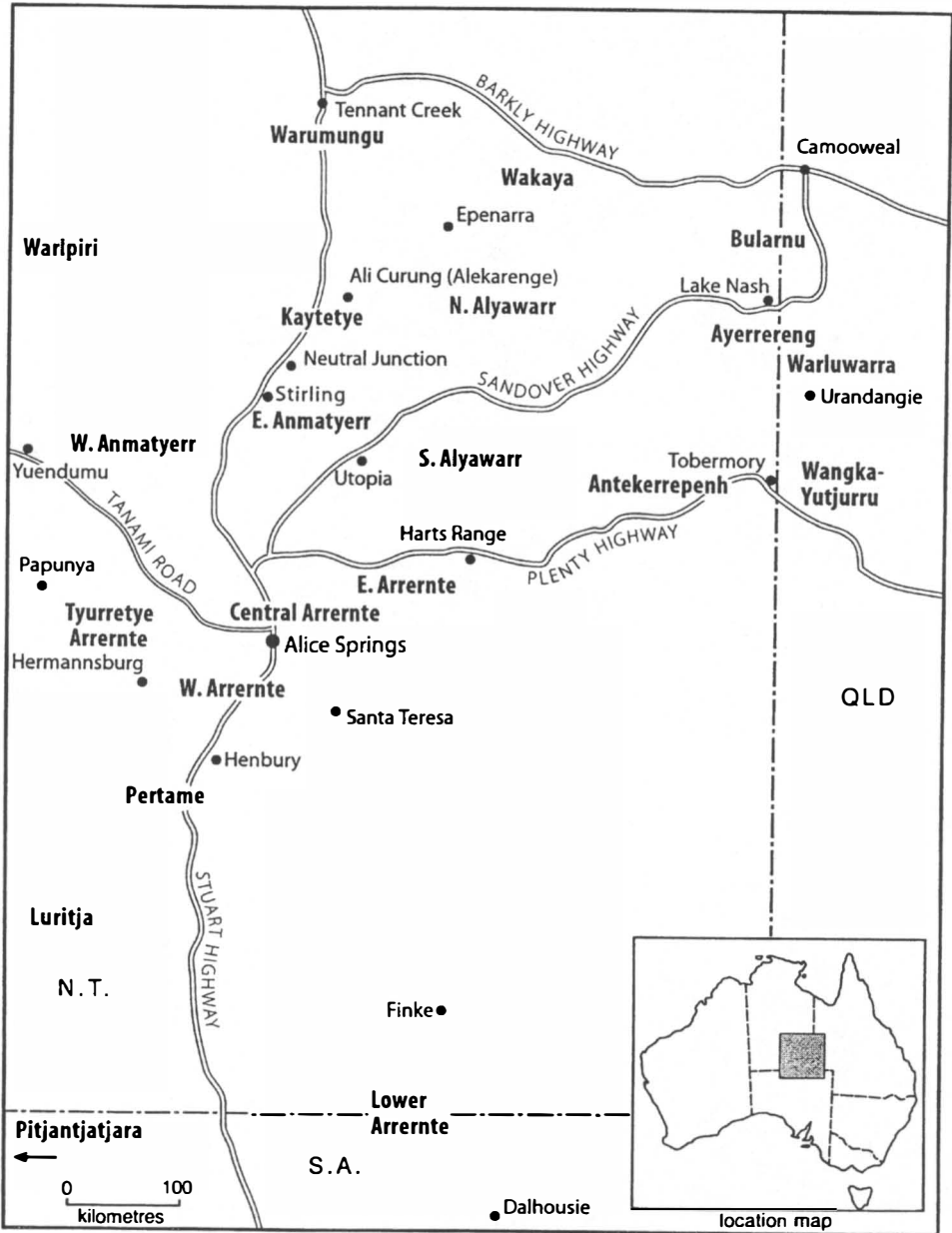
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Map 1: Australia, showing travel route and places where Hale recorded languages



Map 2: Central Australia locations



Map 3: Arandic languages and some neighbouring languages
 (Information from Gaven Breen, Jennifer Green and Myfany Turpin.)

1 *Bibliography of Ken Hale and Australian languages*

COMPILED BY DAVID NASH

Kenneth Locke Hale was born on 15 August 1934 in Evanston, Illinois. When he was six his family moved to a ranch near Canelo in southern Arizona. He was a student at the University of Arizona from 1952. After obtaining his PhD from the University of Indiana, Bloomington, in 1959 (thesis 'A Papago grammar'), he spent 1959–61 in Australia. He taught at the University of Illinois, Urbana, in 1961–63 and at the University of Arizona, Tucson, in 1963–66. He made another extended field trip to Australia in 1966–67. From 1967 he held a sequence of appointments at MIT until his retirement in 1999, and visited Australia in 1974, 1980, 1981, 1994 and 1996.

Hale's works relating to Australia are listed here in chronological order within each section. Abbreviations: ts. – typescript; l. – leaf/leaves; an asterisk begins an annotation immediately after an entry. An elaborated and updated version of this bibliography is maintained at www.anu.edu.au/linguistics/nash/aust/hale.html

1. Publications

- 1962 Internal relationships in Arandic of Central Australia. In A. Capell *Some linguistic types in Australia*, 171–83. (Oceania Linguistic Monograph 7) Sydney: Oceania (The University of Sydney).
- 1964 Classification of Northern Paman languages, Cape York Peninsula, Australia: a research report. *Oceanic Linguistics* 3/2:248–64. * see also Hale (1966) 'The Paman group of the Pama-Nyungan phylic family'
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2 *Compiled by David Nash*

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2.2 Unpublished

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- 1970 Lessons in Warlpiri prepared by Kenneth Hale. Six lessons, recorded with Warlpiri men from Lajamanu; stories with English translations. Includes dialogue, stories. 4 reels recorded by Stephen Wild, Lajamanu. * AIATSIS tape No. A2230
- 1974 Institute for Aboriginal Development. Warlpiri intensive course. Set 1, 10 pts; set 2, 1 part. Alice Springs: IAD. * AIATSIS Library L W434.041/1

8 *Compiled by David Nash*

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- 1979 Busby, P.A. A classificatory study of phonemic systems in Australian Aboriginal languages. xii+239pp. MA thesis, ANU. (Part I published in 1980.) * Uses Hale's recordings and notes of Arabana, Mara, Warumungu, Wik Munkanh, Yanyula, Djingili (Jingilu), Wik Ep or Wik Me?nh, and Northern Paman field notes, and Hale 1976 (Uradhi and Tya:pukay).
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- 1979 Simpson, Jane. Preliminary vocabulary of the Warumungu language. Based on work by P. Chakravarti, K. Hale, J. Heath, D. Nash and J. Simpson. 51pp. ts.
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3. Doctoral dissertations

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- 1983 Simpson, Jane. Aspects of Warlpiri morphology and syntax. April 1983.
- 1997 Pensalfini, Robert. Jingulu grammar, dictionary, and texts. June 1997.

4. Manuscripts

Manuscripts other than field notes; generally listed only if deposited in a public archive.

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- 1961? Linñitiy [Linnghithigh]. [grammatical sketch] 21pp. mimeo. [University of Arizona, Tucson.] * AIATSIS pMS 736 * published in 1966 (see above)
- 1961? n.d. “Cousin” and “Fancyman”. 5pp. mimeo. [University of Arizona, Tucson.]
- 1961 Vocabularies and cognation judgments for 30 Cape York Peninsula languages. ts., mimeo. [i]+18(‘Attestation’)+22pp. * last part also exists as ‘Attestations by Kenneth Hale c. 1961’. [i]+22pp. holograph, ts.
- 1961 Toward a genetic classification of Australian languages. [10]pp. ts. Paper read at 36th annual meeting of the LSA, 28 Dec 1961 * AIATSIS pMS 745
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- 1964 Northern Paman. Tucson, Arizona. [78] l. ts. * AIATSIS MS 733 AIATSIS annotation: difference between Wik-Mumin and other Wik languages; phonological developments, verb, noun and pronoun, suffixes, grammar analysis in Uradi, Mpalityan, Lutigh, Yinwum, Linngitigh, Alngit, Tyanngayt-Mamngayt-Ntrwangayt (Awnngtim), Ntrangit, Ngkot, Aritinngitij, Mbiywom
- Part 1 published in Hale (1964); last three parts published as ‘Phonological developments in particular Northern Paman languages’ in Sutton ed. (1976). Other publications of Cape York Peninsula data are the two 1966 papers in *Anthropological Linguistics*, and, in addition to the original typescripts published as three papers in Sutton ed. (1976), there are the unpublished 100-word list ‘Attestations’, and the ‘Other Paman languages’ stem list. These are the basis of the KLH entries in O’Grady et al.’s WORDS . 2 machine-readable data file, and the appendix to Sommer (1969). See also §5.
- 1964? n.d. Other Paman languages. 9 l. ts. * AIATSIS pMS 741 AIATSIS annotation: Alphabetical list (c.180 items) of Proto-Paman reconstructions based on forms from Lamalama (Port Stewart), Ku.ku Yimit’ir, MuluRut’i, China Camp MuluRut’i (Kuku Tyunkay), Hann River Agu Tarngala, Kuku Mini (or Ogo Nd’an), Tya pukay, Yitint’i, Koko PeRa, Normanton [Kurtjar], T’irpal, Kiramay; Handwritten forms are from Yir Yiront, Yir Thangedl and Oy kangand added to Hale’s list by Barry Alpher.
- 1964? n.d. Papers in Middle Paman languages. 6+8pp. * AIATSIS pMS 742 * AIATSIS annotation: Phonological developments in middle Paman/Wik languages; stops, nasals, liquids, glides, vowels; attestation in stems; examples from Wik Mumin, Wik Ngatr, Wik Men, Wik Mungkn. Published in 1976 as ‘Wik reflections of Middle Paman phonology’.
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- 1966? Language and kinship in Australia. 5+[1]pp. handout. Mimeo. * 8pp. mimeo. AIATSIS pMS 3614
- 1967 n.d. Arandic wordlist. 25pp. ts. mimeo. MIT. * Wordlists for Kaytetye, N Alyawarra, S Alyawarra, Aranda (Akar-Akiytjar; Plenty River), Eastern Aranda, Anmatjara, Western Aranda, Southern Aranda (Henbury).
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- 1967 Lessons in Walbiri prepared for the school at Yuendumu, I-VII. Mimeo., 64 l. MIT. Prepared with the assistance of Mr Sam Tjapangaḍi Johnson. * AIATSIS MS 196
- 1967-68 Preliminary remarks on Walbiri grammar. I, Sept 1967, 35pp. ts. II, January 1968, 66pp. mimeo. MIT.
- 1967 Downing, J., K. Hale et al. [Pitjantjatjara language course materials for use at the University of Adelaide], ts.
- 1969 0. Walbiri conjugations. Mimeo., 14pp. MIT. [1967? ~ 1969] * Also as Appendix A to 'Preliminary remarks on Walbiri grammar' * AIATSIS pMS 2961
- 1972 Walbiri kinship problem. 15pp. MIT. * 4 l. AIATSIS pMS 3612
- 1973 Walbiri data, I-XIV. Mimeo., separately paginated sections. [93] l. MIT * AIATSIS MS 1719
- 1974 An elementary dictionary of the Warlpiri language. Mimeo., 97pp. mimeo, MIT. Re-issued by IAD, Alice Springs, 1977, as part of course materials for their Warlpiri Language Course. Revised edition, 1995.
- 1974 A Warlpiri syllabary ~ Warlpiri picture syllabary. 48pp. mimeo., MIT. * AIATSIS pMS 746 * 2-part mimeo. pMS 2758 * Extended 1986 by Robert Hoogenraad and Ned Hargraves Jampijinpa, and including charts and Gavan Breen's 'The sounds of Warlpiri'.
- 1974? Warlpiri Primer. 8 Lessons. Mimeo., 26pp. foolscap. [rare; copy at Willowra retitled 'Ken Hale's Warlpiri Literacy Programme']
- 1976 Granites, Robin Japanangka, Kenneth L. Hale and David Odling-Smee. Survey of Warlpiri Syntax and Morphology. [typed version of Odling-Smee MS Survey of Warlpiri grammar] 67pp. ts. MIT. * AIATSIS pMS 3778
- 1976 Lessons in Warlpiri, I-VIII. Mimeo., separately paginated sections. MIT. January. Prepared with the assistance of Robin Japanangka Granites. [83] l. * AIATSIS MS 1718
- 1976 Typological sketch of Warlpiri. Mimeo., 12pp. MIT. * AIATSIS pMS 3613
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- 1979 Warnapari manu warna. [Dingo and snake.] (Warlpiri translation of the Navajo Coyote tale Ma'ii dóó Tʰiish, pp.16-20 of *Coyote Tales* by William Morgan et al., BIA, 1949.) [1]+5pp. ts. MIT, May 1979. * AIATSIS pMS 3774
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- 1981 Hale, Kenneth L. with Ann Farmer, David Nash, and Jane Simpson. 1981. A preliminary vocabulary of Lardil. iii+308pp. Part I: Remarks on Lardil phonology and morphology, pp.1-41. Part III: Damin vocabulary, pp.294-9. ts. MIT, August 1981. * AIATSIS MS 1582
- 1981 Linguistics and local languages in a science curriculum for bilingual/bicultural programs. 10pp. ts. MIT. Presented to Applied Linguistics Association of Australia (ALAA) 6th Congress, Canberra, August 1981. * In: AIATSIS MS 1812
- 1982? Quelques remarques sur la configurationalité. 2pp. ts. handout. * includes Warlpiri examples
- 1982 Ngarluma vocabulary, English-Ngarluma vocabulary. Ngarluma-English, 26 l. ts.; English-Ngarluma, 22 l. computer printout, MIT. * AIATSIS pMS 3555 * ASEDA 0035
- 1982 Yangkal Word List. Excerpted by Lisa Travis from Hale's field notes. Holograph, MIT.
- 1981 Warlpiri dictionary, preliminary draft, compiled at MIT and Yuendumu. * AIATSIS MS 1572
- 1982-83 Laughren, Mary and Ken Hale. Warlpiri Lexicon Project. Warlpiri Dictionary entries. Verbs 42+109pp. Body part domain. 6+73pp. Fauna domain. 2+86pp. Photocopied computer printout. Warlpiri Literature Production Centre Inc., Yuendumu; copies at MIT, IAD, etc. * AIATSIS MS 1849 * 1982 draft. iii+237pp. AIATSIS MS 1670 * part of Warlpiri Lexicon Project
- 1985 Ngarluma vocabulary, with example sentences. Computer printout, MIT. * ASEDA 0036
- 1986 Hale, Kenneth and Mary Laughren. Concerning Warlpiri verbs, pp.v-cxiv in Warlpiri-English Dictionary. Verb section. Lexicon Project, Center for Cognitive Science, MIT. cxiv+140pp.
- 1987 Laughren, Mary and Ken Hale. Lexicology and the Warlpiri dictionary project. Paper presented in Section 17 (Lexicography and Lexicology) of the World Congress of AILA (International Applied Linguistics Association), Sydney, August 1987. 17+2pp. ts.
- 1997 Linguistic evidence for long-term residence of the Wik-speaking peoples in their present location in Cape York Peninsula. 38pp. Part II, Morphosyntax. 12pp. summary. To appear in *Language, time and Native Title: the Wik case of north Australia*, by Peter Sutton and Kenneth Hale (in preparation).
- 1999 A note on the Pittapitta nominative case and the future tense. 5pp.

5. Field notes and recordings

Items are listed in chronological order, including within each year, as can best be determined. The information listed for each item includes Hale's own annotation in the heading, such as language name, consultant's name, place (which may be the place of recording or the speaker's origin), and document title (if any). Additional information is from the AIATSIS catalogue, audition sheets, and other sources, and is of varied reliability. Some names have been transliterated, other have retained original symbols. Tape numbers beginning 'A' are AIATSIS Archive Tape numbers.

- 1959** (1) Luritja. Vocabulary and elicitation l. 1–214; Noonie ~ Nuni, Oodnadatta. 16, 20, 23 March, 13, 20, 24 April, 8 June 1959. c100+pp. Tape Nos A4535–6a, A4588–91; (2) Ikirinytyi (mother-in-law language in Luritja). pp.215–34. [l. 215–30 in AIATSIS catalogue] Manuel. Tape No. A4537; (3) Aranda and Luridja bird names, l. 231–4. * AIATSIS MS 859 [234] l.
- 1959** Pintupi. Tapartapa Tjangala. Papunya. (using Luridja as eliciting language) 16pp.* AIATSIS MS 867 * tape No. A4537
- 1959** Pitjantjatjara notes. Leo, Areyonga. 3 June 1959. (using Pitjantjatjara and Yankuntjatjara as eliciting language) 33pp.* AIATSIS MS 867 * tape No. A4539b
- 1959** WalpiRi field notes. From April–May 1959. Yuendumu, etc. 8 sections. [2069], 101, 14 l. [154]pp.* AIATSIS MS 865 * Rewritten in practical orthography, 1979. Keyboarded in practical orthography 1981–82, 1987 * tape Nos A4540–6, A4589, Ngaliya A4599
- 1959?** Warlmanpa (Warnmanpa), and Eastern Warlpiri. Jack Walker. Warrabri. Vocabulary, sentences. 3pp. Short text. * tape Nos A4547–8a
- 1959** Arabana notes. (Arapana). Henry, from Oodnadatta. 60 l. holograph [pages numbered 1–67] * domain vocabulary and eliciting * AIATSIS MS 871 * tape No. A4604a
- 1959** Dieri. Johannes, from Mission 90 miles north of Marree, living at Hermannsburg. 66pp. * AIATSIS MS 872 * transcript of archive tape No. A4604–6
- 1959** Aranda field notes. Alice Springs etc., NT. Numerous consultants. Includes Akara (Akiityara), Eastern Aranda, Southern Aranda (Piṭim), Hermannsburg. 645 l. * AIATSIS MS 862 * tape Nos A4580–7, A4589–95
- 1959** Anmatyera [Anmatyerre] notes. 91 l. holograph (photocopy). * AIATSIS MS 862 * tape No. A4598
- 1960?** Anmatjirra avoidance language. 2pp.
- 1959** Alyawara notes. Old Bill, Snowy Denison, and others. MacDonald Downs and Ammaroo, N.T. 938 l. holograph (photocopy). AIATSIS MS 860 * tape Nos A4566–79
- 1959** Gurindji (Kurintji) notes. Smiler Major (Wave Hill). 29, 30 March, 5–6 April 1959. 250pp. MS; AIATSIS MS 864 (2) = 122pp. ts. AIATSIS MS 864 (1) * transcript of tape Nos A4553–5 * Kurinytyi–English. 35pp. AIATSIS MS 864 (2)(c)
- 1959** Warramunga [Warumungu] notes. Sandy Nandy and George Bruce [sc. Booth] from Tennant Creek. * AIATSIS MS 863. Part 1: 465 l. holograph (photocopy).

Part 2: xxii+79pp. ts. mimeo. * Part 2 l. 1–66 repeats l. 15–465 of Part 1 * tape Nos A4557–9

- 1959 Kaititj [Kaytetye] notes. Lindsay Wood, Peter. Barrow Creek./Chablow (Chabla). Murray Downs./Bob, Physic. Barrow Creek. AIATSIS MS 861 (1) 439 ll. ts.; 861 (2) 239 ll. * tape Nos A4560–6 * also Louey Pananka, Elliott, tape No. A4556
- 1959 Wambaya (Wombaia) notes. Consultant: Pudden (Yagamari), Brunette Downs. 70+81pp. [150] l. * elicited using Warumungu * AIATSIS MS 870 * Rewritten by Hale, iv+57pp. [Goodanji notes follow, pp. 58–85.] * AIATSIS tape No. A4531
- 1960? Yankuntyara vocabulary/Yankunytjara–English. 82pp. * AIATSIS MS 866 * rewritten in an unpublished wordlist, IAD 1980, where labelled as Antikirinya
- 1959 Garama field notes. Alice Springs. 87pp. holograph * AIATSIS MS 876(1) AIATSIS MS 876 (2) = 27pp. holograph (on reverse of recycled mimeo.) * tape A4534 * vocabulary and elicitation collected from consultant Jack [sc. Jake] originally from Port Keats. * equated with Muriny-Kura, one of three dialects of the Muriny-Pata language [Michael Walsh]
- 1959 Gunwinjgu [Kunwinyku] field notes. Frank Francis (Namarrang), from Oenpelli. Parts I–XI. 743 ll. holograph = [ii]+174pp. ts. * AIATSIS MS 878 * tape Nos A4512–6
- 1959 Mayali field notes. Consultant: Alice. Katherine. 55 l. * AIATSIS MS 877 * tape Nos A4517–18
- 1959 Wardaman field notes. Unidentified woman. [interspersed in Mayali notes] * AIATSIS MS 877 * tape No. A4517
- 1959 Ma:ra field notes. Consultant: Dulu (Wuṭaliya), and others. Limmen River and Borroloola. Vocabulary and elicitation. 758 l. holograph * tape Nos A4518–22, A4526 * AIATSIS MS 879
- 1959 Yanjuḷa field notes. Jack Malcolm (Pangarintji), Pharoah, Donigan, and others. Borroloola. 147pp. ts. * AIATSIS MS 880 (1). AIATSIS MS 880 (2) = 561 l. holograph (photocopy) * tape Nos A 4522–8
- 1959 Gudandji (Kutanytyi, Goodanji) field notes. Duncan Booth. Vocabulary and elicitation. Anthony Lagoon. * AIATSIS MS 1667 * Some notes on Goodanji: consultant Tommy Duncan. Recopied by Hale, pp. 58–85 [following Wambaya notes] * tape No. A4532
- 1959–60 Garawa field notes. Dick (Kuyal); Monroe (Kangala), Billy Joe; Roger, Djinggu, Tilu, Gladys. Vocabulary and elicitation. Borroloola, Brunette Races. [72], 6, 9 l. AIATSIS MS 1667 * tape Nos A4522, A4532–3
- 1959? n.d. Wogaty field notes. Roy, Bagot. 19 l. holograph. Tommy, from Delissaville. 34 l. holograph. * AIATSIS MS 1666; second part is also in Capell papers AIATSIS MS 4075 Box 1 Folder 4
- 1959? n.d. Brinken [Marithiel] field notes. Peter (Daly River). Winia. Delissaville, NT. 26 l. holograph (photocopy). * AIATSIS pMS 3550
- 1959? n.d. Larrakia and Wunae field notes. Vocabulary and elicitation. Darwin, NT. Larrakia, 1. 1–6; Wunae, 1. 7–27 * AIATSIS pMS 3551 * Larrakia. Willie Doyle. [53]pp.
- 1959? Bathurst Island [Tiwi]. Vocabulary “(Geoff’s 100-wd. list) and sentences”. Jacky Junior. Bagot. 17pp. * in Capell papers AIATSIS MS 4075 Box 2 Folder 8
- 1960 Southern Arrernte. Tom Bagot. Recorded at Port Augusta Mission, 1 March 1959 [sc.1960]. * AIATSIS MS 862 * AIATSIS tape Nos A4593–5

- 1960 (with G.N. O'Grady) Parnkala fieldnotes. Harry Crawford [sc. Croft]. Iron Knob. 6 March 1960.
- 1960? O'Grady, Geoffrey N. [Transcription of Mirniny vocabulary and expressions excerpted from Hale and O'Grady sound recording, at a windmill 8mi NE Norseman, March 1960. Speaker: Pompom.] * AIATSIS MS * vocabulary included in O'Grady's machine-readable data file WORDS. 1, from cards punched at University of Hawaii 1967-68, and in O'Grady and Klokeid 1969
- 1960 (with G.N. O'Grady) Karlamayi fieldnotes. Teddy Champion. Mukinbudin. 125-word vocabulary. March 1960. * AIATSIS pMS 5833
- 1960 (with G.N. O'Grady) Nanta [Nhanta] fieldnotes. Jack Counsellor. 131 l. * AIATSIS MS 3538
- 1960 (with G.N. O'Grady) Watjirri transcript. Sally. 20 sentences. 10pp. holograph.
- 1960 Gurama fieldnotes. Aldjie Paterson. 52+7pp. * AIATSIS MS 873
- 1960 Ngarluma field notes. Bob Churnside. Roebourne. (1) Domain vocabulary and sentence elicitation, 416 l, (2) Typescript copy (l. 1-170 only), 66pp. * AIATSIS MS 966 * tape Nos. A4626-9
- 1960 Yinytyiparnti field notes. Yarnarri dialect. Jack Roy (Mt. Florence) (Upper Fortescue) [Roebourne]. 154 l. * AIATSIS MS 965
- 1960 Warnman. Field notes and sound recording. Jack Gardiner and possibly his wife. Roebourne. To 3 April 1960. * tape Nos A4538-9
- 1960 Jiwarliny tape transcript. Consultant: Willie, and others. La Grange, WA. 36 l. * AIATSIS pMS 3011 * tape No. A4549 * keyboarded by David Nash, 1982, ASED A 0015 and 0287
- 1960 Nyinyiny tape transcript. Birdwood Tjangala. Nicholson, Gordon Downs. April 1960. 91pp. * AIATSIS MS 875 * tape Nos A4550-2
- 1960 Mutpurra [Mudburra] tape transcript. Long Tommy Tyampityinpa (Newcastle Waters, Powell Crk.). Interspersed alternately with: Warlmanpa transcription. Lofty [Japaljarri] (Powell Crk.) on tape No. A4555 * Elliott. 27pp. * AIATSIS pMS 3035 * tape Nos A4555-6
- 1960 Mutpura [Mudburra] and Tyingilu [Djingili]. Mutpurra (Tyingilu). Consultant: Tommy Tyaparta/Tyimarra. [11] l. (numbered 45-55) [Elliott, NT.] * AIATSIS pMS 3034 * tape No. A4556 * Includes sentences, ca.144 Mudburra words; keyboarded version in practical orthography by David Nash, c1980
- 1960 Tjingilu [Djingili] field notes. Consultant: Tommy Tyaparta/Tyimarra. Elliott. 45 l. * AIATSIS MS 869 * tape Nos A4529-30
- 1960 Wakaya notes. Avon Willie, Brunette Downs. c150 cards, holograph. Keyboarded in practical orthography, 1999, 8pp.
- 1960 Lardil field notes. Mornington Island. [508] l. holograph (photocopy) * AIATSIS MS 883 * tape Nos A8084-9, A8158-64
- 1960 Yukulta. Mornington Island. * AIATSIS MS 3172
- 1960 Kayartilt. [Kayardild] Desmond. Mornington Island. 9pp. * AIATSIS MS 3172
- 1960 Yangkal grammatical notes. Mick Charles Ngarriypalangi. Mornington Island. 15pp. * incorporated in Evans 1992 * AIATSIS MS 3172

- 1960 Wik Ngathr, and a few words in Wik Ep and Wik-Mungknh. Joe Ma?pentinha (Yu?ngk). Aurukun, Qld * tape No. A4612
- 1960 Wik Mumenh. Billy Ngakapurka [Ngakapoorgum], from Holroyd. Aurukun, Qld* tape Nos A4612-3
- 1960 Wik Me?n (or Wik Ep). Joe Ma?pentinha (Yu?ngk). Elicited in Wik-Mungkanh. 3+6+178pp. Aurukun, Qld * AIATSIS MS 952 * tape Nos A4614-19, A3298
- 1960 Wik-Mungkanh field notes. Billy, and others. Jim Henry. stn. S of Bamboo. [45+25+5] l. Aurukun, Weipa, Qld * AIATSIS MS 881 * tape Nos A4619-22
- 1960 Linnghithigh. Sam. Message to people at Weipa. Songs. Aurukun, Qld * tape Nos A4623-4
- 1960 [Northern Pama field notes] [Aurukun, Weipa] Music—Vocal. Texts and translations—Aboriginal to non-Aboriginal language. Vocabulary. 265 l. * AIATSIS MS 882

MS 882 §	Language	AIATSIS code		Informant	Note
(1)	Uradhi	Y8, Y10	15 l	William Ducie	language from Macdonald R.
(2)	Mpalitjanh	Y25	12 l	Juicy [sc. Ducie]; David (Cockroach)	
(3)	Luthigh	Y12	4 l	Joseph (Catfish)	
(4)	Ngkoth	Y36	56 l	Frank Morton, 20	
(4)	Yinwum	Y29	56 l	Tiktik, 45	via Ngkoth
(5)	Linnghithigh	Y26	118+13 l	Sam, Polly	
(6)	Thanngath	Y34	9 l		
(6)	Aritinngithig	Y34	9 l		via Thanngath
(7)	Aritinngithig	Y34	10 l	Andrew	
(8)	Aritinngithig	Y34	12 l	Andrew Marle	via Mbiywom & Nrwa?angith
(8)	Mbiywom/Mbeiwum	Y41	12 l	Willie	
(8)	Ndraangidh (Nrwa?angith)	Y39	12 l		via Mbiywom
(9)	Ndraangidh (Nrwa?angith)	Y39	8 l	Monte (Norman Pt.)	via Mbiywom
	Ntrangith	Y27			
(10)	Mamngayth ~ Mamangidigh/ Windawinda	Y31	4 l	Arthur Dick	
(10)	Nrwa?angayth	Y31	4 l	Hector	via Mamngayth
(11)	Mamngayth ~ Mamangidigh/Windawinda	Y31	1 l		avoidance vocabulary
(12)	Alngith/Alingit	Y32	3 l	Keepas	

- 1960 Some notes on Warluwara (Maule). 11 pp. Informant Fred Age from Urintangie [sc. Urandangi], Qld. [introduced by sketch of phonology, pronouns, conjugations] * AIATSIS pMS 743

- 1960 Warluwarra. Notes by K. Hale from Fred Age taken at Dajarra, Qld. [and Lily Clayton] 35pp. * Holograph held by J.G. Breen, Alice Springs. * tape Nos A4601–3
- 1960 Antikiripinhi (Antikerebina) [Antekerepenhe] Antikiri. Tape I Jane DeSatge (born Urindangii [Urandangi]). September 1960. Dajarra, Qld. 16pp. Tape II. 16pp. [analysis] 8pp. 100-word list. 4pp. * AIATSIS MS 868 * tape Nos 4596–7
- 1960 Kalkutung field notes, tape recording. Dajarra. Polly Wilson. 10pp. partial transcription. * listed at AIATSIS under “Kalkatungu/Kalkadoon language” * tape No. A4600
- 1960 Kurtʼar (KurtjarRa). (KuŋkaRa) [Kurtjar] (Normanton area). Words and sentences. Rolly Gilbert. Normanton, Qld. [i]+26pp. holograph. * tape No. A4620
- 1960 Kaantju recording. Words and sentences. Tom Thompson. Portland Roads, Qld * tape No. A4620
- 1960 Og-ónʼdʼanə ~ Oyónʼdʼanə (Ogunyjan). (Mitchell River area). Rosey [Slipper] Mud. Georgetown, Qld. Inventory of sounds, notes. [i]+16pp. * tape No. A4625
- 1960 Koko-peRa. Words and sentences. David, from Mitchell River area. Normanton. + [i]+25pp. holograph. * tape Nos A4610b–11
- 1960 Tjapukay [Dja:bugay] notes. Pata Tyaykul. Mr Gilbert Martin. Monamona Mission. Mr George Martin. Messages, songs. Yarrabah Settlement. 125 l. * AIATSIS MS 734 * tape No. 4611
- 1960 Tjapukay [grammar and vocabulary] 1 box. Phoneme inventory, verbs intransitive and transitive, suffixes, nouns, relational, enclitic like suffixes; approx. 748 words and sentences on loose sheets with translation. * AIATSIS MS 543
- 1960 Lamalama [Rimanggudinhma, Y58] (Port Stewart, S.W. Princess Charlotte Bay). Oscar Graham (originally of Port Stewart). Yarrabah, Qld. 1960 [i]+20 l. Holograph. Vocabulary and elicitation; phonemes * tape No. A3163a * AIATSIS pMs 2201 * also transcribed by Rigsby (AIATSIS pMS 2326), and by Godman 1993 (see §2.2)
- 1960 Aghu-Tharnggala (Hann R. Language) [Laya, Y65] George Meldrum, from Kalinga Stn. [i]+36 l. Mareeba, Qld. Vocabulary and elicitation; phonemes. * tape No. A3163 * AIATSIS MS 2200 * also transcribed by Rigsby (AIATSIS pMS 2326), and by Jolly 1989 (see §2.2)
- 1960 Kuku Yimitʼir [Guugu-Yimidhirr] recording. Speech, two songs. Michael Webb (from Cooktown), George Meldrum, Charlie Wallis, George Martin. 16pp. transcript of tape No. A4609 by John Haviland, c1978 * tape Nos A4609–11
- 1960 Kuku-Yalanji recording. Short stories on various topics. Various speakers. Bloomfield River (?). * tape No. A13971
- 1960 Kuku-Nyungkul (Nyungal) recording. 2 short stories. Jacky Friday. Nyandy. Bloomfield River (?). * tape No. A13971
- 1960 Yitintʼi [Yidiny]. Ted Fourmile, Polly Elliott. Yarrabah. Field notes and 9pp. grammatical sketch. Holograph. Includes about 300 words of vocabulary. * tape Nos A4607–8
- 1960 Kuk Thayori (Kuuk Thaayorre). Words and sentences. c17pp. holograph.
- 1960 MuluRutʼi; China Camp MuluRutʼi (Kuku Tyunkay). Words and sentences. Yarrabah. Holograph.

- 1960 Tyirral [Dyirbal] notes. 13pp. Includes Kirramay (Murray Upper) pp.7–13./Tape I Tully etc.) 8pp. Joe Challum [Chalam], Innisfail./Tape II (Tully) 11pp.
- 1966 Warlmanpa transcription. Donald Spencer [Graham] Tyupurrula. Tennant Creek. late 1966. 57+13pp./71+3 l. * elicited using Warlpiri and Warumungu * AIATSIS MS 1293 * tape Nos A505b–506b
- 1966–67 WalpiRi field notes. Yuendumu, etc. 7 boxes. * Copy deposited at Yuendumu * AIATSIS MS 3171 * tape Nos A272–82, A429–32, A493–504, A523–34
- 1967 Eastern Warlpiri. Stephen Simpson Japangardi. Warrabri. * tape Nos A493–5 * Sentences, texts. 21pp. * AIATSIS pMS 3211 tape No. A506b
- 1967 Lardil: Damin. Mornington Island, Qld. 76 l. holograph (photocopy). * AIATSIS MS 2254
- 1967 Hale, Kenneth L. and Alice M. Moyle. Warlukurlangu, 4pp. Yurrampi, 64pp., 44pp. (Moyle 1973 sources 254–5). Notes on Yurrampi cycle, Hale tapes 4.13–14, 80pp. Children's songs. Recordings by Moyle and Hale, Yuendumu, February–May 1967. Song text transcriptions by Hale. Holograph. Yuendumu. Copy at AIATSIS pMS 4341, Alice M. Moyle's 'Report on field trip to Yuendumu, 21st February to 21st March 1967'.
- 1967? n.d. Yunyupali and Kantuwarra. [Warlpiri] ts. In Alice Moyle collection, AIATSIS.
- 1996 Ngakulumungan Kangka Leman. Lardil language elicitation and songs. Mornington Island, Qld. 9 cassettes. Deposited at AIATSIS. * includes recordings by Hale

5.1 Sound recordings at Indiana University Archives of Traditional Music

Catalogue entry:

Title: [Australia, Aboriginal languages, 1958–1960] [sound recording]/collected by Kenneth Hale.

Description: 69 sound tape reels : analog ; 7in. + transcriptions and translations (4 ft.).

Deposited by F.M. Voegelin at the Archives of Traditional Music in 1985, as part of the C.F. and F.M. Voegelin Archives of the Languages of the World, under option 1.

Local note: OT 9446–9514; EC 10 in. :1381–1421 (copies)

Contents: Spoken example of Tjingili – Gunwinggu – Mayali – Mara – Wambaya – Kutandji – Guruma – Kardutjara [sc. Luritja, Pintupi, Pitjantjatjara] – Wamman [sc. Warnman] – Walbiri – Tjiwarlin – Djaru – Gurindji – Warumungu – Unmatjera [sc. Anmatyerr] – Ngaliya – Kalkutung – Waluwara – Arabana – Dieri – Kuku-Yimityir – Wikngatara – Wikepa – Kandju – Wikmunken – Kurtyar.

Call Numbers for: B-ATM 85-659-F ATL

6. Artefact collection

Hood Museum of Anthropology, Dartmouth College, Hanover, New Hampshire. 22 items.

7. Miscellanea

- 1960 O'Grady, G.N., In 'More on lexicostatistics'. *Current Anthropology* 1/4:338–9. * a compilation of comments by several authors on Dell Hymes' paper 'Lexicostatistics so far' *Current Anthropology* 1/1:3–44.* cites observations by Hale on basic vocabulary
- 1963 Wurm, S.A., Aboriginal languages (pp.127–48 with Commentary by A.A. Capell pp.149–58). In Helen Shiels, ed. *Australian Aboriginal studies: a symposium of papers presented at the 1961 research conference*. Melbourne: OUP for the Australian Institute of Aboriginal Studies. * describes Hale's work 1959–60; pp.128–9, 130n1 on 'dialect chains', 133, 136n2 note dated June 1962 on Hale's proposal of the name 'Pama-Nyungan', 150
- 1976 Rigsby, Bruce, The Americanist tradition. Discussion by Bruce Rigsby. In Wallace L. Chafe, ed. *American Indian languages and American linguistics*, 29–33. Papers of the Second Golden Anniversary Symposium of the LSA, held at the University of California, Berkeley, in November 1974. Lisse: The Peter de Ridder Press. * "A cursory examination of another national tradition" i.e. Australianist, and overlap with Americanist, especially Hale
- 1978 AIAS holdings of material by Kenneth L. Hale. 18pp. ts. AIATSIS. * manuscripts and field notes descriptively catalogued
- 1978 Purlapapatu Warlpiri. [Warlpiri versions of Arkansas Traveller, Liberty, Turkey in the Straw, Soldier's Joy, Forked Deer, Cluck Old Hen.] Sound recording, Lexington, Mass.
- 1983 Dixon, R.M.W. (Bob), *Searching for Aboriginal languages: memoirs of a field worker*. St Lucia, London, New York: University of Queensland Press. * mentions Hale pp.101–2, 105, 129, 195.
- 1987 Koch, Grace and Dianne Hosking, Australian Aboriginal language data: the sound recording collection of Kenneth Hale. *Australian Aboriginal Studies* 1987/1:110–11.
- 1996 Bobaljik, Jonathan David, Rob Pensalfini and Luciana Storto, eds *Papers on language endangerment and the maintenance of linguistic diversity*. The MIT Working Papers in Linguistics vol.28. Cambridge, Mass.: MIT Working Papers in Linguistics. * cover photograph 'Ngarrijbalangi kiyani', Mornington Island, 1960.
- 1997 Lisa Cheng and Rint Sybesma. The excitement comes from the language itself! Interview with Ken Hale, MIT. *Glott International* 2, Issue 9/10 (December 1996 [1997]): 1, 26–8. * 3 portraits; includes discussion of Lardil, Warlpiri
- 1997 Honan, William H. To masters of language, a long overdue toast. *New York Times* 12 March 1997, page C21. * includes interview with Ken Hale, who mentions Warlpiri

2 *Reminiscences of the trip to Australia 1959-1961*

SARA WHITAKER HALE

I want to tell you how we first got out to Australia.¹ Ken was finishing up his PhD at Indiana [University], and his professor was Carl Voegelin. I don't think either one of us had a very clear idea about what came next. I think I had in mind some kind of cushy teaching job where I would become this lady of leisure faculty wife. One day Ken came home and said, "Carl wants me to go to Australia". I thought "Australia, my God what's he talking about? Australia?" Ken said "Well, he wants me to get a grant and go to Australia. He has got this large fund from the Ford Foundation to establish the Archives of the Languages of the World." A letter came from Australia from Arthur Capell² saying that he would like to have some of the money to work on Australian languages. Carl said "Well I'm not going to give him any of the money but I'll send him a person".

Ken applied for and received a grant from the National Science Foundation (NSF) and the next thing I knew we were packing our things, and planning to leave the country for two years. We didn't have much money because we'd just finished graduate school, and so we sold our car (a 1954 Oldsmobile hardtop) for \$600, to pay the fare for me and our son Whit, who was then eighteen months old. We headed out of Tucson [Arizona], went and left our things with Ken's parents (from whom we also borrowed \$500), and then flew on one of those old propellor driven planes; it took forever, first to Los Angeles and then Hawai'i, Fiji, and New Zealand, where we spent five days with Bruce Biggs and his family, and finally into Sydney.

¹ This is an edited transcript of an interview with Sally Hale recorded by her son Ezra in late March 1999, in Lexington, Mass. The recording was transcribed by Jane Simpson and then edited for publication by Peter Austin. Most annotations are by David Nash.

² Capell was the linguist in the Anthropology Department at the University of Sydney (see Sharpe, this volume). He had done fieldwork on a number of Australian Aboriginal languages (as well as languages of the Pacific), and was supervising the BA Honours of G.N. O'Grady, with whom Hale was later to travel—see below.

Ken had an affiliation with the University of Sydney where Arthur Capell and Professor A. P. Elkin³ were. We landed in Sydney and Ken went into the department to say we had arrived, and to see what they had in mind. Capell was very welcoming, very enthusiastic, full of information, and very happy to have another linguist there. But Professor Elkin was very protective of Australian intellectual property, and he and Ken did not hit it off very well. He told Ken what he would allow him to do and what he wouldn't.

NSF was very good: it paid Ken's salary, plus full expenses, plus travel. We even managed to save \$2,500 while we were there, to buy our first house when we got back to this country.

We had seen a TV programme before we left the US that showed Alice Springs, and all the Aborigines there. We didn't even know where they were for sure, or where Ken should start, so he said "Well, I know there are Aborigines in Alice Springs so that's where I'm going". We agreed that I would stay in Sydney, which was not good for me particularly, because we were in a ghastly rooming-house in Cremorne, with a window that looked out on an alley and a lightbulb that hung from a cord in the centre of the ceiling. I was cooking the baby's food on one of these gas burners where you put these huge pennies in and you got a minute's worth of gas. I'd have it half cooked and the gas would run out. It was awful, I knew no-one and got very depressed. I was there for four or five weeks by myself and Whit started having digestive problems; after about the third visit by a doctor (in Australia they came to the house at that time), I decided to join Ken.

Alice Springs then had a population of 2400, not counting the Aborigines. There was also an American base there which had twelve families.⁴ I think they were monitoring core reflections, looking for [atomic bomb test] explosions from China and Russia. They soaked up all the available rental property, passing it on from one to the next. Ken was living in a motel that was owned and run by Bern and Aileen Kilgariff. They had a unit with just one room and a kitchen across one wall, so that's where we went. When we landed in Alice Springs, and Whit saw Ken, he started to cry. I didn't realise that an eighteen-month-old baby could really miss his Dad.

Ken was trying to make contact with various groups, and he'd identified a few languages that were represented there, but was having trouble getting anyone to commit to work with him on a regular basis. Ken felt he had two years to "get all the languages in Australia" and he was really pressured for time. So, we decided he really needed a vehicle. In the meantime, we weren't getting our money from NSF, but finally we heard that the secretary at the Anthropology Department in Sydney where our cheques were being sent was in the process of having a nervous breakdown, and she'd been throwing all the mail into the rubbish. We didn't get a penny from NSF for six months.

One day I was up in the middle of Alice Springs and I saw this little Land Rover for sale for £400; I went home and told Ken about it, and he went up, had a look at it, drove it and decided to get it. We took an overdraft from the Bank of New South Wales. Things started to go a lot better for Ken; he was able to go places, to the local reserves three or four miles outside town to collect information on Luritja, and Warlpiri and other languages.

³ Elkin was Professor of Anthropology at the University of Sydney for decades—see Tigger Wise (1985) *The self made anthropologist: a life of A.P. Elkin* (Sydney: George Allen and Unwin). Ken had written to Elkin from Indiana on 28 December 1958, saying he and his family would be arriving in Sydney on 11 February 1959 (Elkin papers, University of Sydney Archives).

⁴ This is the US 'Joint Defence Space Research Facility' at Pine Gap on the south-west of Alice Springs.

Next, one of the airforce personnel from the base left; the Kilgariffs got wind of this, and told us this house was going to be coming up for rent. So we got a wonderful little stone house that belonged to some station owners who kept it just for when they were in town. It was next to the Lutheran mission, and right on the corner on the [Todd] river, the dry riverbed was just across the street from us, with all these huge gum-trees. It was just a really pretty little site.

Ken made friends with a librarian who had introduced him around before I got there, and so we met some young couples, including Rupert and Anne Herd (he was a veterinary officer for the Barkly Tablelands),⁵ Helen and Alan Newsome (he was doing some research for CSIRO on dingoes and kangaroos),⁶ and Ted and Mary Jackson⁷ (he was another CSIRO scientist doing geology out in the Western Desert). So there was a kind of a support group, which was good for me.

I met some of the Americans, and I didn't find them very congenial. They were mostly enlisted men from the southern part of the United States. They invited us over, and I was just amazed to see all these American goods. Toilet paper in soft rolls (the Australian stuff was in sheets, shiny on one side and a little bit sticky on the other) and maraschino cherries in jars, dishwasher detergent, Tide soap powder for washing clothes, all these things I was familiar with they were having flown in from the Philippines twice a year.

When we were in Alice Springs Ken started communicating with Geoff O'Grady, whose plan was for them to circle around the western part of Australia, and do a survey of the languages. Geoff had worked over there on a sheep station,⁸ and knew one of the languages in the area.⁹ They were going to take the Land Rover, Ken would drive to Port Augusta, pick up Geoff, and they would drive across that Great Australian Bight to Perth, go all the way up the west coast, across the Top End, and end up at Newcastle Waters. They were gone for two or three months on that trip.

My days developed a routine of going up to the town shopping in the morning. There was a pretty good library in Alice Springs, and I was reading a lot, reading Australian authors. There was a big section on the Second World War, and so I read a lot of books on that. I was probably doing two or three books a week. We had electricity, so you could read at night. And my friends would invite me over, and I joined the Alice Springs Film Society where they showed old films. The Jacksons next door were instrumental in forming that. I'd go to the Film Society meetings every two weeks or so. I missed Ken a lot. I had a little typewriter that somebody had lent me, and I was writing, trying to get us contacts for where we were going

⁵ Rupert Herd later did his PhD at the University of Melbourne and in 1976 went to the USA. He is now Professor Emeritus of Veterinary Preventive Medicine at Ohio State University.

⁶ Helen (Meredith) was later a journalist with the *Australian* and is now at the *Australian Financial Review*. Alan Newsome's work led to his 1962 University of Adelaide MSc thesis on the biology of the red kangaroo. His 1980 paper 'The eco-mythology of the red kangaroo in Central Australia' (*Mankind* 12/4:327-33) incorporates Ken's explanation of a traditional Arrernte kangaroo song.

⁷ E.A. (Ted) Jackson was a soil scientist. His 1962 *Soils in central Australia* (Soil Publication 19, Melbourne: CSIRO) cites Ken: "The term 'billy' is probably a corruption of the aboriginal (Wailbri Tribe) word *pili* used to describe a hill, or rocks of any description" (p.64n.). The word was in use among geologists, and Ken alerted Ted to the derivation from Warlpiri *pirli*.

⁸ The station is Wallal Downs near the Eighty Mile Beach. See Darrell Tryon and Michael Walsh, eds (1997) *Boundary rider: essays in honour of Geoffrey O'Grady*. PL, C-136.

⁹ O'Grady spoke Nyangumarda fluently. He had also recorded materials on neighbouring languages, including on a fieldtrip from Perth to Port Hedland during his honeymoon with Alix O'Grady in 1958-59. See Alix O'Grady (1959) Shark Bay, *Walkabout* 25/8:31, 33, 35.

next. I wrote letters to every station, mission, anybody that I thought might have some spare housing where we could rent a room. Nobody answered us—it seemed that they were really worried because Don McLeod¹⁰ had been doing some union organising of Aboriginal stockmen in the west, and they were afraid we were Communists, or missionaries. Finally we did get one answer. A policeman that we had met in Alice Springs took us in at the police station house at Anthony's Lagoon Station for two weeks.¹¹

I didn't know what to expect from marriage you know. I mean, I didn't have any idea at all. I was thinking about that the other night. When Ken said "We're going to Australia" I remember thinking "This is what marriage is like. You follow your husband wherever he decides to go". And this is what I signed up for, but Australia wasn't a place I particularly wanted to go to. In fact I think I said to him in one of my more extreme moments that if I had listed ten countries I wanted to visit, Australia would probably not even be on the list! I had a list of: France, England, Germany, Italy, Spain, where, of course, there were no languages Ken was interested in. I don't know what I was even thinking about. But that was the first time I really ran into his stubbornness, because nothing I said, cry, moan, carry on, didn't work. His jaw was set. He was as quiet as a mouse and he was just moving toward Australia. And so I finally gave up; I mean, I was married, I had a young child, and I loved Ken, so if that was where we were going, that's where we were going. He said he told somebody "Sally cried" when he told me we were going to Australia. Well, I didn't know what to expect. And it seemed so far away, you know, and I was leaving all my friends, my mother. I was just twenty-six years old, and going off with this twenty-four-year-old husband with the bit in his teeth. We also had an eighteen-month-old baby, who was handicapped, which I didn't know at the time, thank goodness, because I don't think Ken would have got me out of the country if I had known that.

At that time we had another American with us, Monty West, who had come over to work on sign language. He was driving a Volkswagen bus that he had had completely outfitted with Persian carpets, and velvet curtains. It looked like a bordello. He arrived in Alice Springs with all these kangaroo parts he'd picked up along the road. People would kill a kangaroo—they'd just take the tail and leave the rest—and Monty hated waste, so he arrived with a white enamel washbasin full of charred pieces of kangaroo that were well on their way to becoming rotten. In he came carrying this as though it was the greatest gift in the world for me. I knew him from Indiana [University] because he was Ken's fellow graduate student, we'd eaten at his house. I knew he was eccentric; when we had a graduate student party he used to gather his salads from his lawn—dandelion greens and whatever else he could find. As soon as he and Ken left I took this bowl of charred kangaroo pieces over to the mission and just threw it to the dogs. Monty never forgave me.

He was with us for two or three months, because he went with us to Anthony's Lagoon, and then he and Ken left me there with Monty's bus while they took the Land Rover up to Borroloola to try to do some survey work in the Barkly Tablelands and the Gulf, and Cape York, Queensland.

¹⁰ Donald William McLeod (1908–99) is also mentioned by O'Grady and by Sharp and Thieberger (this volume). McLeod's own account of the WA strike and other background is in his 1984 *How the West was lost: the native question in the development of Western Australia* (Port Hedland, WA : D.W. McLeod).

¹¹ The hospitable couple were Bill (d. December 1997) and Joyce Taylor, who moved to Darwin in the 1960s.

Northern Territory News, 24 June 1960, page 6

Experts quiz natives about 'finger yabber'

(By ALBERT MORCOM)

BORROLOOLA: Ken Hale and Monty West left recently after a spell here to study aboriginal dialects and "finger yabber."

Mr. Hale is a linguist who is studying and taking recordings of Australian aboriginal languages.

Mr. Monty West was interested in native methods of transmitting messages by the "finger yabber" talk.

It has long been a wonder to me that some research has not been made into this latter, because it is not only words that this finger yabber covers, but complete messages as well.

During my years in the Territory, I have seen some wonderful demonstrations of this, particularly around the wolfram centre of Hatches Creek in Central Australia.

Here for periods of mourning sometimes lasting up to six months, the bereaved relatives of the deceased are forced by tribal laws into compulsory silence for that period.

Thus anything that these unfortunates have to communicate to other members of the tribe, must be done by the fingers.

BUSHED IN TOWN

But back to Mr. Hale and Mr. West. Actually I only met them once, and that was one night when they were returning from the jetty.

When I heard the vehicle pull up in front of my dwelling I stepped outside and there they were.

Mr. Hale did the talking and his first words to my astonished ears were: "We have got off the road somewhere, can you put me on the right road to Borroloola?"

"Borroloola!" I repeated, "Why you are in Borroloola. The old police station is only just a quarter of a mile south of here."

They were incredulous at first at hearing this and Mr. Hale repeated: "We must still be on the wrong road, though,

because we never passed this house when we went down to the jetty."

"ROCKED ME"

As my home, a huge iron structure, is built less than five yards from the motor road which every motorist has to use to get to the jetty, this left me completely flabbergasted.

Which brings me to what I want to say, that these motorists like quite a number of the people who now are coming to the Northern Territory, lack the power of observation.

Or if they have it they never use it and it is not to be wondered at that of late years so many calls are put out to find lost people who have strayed off the bitumen road or beaten track and become hopelessly lost.

What would have happened to the motorists I am referring to if they had been really lost is something too tragic to dwell upon. It cannot be stressed too strongly to visitors to the Territory that before leaving the beaten track they take a complete look at their surroundings.

Because the Territory is a large, sparsely populated country and getting lost in it is no joke. It often ends in tragedy—sometimes too, for the searchers.

BACK AT LOO

Back to Borroloola after early eight months away are Mr. and Mrs. Mervyn Pattermore and family, the resident Aborigines' Inland Mission representatives.

Borrooloola story 1:

Ken tells how he and Monty West had to camp on the other side of the river and visit the mission by boat during the day. The boat belonged on the other side of the river, and when they had to return the boat the Aborigines who they borrowed the boat from offered to give Monty a ride back across but he refused, “too much trouble”, so he swam back. It was a pretty wide river about the length of a football field and filled with crocs. They all stood on the bank and cheered him on shouting “Good on ya Monty, keep going, look out for the Crocs!” When he arrived on the other side a great cheer went up.

Borrooloola story 2:

They were very meat-hungry. There was no better game around, and Ken woke one morning to see Monty drawing a bead on a crow with his 22 rifle. Monty dropped the crow and, as they were both starving, they eagerly ran over, retrieved it and without any preparation, threw it in the fire. By the time the crow cooked down to the point where the feathers were all gone, there was nothing left of it, just a charred skeleton. Dining with Monty was always an experience.

—Ezra Hale

So we had been in Alice Springs for fourteen months when we decided we’d better spend the last time we had, you know, trying to check out the north-east. Ken and Carl Voegelin didn’t have any idea how diverse the languages of Australia were, or how much was left of spoken language or anything. Capell had touched on the fringes and had some pretty good ideas about what was there, and [T.G.H.] Strehlow¹² had done a lot of work on Aranda. But for the rest of it, there were a few mission stations that were doing some work trying to translate the Bible but no-one had an all-over view of what was there, as far as I know anyway.

Heading north from Alice Springs, we stopped with an Aboriginal agent. His name was Dudley.¹³ It was probably somewhere around the intersection, where the highway went off to Mount Isa, north of Tennant Creek, I think. Somewhere west of the [main] road. They were amongst these huge termite mounds, and there was this house just sitting by itself off the highway, on elevated stilts, to keep the termites out. With the usual tin roof and porch all around, no air-conditioning, you know, just awful. But we stopped there because Ken knew Dudley from Alice Springs, and they had said “Stop by on your way north”.

So we pulled in there, and I woke up in the morning to this smell of burning flesh, just this terrible smell of burning fat and beef. I went into the central kitchen where there was this cast iron stove going full blast, and a woman was standing back throwing pieces of meat at the top of the stove. Black fat running down the front of the stove, and the house was filled with acrid smoke. She was evidently enraged, just furious, but I could understand. Knowing her husband I would have been furious too. But she was taking it out on our breakfast!

¹² T.G.H. Strehlow (1908–78) was then Reader in Australian Linguistics at the University of Adelaide. He is also mentioned by Ken in his interview, ed. Green (this volume).

¹³ Dudley Brown was employed by the Welfare Branch, Northern Territory Administration, at Elliott. He recalls Ken “had a wonderful ability to speak languages quickly”—“I’ve never seen Aborigines so excited” (pers. comm. to David Nash, 12 June 1999). Brown recalls going to the Brunette Downs Races with the Hales, and seeing Ken at Warrabri (now Alekarengge) and again later at Doomadgee.

So Ken and Monty came back from Borroloola, and we went over to the encampment where the Brunette Downs races were going to be held.¹⁴ And there was just the most incredible scene. I wish I'd had a camera because there were all these station people who came from all over the Barkly Tablelands. They brought huge tents, guests, and everything; it would be the nearest thing probably to a camp race meeting in the southern United States in the 1800s. They brought Aborigines to wait on them, to cook, to put the tents up, to get firewood, to support their whole operation. Plus they brought their horses to race. It was right on the Barkly Tablelands, out in the middle of nowhere; it was just a big flat tableland that they chose to run the races on. They had an arena, and a rodeo. Ken entered the bucking bronco contest and got bucked off right away. He was riding a Western saddle and just went right off the horse. Luckily he wasn't hurt.

They had a race track, and people placing bets, which I'd never seen before. They'd get up on top of one of these forty-four gallon drums, and shout out their odds. It was really exciting. I placed a couple of bets on the races, trying to figure out how to do it, and I won. I went to the bookmaker and got my money back. Then I thought "He didn't give me my original bet, just my winnings". The policeman that we had been staying with at Anthony's Lagoon was there in the crowd, so I went over to him and said "You know I got my winnings, but shouldn't I have gotten my original bet back?" He said "Yes you certainly should have!" When I looked up, the bookmaker was looking at us. I walked up to him and he just handed me the money without saying anything.

They had killed a beast, so there was lots of fresh beef, meat, which they were very generous with. They gave us steaks which we cooked on a shovel over a fire. We hadn't had fresh beef for a long time.

So Ken started going round trying to meet the Aborigines that were supporting the camps, because they had really been closed to us. We weren't

Most of the riders dressed in the casual uniform of the Australian stockmen: high-heeled, elastic-sided, ankle-clasping boots, narrow-legged denim trousers held up by a heavy belt, a coloured shirt open at the throat and with rolled sleeves, and a broad-brimmed hat. Two dressed in the fashion of the American West. One was Hank Sproule, a Texan cowboy exploring the Australian scene, the other Professor Ken Hale, Ph.D., of the University of Indiana, who, for these few days, had interrupted his study of aboriginal languages in the Gulf district to fling a leg over an Australian saddle—and incidentally to make a small but substantial contribution to the successfully-growing cause of Australian-American amity. He was unsuccessful in his riding; he was tossed by a buckjumper as cunning and vicious as any in the yards, but the crowd loved his effort. He showed himself no tyro but a skilled amateur.

"It's been some time since I straddled a horse. I'd just got away from the pen when I remembered to hook my spurs in. When I went to do it, though, the horse just wasn't there," he said later. He was enthusiastic about his decision to attend Brunette. "I've seen nothing like this in the States," he added. "A one-day meeting, sure; but nothing this size, nothing so ambitious. And the riding is great; I'd say these boys were equal to anything in the world."

The professional, Hank Sproule, stayed with his horse a few seconds longer. The best riders were, in fact, the aboriginal stockmen; but their efforts were confined, in the normal but regrettable procedure of the meeting, to competitions among themselves, staged when time and daylight was at a premium. [pp.21-2]

Ruhen, Olaf, 1963, They're racing at Brunette Downs. Pictures by Tim James. *Walkabout* 29/6:18-22.

¹⁴ The A.B.C. Amateur Race Club's annual picnic race meeting was held 16-18 June 1960, and was attended by more than 2000 people (*Northern Territory News*, 24 June 1960, page 9).

allowed on their stations so this was an opportunity to get the language materials. When Ken met an Aborigine he'd shake their hand, look them in the eye, address them with respect, and ask them if he could spend some time with them to find out a little bit about their language. So at night, when their jobs were finished and they were around their own little fires, Ken would go there, and try to get a few words or find out what languages were spoken around there. He was trying to get the Swadesh hundred-word list which was kind of a quick way to collect sample words. The station owners thought we were Communists; one of them came over and told us that we really didn't have a clue about how you should treat Aborigines, and if you were nice to them they got cheeky and were hard to handle. That's exactly what he said to us. His name was Ian McKnight. I was just furious. I just looked at him and I said, "There's no way they're going to confuse us with you!" I was so mad, you know.

Then they had a dance at night that we went to. One of the local cowboys had married a half-caste or quarter-caste Aboriginal girl. They had had a big wedding in Cloncurry, and everybody came from the stations, because his family had been there for a while. However, he and his wife were on the dance floor at that race meeting and he was asked to take his wife off the dance floor because she was Aboriginal.

Our next-door neighbour in Alice Springs, Ted Jackson, was a Communist. He hated President Eisenhower. I thought the United States was beneficent, generous, honest, the best political system in the world. I was totally brainwashed you know. So when the U2 pilot [Gary Powers] was shot down over Russia we were there, and I remember Ted Jackson came over and said "They caught him in a lie! Eisenhower lied!" I used to argue with him that people like the Ford Foundation who had a lot of money did good things, and so it was all right to accumulate this kind of money. He argued back and I had kind of political awakening, that the world wasn't as nice as I had thought it was.

I had written to Mornington Island mission, which was the only place that responded favourably. Doug and Doreen Belcher and their family were there. They said "Come, you can stay here. We have a house for you, we'd be glad to have you". We met a friend of the policeman's in the Barklys who had a house in Cloncurry. We left our Land Rover and our swags there, and got on the plane and flew up to Mornington Island. Doug Belcher was the Presbyterian missionary there, and his church had been leaning on him to take some Bible translators. He viewed them as very extreme kind of fundamentalist Christian types and really didn't want them in his mission. Our coming to work on the language allowed him to say, "Don't bother, I've got somebody". Ken got there and started working on Lardil, and it was really heaven because we had our own house. I employed a couple of the Aboriginal women to help me with the laundry and cleaning, because they really needed the work. Our food came up on the plane every week from Cloncurry. They had a nursing sister there who was in touch with the Flying Doctor in either Mount Isa or Cloncurry, so there was health care. People were very friendly and Ken was having a very positive experience. Doug was very welcoming and very glad to have Ken help him with the language. He really wanted to be able to preach in the language, but hadn't been able to figure it all out, so Ken was teaching him Lardil at the same time.¹⁵

¹⁵ The Belchers are held in high esteem by the people of Mornington Island—see pp.131ff. of Dick Roughsey, 1971, *Moon and rainbow: the autobiography of an Aboriginal*. ([Sydney]: Reed.) Doug Belcher (b.1919) died in September 1999, and in June 2000 his widow and granddaughter returned his ashes to Mornington Island.

While we were there they were going to send the mission launch over to Aurukun, another mission on Cape York. They had a mechanic there who could work on the launch engine. Doug asked Ken if he wanted to go, which he did because this was his chance to get to Cape York. So, he got on the boat, and they went three hundred miles across the Gulf. Their radio conked out the first night they were out, so I didn't know until he got to Aurukun that he had arrived safely. It was a very tense time for me. An Aboriginal crew and Ken were the ones taking the boat over. At Aurukun he did some work on the languages, then they went down to Weipa, down the west coast of the Cape York, and did a little work on the languages there, and then came back to Mornington Island. We were there three months altogether. I remember when we left Ken gave his farewell speech in Lardil. Everybody was really impressed. He was also working on Damin, the ceremonial language, which he was very excited about. He was sworn to secrecy about it, and he kept the secret pretty well for quite a while. But then it just became too fantastic because he was very excited about the insight that you got from Damin into Aboriginal semantics. That was the most intensive work he did on a single language while we were in Australia.

We got on the plane, flew back down to Cloncurry, picked up our Land Rover, and went looking for Monty because by that time he was supposed to be in the area. But we never did link up with him again. He just didn't show up. He had been up around Normanton, up around the bottom of the Gulf. So we picked up our Land Rover, went up to Normanton, and then drove straight across the bottom of Cape York to Cairns. As I remember, we didn't meet any people on the way. We stopped and camped at windmills, and stock tanks to get water at night. Thank God the Land Rover didn't quit because we didn't have any way to communicate with anybody. We would have just had to wait until somebody came along. The dust was terrible. Because it had a canvas top the dust would just pour in. Poor little Whit was asleep in a kind of a bed we set up between the two front seats. He'd wake up after his nap, the bed would be clean where he'd been lying, and he'd be covered with red dust.

We got to Cairns and stopped at a couple of missions, including Mona Mona mission in the rainforest. We stayed three days there; they put us in an old house that was abandoned. I'd never seen anything like it. The stove which was iron was rusted and flaked because of the wet. We built a fire in it, but you could just pick huge flakes of iron off the top. It was

Mount Isa Mail October 6, 1960

Linguist visits Cloncurry

Enjoying a breath of civilisation in Cloncurry this week are Dr. K. Hale of Indiana University, U.S.A., Mrs. Hale and tiny Whit. Hale.

A linguist doing research on the languages of the Australian aborigines, Dr. Hale is on a two-year scholarship from the United States Government.

He and his family have been on Mornington Island in the Gulf of Carpentaria for the past three months.

Previous to that they spent some months in the Alice Springs region studying the language of the great Aranda tribe.

Originally from Arizona in the USA both Dr. and Mrs. Hale are no strangers to either heat or dust. Mrs. Hale told the *Mount Isa Mail* that the problems of living in the Gulf were no different from those encountered in the hot, arid places of the USA.

Dr. Hale and his family will spend a short time in Dajarra, before returning to the Australian National University at Canberra.

When they return to the United States, Australia will be the poorer for their leaving.

lucky we didn't burn the house down! There was also a pond there where people swam. Ken got a little bit of the language there. He has since said that we should have stayed there longer because there were only two or three old speakers left.¹⁶

We drove down south from Cairns back to Sydney. We stopped at the Gold Coast just south of Brisbane and stayed on the beach for two nights. It was off-season, the end of winter, and I remember the beautiful white silicon sand, and the great breakers coming in. It was cool and moist and felt so good. Then we got to Sydney and had to find a place to live. A couple had an apartment at Crows Nest, in a house, right near the ferry. It was a lovely place, fully furnished with a balcony looking over the Harbour, and they had a screened-in kind of swimming area, because there were sharks in the Harbour, so everyone had these screened places where you could go in and swim and not be attacked. I could go down with Whit in his stroller, get on the little ferry, chug over to the quay, get off in downtown Sydney, and go shopping. We got Ken some beautiful Harris tweed jackets which he still has and still wears. And travel rugs, these wonderful plaid blankets that they had in Australia, wool for me to knit. It was like I'd landed in Paradise, especially compared to our previous experience in Sydney.

Finally, we got on the *Oriana*, an Orient liner that was leaving from Sydney on its maiden voyage, to go home.¹⁷ I thought, "Farewell Australia." I didn't know in six years I would be back again. Ken wanted to go back as he wanted to do more intensive work on a language. Also, while we were in Australia the whole Transformational Grammar revolution was going on. Once Ken got onto Transformational Grammar he really wanted to go back and have another look at Australian languages with this new framework. So he applied for another NSF grant, for a year, in 1966. Before we left for Australia for the second time Ken had accepted a job at MIT.

¹⁶ Ken worked on Dja:bugay, Muluridji, Dyirbal, Yidiny and other rainforest languages.

¹⁷ The *Oriana* departed Sydney on 18 January and docked at San Francisco on 5 February 1961.

3 ‘Both sides of the bitumen’: Ken Hale remembering 1959

JENNIFER GREEN, ed.

Ken Hale first came to Central Australia in 1959, and in the following six months he worked on various languages in the Central region including Arandic languages, Luritja and Warlpiri. He returned in 1966–67 to continue his work on the grammar and lexicon of Central Australian languages. In this interview, recorded in Alice Springs by Jeannie Devitt and Jennifer Green on 19 July 1994, Hale recalls his early days in Central Australia.¹

Alice Springs and work in the region

Alice Springs of 1959 and ’60 was a totally different place from now. The places where you found Aboriginal people were the Bungalow,² the hospital, the creek, or in places where

¹ At the time of this interview Jeannie Devitt and Jennifer Green were the recipients of a Northern Territory History Award to record oral histories of the Sandover Region, north-east of Alice Springs. The transcript of this interview with Hale has been edited and annotated by Green. The tapes are archived at AIATSIS. My thanks go to Jeannie Devitt, Gavan Breen, Myfany Turpin, Robert Hoogenraad, David Nash, Mary Laughren, Paul Albrecht, Dick Kimber, Mandy Paul and Adam Saulwick for comments and suggestions. In this paper the following abbreviations are used: JD – Jeannie Devitt; JG – Jennifer Green; CSIRO – Commonwealth Scientific and Industrial Research Organisation; sg – singular; ERG – ergative; PRS – present. Section headings are by JG. Where the speech of an interviewer (identified by initial) is reproduced, the resumption of Hale’s speech is introduced with “KLH”.

² The old Telegraph Station, just to the north of the Alice Springs town, is known to many locals as the ‘Bungalow’. Originally established in the Alice Springs township in 1914 as an educational institution for Aboriginal people of mixed descent, in 1928 the Bungalow was relocated to Jay Creek, to the west of Alice Springs. Four years later it was moved to the site of the old Telegraph Station. In the 1950s the Bungalow continued as a town reserve, run by the Native Affairs Branch and, after 1953, by the Welfare Branch. The Bungalow Reserve area remained an important residential centre for Aboriginal people throughout this period. In 1960 the whole population of the Bungalow was moved to the newly created Aamonguna Reserve, some 14 km south-east of Alice Springs (Coughlan 1991:42, 63).

they worked in town, at work. Not on the street. You didn't see people at all. You never heard Aboriginal languages in the street in '59 or '60. It was as if there were no Aboriginal people there, except you knew there were because you could see them in the Todd River.³ It was wonderful, you could walk up and down the creek and find all kinds of people. The other place was the Mission Block.⁴ You found people there—they were all Western Arrernte. I knew that Eastern Arrernte existed, but I didn't run into these people at the time. The first Eastern Arrernte that I found was at Bond Springs.

It was in 1959 and I didn't have a vehicle so I had to work with the people that were there. The best place to do that was at the hospital because there were people there and I could talk to them. They sat out in the yard and I could talk to them. Actually, I first worked on Western Arrernte because there were plenty of speakers, and Luritja, and I was always looking for Alyawarr speakers and Kaytetye and Anmatyerr. But the first real contact with Alyawarr and Kaytetye was with Paul Albrecht.⁵ . . . He invited me to go with him on one of his tours. He made tours on both sides of 'the bitumen' [the Stuart Highway]. It was quite an extensive tour—I've forgotten how long it took, but he went to many stations—Macdonald Downs, Utopia, Ammaroo—I've forgotten exactly which order, but I think he went to Utopia first . . . He went to those places, so I had a chance to listen to and actually elicit three different languages. [See maps: 'Central Australia locations', and 'Arandic languages and some neighbouring languages'.]

One of the people that went with him was an excellent speaker of Anmatyerr . . . He was a kind of helper, one of the church workers I guess. He spoke beautiful Anmatyerr.⁶ I loved Anmatyerr because it sounded so, oh I don't know, so delicate. You know Anmatyerr is very pretty. I don't know why it is that the Arrernte language is so pretty. . . . When we had a chance we would stop and elicit a protocol that I had of lexical items and example sentences that I had designed to elicit certain things. And I did that with Anmatyerr, Alyawarr, Arrernte too—Western Arrernte, because Paul was basically a native speaker of Western Arrernte.

So Kaytetye, Alyawarr, and Anmatyerr were the languages that I got on that side—on the Ammaroo side. I remember Ammaroo very much because we had a crowd of, I don't know, seemed like twenty people. Speakers of Alyawarr and Kaytetye too. You know how it is. I

³ During the time of Hale's first visit, Alice Springs remained a 'prohibited area', and this is one of the reasons for the absence of an obvious Aboriginal presence in the town. The centre of the town of Alice Springs was first declared a prohibited area for Aboriginal people in 1916 (*Northern Territory Times & Gazette* 19 October 1916). At times there was a dusk-to-dawn curfew put in place to prevent Aboriginal people from camping in the town. 'Only those Aboriginal people who were issued with permits were allowed to enter the town, and only during daylight hours' (Coughlan 1991:40). In one form or another Alice Springs was to remain a prohibited area for Aboriginal people until 1964.

⁴ In the 1930s the Mission Block in Alice Springs was established as a Lutheran community centre and base for locally trained evangelists.

⁵ Pastor Paul Albrecht is the son of Polish-born immigrant Friedrich Wilhelm Albrecht, a Lutheran missionary who began his studies at a missionary training institute in Hermannsburg, Germany, and who, arriving in Central Australia in 1926, ran the Hermannsburg Mission, to the west of Alice Springs, for 26 years. Paul Albrecht regularly visited cattle stations, including those in the region to the north east of Alice Springs. He continued a practice, established by his father, of selling goods (from the back of a converted Bedford truck) to Aboriginal people in remote communities, and showing films (Paul Albrecht, pers. comm.). See Carment et al., eds (1990:2–5).

⁶ Later ordained as a pastor of the Lutheran Church, Emmanuel Rutjinama (now deceased) worked alongside Paul Albrecht. Albrecht (pers. comm.) reports that by the conclusion of this trip with Rutjinama, Hale was already conversing in Anmatyerr.

never noticed anything else. I just noticed the language. I thought the languages were so fascinating. Then of course the people. That was the first time that I had heard Kaytetye. I remember both of us, Paul Albrecht and I, were fascinated with Kaytetye because it had words that were, of course, cognate to Western Arrernte, but sounded very different. We had a hard time pronouncing them because we tended to pronounce them as if they were Western Arrernte, and they would say, "No it's not right". It took me a long time to tumble to the fact that the word for 'thigh' for example was not like in Western Arrernte, something like [ɬəpəɪ], with a [ɬ]— 'ly' the way they spell it now—but that it was prepalatalized—[ʃləpəɪ] you know (spelled 'yl' *eylepere*), and it was very beautiful, I thought. We couldn't hear it. We *could not* hear it. We kept saying [ɬəpəɪ] and they kept saying, "No, no—[ʃləpəɪ]", and finally it became clear that there was something different, and I just listened very carefully and I wrote down what I heard and tried to say it and finally we got it. But that was just one word.

I remember the word for mosquito in Kaytetye, which I thought was such a gorgeous word—I don't know whether I have it right but it was something like [aŋəɟlkə]. I just loved these words, because they were so, I don't know. I mean Arandic languages have done such wonderful things. The inventory of consonants, depending on how you analyse them, is enlarged in Arrernte because you have prepalatalisation in some of the languages, rounding in some of the languages where it is really around the consonant—I think the phonologists would say—attached to the consonant. The vowels—you've got a low vowel and a non-low vowel. The non-low vowel sounds like whatever is around, except when you can remove the first [consonant]. So if you get them in an initial position, you get to hear it, you get to hear what it is. Then there is of course initial dropping, stress shift—all those things make it very, very special. Anyway it's glorious. I like that kind of business.

That was one side, we'd do the east side, then Paul had this other trip that he took on the west side. We travelled in a big truck that he had rigged up as a kind of store. He opened up the sides and there were shelves there and clothes. He sold them, but he sold them at a fair price, and he would sell people things that fitted them. He would make sure that the pants fitted instead of just selling stuff off the shelf, the way a lot of people did. And there was some food. Food and clothes were the main things I remember—and they waited for him.

Then there was the trip on the other side which was very exciting to me because that was after I had already started on Warlpiri. Then I found you could talk Warlpiri everywhere on the west side of the bitumen. All of the Anmatyerr spoke Warlpiri, and they could speak it at Napperby.

I used to try to make up Arrernte words from Warlpiri. The first time I did that, and did it right, I was so proud. There is a plant called *wakati* in Warlpiri. I think it's some kind of flat creeper. . . . Anyway it should come out as *akat* in an Arandic language you know. I could never find one that did that. Then finally I found Anmatyerr has that word and it comes out as *akat*—exactly as it should.⁷ Oh, beautiful.

We were living in the owner of Napperby's house by then. When we first came here—I came alone first—I worked in the hospital and lived in some kind of lodgings they had for people who worked for the Government or for the Territory. Then when my family was

⁷ This plant (munyeroo, pigweed, *Portulaca oleracea*) is called *akat* in Western Anmatyerr and *wakati* in Warlpiri and Pitjantjatjara.

going to be coming, I got a motel room at the Oasis Motel which was owned by the Kilgariffs.⁸ Then the Kilgariffs helped us find a house.

It was a totally new thing for me. Not altogether new, because I grew up in the desert in Arizona, and so I was used to desert people. There were a lot of things that were familiar. That was the reason I came actually, that's the reason I chose Central Australia as opposed to say Cape York Peninsula, or some other place like Darwin or Arnhem Land. I wanted to come to where people would be somewhat familiar, because of the topography, the landscape, the climate and the culture that follows from that. And a lot of things follow from that.

There are a lot of similarities [with the desert]. For example, after I had been to Australia the first time, and I was going to be coming back in '66, I was working with a Papago medicine man who was blind and old and could only speak Papago.⁹ He was very generous with his knowledge and he was tolerant of my attempts to speak Papago to him.

One time he was staying at our house overnight, and I said, "I am going to be going to Australia soon and people in Australia have certain beliefs". I told him about totemism. Well they have totemism too. I said, "How about, would you like to listen to some music?" So I put some songs on, from records that Geoff O'Grady had made, and he said, "Yeah I understand that. I know that they are singing about the country, I think that's probably about the mountain devil except that in Papago they call it *cemamagī* Mountain devil".¹⁰ I don't know if he was right, but he had no problem with that music, although it sounds different . . . Those were real people, he knew that, from the song.

So I've had that same feeling before. I felt that having read Spencer and Gillen.¹¹ I thought well, they're the kind of people I would like to work with, because I feel that I know something already.

Comparative lists

The first time that I came to Australia, my interest was more in comparative linguistics—I was interested in comparing the languages of Australia and trying to reconstruct the history, the linguistic history of Australia from a comparative linguistic point of view, rather than just a typological point of view. That is, say putting all the prefixing languages together and all the suffixing languages together and so forth. I wanted to see exactly how they were related, using the comparative method.

That is the reason I had this protocol with a list of a certain number of words. I had a short list that I would use if I was only going to be able to speak to a person for an hour. Twice that long if it was going to be two hours, and longer again—fifteen hundred was the

⁸ Bernie and Aileen Kilgariff built the Oasis motel, the first in Alice Springs, in 1958. In 1974 Bernie became the member for Alice Springs in the Northern Territory Legislative Assembly then, in 1975, he became a Country Liberal Party senator for the Northern Territory, a position he held until his retirement in 1987 (Donovan 1988).

⁹ Papago, now known as Tohono O'odham, is spoken in the south-west of the United States.

¹⁰ In Central Australia the 'mountain devil' is a lizard, *Moloch horridus*. In the Tohono O'odham language *cemamagī* is a lizard known as 'horned toad'.

¹¹ Spencer and Gillen (1899, 1904, 1927). In 1892 Francis Gillen was appointed as the post and telegraph stationmaster at the Telegraph Station at Alice Springs. Gillen first met Baldwin Spencer in 1894 after the Horn Scientific Expedition to Central Australia, and the two subsequently collaborated in ethnographic research. See Carnent et al., eds (1990:116–18) and Mulvaney et al., eds (1997).

top list, unless I could work for a long long time—like I did with Warlpiri. These word lists, I used them to try to classify languages, to group them according to their common ancestry.

So I started to try to do a classification with the Arandic languages by taking a word list and finding out how much they had in common. It was relatively easy to figure out that Kaytetye was special. Then there were all these others. Then Lower Arrernte seemed to be special. That was about as far as I got. I didn't get much more detail than that.

Strehlow's country

So I started with the Arandic group, even though I was more or less told not to come to Central Australia because it was Strehlow's country. They told me in Sydney, "We don't want you to go there. You can go if you want to, but we would rather you didn't go there". That was Capell and Elkin. Capell's interest really was that he wanted me to go to a place that hadn't been touched yet. Which was reasonable.

He wanted me to go to the Queensland rain forests, but that's not where I wanted to go, because I didn't feel like I wanted to go to the tropics. I wanted to go to a place where I would feel comfortable. Climatically. . . . When I was there, Strehlow was not around. I said, "Well look, if I can't work on the languages of the Centre, I will work on languages close to the Centre." I figured maybe Alyawarr was even far enough away, even though it's Arandic. You know his book, his grammar, Arandic grammar,¹² doesn't have any Alyawarr in it—it has Eastern Arrernte, Northern Arrernte, Pertame, some sort of Southern Arrernte, and of course Western Arrernte which is the prominent, predominant, the main one that he knew So I figured it was legitimate, it was OK, it was fair game I guess you say, to work on Kaytetye and Alyawarr, and Anmatyerr too, because that wasn't mentioned much in his grammar.

But he never was there and it was easier to work on Western Arrernte because there were more people, and I didn't have a car when I first came so I really did have to acquaint myself with Arandic languages through Western Arrernte, which was *his* language. Since I never heard any complaint from him, since he wasn't here, and Paul Albrecht was very welcoming, and didn't seem to mind me working on Western Arrernte, I just forgot about that whole problem. Then I did this comparative thing with ten or so varieties of Aranda, a sort of a Swadesh list,¹³ you know just a lexicostatistical study of Arandic vocabulary. But he didn't like that. Capell published it in the back of a book that he wrote.¹⁴ And a couple of years later Capell wrote me and said, "Strehlow is very upset about that. He says, 'Who did he get those words from?'" Something like that, some complaint of that sort. Well what could I do, it was already published and I just decided that I wouldn't lose any sleep over it.

And then when I came back the second time, in '66, somehow I got an invitation from him, to actually visit him, in Adelaide. He said that his son wanted to meet me. And so I went to his house, and everything was very congenial. You know, no problem That visit was very good. We talked a little bit about the Arrernte and stuff like that. I heard him say some Arrernte, which I thought he overdid. I thought he pronounced those I mean he was a native speaker basically, but I remember him saying the word for 'they' and he pronounced it as [itnə] or something—he really overdid it. It didn't seem to me to be the way to do

¹² Strehlow (1942).

¹³ A Swadesh list is a standardised list, used in lexicostatistics, of 100 or 200 meanings thought to be 'basic'.

¹⁴ This list was published as an appendix to Capell (1962).

it—Arrernte is a gentle language you know [i^hnə], something more like that. That prestopping is not as energetic as he was making it. Anyway, I figured he was the boss, you know. I never had any other dealings with him, because I was working on Warlpiri. He was quite happy that I was working on Warlpiri and not Arrernte.

Arandic phonology and orthography

Arrernte is very hard to learn how to write, especially when you didn't have any model. All I had was Strehlow's stuff, which is misleading because it's phonetic. It's detailed phonetic writing, so it gives you no idea what the structure is. It took me about seven months actually, before I tumbled onto the idea that there was a low vowel and some non-low vowel. Two vowels—something like that—if not exactly that, close to it.¹⁵

When I came up here, I did get seconded to do some work on Arrernte. It was an Arrernte speaking pastor—I can't remember his name now, who wanted to translate some new stuff into Arrernte and he didn't know how to write it. That is he knew in theory how to write it, but he couldn't consistently write it Strehlow's way. So we worked together. I tried to figure out, like as if I were Strehlow and I were writing this stuff in Arrernte, how would I do it? So I tried to do it exactly—all the macrons, and you know strokes under the *r*'s and strokes under the *a*'s, the ones that are schwa *a*'s. Actually his phonetics are reasonably good, except that it is overdone.

It is amazing that he could be a native speaker and continue to write *p*'s and *b*'s, and *r*'s and *d*'s and all those thousand different vowels. But in the course of it I tried to subvert the person who had asked me to help—it was actually Paul Albrecht who asked me to help. Paul said that he couldn't do it so he sent this guy over to me. So I said, "Well this is the way it would be done in Strehlow". It took a long time to figure out how to do it. So then I said, "Why don't you do it this way? Just reduce everything—clean all that stuff up. All you need is basically two vowels, very simple", and so on. So I gave him two versions. And then he sent a Kaytetye pastor too, I guess they did at that time have a Kaytetye one, and we did the same thing.¹⁶ They wanted me to write that in Strehlow's orthography, so I did it, then I again wrote two versions. I was hoping that the simple one would catch fire, but it didn't. I never heard any result.

Then I started writing it differently. Instead of using an 'e' I started using an 'i' for the high one. The logic in my mind was that if you put that non-low vowel—there is one vowel that is clear [a], there is no problem hearing that, but the other vowel, which you hear about a hundred variants of, because of the surrounding consonants, you get [y], you get everything. Just about everything. But I figured that vowel was [i], that is the vowel with the phoneme /i/, a high front vowel. The reason I thought that was because if you get it on its own, so to speak, it comes out as [i], not [ə]. Not the schwa vowel that you hear most of the time. That schwa vowel you get in context, but if you have a consonant preceding it, that will influence the way it is pronounced. So if it is an ordinary apical, or velar consonant like [k] or [ŋ], then you get [ŋə] or [kə], stuff like that. But now the trick is to get it alone, even though you can't really get it alone, because there is no word that is just a vowel. But if you go to an initial

¹⁵ For discussion of Arandic vowel phonology see Breen, this volume, and also Hale (1959a) and Breen (1977).

¹⁶ This was probably the Western Arrernte pastor Colin Malbunka (now deceased), who was working at Neutral Junction at the time translating scriptures into Kaytetye (Paul Albrecht, pers. comm.).

position, in initial position there is nothing in front of it to influence it. So the logic I used was that it must be /i/ because in that environment you get [i]. Unless the consonant following is rounded, then you get [u]. So that is the reason I wrote *i*'s all over the place.

Then I toyed with the business of dropping it at the end, not writing anything at the end. Because what's the point? I finally figured out that even where you hear an [a] at the end of a word, when it's stressed, you didn't even have to write that one, even though it carried stress. You could write a rule—put a vowel there and stress it. You don't have to write it, although I didn't go that far. That was a little bit too far.¹⁷

One language that really tipped the balance was Eastern Arrernte. I had a very hard time finding Eastern Arrernte speakers. Now there seem to be many. But the Eastern Arrernte pronunciation that I heard first was not 'child' [amba]. OK, now they didn't say that, they said [ambə]. Aah, I liked that, because that made sense, that would be the way you'd do it, right, because that's the vowel. Why should it be [a], why couldn't it just be the other vowel? It seemed to be the other vowel in this person's speech. I don't know how many people spoke like that, but it was very clear. That told me that what's happened in this language is very consistent, very straightforward.

Travels to Macdonald Downs

I went back to Macdonald Downs.¹⁸ . . . There were quite a few [people there] and they were very happy. They considered that to be heaven. They considered that to be their country. This was the only place, at that time, that I knew, where the people would say that. I took this old man in, and there were some other younger Alyawarr people from there. And I said, "Well I'd better go up and check with old Mac Chalmers". "You don't have to, he's one of us, and this is our country." That is the way they felt. People would go there to live. So there were more people there than most places. Anyway, that was the way it was in either '59 or '60.

I did, I met him [Mac Chalmers] at that time. I told them, "I want to meet this guy". So I went up there, I wanted to hear him talk, but I couldn't get him to talk in Alyawarr. I couldn't get him to talk. But I did trick him into saying one word—*ahert* [bilby]—because I kept saying, "There's this animal you know, I want to see that animal, *ahert*".¹⁹ But that's all

¹⁷ The basic orthography used in Arandic publications produced by the IAD in Alice Springs was initially devised in 1978 (see Breen, this volume). There are some minor differences between the conventions used for Arandic languages. For example the Alyawarr and Anmatyerr orthographies do not write the noncontrastive final *e* on words, while retaining a final *a* on monosyllabic words which carry primary stress. Eastern and Central Arrernte, Western Arrernte and Kaytetye at this point all retain a final orthographic *e*. Currently the Kaytetye orthography uses two vowels (*e* and *a*), the Alyawarr three (*e*, *i*, and *a*), and Eastern and Central Arrernte and Eastern Anmatyerr four (*e*, *i*, *a*, and *u*). Although a two-vowel analysis may be possible for Western Anmatyerr, work is still in progress on a dictionary of this language, and a practical orthography may use three vowels in order to facilitate comparisons between Western Anmatyerr and Eastern Anmatyerr. The issue of the relation of practical orthographies to phonological analyses of these languages is a complex one, particularly as it is the norm for speakers to be multilingual in closely related dialects (See Green and Turpin, this volume).

¹⁸ Macdonald Downs is a pastoral property approximately 260 kilometres north-east of Alice Springs. The Chalmers family established this property in 1923, after an epic journey overland from north-west NSW, accompanied by horses, goats and three hundred sheep. Mac Chalmers was one of four children who made this journey with his parents. See Carment et al. (1990:52–53) and Ford (1966).

¹⁹ The bilby, *Macrotis lagotis*, is an endangered species in Central Australia.

I could get out of him. And he's the one who told me, I'm pretty sure it was him—it was one of the Chalmers anyway who told me that it [Alyawarr] had only eighty-one words. Something like that. And here is this person that probably knew at least 30,000. I mean Mac Chalmers was supposed to be pretty close to a native speaker wasn't he? . . . I don't know why it was eighty-one. Maybe they tried to list them you know and you get tired after a while. You can't remember—you try it, you try with English, you sit down and try to remember . . . You might start out with *ahert* [bilby] and put that up there, and then you might get *aherr* [kangaroo], and then you might get like *atnhelengkw* [emu]. I remember the way this old man said 'emu' right—*atnhelengkw*. He said it like this *atnhelengkw*—a sort of a singsong, he had this wonderful intonation. Like *atnhelengkw tha rninternetyek* [I'll spear the emu]. Sentences would go up like that. So you might get down, well OK what's the next word we'll put there—can't think of one. You could have tried to do it alphabetically. *Ahern* [ground]. OK. *Ahakey* [bush plum—*Canthium latifolium*]. Well the trouble is it's not fair, starting with 'a' in an Arandic language.²⁰ Of course. You might get to, "I can't think of any more words—maybe that's it".

Plants, moiety classification

. . . Most of the time I was there, except for the time I was trying to get Mac Chalmers to say something, we were out collecting plants, because I wanted to get these plants. I don't know why I was interested in plants in particular. Someone had put me on to that there's interesting plants, and that I should do that, because nobody had done it. Nobody at that time had gotten any. But I didn't know enough about plants to know what was interesting and what I should do. But I got plant presses from the CSIRO here. There was a botanist there who lent me these plant presses. So I filled them. This was in '59.²¹

So I went out there and collected plants and got a little information about each plant. Its moiety—which is what they basically wanted to tell me, and a little snippet, what its Dreaming and what its importance was, where it was created and so forth.

JG: When we gave you the Alyawarr dictionary you looked up your favourite word in Alyawarr...

KLH: Well *aknganenty*. I'll tell you why I liked that word. Let's see if I can remember it—*aknganem*, *aknganeyel*.²² Actually the people I learnt that word from didn't use that *eyel* ending, they used the *em*, the *me* ending, I guess maybe they were really Arrernte people, but anyway people do say both.²³ The reason I liked that word is not because of the word itself so much, as that I understood it in context. It was a word that I learned by hearing them talk about it. I was out collecting plants and they would talk about the plants. They would put it in their moieties, *Angel* or *Arlekwarrr*. Is it *alekwarrr* or *arlekwarrr*? I think it's *alekwarrr*. But it

²⁰ For example, approximately half of the words in the Eastern and Central Arrernte Dictionary begin with *a*.

²¹ Hale's flora notes from Macdonald Downs have been typed up by David Nash. Forty four plants are listed, the specimens identified by the first resident botanist in the Northern Territory, George Chippendale. The notes include the scientific name (of the time), common name, and comments about uses of the plants. An accompanying document gives some Alyawarr place names and their associated plant Dreamings (an additional 41 plants), and the moiety classification of the place and its Dreaming.

²² The Alyawarr Dictionary gives the following definition of *aknganeyel*: "1. originate, be created, come from the Altyerr time 2. be in one place, stay in one place" (Green 1992:13).

²³ The present verb ending is *eyel* (in Alyawarr); *me* (in Arrernte) and *em*, *eyel* (in Eastern Anmatyerr).

must be in some dictionaries somewhere—*angel* and *alekwarr* or *arlekwarrr*.²⁴ I can't remember which—it's been now thirty-four years. That's how come I'm a historical document.

It's a moiety system, the terms that they used when they classified plants according to sections, subsection systems and so forth.²⁵ There were people of course that knew the subsection system and knew the section system, but the one that they used in this discussion was the moiety system. Just two words—*Angel*—I can't remember which one of the two moieties that corresponds to, but it's one of the patrimoieties, and *Alekwarr*—I'm sure it's *alekwarr*, not retroflexed. Anyway they were doing that, and then they started talking about being created, being created here and stuff like that, and I heard that and I thought, "Oh yeah, good". It was a real concept that I'd sort of learned out of the blue, without asking for it.

The other thing I learned on that trip was how you do the relative clause. Which is pretty interesting actually. The relative clause is adjoined with this thing [al]. In Eastern Arrernte, in your grammar, and in the dictionary too you have [a], it's retroflex, but I am pretty sure they didn't say it that way, they said [al] in Alyawarr. *Athal arek* or *athal arew* 'the one I saw'. I don't know the full story about how that's used. I'd really like to know more about it. . . . In Kaytetye *arre* is the morpheme that goes there. *Atyarre*—they say *aty*e [1sgERG] instead of *atha* [1sgERG]. *Atyarre arenke*, *atyarre arenhe*—the past tense *arenhe*, *aherre atyarre arenhe* 'the kangaroo that I saw'.

What was interesting to me was, I kept trying to get information about where we were, and so forth and so I would try to use the relative clause to ask them questions. Finally, I got it right and he understood what I said, and that was terrific man, terrific. Because the man that I went to Macdonald Downs with was an old man who was in the hospital. And they asked me—I think they thought that there wasn't any point him staying in hospital any more, because he was away from his kinsmen and it didn't make any sense, even though he was still sick. It didn't make sense for him to be in the hospital because he wasn't going to get any better there. So they said, "Why don't you take him out to Macdonald Downs?" So first I took him home to our place, and recorded some stuff. I still have those tapes. I have ten of them. Ten big reels where he whispers everything, because he didn't want people from the Mission Block—because we lived right across the street from Mission Block—he didn't want them to hear.²⁶

²⁴ Hale's (1959c) notes on Alyawarr place names refer to the terms *arlukwarra* [*arlekwarrr*], and *angila* [*angel*] as sociocentric names for Alyawarr patrimoieties. In the *Arlekwarrr* moiety are the Kngwarrey and Petyarr sections and in the *Angel* moiety the Akemarr and Pwerl sections. These terms for moieties do not appear in any of the Arandic dictionaries to date, and neither Gavan Breen nor I have been able to elicit further information about these terms. It is of course possible that this system of classification is no longer used amongst the Alyawarr. The term *kingilli* [*kingili*], a likely cognate for *angel*, was first reported by Spencer and Gillen as "representing the Purula and Kumara subclasses" or their equivalents, amongst the Warramunga [Warumungu], Walpari [Warlpiri], and Wulmala [Warrmarla] (Spencer and Gillen 1904:102, 298).

²⁵ Aboriginal people in Central Australia normally belong to one of two patrimoieties and to one of four sections or one of eight subsections (two sections or four subsections in each moiety). The Warlpiri use a subsection terminology which additionally has prefixes distinguishing gender (see Laughren, this volume; Evans and Wilkins, this volume; Laughren 1982; Green 1998).

²⁶ AIATSIS archived tapes of this speaker include nos. 4569, 4570, 4571, 4572, 4573, and 4574. Hale introduced him as "Bill from Macdonald Downs" on these tapes, and in his fieldnotes he noted that "old Bill was aged 70, his mother was Kngwarrey, his father Pwerl, and his home was Atnwengerrp" (Hale

Songs and the question of creativity

Meggitt used to think of the Anmatyerr as a type of Arrernte-speaking Warlpiri, on the grounds that there are a lot of shared items, there's a lot of shared dreamings, shared stories. For example when I was here in '66 and '67, Alice Moyle²⁷ came up to do some musicology. She was working with a person that I knew quite well, so I decided that we should work together because she needed some help writing it down. So I wrote this stuff down and at first I thought it was another case of the usual trouble of trying to figure out what those words mean.

Songs in Warlpiri are just—the way you get the meaning is not by looking at the words, you get it by the story that goes with it. And the words evoke a story. And you learn it after years and years of toil, to learn these song cycles fully. Because the first thing you get is a kind of outline of it with the song itself, and the song has words in it and usually you can sort of work out what those words are. Not that they are Warlpiri words, but you can get a pronunciation for them and pronounce them as spoken words. And those couplets and so forth will relate to an episode in a Dreaming cycle. That is the travels of a Dreamtime personality. That's how you learn what the song means—it's by learning the stories. And it takes years to do that. To fill in the slots.

Well I thought that this cycle that he was giving to Alice Moyle was going to be the same sort of thing, so I sat down and wrote these things and was totally mystified by the forms—as usual. I expected that. Then, all of a sudden it just clicked you know, and I saw the pattern—that this was not Warlpiri and I could half understand it all of a sudden. It turned out to be Anmatyerr. All of the songs were Anmatyerr. And it just kept becoming clearer and clearer, that this is not like Warlpiri at all. Because the songs are Arandic. You know the *Songs of Central Australia* of Strehlow's, they make sense, you know. There are a lot of song words in there, but they generally are grammatical sentences more or less. Not like the usual Western Desert type of thing. So I accosted the singer and said, "This is Anmatyerr". "Sure, of course. That is the language of the songs."²⁸ . . . So I took these songs—we got about 250. I don't know if you call them songs or whether you call them couplets or whatever they are. There are a long stack of them. When you sing them they take a long, long time, but when you write them down they are rather short. So I took those to see if I could match up with anything in the *Songs of Central Australia*. Well it turns out that Strehlow has got some honey-ant songs there. But his overlaps only one song with mine—but it is a perfect overlap. There are these ones in Warlpiri we got, from Dinny Japaljarri [now deceased], and there is just one song that they have in common that's in the book.²⁹ I was hoping that there'd be more. I wanted to write a paper at one point on creativity. Strehlow

1959b). The Northern Territory Register of Wards (1957:26) documents "Billy Kamara [Akemarr] Iloura [Alyawarr] b. 1889" who was at Macdonald Downs at the time of this survey. During this era many families from the Sandover region were living at Macdonald Downs Station. See Green and Turpin, this volume (example (7)), for an extract from these Alyawarr recordings.

²⁷ One of the pioneers of the study of Aboriginal music in Australia, Alice Moyle conducted extensive field research in the 1960s. Hale and Moyle recorded honey-ant songs at Yuendumu in 1967 from the late Dinny Japaljarri France. See Kassler and Stubington, eds (1984:258).

²⁸ "Indeed, the mere discovery, unaided, that the *yurrampi* verses which I heard at Yuendumu were not in Warlpiri but in an Arandic language (a process which took me two days, I must admit with some chagrin) was nothing short of thrilling" (Hale 1984:259).

²⁹ The song couplet discussed in Hale (1984) appears as no. 27 in a series of 30 verses of what Strehlow (1971:65, 689) refers to as the "Northern Aranda Honey-Ant Song of Ljaba".

says all the time that there is no creativity because you learn everything *exactly* like it is supposed to be. Well I just really doubted that, because I heard people singing songs, and you would hear people who were considered good singers, and they would slip. That is they wouldn't do it exactly the way somebody else did it. It was probably mislearning.

So I figured well look, if it's true that there is a kind of Law, which they always say there is—there is a Law. You have to do it according to Law, you have to do it this way. If that is true, then the avenue for creativity which all humans need right, is probably slippage—that is mislearning. So I wanted to do that. I wanted to take Strehlow's Arrernte songs and take the Warlpiri version, and see if I'm right—that there's slippage at least. What I really wanted to show was that there was an aesthetic improvement, or something like that. That would have been great.

However, I found this one song, and sure enough there is slippage. There is *beautiful* slippage. The slippage is in the ordering of a pair of rules. This is a Warlpiri singer singing this song, and I just go to the *Songs of Central Australia* and find that same song. The only one I could find in the whole set—he has a number and I have a number, but we only have one in common.

In the Warlpiri version of the verse the point of it is that the *m* that begins *manirtirrpirtirрпи* is really the suffix of the verb in the line following [preceding?]. The word is *anerterrperterr* or something like that meaning 'mulga bird—love bird'. It's some kind of love bird.³⁰ . . . So *anerterrperterr*—it's really *anerterrperterr anem* ['mulga bird sit.PRS']. It's basically the message. But of course you do a lot of reduplication and so forth on the verb, to get it to come out—to parse properly. The *m* at the end is what you are picking up—what you hear as the initial consonant. That's why in Warlpiri the word for that bird is *manirtirrpirtirрпи*, with an *m*. But that *m* is not original, it's the suffix of the verb.

Now the trick was, and I can't actually remember how the Arrernte goes properly, but when you repeat it, one of the words, one line in Arrernte actually ends in an *l*. And so when you pick up that one with the bird, it should start with an *l* one time and an *m* the other time, because you copy the suffix and then repeat. In Warlpiri, the Warlpiris copy the suffix and then repeat. The second repetition has an *m* there. Whereas it should actually have some other consonant there, I think it's *l*. Whereas in the Arrernte one, the rule is reduplicate and then copy, or something like that. I've forgotten exactly, but I wrote a little article about it. So that it comes out with *m* one time and *l* the other time.³¹ So there is the difference. No big

³⁰ A series of songs called *Yurrampi Yilpinji* 'Honey-Ant Men's Love Song' was recorded from Thomas Jangala at Lajamanu in 1971 (Wild 1990). Wild (1990:49) refers to the *manitirрпи-tirрпи* bird in this song series as "the red messenger bird". In Warlpiri *manirtirrpirtirрпи* is glossed as 'small messenger bird sp. found in mulga scrub associated with various rituals and to which special powers are attributed' (Laughren and Hoogenraad 1996:69). In Pintupi-Luritja *manitirrpirtirрпи* is "a small bird type: the call of this bird indicates to the alert Aborigine, that a wanapa spirit is coming from the south" (Hansen and Hansen 1991:54). In Alyawarr *alwerterrperterr ~ alerterrperterr* is glossed as 'rufous whistler (*Pachycephala rufiventris*)' (Green 1992:31). The Eastern and Central Arrernte dictionary refers to *alerterrperterre* as a 'type of bird' (Henderson and Dobson 1994:85). In Eastern Anmatyerr *alerterrperterr* is said to be a bird with a close association to the honey ant — it is referred to as the honey ant's *arnengikw* — 'its relative, or accompanying Dreaming'. Kaytetye speakers also call this bird *alerterrperterre*. Although the precise identity of this bird is yet to be established, it is clear that cognate forms of this word exist in the languages of the region, some with initial *m* and some with initial *l*.

³¹ In this article, Hale (1984:260–2) described these phenomena as follows: "In the Arandic tradition, quite generally, the consonant of a line-final suffix (*-el*, *-em* in this instance) is transferred to the beginning of the line following, so that each line begins with a consonant, even if the actual Arandic word heading the line is vowel-initial . . . In the Warlpiri version a repeated line retains the same initial consonant . . .

improvement, nonetheless there was slippage. So you have a right to get it wrong. And I am quite sure that was happening a lot, because I heard a lot of songs when I was there, especially in '66 and '67.

Responses to language research and 'the persistence of entities through transformation'³²

What people made of me was that they didn't make anything . . . I remember this vividly. They didn't make anything of the tape recorder, and I think there is a real reason for this. I would come up to somebody I didn't know at all, but I knew the language, I'd know something about the language, and I would say something, and they would just not bat an eye. Not bat an eye. They would say, well why not, why not talk the language? Some people would get all excited, but old people like that didn't. And you know when I pulled the tape recorder trick out, it was as if they said, "Oh that is what they looked like" . . . If a tape recorder exists it must have always existed, either in that form or some other form.³³ And so the reaction always seems to me to be, especially from older people, not amazement at this fantastic technology, but rather, "That's what it looks like". As if they knew about it . . . It exists, therefore it must have existed before. That's it. There is no surprise, but it's not because they are not curious—it's because there is a philosophy or belief about things.

So for example you say boomerang—*karli* in Warlpiri or *kayle* in Kaytetye or *aylayl* in Alyawarr. Which is *karlikarli*, a word that is sort of all over the place, right from Mayali down.³⁴ The word for boomerang is interesting because if you go through the Territory all the way to the North, there is some version of *karli*.³⁵ It must be rather old in the Territory, because it has undergone initial dropping. The initial dropping of Arrernte is something that happened probably between four and six hundred years ago. I worked that out.

Now you go east, you find another word *wangal* and you find it from roughly the Northern Territory–Queensland border and nearly all the way to the tip of Cape York Peninsula, wherever they have boomerangs. They don't always have boomerangs, but where they have it it's *wangal*. That's what really suggests that it's a rather recent invention. The fact that it also doesn't exist in some places suggests that it is rather recent. But, since it [*karli*] has initial dropping in Arrernte, that shows you there's a certain amount of antiquity at least. It must have existed before initial dropping, which would have been four to six hundred years ago perhaps. Which is kind of interesting, I think. These things are the things I like to think about. Where these words came from and so forth. They spread all over the place.

Abstractly, the difference between the Arandic and Warlpiri versions can be viewed as one of rule ordering. In the Arandic tradition the ordering is as follows: 1. Line Repetition 2. Consonantal Transfer. In the Warlpiri rendition the order of the rules is reversed: 1'. Consonantal Transfer 2'. Line Repetition."

³² Hale (1984:260, 1986:235).

³³ The tape recorder Hale used was a Butoba. Hale reports that "By the time I got to Dajarra, I not only had very little tape but also the recorder was in really bad shape—I had had to fix it with parts from a Mornington Island phonograph. So I had to plan very carefully to get anything on tape". (pers. comm. to Gavan Breen, 1998).

³⁴ Mayali is a Gunwingguan language spoken in Western Arnhem Land; *kārlikārli* occurs on page 32 of Hale's 1959 Mayali notes. See Evans and Jones (1997) on 'boomerang' words.

³⁵ Pitjantjatjara *kaḷi*; Warlpiri *karli*; Alyawarr *aylayl*, Arrernte *alye*, *ilye*, Western Anmatyerr *alyang*, Kaytetye *kayl*, Eastern Anmatyerr *kayl*, *aylayl*. See Jones (1996) and Breen, this volume.

It's almost like the word for horse. Now horse we know is introduced, or we think it is, right . . . Have you any sort of marsupial horses? Anyway the word for horse, as you know there's *yarraman* and *dimana*, really common, and *nantu*. The one that in Warlpiri is *nantuwu*, *nanthe* in Arandic, and *nantyu* I think it is—that comes from the south. *Dimana* I think probably comes from north-west and *yarraman* probably comes from Queensland.³⁶ That's the typical kind of thing. Well the word for boomerang is not unlike that, it is spread around in different language groups and families.

JD: You were starting on a different tangent about the transformation of objects and why people don't show surprise?

KLH: This is something that has been reported elsewhere as well. There is a unity of the actual and the potential.³⁷ That is a theme that runs through. For example *kuyu* [Warlpiri] means meat or *aker* [in Alyawarr] means meat or animal. So the live animal is the meat. And *warlu* [in Warlpiri] is fire and firewood. So the unity of the actual and the potential. Track and foot. Of course a lot of those things make sense in any language, but this is a pervasive thing. When it comes to boomerang of course, the potential is the tree from which the boomerang comes, and they often talk about the tree itself as boomerang.

They would often correct me, you know, by saying that "It's not that way, it's this way". So for example one time when I was eliciting kinship terms—we do it on a piece of paper right, we write down a kinship chart—and so I was filling it out and I get this chart, you know, and he looked at it and said, "It's not that, it's not like that". He picked it up and he put it like this [rolling the local newspaper into a cylinder]³⁸. . . Or sometimes they would point at a windmill, or anything round and say, "It's like that". They would complete it. The point is that it returns, you know. It seems to me to be all part of the same thing.

When we did this land claim hearing at Willowra.³⁹ The point of that was not that the Warlpiri were going to get the land. There was no question about that, as everybody knew, it was Warlpiri country. But the Warlpiri wanted to press another issue. And that was the inclusion of *kurdungurlu* into the 'owner' category. So there were *kirda* and *kurdungurlu* and they wanted to get the *kurdungurlu* in there, which makes sense, right, because the sisters of *kirda* would naturally be in there, because they're *kirda*. But what about their children? Their children wouldn't be—they would be *kurdungurlu*. So there is a kind of disparity. But that is not the argument that they gave, that it was a question of justice or something like that. It was a question of philosophy. That's the way I understood it. That they said, "Look, you can't have *kirda* without *kurdungurlu*." My impression was that their argument was that the *kirda* and the *kurdungurlu* are essential parts of a single whole. And of course that is true in ceremonies and ritual. In fact a lot of *kurdungurlu* people said, "We're more important—we're the real bosses". They are the unity of the opposites, the one can't exist without the other—which is another theme in their philosophy.⁴⁰

³⁶ See Walsh (1992).

³⁷ Observations on the "unity of actual and potential" were first published in O'Grady (1960).

³⁸ The application of kinship terms in Arandic languages and in Warlpiri is cyclical, and after a maximum of four generations some of the terms begin to repeat themselves (Laughren 1982; Green 1998).

³⁹ Willowra is a community to the north-west of Alice Springs. The Willowra Land Claim hearing was held in 1980, and Hale acted as an interpreter for the claim. See Hale (1980, 1986) and Aboriginal Land Commission (1980).

⁴⁰ The meaning and use of the terms *kirda* and *kurdungurlu* is a topic of ongoing discussion in land claims and native title claims. In general, *kirda* belong to ego's patrimoiety and *kurdungurlu* to the opposite patrimoiety, and their roles and ritual responsibilities for country and ceremonies are complementary. It

I think that is related to this business of the unity of the potential and the actual that you find, that would explain ultimately that you don't necessarily show surprise when you see some technology, because the fact that it exists is enough to show that it must have always existed in some form or other. It could have been transformed from something else. In rituals, for example, you find this transformation. Like people changing skin.⁴¹ Characters running up the Lander River and changing from one skin to another, and one animal to another. It goes in as one animal *jajirdi* [western quoll, *Dasyurus geoffroii*] or something like that, and comes out as something else. I think those are all similar, basic fundamental philosophical principles. Things exist in transformation all the time.

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was in the Willowra Land Claim that for the first time the category of *kurdungurlu* were found to be traditional owners. See Nash (1982) for discussion.

⁴¹ 'Skin' is a term used in Aboriginal English for 'section' or 'subsection'.

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*Ken Hale working with †Mick Connell Jupurrula
at the Hales' house in Alice Springs, 1966-67.
Photo by Sara Hale.*

4 *The wonders of Arandic phonology*

GAVAN BREEN

1. Introduction¹

One time ago (as Aboriginal storytellers in western Queensland used to say) there was a linguist trying for the first time to elicit material in an Arandic dialect. I won't say who; it could have been almost any of us who have worked on Arandic. Anyway, this linguist was asking for translations of short sentences, and getting answers like:

[awíjaŋingádʲigatʲiŋwaŋəpedʲáɭəma], and [ŋúlanʊlæjɪngádʲigəgùruwanálpma!]

(my transcriptions from years ago; they would probably be changed somewhat now).² He (or she, as the case may be) was getting a bit overwhelmed by the torrents of seemingly unsegmented speech, and tried for something shorter. But even a little word like 'big' was answered by [íɭkwijáŋəŋga]. So, in despair, she (or he) asked:

"This time, instead of me asking you some words, can you just tell me any short words in your language? Some nice easy short ones for me, and tell me what they mean."

"[tʲikijáŋəbánəm]."

"Oh, that's too long for me!"

"Too long still, eh?"

And so on.

¹ This article is based to a large extent on Breen (1988), a paper presented to the Central Australian Linguistic Circle, part of which formed the basis for Breen (1990) and Breen and Pensalfini (1999). It owes much to Ken Hale's inspiration and ideas, and to ideas from colleagues, especially John Henderson, during many hours of discussions spread over many years. Many others, including, of course, numerous speakers of Arandic languages, most now deceased, could be mentioned given unlimited space. I have had many useful comments on the paper from Harold Koch (who nevertheless would disagree with some of my major ideas), Jenny Green, Barry Alpher, and David Nash.

² I am using raised 'j' to denote lamino-alveopalatal articulation, subscript hollow dot for retroflexion, and acute and grave accents for stress.

Well, that's the effect the Arandic languages can have on the unwary. It takes time—years in my case—to begin to fully appreciate the beauty of the sounds of Arrernte, or Alyawarr, or Anmatyerr, or whichever one you are involved with.³

Now the beautiful sounds of Arandic have become an important focus of phonological theory, and this new attention has sprung from seeds that were sown by Ken Hale. It was Ken who first observed that the Arandic language Kaytetye seemed to have only two vowel phonemes (Hale 1959), and at least one other Arandic communalect, the western variety of Western Anmatyerr as spoken around Mt Allan, seems also to have such an inventory, although there are small doubts in both cases. The study of Arandic phonologies has grown from that observation of Ken's to the present situation where, thanks to the perspicacity of Arrernte speaker Margaret Mary Turner who knew that the play language Rabbit Talk would be interesting to a linguist and set up a meeting for me with two of the last good speakers, Arrernte phonology has been used to overturn one of the oldest universals of linguistics.

The demonstration that the underlying syllable in Arrernte has a coda but no onset has been published (Breen and Pensalfini 1999),⁴ see §3.3 for a sample of the argumentation. Other aims are to introduce current notions of vowel inventory and rounding as a feature of consonant positions rather than of individual segments, which, like the idea of exclusively onsetless syllables, can help in the parsimonious description of the diversity of phonology in the Arandic languages.

Traditional Arandic countries are indicated on the map ['Arandic languages and some neighbouring languages']. Note, however, that since white settlement there has been a movement of speakers of Western Desert dialects into the southern and eastern parts of the Arandic area, and an expansion of Arandic (Alyawarr) speakers to the north-east into country formerly inhabited by speakers of now-extinct languages.

The name Arandic used for the language group comes from the early Lutheran missionaries' spelling Aranda of the language name that they now spell Arrarnta and many others spell Arrernte. The retroflexion of the nasal–stop cluster is predictable and some omit it from the spelling. The earliest spelling, Arunta, is perhaps the most suitable for monolingual English speakers. The most authoritative pronunciation is approximately [ar̥ɲɲə] although some say [ár̥ɲɲə].

The group includes Western, Central and Eastern Arrernte, Anmatyerr, and Alyawarr (both of which could be subdivided into at least two rather different forms) as varieties still having a substantial number (of the order of 1000) of speakers. These, with other varieties which are extinct or have only a small number of speakers remaining, form a chain of what some linguists regard as mutually intelligible dialects and so constituting a single language, Wilkins (1989:8–14) thinks, however, that because of the substantial sound changes that have affected different communalects in different ways, they should be regarded as four mutually unintelligible languages (Western Arrernte, Eastern Arrernte, Anmatyerr, and Alyawarr). The group also includes another language, Kaytetye, in the north, not mutually intelligible with these, and an almost extinct language, Lower Arrernte (Arrernt Imarnt) which Hale classes, probably correctly, as another separate language. The whole situation needs much more study; for example, it seems clear now that Western Anmatyerr is much

³ See also Green, ed., this volume.

⁴ This applies Optimality Theory; an earlier unpublished demonstration (Breen 1990) used Prosodic Morphology.

more different from Eastern Anmatyerr than the latter is from (Southern) Alyawarr and (North-) Eastern Arrernte. I will generally use the term 'language' in referring to the various named varieties (although some of them, such as CAr and EAr, are certainly related to one another as dialects of a language), and this will normally refer specifically to languages in the Arandic group.⁵

Major works on these languages are rare, considering their importance and interest to those concerned with Australian languages, but include Strehlow (1944), primarily on Western Arrernte, and Yallop (1977) on Alyawarr. Two large and important theses are Wilkins (1989) and Henderson (1998). Large dictionaries published in recent years are Green (1992) and Henderson and Dobson (1994). Other linguists who have done substantial work on the group (most of it still unpublished) include Avery Andrews, Harold J. Koch, and Myfany Turpin, as well as a number of members of the Finke River Mission and the Summer Institute of Linguistics. A growing number of texts and translations have been published in the more viable dialects in recent years by a number of native-speaker writers, Bible translators, and educators.

2. Phonology of the Arandic languages: general features

The Arandic language group belongs to the Pama-Nyungan family, which includes the languages of all except the far north and north-west of the continent. It shares many of the major phonological features which characterise typical Pama-Nyungan languages: six contrastive points of articulation for stop phonemes, which include two apical (alveolar and retroflex) and two laminal (interdental and alveolar or alveo-palatal); a nasal corresponding to each stop; a lateral corresponding to each apical and laminal stop; no phonemic distinction based on voicing; no fricatives; two rhotics; few vowels. (None of these features is universal in Australia; in particular, a number of languages bordering on the Arandic group have only one laminal series.)⁶

However, the Arandic group has undergone drastic sound changes which give it a phonological structure (and phonetic nature) quite different from that of neighbouring languages.⁷ These changes include dropping of the initial syllable (which in most dialects is frequently replaced by /a/), dropping of the final vowel, prepalatalisation of retroflexed consonants and pre-stopping of certain nasals. One notable result is that, whereas in other Central Australian languages all or most words begin with a simple consonant and none (e.g. in Warlpiri) or a minority (e.g. in Pitjantjatjara) begin with a vowel, in the typical Arandic dialect most words (underlyingly, all words, we believe) begin with a vowel, many begin with a complex consonant or a consonant cluster, and only a small minority begin with a simple consonant.

⁵ Abbreviations of language names: Aly – Alyawarr; Ant – Antekerrepenh; Ay – Ayerrereng; CAr – Central Arrernte; EAnm – Eastern Anmatyerr; EAr – Eastern Arrernte; Kay – Kaytetye; LAr – Lower Arrernte or Arrernt Imarnt; NAlly – Northern Alyawarr [Western Aly]; Per – Pertame or Southern Arrernte; SAlly – Southern Alyawarr [Eastern Aly]; WANm – Western Anmatyerr; WAr – Western Arrarnta or Western Arrernte.

⁶ A series of sounds belonging to what might be thought of as a seventh point of articulation will be mentioned in several places and in particular discussed in §4.5.

⁷ Koch (1997) suggests a series of sound changes to account for the present situation. Some of Koch's suggestions are modified by Breen and Pensalfini (1999:9–10).

The most fundamental change, however, involves the vowels. The typical Australian language has a three-vowel system, with /a/, /i/ and /u/. (Many languages also have three corresponding long vowels.) This system is often described as triangular, referring to the description of these vowels as low, high front, and high back. For many Australian languages, however, it seems more profitable to think of the distinction between /i/ and /u/ as being one of palatal versus labio-velar or unrounded versus rounded rather than front versus back, and the term 'triangular' is not so appropriate.

In the Arandic languages, it appears that what has happened is that the roundness feature has become associated with consonants rather than with vowels. It is common in Australia for a rounded vowel to induce non-phonemic roundness in the following consonant, especially if a velar; for example, /yuka/ 'water' in Wakaya is [juk^wa]. If the roundness were to become thought of more as a feature of the consonant than of the vowel, and the initial syllable were dropped, the result would be a word *kwa*, with a rounded stop /kw⁸/ phonemically distinct from /k/—in fact, the word for 'water' in Arandic communalects other than Kay is /ekwaty/, which is probably the result of augmentation of a morpheme cognate with *yuka*, and Kay has the same morpheme in *kwathe*- 'to drink'; see Koch (1997 and this volume).

The result of this, if it applied to all consonants, could be to eliminate the roundness feature from vowels and so, if the original distinction between the two high vowels had been essentially one of roundness versus unroundedness, to cause these two vowels to merge. There would then be a two-vowel system with the distinction one of height. Phonetic rounded vowels would then be due to the effect of a contiguous rounded consonant.

This is illustrated by a comparison of forms in a situation where the environment conditions realisation of the roundness as a clearly consonantal feature as opposed to being merged with the vowel. So, for example, the imperative form of the verb 'to hit' is [atwæj] whereas the present tense is [atómə] and the past tense [atúkə]. While the two latter forms would suggest a stem /atu/ (on the basis of comparison with other verb stems) the first suggests /atw/. Convincing evidence that the latter is the case is found in reduplicative morphology. For example, habitual nominalisation of a verb, forming a word meaning (among other possibilities) 'the one who habitually does the action' or 'thing used for doing the action', involves suffixation of *-enh* to the verb stem followed by reduplication of the last vowel and consonant or consonant cluster of the verb stem and the *-enh* (and, to conform to an orthographic convention,⁹ addition of a final *e*). Examples are in (1):

- (1) *an* 'to stay' > *anenh* > *anenhanenhe* 'one who habitually stays somewhere'
mpwar 'to make' > *mpwarenh* > *mpwarenharenhe* 'maker'
altyweril 'to open' > *altywerilenh* > *altywerilenhilenhe* 'opener'

⁸ I have used orthographic symbols (including digraphs and trigraphs) for representing phonemes throughout, except in §4.1 and §4.5, where it has been necessary to use some superscript letters to distinguish phonemes from clusters.

⁹ In this case, since the examples are taken from Central Arrernte. The final 'e' written on all words in this and some other dialects is (obviously) noncontrastive and (in my understanding of the term 'phoneme') therefore not a representation of any phoneme.

The stem of the verb 'to chase' is [alun̥]; if this is to be analysed as /alurn/ the reduplicated form 'one who habitually chases' would be *alurnenhurnenhe* [al̥n̥əḡḡn̥əḡḡ]; if it is /alwern/ it would be *alwernenhernenhe* [al̥n̥əḡḡn̥əḡḡ]. In fact, it is the latter.¹⁰

In a paper on the phonology of the almost extinct easternmost dialect, Antekerrepennh, Breen (1977) (following a suggestion by Hale) made a case for a two-vowel analysis, with the distinction basically one of length. A two-vowel analysis is no longer maintained except for Kay as analysed by Hale (1959) and Koch (1984:33 note 4 and 1997:274), and WANm,¹¹ but other Arandic phonologies are analysed as having two basic vowels and one or two others of restricted distribution. Most of the linguists involved, however, have maintained that the distinction between the two basic vowels is one of height—low versus mid—rather than length (and indeed this feature of his analysis was never argued strongly by Breen). Currently, the nonlow vowel is regarded (by some, at least) as a featureless vowel and the other as having the feature +length.

Since this type of analysis, involving rounding of consonants, has been accepted, consonant inventories have often been described as including a certain number (for example, 26 for CAR) of unrounded consonants plus a rounded consonant corresponding to each unrounded member of the inventory. There are doubts about this, however; roundness seems not to be associated with consonants as such, but with consonant positions in a word—which might be occupied by one or two consonants. Roundness may be manifested either on the onset side or the release side of a consonant or cluster, depending on the nature of the consonant(s) and the environment; the conditioning factors are different for different dialects or idiolects. For example, in EAr there is a change in progress (for certain consonants) from rounded onset in the pronunciation of older speakers to rounded release for younger speakers. Thus older speakers' *utyene* [ʊḡəḡnə] 'sore' corresponds to younger speakers' *tywene* [t̪ʊn].¹² In the case of clusters, the change takes place as long as it does not leave in word-initial position a consonant cluster that is not acceptable there. So the older *unte* [úndə] or [undá] 'you' becomes *ntwe* [ndwa] because clusters of nasal and stop are permissible initially. On the other hand, a word like *urpetye* 'a few' is not changed because initial [rp] is not permitted. However, although dropping of an initial vowel (another very common change) is not permitted if it leaves in initial position a cluster that is not allowed there, it is permissible if the cluster is rounded and the roundness can be switched from release to onset to provide a phonetic vowel before the cluster. Thus, although initial [rp] is not permitted, the initial vowel of *arrpwarne* [arpwáḡḡ] 'barking' can be dropped and the word is pronounced as *urpwarne* [ʊrpáḡḡ].

Also, roundness tends to spread or migrate within a word, although in most dialects it is stopped by a long vowel (/a/ or /i/).¹³ See Evans (1995:736–7) for some examples from CAR. A particularly striking example of migration of roundness is the word for 'fig' in Aly,

¹⁰ This test was proposed by Avery Andrews at a meeting in 1981, as an improvement on my test involving another type of reduplication in which *-ep* is added to the verb stem. As he pointed out, /p/ can condition a certain amount of roundness in the following vowel and so obscure the effect. Wilkins (1989:92–3) shows how a third type of reduplication could also be used.

¹¹ And I do not regard either of these as being beyond doubt.

¹² In this dialect this difference is reflected in the spelling; in some it would not be.

¹³ Alyawarr does not always conform to this generalisation; note the pronunciation of *angayakw* 'hungry' as [aḡwájak]. The alternative form *angayel* never has rounding on the first consonant.

which I have recorded as [ʉtʰórkə], [tʰúrkə], and [tʰórkʷə].¹⁴ A consequence is that it may be difficult (for a nonspeaker at least) to decide the source of the roundness—for example, whether the WAR word for ‘white’ should be written *tywelkere* or *tyelkwere*. (Native speaker writers differ on this matter, perhaps simply because their own pronunciations differ.)

If a cluster (at least in any of the southern varieties of Upper Arrernte) is heterorganic and is preceded by /e/, the rounding is realised on the onset. Examples for CAR are *urlpe* ‘red ochre’, *arrurrkeme* ‘rustling’, *akerturrpe* ‘short cut’. However, there are a handful of exceptions, as Henderson (1998:23) points out. He gives two examples, *ahelkngwe* ‘a grave, a pile of dirt from digging’ (*ahulkngwe* for some speakers) and *atenkwelkngwe* ‘snot’ (*atengkwelkngwe* for some speakers). These can probably be explained away: *ahelkngwe* is probably a compound of /ah/ (as in *ahelhe* and *aherne*, both ‘dirt’)¹⁵ and *ilkngwe*, which has the same meaning as *ahelkngwe* and in which the rounding could not be realised other than on the release. *Aten(g)kwelkngwe* would be a compound of *ate* ‘lump of dirt’ and **ngkwelkngwe*, which would be an earlier word meaning ‘snot’ (cognate with WAR *ngkwalkngwe*). WAR has a similarly small number of exceptions, which likewise can be explained away—for example, two of them are onomatopoeic bird names whose form suggests reduplication and reduction.

Like the similar glide in Warluwarra (Breen 1971), /h/ is thought to descend from */k/¹⁶ although few cognates can be found: Breen (1988) suggests Wangka-Yutjuru *wakirra*, Arandic (*a*)*herr(e)* ‘kangaroo’, and Pitjantjatjarra *pika*, Arrernte *ahē* ‘angry’, while Koch (1997:278–79) suggests proto-Pama-Nyungan **Raaku* > Arrernte *ah* (in *aherne* and *ahelhe*) ‘earth’. In certain affixes in NAlly and WANm (see §§4.3 and 4.7) /h/ is cognate with /k/ in other Arandic varieties and in the ‘Common Australian’ suffix *-ku* (Capell 1956).

The consonant inventory for CAR is as tabulated below (using orthographic symbols). The minor differences in some other dialects will be mentioned in later sections.

Table 1: Central Arrernte consonants

	peripheral		laminal		apical	
	bilabial	velar	dental	alveolar	alveolar	post-alveolar
stop	<i>p</i>	<i>k</i>	<i>th</i>	<i>ty</i>	<i>t</i>	<i>rt</i>
nasal	<i>m</i>	<i>ng</i>	<i>nh</i>	<i>ny</i>	<i>n</i>	<i>m</i>
prestopped nasal	<i>pm</i>	<i>kng</i>	<i>thn</i>	<i>tny</i>	<i>n</i>	<i>rm</i>
lateral tap			<i>lh</i>	<i>ly</i>	<i>l</i>	<i>rl</i>
glide	<i>w</i>	<i>h</i>		<i>y</i>	<i>rr</i>	<i>r</i>

¹⁴ In the orthography used for Alywarr, the first two of these would be spelt *tywerrk* and the third *tyerrkw*.

¹⁵ Harold Koch (pers. comm.) suggested this improvement on my original etymology, which had *ahelhe* as the first element of the compound.

¹⁶ An earlier suggestion (see Breen 1977) was that it was from */w/ between unrounded vowels, and that /w/ is the rounded counterpart of /h/. The latter proposition is not consistent with phonetic data that show that roundness associated with other rounded consonants has a substantially greater effect on surrounding vowels than does the roundness of /w/.

3. Phonological notes on Central and Eastern Arrernte

3.1 Central Arrernte

This is often called Eastern Arrernte, which name is also variously used by different groups for Central and Eastern (as used here) together, for the form of Central Arrernte spoken by people originating to the near east of Alice Springs, and for the language referred to herein as Antekerrepenh.

Phonological research on CAr in the late '70s was directed towards the development of a workable orthography rather than an in-depth understanding of the phonology. The orthography developed in 1978 and approved, with a minor change, at a meeting of Arrernte speakers, linguists, and others in 1979, used three vowels, *a*, *e*, and *i*. This was not intended at that time to imply abandonment of the two-vowel analysis (which had been suggested for Kay (Hale 1959) and developed independently—although following a suggestion by Hale—for Ant (Breen 1977)), but a concession that it might be a little too abstract in some aspects for an orthography. (The two-vowel analysis was, however, abandoned some time later, for reasons briefly summarised in §4.1.) The orthography implied rounding associated with consonant release, symbolised by a *w* following the consonant symbol, as in *akweke* [akúkə] 'small', and also rounding associated with consonant onset, symbolised by *w* preceding the consonant symbol, as in *ewre* [úɹə] 'fire' and *kewrne* [kóŋə] 'bad'. This orthography was later changed by substituting *u* for *ew* before a consonant. This change again was not intended to imply a change in the phonological analysis; however, there are some reasons related to phoneme distributions for preferring an analysis with a fourth vowel, /u/. On the other hand, similar reasons could be invoked for an analysis using pre-rounding but without an initial vowel when the pre-rounded consonant is the first consonant of the word (with 'fire' written *wre*, for example). A natural development from this was to regard a consonant with pre-rounding as just another manifestation of the same underlying form as the same consonant with post-rounding (so 'fire' would be *rwe*).

A reason for reluctance to accept this analysis for CAr (but not for some of the other languages) is that most speakers would stress the initial rounded vowel of a short word like *ure* 'fire'. However, to disprove it one must find a contrast between [əC] and [əC^w] or between [#C] and [#C^w]. One possibility is the contrast between *utepe* [utápə] 'back (as in turn back)' and *tweme* [túmə] 'hitting' if the latter is accepted as a valid form and not just a variant pronunciation of *atweme*. If it is the latter, it is the underlying /a/ that prevents its being changed to *uteme*. Many speakers do use *atweme*, at least sometimes, while others who do use *tweme* reduplicate it to *twepatweme* (with medial /a/ reflecting underlying initial /a/) rather than *twepetweme*. The contrast does seem to exist for those speakers who say *tywepmare* for '(finger or toe)nail' and *tyerrke* for 'fig tree'; more conservative speakers mostly say *tyepmware* and *tyerrke* while younger speakers mostly say *tywepmare* or *tywemare* and *tyerrke*. A contrast that seems to exist for a large number of speakers is that between *tyerrke* and *tywerrenge* 'sacred object', but some older speakers, especially of the Eastern dialect, say *atywerrenge*. The form *tywerrenge*—the normal form in some dialects—has been borrowed into English (with spellings *churinga* or *tjuringa*), and this may have influenced speakers against the vowel-initial form. Other words with initial *tyw* include loans from English such as *tyweketyweke* 'chook, fowl' and *tyweke* 'sugar', and perhaps a few less well-known words like *tywetalpe* (a species of bird). The contrast between *yweke* 'I

don't know' (some say *yekwe*)¹⁷ and *uyerre* 'disappearing' (younger speakers say *ywerre*) also is relevant; there seems to be little or no other evidence of this sort involving consonants other than /ty/. The contrast seems, therefore, to exist only in a transitional stage between a situation in which an onset rounding vowel is favoured word-initially and a situation in which rounding of the release of an initial consonant is favoured.

The analysis in which pre-rounding and post-rounding are regarded as just two noncontrastive aspects of the one phonemic situation is therefore supported not only by the situation in other dialects but by the changes that are occurring in young peoples' speech (see above). However, the analysis (as proposed, for example, by Wilkins 1989) with a vowel /u/, which, like /a/ and /i/ is [+long], is supported by a few words such as *arrume* 'chin', *arrule* 'long ago', and *arrurre* 'corella (bird)' because of a rule which disallows a sequence apical consonant—vowel—alveolar consonant except when the vowel is long.¹⁸ If the vowel is short (/e/), the second consonant in such a sequence becomes retroflexed (and /rr/ becomes /r/).

A phonetic feature of CAr is that 'retroflexed' consonants are usually prepalatalised after /i/ and often also after initial /a/ or after stressed /a/ when a heterorganic consonant follows. Such prepalatalised consonants may be pronounced without retroflexion. The division of the two apical series into an unmarked and a marked series—say unmarked and retracted—may be more appropriate than division into alveolar and retroflex or postalveolar. However, it is not at all clear which series is in fact to be regarded as unmarked. Prepalatalised consonants contrast with both alveolar and retroflex in some languages; this will be discussed below, especially in §4.5.

It seems that a type of sequence that may have formerly existed, perhaps as an alternative to clusters of prepalatalised nasal or lateral and stop, is a cluster of palatal nasal or lateral plus stop. Conversely, prepalatalised first members of clusters may have alternated with what are exclusively palatals now. There are a few examples in Hale's comparative wordlists. For example, he gives the word for 'ear' as /ilyp/ in Kay, (Central) Arrernte, and (Western) Anmatyerr, and as /iy/p/ in NAly, SAly and EAr. There are three other examples involving lateral and /p/, one involving a velar stop (/iykw/ in the two Aly lists, /ilykw/ in Arrernte 'armpit'), one with a prestopped nasal (/uylpm/ in SAly, /ulypm/ in EAr and CAr 'language') and one with a nasal (/aytnp/ in Kay, /aynp/ in Aly, /anyp/ in CAr 'pouch'). I have similar examples from different Ant speakers. There are a couple of words with /lyp/ in Henderson and Dobson. For Kay, Koch's early spellings show /lyp/ contrasting with /lp/, /rlp/, and /y/p/, but he (pers. comm.) now strongly doubts that it has palatals contrasting with prepalatalised consonants before a heterorganic consonant. No heterorganic palatal + stop clusters are now written in the Kay orthography. However, it seems that such clusters existed and still exist, at least marginally, in some languages.

Rounded consonants usually have a clear rounded off-glide when they are in word-final position or before /a/ or /i/; before /e/ this is not usually detectable, the rounding being realised as roundness in the following vowel (or vowels).

Pronunciation of the vowels is, briefly, as follows:

/a/ is a low unrounded vowel, rather long when stressed but otherwise short. It is affected very little in quality by neighbouring consonants; an exception is that it is raised and fronted when followed by a prepalatalised allophone of a retroflexed consonant or by /y/ in certain

¹⁷ Henderson (1998:46–7) regards [júkɛ]—my *yweke*—as a realisation of *yekwe*.

¹⁸ John Henderson drew my attention to the relevance of this rule to this problem.

stressed environments, for example, when /ay/ is used as a vocative suffix or to mark imperative on a verb. A 'minimal pair' is *alaye* [alá:j] 'sea' and *alaye* [alæ:j] 'look out!' (an exclamation).

/i/ is a high-front vowel, ranging from [ɪ] to [i] to [e] in quality and lengthened when stressed. Its quality is determined by the nature of the following consonant; it is low when followed by an apico-alveolar, especially /r/, high when followed by a retroflex (which becomes prepalatalised) or lamino-alveolar, and intermediate before other consonants.

The quality of /e/ is determined by the nature of the surrounding consonants. In a 'palatal' environment (i.e. preceded or, especially, followed by a lamino-alveolar, especially /y/) it is raised and fronted; in a rounding environment it is raised and rounded; before a retroflexed consonant it is retroflexed; in a 'neutral' environment (involving none of the foregoing consonant types) it is central or low and unrounded.

/u/ (or /e/ before /wC/, or /e/ before a rounded consonant whose rounding is manifested on the consonant onset) is a long mid back rounded vowel when stressed and a short high back rounded vowel when unstressed.

Younger speakers (of perhaps all Arandic communalects) are losing or have lost the velar glide from their language, although it may still be present inasmuch as it conditions primary stress and perhaps additional length on the initial vowel of the word. Thus, a word like *ahentye* 'throat' is pronounced [á:n̩d̩jə], not [an̩d̩já] (although in CAr especially this contrast is obscured by the transfer of the stress in such (surface) VCV words to the initial vowel by all but the oldest speakers). Younger speakers also, as noted above, are replacing word-initial prerounding or a /u/ vowel with rounding associated with the release of the consonant concerned.

3.2 Eastern Arrernte

The dialect referred to here as Eastern Arrernte is that spoken in the Harts Range—Hale River area.

The phonology of EAr is very similar to that of CAr. However, there seems to be phonemic prepalatalisation of apical consonants, of very limited distribution. The allophonic relationship between retroflexion and prepalatalisation that applies in CAr seems to apply similarly in EAr, but a prepalatalised apico-alveolar consonant that does not appear to fit into this system appears in a number of words containing the suffix *-ayte*, which is used to derive the name of an edible grub from its source (usually the tree in which it is found). This suffix may be a loan from Aly or EAnm; the CAr form is *-atye*. It is possible that phonemic prepalatalisation is not found in any other morphemes in EAr. (Prepalatalisation will be discussed at greater length in §4.5)

3.3 Syllable structure

At the surface, Arandic languages certainly have CV syllables: an utterance can consist of just a CV syllable, such as [ma] 'here, take it!'. However, there are some features of Arandic languages that suggest that the traditional syllable is not as central to the structure of these languages as it is of most others. These include:

- (i) the variability in the number of (phonetic) syllables in words. For example, the present tense of the verb 'to sit, stay' in Central Arrernte can be pronounced [anámə] (with three syllables), [námə] (with two), [anám] (with two), or [nám] (with one).
- (ii) the bond between vowels (other than /e/) and the following consonant (which is usually not part of the same syllable, if the rule that a consonant may not form a coda if a following syllable would thereby lack an onset is adhered to) as contrasted with the comparative lack of bond between such vowels and the preceding consonant (which is part of the same syllable, given the onset rule). This is manifested in some pronunciation rules (for example, that the pronunciation of stressed /i/ is dependent on the following consonant, approximately [ɛ] before an alveolar apical, [i] before a retroflex or an alveo-palatal, and in between for others) and also some grammatical rules (to be discussed below). The first linguist to observe this feature of Arrernte pronunciation seems to have been T.G.H. Strehlow (1971:86), who observed that "as a rule it seems to be the consonant cluster that *follows* a vowel which determines its quality in native verse". As an example he quotes the pair of words (in his orthography) *alkŋóltjurbalkŋóltja ambírkŋambírkŋa* and says that: "The correct syllabic divisions would be *alkŋ-óltj-urb-alkŋ-óltj-a amb-írŋ-amb-írŋ-a* respectively".¹⁹
- (iii) speakers trying to help an enquirer with the pronunciation of a word do not separate it into syllables but prefer to divide it into word-like parts in which an /a/, /i/, or /u/ (if there is any) occurs initially. Examples are *utnathete* 'mulga blossom', pronounced as *utne*, *athete*, and *anepaneme* 'is still sitting' as *anepa*, *aneme*. (*Anepa* is not a free form and *utne* also seems not to be; *athete* may be, but this is not confirmed.) Another strategy which has been observed is to divide it into syllables, but in which /a/, /i/ or /u/ does not occur finally; for example, *arlalperre* 'yellow ochre' syllabified as *arl-al-perr*.

McCarthy and Prince (1995:318) state the Prosodic Morphology Hypothesis: "Templates are defined in terms of the authentic units of prosody: mora (μ), syllable (σ), foot (F), prosodic word (PrWd)". The segment is not one of these units of prosody. If we accept the Prosodic Morphology Hypothesis, we need to find some explanation for certain types of reduplication in Arrernte; one (the habitual nominalisation) was briefly illustrated above ((1), §2). Also requiring explanation is the transposition involved in the EAr play language called Rabbit Talk (see Turner and Breen 1984).

Considering briefly only the latter, the output of the transposition on the following four simple words: /ker/ 'meat', /war/ 'only', /array/ 'right', and /awenk/ 'young woman' are, respectively: /rek/, /arew/, /atyarr/ and /nkaw/. Disregarding the Prosodic Morphology Hypothesis, the transposition rule would seem to be: transpose the first consonant or consonant cluster plus any preceding vowel to the end; if there was no preceding vowel add the featureless vowel /e/; if /e/ is left in word-initial position, delete it. The transposition can be made to conform to the Prosodic Morphology Hypothesis by postulating that: (1) All

¹⁹ Having read Strehlow's book many years ago, I did not remember this passage until informed by the mention of it in Henderson (1998). It would be interesting to know if he would still have applied this syllable division if the vowel schwa was involved. The first word includes *alkngulye* 'tears' reduplicated with a linking morpheme which I do not know; the second is also reduplicated, but I cannot find it even in Strehlow's own manuscript dictionary.

syllables are of the form VC(C); (2) Utterance-initially, the vowel /e/ does not appear at the surface. The rule then becomes: transpose the first syllable to the end of the word.²⁰

Similar arguments apply to various reduplication rules. Breen and Pensalfini (1999) give the arguments in detail, dealing with possible alternative analyses. See pages 5–8 for data, and see Evans (1995:744–7) for a summary (based on Breen 1990).

The most widespread stress rule in Arandic, usually stated: main stress falls on the first vowel that follows a consonant, does not have a simple statement in terms of conventional syllables, but is: stress falls on the second syllable with VC(C) syllables. Henderson (1990) found also that plural and reciprocal morphology is sensitive to whether stems are monosyllabic or disyllabic, but the rule is straightforward only with the VC(C) model.

4. Phonological notes on other Arandic languages

4.1 Antekerrepenh

This dialect, virtually extinct now, was originally analysed (Breen 1977) as a two-vowel language. The reinterpretation of rounding and prepalatalisation as associated with consonant positions in a word rather than with individual consonants has forced a revision of this analysis.

The original analysis postulated two vowels, /a/ and /aː/ (now written as *e* and *a*), distinguished basically by length. Initial [u] was phonemicised as /ew/ and initial [ɪ] as /ey/; this led to the postulation of consonant clusters of the form /wC/ and /yC/. These clusters could also occur medially, giving rise to mid back rounded and mid to high front unrounded vowels, respectively. Non-initial [u] was regarded as coming from the influence of a preceding rounded consonant, except that when the consonant involved was not peripheral (an uncommon situation) a /Cw/ cluster rather than a rounded consonant was postulated. Later work on other languages (especially CAr and WAr at that stage) showed that rounded nonperipheral consonants were quite common and this distinction was not warranted. Distinct from /yC/ clusters were prepalatalised apical phonemes /ʲC/, and /e/ preceding these was raised and fronted more than before /y/.

This distinction between /yC/ clusters and /ʲC/ phonemes was later seen as the weak point in the analysis. As long as /wC/ consonant clusters were accepted it seemed reasonable to also accept /yC/. However, when /wC/ was reanalysed as /C^w/, with the rounding associated with the consonant, it seemed no longer justifiable to postulate a /yC/ cluster and especially a distinction between /yC/ and /ʲC/.

Ant phonology²¹ is now regarded as similar to that of CAr, except that prepalatalised apicals are distinct from retroflexes, as witness the pair *ayntem* 'lying'/*arntem* 'aching' (and contrast also *antyer* 'tongue' and *anter* 'fat' for the corresponding lamino- and apico-alveolar clusters). However, there is fluctuation in some words between prepalatalised apicals and lamino-alveolars, for example, *alya* ~ *ayla* 'we (dual, same section)', *antywem* ~ *ayntwem* 'drinking', *urrartely* ~ *urrarteyl* 'hooked boomerang', and this needs to be studied further.

²⁰ Evidence from longer words shows that it is the first syllable, not the last, which is transposed. Thus /itetyek/ 'to burn' becomes /tyekit/, not */kitety/.

²¹ Which, however, is based mainly on transcriptions done in the 1970s and needs revision in the light of my much greater experience with other Arandic languages.

4.2 Ayerrereng

Ayerrereng, the north-easternmost member of the group, is the least studied of all the Arandic dialects. Araynepenh seems to be an alternative name; they may have the same meaning, as although *ayerrereng* means ‘out of the east’ in Ay, it means ‘out of the north’ in dialects to the west, which is essentially the same meaning as *araynepenh* has in Ay and Ant. The only sources of information are a wordlist published by Roth (1897), fieldnotes and grammatical notes with an hour of densely packed tape made by Ken Hale in 1960,²² and three half-hour recordings, one made by Barry Blake in 1966 and two by me in 1967. It is more closely related to Ant than to Aly; in fact, all three of the speakers recorded in the 1960s called their language Ant at least sometimes.

The two phonological differences noted between Ay and Ant (and they apply also between Ay and Aly) are loss of the velar glide as an audible consonant, although some modern evidence suggests that it is still present in that it contributes to the pronunciation of the word, and loss of prestopping from earlier prestopped nasals. The former is suggested by Roth’s *ūr-nă* ‘kangaroo’ Typical pronunciations of this word and of the word for ‘ground, sand’ by a modern speaker are [aóra] and [aúŋa], respectively (although another speaker pronounced them with the glide as in Ant and Aly), and I write them as *aherr* and *ahern* as in those languages.

Loss of prestopping is illustrated by a couple of Roth items: *ūr-nă* ‘excrement’ and *ūr-gě-ră* ‘many’, implying spellings *ana* and *angerr*,²³ contrasting with Ant *ana* and *akngerr*. The modern speakers had lost the prestopping from some words but retained it in others (and differed from one another in some cases).

Roth’s spellings suggest that Ay also shared the Ant peculiarity of pronouncing a homorganic glide before initial /i/ or /u/; examples include *yēr-tă-pă* for *īep* ‘hand’ and *woo-ji-lă*²⁴ for *utyerl* ‘sun’. There are a few examples of this in the modern material, and one speaker sometimes transferred the stress to this vowel when he did it (as, it seems, Roth’s informant may have too; there may have been a sound change in progress).

4.3 Northern Alyawarr

Alyawarr can be divided (following Hale n.d.) into northern and southern dialects.²⁵ Traditional Aly country is centred on the Sandover River in the east of the Northern Territory; however, many Aly have moved to the north-east or north-west during the 20th century. Aly is analysed as a three-vowel language, with /a/, /i/, and /e/. Pronunciation of these vowels is essentially similar to that in CAR, but word-medial /i/ is much less common.

²² And I am especially grateful to Ken for hunting down these notes and tape and giving me a copy. He had called the language “Antikiripinhi (Georgina River variety)”, and I realised that this material was Ayerrereng (and added vastly to the Ayerrereng corpus) only in the last stages of writing this paper.

²³ In fact, of course, it can be taken to imply this spelling only because there are other words in which Roth has written intervocalic velar nasal as *n-g*.

²⁴ Roth used italics to indicate the primary-stressed syllable.

²⁵ I called them Western and Eastern (respectively) Alyawarr when I wrote adult vernacular literacy courses for them, on the basis of the present-day situation in which the largest congregation of speakers of the southern dialect is at Lake Nash, near the Queensland–Northern Territory border and well outside traditional Alyawarr country.

associated, or at release, or both. Rounded onset occurs only with initial consonants and is realised as a vowel [u] or non-vocalic roundness [w]. Labials and velars (unless part of a heterorganic cluster) always manifest their roundness on the release side;²⁶ other single consonants are much more likely to have rounded onset if the following vowel is /a/, and rounded release if it is /e/. There is a change in progress from roundness manifested at the onset of a consonant (and in many cases also at the release) in the speech of older people to roundness at the release only of the consonant with younger people, e.g. [ʊn^hd^hi^hd^hə] and [n^hd^hu^hd^hə] (*nywety* 'warm'), [ʊl^hmbə] and [l^hmbə] (*lwemp* 'ghost gum'). This is happening even though, in some cases, it results in what, to me, are tongue-twisters: for example [l^hwɪn^hd^h] instead of [ʊl^hn^hd^hə] for *lywenty* 'shade', [j^hwəŋ] instead of [ʊj^həŋ] for *ywarn* 'in vain'. These different pronunciations can, however, as the examples illustrate, both be represented by the same phonemicisation and spelling. Another situation, in which the variants are phonemicised and spelt differently, arises when the younger speakers' word has initial /i/. Examples: *nweng* ~ *inweng* 'chest', *lweyel* ~ *ilweyel* 'dying', *rrpwerl* ~ *irrpwerl* 'black'. Practically all have an apical as first consonant.

In other cases the roundness is perhaps never heard on the release, but the word may be pronounced with an initial nonsyllabic roundness, as in [wɪáɾə] *rwarr* 'wind', [wɫəlp] *lwaylp* 'kurdaitcha (traditional executioner)'. Short stems are often pronounced with an initial rounded vocalic sound when in isolation but with initial rounded consonant when affixed, e.g. [urá] *rwa* 'fire', [rul] *rwel* 'fire-LOC', [ɪú^hnpə] *rwemp* 'hot'.²⁷

The high front vowel in Aly has posed some problems in the analysis. Like Kay (§4.5), Aly has prepalatalisation associated with alveolar consonants and, in a comparatively few words, with bilabial consonants. But it also has a substantial number of other words with a high front vowel. It seems perfectly reasonable to argue that [i] before an alveolar consonant is a realisation of /e/ with a following prepalatalised consonant, as in Kay; both the pronunciation and the parallelism with /a/ followed by prepalatalisation support this. Since there are a handful of words in which we must write y before a bilabial (such as *aypmenhey* 'mother's mother'—compare Kay *aypmenhe*²⁸—and *aympa* 'pouch'—compare EAr *arnpe*) we could argue that [i] before a bilabial is /ey/. [i] occurs also before velars and it is no great step to writing y before them too (suspending a decision on whether we have prepalatalisation or a cluster). However, it is believed that most instances of [i] before a velar may result from reduction of earlier /eye/. Word-initial [i] could be phonemicised as /e/.

²⁶ Although I have on tape an excellent speaker pronouncing the section name *Kngwarrey* as [ʊk^hjári]. Note also Yallop's (1977) spelling *upula* of one of the Alyawarr section names.

²⁷ Note that Carol Morris, of the Summer Institute of Linguistics, who worked on Alyawarr at Ali-Curung, informed a meeting on Arandic orthography in Alice Springs in 1981 that speakers she was working with wanted to use *w* instead of *u*. These speakers had no knowledge of Arrernte orthography and had seen Alyawarr words written only in a system in which roundness was thought of as belonging to the vowels and written with *u* and *o*. They consistently chose to write [Cu] as *Cwe*. In the case of initial [u] they again wanted to use *w*; when it was suggested that they needed a vowel and could write *ow*, *uw* or *ew* they chose *ew*. Thus the word for fire was *ewr* (or perhaps *ewre*; they were not normally writing final vowels but perhaps they did on a word like this in which the final vowel is stressed).

²⁸ Also *arlpmenhe* in Antekerrenpenh, and *ipmenhe* in Eastern and other Arrernte varieties.

However, when an [ɪ]-initial word is reduplicated the initial vowel is repeated as [i:]. For example, [ɪpə́tə] ‘hole’ becomes [i:pə́tɪ:pə́tə] ‘rough (as a potholed road)’, which we would have to phonemicise as /epertɛpɛrt/ (with a discrepancy between the representation of the two parts) or introduce a juncture phoneme (to be represented by a hyphen). The latter could be useful in that it could be used as an indication of the changed stress pattern, but there would be problems in deciding when it should be used. We could not evade the issue by writing *ɛyC* initially, because there is a contrast between initial [ɪ] as in [ɪlk^{wá}] ‘big’ and initial [i:] as in [i:lk^{wá}] ‘armpit’.

The phonological problem remains; the orthographical problem has been decided. Prepalatalisation of apicals is represented by *y*; thus *yt*, *yn*, *ytn*, *yl*. A high vowel preceding it is written *e* except when it is word-initial, when it is written *i*. In other cases *i* is written (the following consonant is usually not apical, although it can be, as in the compound locative suffix *-itwel*). Thus ‘big’ is *ilkwa*, ‘armpit’ *iykwa*, ‘hole’ *ipert*,²⁹ ‘rough’ *ipert-ipert*. Other words with medial *e* include *alatyeyt* ‘spinifex’, *areyneng* ‘euro’, and *arreyl* ‘cheek’, while words with *i* include *thip* ‘bird’, *apmikw* ‘pine tree’, *thimp* ‘ironwood tree’, and words with the derivative *-inger* ‘times’ (such as *atherr-inger* ‘twice’).

Hale found that NAly had the velar glide (our /h/) appearing in suffixes (compare the same phenomenon noted below for WANm). This has also been noted more recently by Green (1992:238; see *-wenh*) for the genitive suffix: *-henh* as compared with *-kenh* for most Arandic communalects. In NAly as I have recorded it this has become a labio-velar glide /w/. Thus we have *akerew* ‘for meat’, *arew* ‘saw’, *areyew* ‘to see’, and *arelh-wenh* ‘woman’s’ corresponding to CAr forms *kereke*, *areke*, *aretyeke* and *arelhekenhe* respectively.

Note the softening of the *[tʰ] of the verbal purposive to [j] in words like *areyew*. The same softening is observed in the present continuous suffix *-eyel*, as in *areyel* ‘seeing’; the equivalent form with the stop, *aretyel*, is used in one or more communalects of EANm.

A feature that Aly shares only with Kay is clustering of prestopped nasal with stop, both homorganic and heterorganic. Examples are *apmpeyel* ‘burning’, *awethnth* ‘dogwood’, and *artnkwa* ‘clothes’. Some speakers reduce these prestopped nasals to simple nasals; indeed, some speakers reduce many other prestopped nasals in the same way, as in the section term Ngwarrey instead of Kngwarrey.

A sound change between the northern and southern languages is an assimilation that transforms a lateral–nasal or lateral–prestopped nasal cluster (it is pronounced and generally regarded as phonemically prestopped, but does not contrast with simple nasal in this environment) into a nasal–nasal cluster. For example, *alknge* ‘eye’ in several southern languages (including SAly, where it is spelt *alknga*) corresponds to *anna* in NAly.³⁰

4.4 Southern Alyawarr

Southern Alyawarr, studied mainly at Lake Nash, probably has the same phonological analysis as the Northern form, but phonetically the switch from initial rounded vocalic sound to initial rounded consonant has not advanced so far. This dialect also has the common Arandic suffixes *-k* (dative), *-k* (past tense), *-tyek* (purposive), and *-kenh* (genitive), rather

²⁹ Final *a* is written only in words in which it would—at least in citation form—carry primary stress. This vowel would be written *e* in some dialects.

³⁰ See Green and Turpin (this volume).

than the softened Northern forms described above.³¹ It is thus phonetically (and also lexically) somewhat closer to CAr than is NAlY (which is consistent with its southern provenance, as opposed to its present day geographical remoteness).

4.5 Kaytetye

Kaytetye is classed as a separate language, not mutually intelligible with the other Arandic communalects (which are thought by some to be dialects of a single language). I have not had much contact with it, and the following notes are based mainly on Koch's published and unpublished material, with some reference to Hale's unpublished wordlists and my own meagre field notes.³²

Koch (1984:33 note 4), following Hale (1959), analyses Kay as a two-vowel language. The Kay consonant inventory and Koch's analyses of it differ from that of CAr in having a set of prepalatalised apical consonants. I have made some use of, and taught, an orthography based on this analysis and have had no problems with it.

Koch's low vowel /a/ is pronounced generally like the corresponding vowel in CAr. The mid vowel /e/ is [ɪ] initially except when the following consonant is rounded or prepalatalised; see below for the pronunciation in these situations. Medially it is usually pronounced in a similar way to /e/ in CAr. A high front vowel (lengthened when stressed), if not occurring before /y/, is interpreted as /e/ followed by prepalatalisation of the following consonant. This interpretation is supported by the fact that /a/ also occurs in the same environment, the combination of /a/ and prepalatalisation being realised as a diphthong [æj] (as in the language name). Koch's prepalatalised alveolar consonant series and /y/ account for the vast majority of the occurrences of [i] or [i:] and of [æj]. Examples include *keyte* 'firestick', *kayte* 'edible grub', *alatyeyte* 'spinfex', *areynenge* 'euro', *aynenhe* 'eat-past', *eynenhe* 'get-past', *kayle* 'boomerang', and *aylperre* 'fish'.

However, there are also a small number of vowels of this quality preceding bilabials, and these pose a problem. The alternatives seem to be to postulate a series of prepalatalised bilabial phonemes, which does not appeal as a natural solution, or to have clusters /yp/, /ym/, /ypm/, and /ymp/, which do not conform to the phonotactic rules (for Arandic languages in general). The words involved can mostly be explained away on a diachronic level: for example, Koch's *atnaympe* 'buttocks' was earlier recorded by Hale as *atnaynpe*, while *paympelhe* 'feather' (Hale and Koch) is cognate with Aly *aynpelh*, and *arreympeympe* 'lips' is probably cognate with CAr *arreyenpe* from *arre* 'mouth' and *yenpe* 'skin'.³³ If we postulate */^hnp/ as the ultimate origin for all /ymp/ we have disposed of perhaps 80 per cent of the prepalatalised bilabials. Others, like *eypeype* 'sheep' (compare *yepeyep* in other dialects) and two of the three instances in Koch's vocabulary of palatalisation before a velar, *naneykwerte* 'goat' (from English *nannygoat*) and *parreyke* 'fence' (from English *paddock*), are recent loans. However, these words exist now and must be fitted into the phonemic system, along with others, such as *nteyngke* 'ripe' and *anytyeypere* 'bat', which

31 A purposive allomorph *-eyek* is sometimes heard; this shows the same softening of *[tʰ] as does Western Alyawarr *-eyew*.

32 A learners' grammar by Myfany Turpin, based largely on Koch's material, has appeared (Turpin 2000).

33 And note also Arrente *arrirnpirnp* [ariɲbiɲnbə]; both this and the Kaytetye term probably result from fusion of syllables of an earlier **arreyenpeyenpe* (although, as Koch pointed out to me, we should note also *winpinpi* 'lips' in Pitjantjatjara and *pinpinpa* 'flat and thin' in Warlpiri).

there seems to be no neat way of disposing of. Koch (pers. comm.) prefers to regard these as clusters rather than to extend the prepalatalisation analysis to non-apicals.

The fact that /Ynp/ becomes /ymp/ (/Ymp/?) and not /mp/³⁴ suggests that prepalatalisation is, like rounding, associated with the consonant position in the word rather than being a feature of a consonant phoneme. The supposed /Yn/ is not to be regarded as a single unit but as /n/ influenced by suprasegmental palatalisation—a palatal coarticulation associating itself with any compatible consonant at that position, and so only the /n/ is assimilated to the following stop, with the palatalisation left to attach itself to the bilabial cluster. This avoids the difficulty of the alternative propositions: (a) that prepalatalised apical is a seventh point of articulation, and (b) that the prepalatalised apicals are complex phonemes. The difficulty with (a) is that the articulatory difference between prepalatalised and other apicals does not seem to be one of place in any consistent way. Auditorily, at least in Arrernte,³⁵ they seem to range between the two other apicals in point of constriction (or, more loosely, place of articulation), and instrumental analysis (Butcher forthcoming; Henderson 1998:86, 151–66, and esp. 153 and 156) shows that the region of contact is ‘roughly intermediate’ between those for the other two, and so more or less similar to that of apicals in environments where the opposition is neutralised.³⁶ The difficulty with (b) is that these phonemes are not complex in that they are not of one type (palatal) from the viewpoint of segments preceding it, and of another type (apical) from the viewpoint of segments following. This can be seen from the behaviour of certain allomorphs of verb tense suffixes, as noted by Koch (1980). The present and past tense suffixes are underlyingly *-nke* and *-nhe* (or, as I would prefer it, *-enk* and *-enh*). After an apical consonant, however, the nasal of the present tense suffix becomes retroflexed, while after a palatal (lamino-alveolar) consonant the past tense suffix is palatalised, becoming *-nye*. Thus *ak-* ‘to cry’ (my segmentation) has present *akenke* and past *akenhe*, *ar-* ‘to see’ has *arernke* and *arenhe*, *artry-* ‘to try’ has *artryenke* and *artryenye*, and *ayl-* ‘to sing’ has *aylernke*³⁷ and *aylenye*. It can be seen that, from the viewpoint of the following consonant, roots whose final vowel is a prepalatalised apical behave both as apicals (in having /rn/ in the present tense) and as lamino-alveolars (in having /ny/ in the past tense).

It may be that palatalisation can migrate in a similar way to rounding, with the difference that when it becomes associated with the release of an alveolar consonant the resulting combination merges with the already existing lamino-alveolar phoneme and the palatalisation loses its moveability. An example of the process envisaged is given by the history of the word for ‘boomerang’ in some dialects. The word *karli* [kál̥i], still existing in some non-Arandic languages, lost its final vowel, lost its initial consonant (or perhaps lost its initial syllable and had it replaced by /a/), became prepalatalised giving [k̥ʲ], lost its retroflexion—[k̥ʲ], and underwent migration of palatalisation to give the modern CAr and EAr word *alye* and WAnm *aly(ang)*.³⁸ The second last stage is preserved in *aylayl* (Aly and

³⁴ A change /np/ to /mp/ has not been observed except in young people’s speech in some areas.

³⁵ In which, however, prepalatalisation is not contrastive.

³⁶ There are differences, however, and Henderson (1998) deals with these and the complexities underlying the use of such terms as ‘point of constriction’ in these contexts.

³⁷ In fact, this word and *arernke* are misspelt to make the demonstration clear; the predictable retroflexion in these words is not written in the orthography.

³⁸ Koch (1997:280–1) shows that this was conditioned by a vowel /i/ following an apical consonant.

Ant) and *kayle*³⁹ (Kay). The first two stages—loss of initial consonant or syllable and loss of final vowel (not necessarily in that order) are attested in hundreds of Arandic examples. Prepalatalisation and deretroflexion of retroflexes occurs as a subphonemic process in several Arandic dialects (see §3.1). As Koch (pers. comm.) points out, these are the dialects that had already merged the prepalatalised apicals with the palatals.

There is a change going on in Kay from an older style in which rounding spreads right over a consonant or cluster to a newer style in which it is confined to the release. For example, the word spelt *erlkwe* is pronounced [u]lk^wá by older speakers and [ɪ]lk^wá by younger. Another difference between younger and older speakers is that the former are losing the velar glide; however, a trace remains in the form of length and stress on the initial vowel. For example, the spelling *aherre* represents [au]ǎrá for older speakers and [á:rǎ] for younger speakers. A spelling *arre* would represent [ará]. (This is the case also for Aly, in which, however, the spelling is *aherr*, and for Arrernte.)

A reservation regarding the two-vowel analysis concerns the pronunciation of morpheme-initial /e/ when it is utterance-medial. One test for the two-vowel system is, of course, reduplicated words that begin with /e/ (not followed by yC or Cw)—does the initial vowel reduplicate as schwa or [ɪ]? There are a few such items, and in these the third vowel is in fact [ɪ]. Similarly, it seems that word-initial /e/ (not followed by yC or Cw, and not preceded by a pause) is realised as a high-front vowel.

The two-vowel analysis can be saved by a rule that a word boundary conditions fronting of a following /e/ and by assuming an internal word boundary between the two parts of a reduplicated form. This is the approach adopted by Koch.

If Kay does in fact have only two vowels this poses a problem for the application of the VC(C) syllable model to it, despite the fact that its morphology seems compatible with that model (while, however, lacking the prefixing reduplicative process and the word game which make the model particularly compelling for Arrernte). A language that has a contrast between two word-initial vowels and also has (surface) word-initial consonants needs to have three vowel phonemes so that one is available to be present underlyingly in initial position in the consonant-initial words. I would prefer to postulate three vowels to save the VC(C) syllable model rather than accept Koch's approach to save the two-vowel analysis.

A difference in phonological analysis between Kay and Aly, which may or may not represent a real difference between the two, is that in the former a pair pronounced by some speakers with initial rounded vowel and by others with initial unrounded vowel has the same phonemicisation and spelling; in the latter it is a pair pronounced by some speakers with initial rounded vowel and by others with no initial vowel that has the same phonemicisation and spelling. Thus, taking for example the word for 'up' in the two languages, there are four possible pronunciations (with associated spellings which indicate the way they are phonemicised):

pronunciation	ɪrú]ə	urú]ə	urǎ]ə	rú]ə
Kaytetye spelling	<i>errwele</i>	<i>errwele</i>	<i>errwele</i>	<i>rrwele</i>
Alyawarr spelling	<i>irrwerl</i>	<i>rrwerl</i>	<i>rrwerl</i>	<i>rrwerl</i>

The differences between Kay initial *e* and Aly initial *i*, between the Kay spelling of a predictably retroflexed lateral as *l* and the Aly as *rl*, and between the presence of final vowel

³⁹ It is doubtful that the /k/ here is original; there are a few other examples of /k/ replacing a lost initial vowel in Kaytetye.

in Kay and its absence in Aly are simply different orthographic conventions. An obvious conclusion is that this could be due more to the different approaches of the two linguists concerned than to a real difference in the facts, and this will have to be investigated. The facts certainly are not the same in the two cases, however.

4.6 Eastern Anmatyerr

Although the name Anmatyerr has been used generally as the name for an Arandic communalect, there is a clear division into an eastern form and a western form which are, at least superficially, very different. EAnm seems to be more closely related to EAr and SALy than to WAnm, although this perception is influenced by the phonetic and phonotactic differences and by the prevalence of Warlpiri loans in the western form. Its phoneme inventory is the same as that of EAr except that it has the prepalatal/retroflex distinction.

4.7 Western Anmatyerr

Phonetically, Western Anmatyerr is noticeably different from the other Arandic languages. It may be a genuine two-vowel language in the extreme west of its range. A wordlist of perhaps 1500 words (Breen 1988), compiled mainly from information from speakers in the Mount Allan area, uses a two-vowel orthography without problems, as does a transfer literacy course developed for this area (Breen n.d.). Pronunciation of the two vowels is, briefly, as follows:

/a/ is generally similar in pronunciation to its CAr counterpart except when it follows a rounded consonant or consonant cluster, when it is rounded and retracted. The rounding of the vowel may be the only indication of the roundness associated with the consonant(s); this is a normal situation in all Arandic languages with the vowel /e/ but does not occur in other languages when the vowel is /a/. Examples are [mɔŋ] *mwang* ‘snake’ (cognate with *apmwe* and *apme* in some other dialects), [tɔŋ] *rtway* ‘burrowing bettong’ (cognate with *putaya* in Warlpiri), [tɔk] *rtwak* ‘windbreak’, and [nd^wɔŋ] *ntwarr* ‘on the other side’.

/e/ in many environments tends to be much more raised and fronted than in other languages although, especially with older speakers, it is also often realised as the typical Arandic central vowel. Details of the conditioning factors for this alternation are not well known. Examples include [aním] ~ [anám] *anem* ‘sits’, [apík] ~ [apák] *apek* ‘maybe’, [mín] *meng* ‘fly’, [ŋínəm] *ngernem* ‘digging’, [wáɪŋgɪr] *werengkerr* ‘spindle’, and [kérəmbɪkêr] *rlkerremperkerr* ‘(sitting with) legs straight out’. After a rounded consonant /e/ is rounded, as in other dialects, and the rounding might spread some distance from its source; examples are [kún^ɪɪl] *kwenyel* ‘in the dark’, [rúmbɪɪ] ~ [ʊrúmbɪɪ] *rrwemper* ‘shovel spear’, and [n^ɪd^ɪúŋun^ɪd^ɪ] *nyengwenty* ‘white clay’. Unlike in other dialects, a rounded vowel is common before /y/; for example, *nywey* ‘Hakea spp.’ may be realised as [n^ɪt^ɪúj^ɪ], as compared with [n^ɪd^ɪwi:] (spelt *nyweye*) in WAr. In initial position /e/ is usually [ɪ], as is /i/ in other dialects: [íním] *enem* ‘gets’, [ɪwín^ɪ] *eweny* ‘mosquito’.

As in NAlly, rounding may be manifested at onset of the consonant or consonant cluster with which it is associated, or at release, or both. Rounded onset occurs only with initial consonants and is realised as a vowel [u] or nonvocalic roundness [w]. Peripherals (unless part of a heterorganic cluster) always manifest their roundness on the release side; other single consonants are much more likely to have rounded onset if the following vowel is /a/.

rounded release if it is /e/. Again as in NAlY, rounded release is more likely with younger speakers. Examples include *kwenyel*, *rrwemper* and *ntyengwenty* in the previous paragraph, and also [uŋɔŋ] *rnwang* ‘water dish’ (cognate with Arrernte *urtne*), [wɪʎaŋ] *lywang* ‘shade’, and [ɪʊl] *lywel* ‘in the shade’.

Moving east from the Mount Allan area where these words were recorded, we come first to Napperby, where Jenny Green (pers. comm.) has found a couple of possible contrasts, such as that between *mernt* ‘then’ and *mirnt* ‘sick’. Further east again, I have found at Ti Tree four words:⁴⁰ (*aningk* ‘many’, *ngkiken* ‘kurdaitcha’, *parrik* ‘fence’ (a loan from English *paddock*) and *arriw* ‘door’) and one bound morpheme (*-ikw* ‘third person possessor of kin’) which have a high vowel contrasting with *e*. All of these have correspondents further west which can be written with *e*. The far western equivalent of Ti Tree *mikw* ‘his or her mother’ (*m* ‘mother’ plus *-ikw*) is *mwek* (*m* plus *-ekw* with movement of the rounding to the preceding consonant).

Some other features of WANm which set it apart from other languages include the following:

- (a) prestopped nasals are absent. Hale (n.d.) and before him Strehlow (1944:18–22) found that Anmatyerr had long nasals corresponding to the prestopped nasals of other communalects, but my informants (even the oldest) had only ordinary nasals. Occasional lengthening or (for one of my informants) prestopping seems to have no phonological significance. (Hale’s wordlist was collected at Napperby, in the WANm area.)
- (b) initial /y/ before /e/ is not pronounced and so initial /ye/ can be distinguished from initial /e/ only by the phonetic features resulting from the fact that it is stressed and, if it is a surface monosyllable, by the fact that it is never augmented by *-ang*—see (e). Examples are [ɪrakurə] *yerrakwerr* ‘wild onion’ and [i:tʎ] *yety* ‘no’.
- (c) /h/ occurs as an optional (and more common) alternative to /k/ in certain suffixes which have /k/ in most other communalects, notably dative on a noun and purposive on a verb. WANm is thus the only Arandic communalect at present (with the marginal exception of the NAlY suffix *-henh*, mentioned above) in which /h/ can occur other than as the first consonant in a word or the second part of a compound or reduplication. When the word contains any roundness, the /h/ is rounded to /w/ (although the suffix is still written *h*), e.g. [atʊtʊw] *atwetyeh* ‘to hit’. With palatalisation the /h/ and its preceding /e/ are together pronounced [ɛ:], as in [atá:ntətʎe:] *atanthetyeh* ‘to spear’. In other cases the suffix is pronounced [a:], as in [kɔ:ɪa:] *kereh* ‘for meat’.⁴¹
- (d) when it precedes the primary stressed vowel, /h/ is often realised (always by younger speakers) not as a glide but as a changed quality in the vowel or as zero (and with the vowels flanking it occurring contiguously or merging). Examples are: [aɛrə] *aherr* ‘kangaroo’ ([auɛrə] from an old speaker), [ɛjnɪdʎ] *ahenty* ‘throat’, and [a:ki] *ahakey* ‘fruit sp.’.
- (e) stems with no phonemic vowel or only an initial vowel, if not otherwise suffixed, usually take an augment *-ang*. Some examples have appeared in earlier paragraphs; others include *alhang* ‘nose’, *aywang* ‘old man’, and *yang* ‘he, she’. The same is often added to

⁴⁰ In the course of teaching vernacular literacy—not in an extensive search.

⁴¹ It was perplexing to hear the sentence [jáŋkɔ:ɪa]ʎm ‘He’s going for meat’ because I segmented it as *yang ker alhem* (with no dative marking on *ker* ‘meat’) instead of the correct *yang kereh lhem*.

imperative verbs; e.g. *tywempelhang* 'wait', *anerrerrang* 'stay (plural addressee)'. Young speakers are reanalysing the short words to include the *ang* as part of the stem (and also dropping initial vowels); thus, for example, 'man.ERG' is *rtwangel* instead of *artwel*.

- (f) word-final vowels are much less common than in most other communalects, but when they do occur they are likely to be subject to the spread of rounding from the word or (less commonly) palatalised by an adjacent /y/. In other languages this happens in connected speech but not in citation forms. Examples: [t^hú]pú *tywerlp* 'tree sp.', [l^hú]ju *lywey* 'tree sp.', and [táji] *tay* 'moon'.
- (g) in young people's speech /th/ is sometimes pronounced [s]; examples are [sep] *thep* 'bird' and [sóki] *thwakey* 'mouse'.

The status of word-initial vowels, especially /e/, in WANm needs further study. These vowels are often dropped; note particularly words like *wepawem* 'still hearing' in which the initial /a/, present in the simple present tense form *awem*, is realised only in the second half of the reduplicated form. Both *ewem* 'throwing' and *wem* 'hitting (with a missile)' reduplicate to *wepewem*. The latter verb (stem *w-*) seems to be disappearing as a free form, perhaps because of the likelihood of confusion with the former (stem *ew*). Hale (n.d.) gives it as an alternative to *ltewem*, but in my corpus it appears only once as a clearly free form (with the meaning 'produce (e.g. a work of art)'). These two stems, *ew* and *w*, are the only known examples of a minimal pair #eC / #C. About a third of the hundred odd stems recorded with initial /e/ are also recorded from someone else who pronounced them with no initial vowel. There are many differences in this respect between speakers of Coniston origin and those of Napperby origin (although these places are only about thirty miles apart). Anmatyerr at Ti-Tree is different again (per Avery Andrews, various manuscript materials, also per my own observations while briefly teaching literacy there). It may be that WANm has only recently become a two-vowel language and that initial /e/ has been disappearing since then.

Insofar as it has only two vowels, WANm is in the same situation as Kay regarding VC(C) underlying syllables. This may be connected with the gradual disappearance of initial /e/. Or it may be that these supposed two-vowel languages should be analysed as having three vowels: /i/ which occurs only word- or perhaps morpheme-initially, /e/ which surfaces only word-medially but is also present underlyingly initially where there is no other vowel, and /a/. (There have, incidentally, been moves to change orthographies to fit such a situation, but the motivation has been to maximise uniformity between the different orthographies.)

4.8 Tyurretye Arrernte

This language, recorded first from a speaker (MW) at Mbunghara in the Western MacDonnell Ranges (and I called it Mbunghara dialect for several years) and also from a speaker (EM) from the Standley Chasm area (and a very little from a couple of others), was not known to linguistics until the mid-1980s. There are some differences between the speech of these two (who have both now passed away) but they do not seem to be of great significance. The name I use for the language was given to me by one of them; however, it is also used for what I am calling Western Arrernte. I speculate that this language is actually the 'real' Western Arrernte, and that the quite distinct dialect known now as Western Arrernte arose from mixing of this dialect with Southern Arrernte (Pertame) at Hermannsburg Mission in the early days of European contact. It is not clear whether there

are any competent speakers remaining now. It seems to be closer to WAR than to any other dialect, but a couple of phonotactic differences stand out (as well as lexical and probably other differences): (a) there is a greater frequency of initial vowels in this language, and (b) initial /ir/ is permissible. This is not permissible at all in most dialects; WAR has it in one word, the third-person pronoun *ire*, but in the speech of some speakers the initial vowel is actually /e/ (which occurs initially on the surface in no other root in the language). The same pronoun occurs also in Per and has been attested, although perhaps incorrectly, in LAR. Examples include the pronoun *ire*, and also *irelthe* 'person', *irethape* 'baby (at the crawling stage)', *irenge* 'euro', *irawirr* 'to scatter (them)', and *irak* 'to grab (something from someone)'.

A third feature, heard only from MW and that not consistently, is replacement of the velar glide (which has been lost from WAR, except perhaps by a handful of the oldest speakers) with /w/.⁴² Thus the word for 'kangaroo' is *awerre* ~ *aherre*, compared with WAR *herre* (oldest speakers), *arre* or—compounded with the generic *kere* 'meat, animal'—*kerarre* (which is also EM's version). Similarly, he used *awe* 'anger', *awelhe* 'ground', *awelke* ~ *ahelke* 'daylight', and *awinenhe* ~ *ahinenhe* 'woma (snake)'. Another word heard only with the velar glide is *ahentye* 'throat, liking' (EM's *antye*). The glide has been lost from *arekngerre* 'fast' (/ar/ + /ekngerr/, cf. CAR and EAR *ahere*).

A significant difference from the eastern and northern languages is the existence of a few stems with final /a/—a situation which is not consistent with a rule that all morphemes end with a consonant. These stems are the interrogative *ntha-* 'where?' and a handful of common verbs: *irtna-* 'to be standing', *ntya-* 'to dig', *ntya-* ~ *intya-* 'to smell (intr.)', *wa-* 'to hit (with a missile)', and perhaps *lha-* 'to hunt away' (heard only once, from EM).

4.9 Western Arrernte

The most noticeable difference between Central Arrernte and Western Arrernte is the comparative absence of initial vowels, especially /a/, from the latter.

There are numerous examples of a correspondence between initial rounded vowel followed by nonperipheral consonant or cluster in CAR (accepting here the four-vowel analysis) and initial rounded consonant or cluster in WAR. Compare CAR *ultakeme* with WAR *ltwakeme* 'breaking', *utyerrke* with *tywerrke* 'fig', *ulyepere* with *lywepere* 'thigh', *urrepurrepe* with *rrweperrwepe* 'whirlwind', and *utnantheme* with *tnwantheme* 'is selfish'. (Both members of many such pairs are used in WAR. See also Breen (2000:vi-vii). If we accept the more radical of the alternative analyses given in §3.1, the only differences between these CAR and WAR forms would be on the phonetic level.) Variants include dropping the rounding altogether, as in *utyewe* and *tyewe* 'thin', *urewe* and *rewe* 'floodwater' (and note the other source of roundness in these words), and *uyenpere* and *yenpere* 'spearwood', and adding initial /i/ to the WAR forms, as in *uterne* and *itwerne* 'summer', *urrke* and *irrkwe* 'pus'. Some *u*-initial roots become consonant-initial in compounds, e.g. *ure* 'fire' in the name *Rwepentye*. With bilabials, on the other hand, we have a regular loss of roundness from the WAR form, often with change of the vowel from /e/ to /a/: *mpwele* (CAR) and *mpale* (WAR) 'you two'; *mpwere* and *mpare* 'maggot'; *mpwerne* and *mparne* 'brother-in-law'; *mwere* and *mare* 'mother-in-law', *mwerre* ~ *mwarre* and *marre* 'god',

⁴² MW's first language was Luritja, and his pronunciation of these words may be influenced by Luritja phonology.

pwere and *pare* ‘tail’, *apmwe* and *apme* ‘snake’. (There are a handful of exceptions.) At the same time there is a strong tendency to nonphonemic rounding of /e/ between bilabials, and some tendency between a bilabial and another consonant, especially a velar. For example, *mpeme* ‘burning’ is [mbómə]. Compare the pairs [ɪrkúmə] ‘holding’ and [ɪrpómə] ‘entering’; the imperatives are, respectively, [ɪrk^wæj] and [ɪrpæj]—*irrkwaye* and *irrpaye*, showing that the stems must be *irrkw* and *irrp* and that the present-tense forms must be written *irrkweme* and *irrpeme*.

As well as having many words with initial /i/, some WAr speakers have a single root with initial /e/—the third person singular pronoun *ere* (which occurs as a free form and in a handful of inflected and derived forms). That this is a phonological difference and not just a matter of initial /i/ being pronounced as schwa before /r/ is shown by the fact that it is rounded by a preceding rounded consonant, for example, the sequence *artwe ere* ‘man he’ is [aʈúɪə]. It is, however, conventionally spelt *ire* (which corresponds to its pronunciation for other speakers).

Illustrating the close bond between a vowel and the following consonant is a tendency for /a/ to replace /e/ before /rr/, as in *ntekarre* ‘south’ (*antekeerre* in several other dialects), *ntyetyarre* ‘frog’ (*antyetyerre*), and *tyeparre* ‘important’ (*atyeperre*). Reduplication seems to follow a VC(C) syllable model although there are few relevant examples because of the preponderance of surface-consonant-initial morphemes; two examples are *rrirnpirnpe* ‘lips’ and *urrrthurrthe* ‘owlet-nightjar’. However, the existence of stem-final /a/ makes the application of VC(C) syllables problematical.⁴³

4.10 *Pertame*

Pertame, or Southern Arrernte, generally resembles Western Arrernte. Loss of the initial vowel has been more extensive in *Per*, however. In particular, it has affected words of the form /a(C)C^w/, which have compensated for the loss of their initial /a/ by transferring the roundness from the release of the consonant to the onset, resulting in a rounded initial vowel.⁴⁴ Words which have been modified in this way include *urte* ‘man’ (from *artwe*), *ulhe* ‘blood’ (*alhwe*), *uke* ‘right hand’ (cf. *akwe* ‘arm’ in some dialects), *unke* ‘asleep’ (*ankwe*) and *urlte* ‘empty’ (*arltwe*). A similar change has occurred in some longer words, e.g. *urrempe* ‘cousin’ from *arrwempe* and *kukeme* ‘biting’ from *kakweme*. In the latter case the reason is obviously not loss of an initial vowel, but presumably the /a/ vowel was first reduced to /e/. In other cases roundness on release in *Per* corresponds to onset roundness in other dialects; for example *lwarre* ‘facing this way’ corresponds to CAr *ularre*.

Per is the only Arandic communalect (but see fn. 23) which permits [ɔC] with peripheral C (other than in loan words from English); there are two examples of /uk/ in the previous paragraph, and an example with a bilabial is *anupme* ‘spinifex wax’. It appears that this happens in circumstances similar to those in which rounding moves forward to the onset of a consonant in other communalects. Thus, for example, *punge* ‘hair’, in which the first vowel is

⁴³ Note McCarthy and Prince’s (1986:note 50) description of Western Arrernte as “a language in which the requirement that syllables have onsets seems to be nearly suspended”.

⁴⁴ Koch (1997:286) regards this rather as preservation of initial /u/, and so a conservative feature. This implies that the transfer of rounding from vowels to consonants did not occur in this dialect. However, there seems to be ample evidence that it did; for example, /tw/ ‘to hit’ has present tense [túmə] but imperative [twæy]. Similar considerations apply to Lower Arrernte (§4.11).

phonemically /e/, contrasts with *ingwe* 'night', in which the forward movement of roundness is prevented by the vowel /i/.

Fluctuation in the location of the realisation of roundness is noted in alternative pronunciations of words with /rr/ occupying the first consonant position: *rrweketye* and *urreketye* 'woman', *rrwekele* and *urreketele* 'first'.

Per has at least the same /a/-final stems as WAr.

4.11 Lower Arrernte

Lower Arrernte has also been called Lower Southern Arrernte and Alenyemtarrpe (the latter, used by some speakers of dialects to the north, is uncomplimentary); the name preferred by the most authoritative of the handful of partial speakers I worked with is Arrernt Imarnt, literally 'solid Arrernte'. The best material available on it is two hours of tape and associated fieldnotes by Hale.⁴⁵

This language is characterised by extensive movement forward of rounding to consonant onset (written as *u*). Common words written with initial *u* include *unek* 'my' (*nweke* in Per, and cognate with *anwek-* 'we plural (dative)' in some other Arandic languages), *unarr* 'we plural' (and other kinship-related pronouns such as *unakerr*, *unantherr*, and *angunantherr*; the *un-* corresponding to *nw-* or *anw-* elsewhere), and *untya* 'nest' (*antywe* in languages to the north). An unusual one is *unew* 'spouse' (*newe* or *anew(e)* in other languages); here the initial round vowel is perhaps conditioned by the /w/ later in the word (unless the proto-form is not **anew* but **aneww*). In some words roundness is heard both before and after a consonant position and for the time being at least is written in both positions, although this is not necessary. Examples are *urtwa* 'man' (*urte* in Per, *artwe* in most of the other languages), *urkwem* 'eating' (*lkweme* in Per, *irkweme* in WAr, *arkwem(e)* in several languages), and *urwirl* 'sandfly' (compare *urrlrke* 'march fly' in EAr and related forms in other languages). Examples of onset rounding on peripheral consonants include *kungker* 'elder sister' (compare *angkwer(e)* in some languages; the initial *k* probably results from prefixing of *kw-* which occurs with some kinship terms referring to females), *ungkaperr* 'dance' (Per *ngkwaperr*), *pung* 'a type of cloud', *ukepenh* 'even, square', *upern-upern* 'rotten', and the suffix *-ukw* 'first' (and note rounding also on the release; compare CAr and EAr *-urrke*).

Arrernt Imarnt is the only language which permits the velar glide to follow /i/. In a number of words initial *ih* corresponds to initial *h* in WAr (in the speech of those few old people who still use this consonant) and initial *ah* in other dialects. Examples include *ihelh* and *ihern*, both 'ground, sand', *ihelrkem* 'getting light', *ihenterr* 'woman's mother-in-law', and *ihanem* 'going' (corresponding to an avoidance term in some languages; the circumstances of its usage in this language are not known, but it is not the normal term). Others without known cognates elsewhere are *iherrir* 'face' and *ihuler* 'grave'; the latter has the sequence *hu* which is quite rare (although not unexpectedly so, as both /h/ and medial *u* (however we phonemise it) are quite uncommon; three examples are known from communalects of CAr and/or EAr). A number of other words which have initial *ah* in other languages also have it in this one, for example, *ahenty* 'throat', *aherr* 'kangaroo', *ahert* 'bilby', *ahinenh* 'woma (snake)', *aha* 'anger', and *ahakey* 'type of fruit, bush currant'.

⁴⁵ The tape summarises the results of a longer period of fieldwork.

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5 *Basic vocabulary of the Arandic languages: from classification to reconstruction*

HAROLD KOCH

1. Introduction¹

Hale (1962) published the results of data collected during 1959–60 representing ten sites within the linguistic territory of the Arandic language group. The paper includes the responses for a “100-word test list . . . taken from a former 400-word survey list designed for use in Central Australia with particular attention to the Central Australian Domains” (Hale 1962:173). (A fuller word list (Hale n.d.) remains unpublished but has been widely available.)

Hale’s presentation divides the 100-word sets, each of which gives the translation equivalent of the same English word into each of the ten local varieties of Arandic, into three groups on the basis of whether the corresponding words are judged to be cognate between the different varieties of language. The first group includes all the words “shared as cognate by all the languages and dialects in the sample”; the second set gives those words “shared by all except Kaiditj”; the third set includes the remainder—words which are not cognate between all the varieties except Kaytetye (Hale 1962:173). The language names, their locations and abbreviations used by Hale are given on Table 1, along with corresponding modern language names plus the abbreviations used in this paper.

¹ I am grateful to Gavan Breen, Jenny Green, Luise Hercus, Mary Laughren, David Nash, Jane Simpson, and Myfany Turpin for comments on earlier versions of this paper.

Table 1: Language variety labels

Hale	Hale language name and location	modern label	this paper
Ka	Kaiditj (from Murray Downs)	Kaytetye	Kay
AAI	Alyawara (from Ammaroo)	Northern Alyawarr [Western Aly]	NAly
MDAI	Alyawara (from MacDonalD Downs)	Southern Alyawarr [Eastern Aly]	SAlly
Ak	Akara-Akitjara (eastern Plenty River)	Antekerrepenh	Ak
PRAr	Aranda (from western Plenty River)	Northeastern Arrernte	PR
ASAr	Alice Springs Aranda	Mparntwe/Central Arrernte	AS
An	Anmatjera (from Napperby)	Western Anmatyerr	Anm
HgAr	Western Aranda (from Hermannsburg)	Western Arramta/Western Arrernte	WAr
HyAr	Southern Aranda (from Henbury)	Pertame/Southern Arrernte	SAr
LoAr	Lower Aranda (from Dalhousie)	Lower Arrernte	LAr
		Alyawarr	Aly
		Eastern-Central Arrernte	ECAr
		(proto-)Aranda	(p)Ar
		(proto-)Arandic	(p)Arc
		pre-Arandic	preArc
		(proto-)Pama-Nyungan	(p)PN

Hale then calculated percentages of cognates between all the varieties and drew conclusions regarding subgrouping and dialect chain within the whole Arandic group. His table of lexical percentages (amended to agree with his text) is reproduced here on Table 2.

Table 2: Percentages of cognates shared (Hale 1962:181)

	AAI	MDAI	Ak	PRAr	ASAr	An	HgAr	HyAr	LoAr
Ka	41	38	37	33	31	32	30	28	29
AAI		83	77	69	64	60	60	55	54
MDAI			83	72	67	59	60	58	57
Ak				79	70	60	62	62	64
PRAr					87	75	74	68	65
ASAr						83	86	70	67
An							82	70	54
HgAr								84	66
HyAr									65

Hale's interpretation of the historical relations revealed by these statistics is in terms of a subgroup differentiated firstly into Kaytetye vs. Aranda, then a further split into a Lower and an Upper Aranda language, and finally diversification of the latter into a chain or mesh of dialects whose mutual intelligibility depends on their relative geographical distance from one another. These relationships are diagrammed in Figure 1.

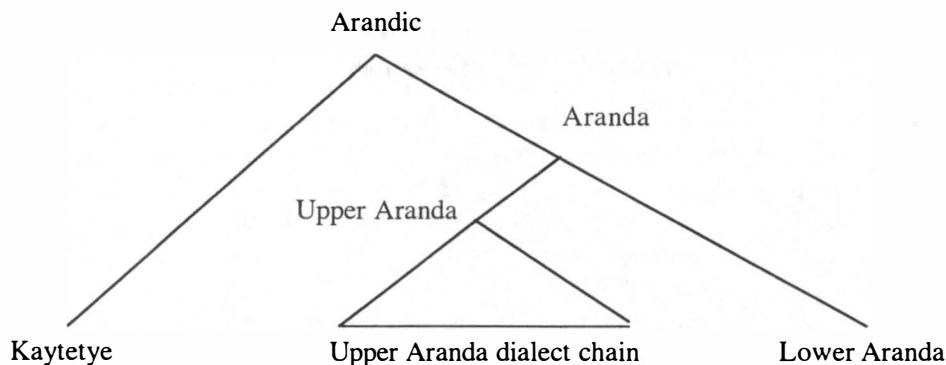


Figure 1: Arandic linguistic relationships according to Hale (1962)

In more recent linguistic work on Arrernte (Wilkins 1989:15, Henderson 1997:10–13), four separate languages are recognised within Hale’s Upper Aranda dialect chain: Alyawarr, Anmatyerr, Eastern and Central Arrernte (including Hale’s PRAr, and ASAr), and Western Arrernte (including Western and Southern Arrernte). Hale’s Ak is now thought by Gavan Breen (pers. comm.) to represent Antekerrepenh, whose separate status from ECAR and Aly remains to be demonstrated. The separate status of Lower Arrernte is supported by morphological data (Breen, pers. comm.). Figure 2 gives a schematic representation of the geographical distribution of the sites which Hale’s wordlists represent and shows the main linguistic divisions now recognised.²

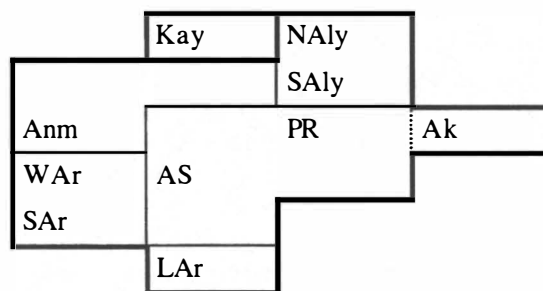


Figure 2: Geographical schema of Arandic language varieties

My aim in this paper is to focus not on the statistics of cognation but on the actual words. I intend to use the wordlist data for purposes of reconstruction rather than of classification. I wish to answer for each set of corresponding words the questions: (a) what was the proto-Arandic (pArc) word? and (b) what were the innovations which account for its replacement in the cases of nonuniformity? Each of Hale’s three word groups has a different significance and raises its own set of issues for historical reconstruction.

The first group, which I call ‘pan-Arandic words’, can be assumed to be descended from pArc. They are important witnesses to the genetic discreteness of the Arandic subgroup. Some of these are inherited from a putative proto-Pama-Nyungan (pPN) or lower-order ancestor. While shared inheritance by itself does not reveal the separateness of a linguistic subgroup,

² For modern dictionaries of Alyawarr, Eastern and Central Arrernte, and Western Arrernte, see respectively Green (1992), Henderson and Dobson (1994) and Breen and Pfitzner (2000).

those words that have cognates in other Australian languages support the establishment of phonological changes that characterise the development of the Arandic subgroup (see Koch 1997b). On the other hand, shared Arandic words that lack outside cognates constitute innovations common to Arandic that contributed to the separation of Arandic from other Australian languages. Each common linguistic innovation contributes to the definition of a separate language; lexical innovations, including the creation of new lexemes or semantic shifts, are important in this respect because there are potentially so many of them in a subgroup, compared to the number of possible phonological and grammatical changes, and most lexical changes are more arbitrary, less 'natural', than many phonological and grammatical changes. (The main outlines of Arandic historical phonology are presented in Koch (1997b), which can be read as a companion article to this one. Koch also presents references to the Pama-Nyungan (PN) antecedents for about 100 Arandic forms—but not the actual cognates.³)

The second group of words, which I call 'Aranda vs. Kaytetye words' raise a different issue. The existence of separate forms helps to establish the discrete status of the Aranda group of languages and dialects. But it is potentially a problem for the unity of Aranda and Kaytetye as a subgroup. However, if a common pArc is assumed, there are four ways in which the lexical disparity can be explained historically: (a) the pArc form has been preserved in Kay and Ar has innovated; (b) the pArc form has been preserved in Ar and Kay has innovated; (c) neither branch continues the pArc form, both having innovated; (d) both words continue pArc forms. In the last case the forms may have been synonyms in pArc, or one may have had a somewhat different sense which subsequently shifted.

The third, non-congruent or 'divergent' group of words, raises different issues. Each set reflects a lexical change in at least one of the language varieties that developed out of pAr. The historical problem is to sort out which of the variant words are most likely to be reflexes of the pAr (and even the pArc) representative of the given meaning. One method that is useful here is that of linguistic geography, whereby inferences about reconstruction are drawn from the areal distribution of forms (see Koch 1997a:37f.). Because of space limitations I discuss only a small sample of the 62 words in Hale's third group, with examples selected to illustrate the different configurations that occur.

I re-present the words from Hale's list in tables with cognates and other translation equivalents arranged into vertical sets. The words are spelled in terms of modern orthographical conventions for the Arandic languages, with some standardisation—in the interests of making the paper easier for non-Arandicists to follow. The vowels are taken to be *a*, *e* (shwa), *i*, and *u*. I will represent all words with a final *e*, contrary to the practice for modern Alyawarr and Anmatyerr, and use initial *i*, contrary to the practice for modern Kaytetye (where such vowels are interpreted as representing the shwa phoneme). For the diachronic interpretation of correspondences of *uCe-* and *iCwe-*, see Koch (1997b); for the synchronic phonological analysis of rounding, see Breen (this volume).

2. Pan-Arandic words

In Table 3 I list the 21 words of Hale's group 1, word sets which are shared by all Arandic varieties. The words are displayed in a vertical array topped by Hale's word number and

³ Sources for PN reconstructions are: Alpher (1991), Austin (1981, 1990), Capell (1956), Dixon (1970, 1980), Evans (1988), Hale (1982), O'Grady (1966, 1979), O'Grady and Tryon (1990), Sommer (1969).

gloss and followed by my proto-Arandic (pArc) and Pre-Arandic (preArc) reconstructions. The order of language varieties follows that of Hale. Any material that I judge to be non-cognate is put into square brackets. After presenting the lists I discuss briefly the etymology of each of the forms.

To account for the inner-Arandic history of the cognate sets in this group, it is sufficient to give the pArc form (the minor phonological differentiation between the forms will also have to be justified eventually). I will also give, where possible, the pre-Arandic form from which the pArc is descended. Also in cases where there is no established pPN etymology, I give some of the cognates on which I have based my reconstruction.

Table 3: Pan-Arandic cognates

No.	1	2	3	4	5	6	7
Gloss	bone	burn	ear	egg	excrement	fat	foot
Kay	ngkwerne	ampe-	iylype	kwarte	atne	antere	angke[tye]
NAly	ngkwerne	ampe-	iylype	kwarte	atne	antere	ingke[tye]
SAlly	ngkwerne	ampe-	iylype	kwarte	atne	antere	ingke[tye]
Ak	ngkwerne	mpe-	iylype	kwarte	atne	antere	ingke
PR	ngkwerne	mpe-	iylype	kwarte	atne	antere	ingke
AS	ngkwerne	ampe-	iylype	kwarte	atne	antere	ingke
Anm	ngkwerne	ampe-	iylype	kwarte	ane	antere	ingke
WAr	ngkwarne	(a)mpe-	iylyp[akerte]	kwarte	atne	ntere	ingke
SAr	ngkwarne	mpe-	iylyp[akerte]	kurte	atne	ntere	ingke
LAr	ngkwerne	mpe-	iylype	kwarte	atne	antere	ingke
pArc	*ungkerne	*ampe-	*iylype	*ukarte	*atne	*antere	*ingke
preArc	*nungkarn	*kaampa-		*muka..	*kuna	*CantOrV	*mingka ?

No.	8	9	10	11	12	13	14
Gloss	hand	head	hit with missile	liver	man	mouth	nose
Kay	iltye	ake	we-	aleme	artwe[ye]	arre	ilhe
NAly	iltye	ak[apwerte]	we-	aleme	artwe	arr[akerte]	alhe
SAlly	iltye	ak[apwerte]	we-	aleme	artwe	arr[akerte]	alhe
Ak	iltye	ak[apwerte]	we-	aleme	artwe	arr[akerte]	alhe
PR	iltye	k[aperte]	we-	aleme	artwe	arr[akerte]	alhe
AS	iltye	k[aperte]	we-	aleme	artwe	arr[akerte]	alhe
Anm	iltye	ak[apwerte]	[lte]we-	aleme	artwe	arr[akerte]	alhe
WAr	iltye	k[apwerte]	wa-	leme	artwe	rr[akerte]	alhe
SAr	iltye	k[uperte]	wa-	aleme	urte	arr[akerte]	alhe
LAr	iltye	ak[apwerte]	we-	aleme	urte	arr[akerte]	alhe
pArc	*iltye	*ake	*we-	*aleme	*urte	*arre	*i/alhe
preArc	*miltyV	*maka/*kaka	*Ruwa-	*malampV	*CurtO	*Rirra	*mulha

No.	15	16	17	18	19	20	21
Gloss	see	sit	speak	stand	tongue	two	urine
Kay	are-	ane-	angke-	atne-	alenyé	atherre	impwe
NAly	are-	ane-	angke-	itne-	alenyé	atherre	impwe
SAly	are-	ane-	angke-	itne-	alenyé	atherre	impwe
Ak	are-	ane-	ngke-	tne-	alenyé	therre	mpwe
PR	are-	ane-	ngke-	tne-	alenyé	therre	mpwe
AS	are-	ane-	angke-	tne-	alenyé	atherre	mpwe
Anm	are-	ane-	angke-	ine-	alenyé	therre	mpwe
WAr	re-	ne-	ngke-	itna-	lenyé	therre	umpe
SAr	re-	ne-	ngke-	tna-	alenyé	therre	umpe
LAr	re-	ane-	ngke-	itne-	alenyé	therr[ame]	mpwe
pArc	*(a)re-	*(a)ne-	*(a)ngke-	*(a)tne-	*(a)lenyé	*(a)therre	*umpe
preArc	*miira-	*nyiina-	*kangka-?	*thana-	*thalany	*kutharra	*kumpu

1 'bone': The preArc form is based on cognates in the Warluwarric family (for which see Carew 1993)—Wakaya *rnungkurt*, Bilarnu *nhukarni*, Injilanji *n(h)jungkardi* (Koch 1997a:30). There is some question about the place of articulation of the initial nasal. (Warlpiri and Warumungu *yungkurru* ('witch doctor' in the latter) represent loans from Arandic.)

2 'burn': The preArc **kaampa-* is reconstructed by Alpher (1991) on the basis of Hale's work for West-Central Pama-Nyungan; cognates are found in proto-Pama, and without the long vowel in Ngumpin-Yapa languages, Western Desert, pMantharta (Austin 1981), pNgayarta (O'Grady 1966:#605), pThura-Yura (J. Simpson, pers. comm.).

3 'ear': War and SAr extended the root by adding the HAVING suffix *-akerte*, as in 'mouth'. Hale gives *ilype* for all varieties except Aly. I am not recognising a distinction between a prepalatalised consonant (e.g. *yl*) and a palatal (e.g. *ly*) in the first member of clusters. Modern dictionaries give *irlpe* for ECAr and SAr/Pertame, which lack the prepalatalised phonemes. The etymology is uncertain; possible cognates include pCentral Karnic **tharlpa* 'ear, leaf', Yankunytjatjara *karlpi* 'broad leaf, feather', Western Desert *nyarlpi* 'broad leaf, feather'.

4 'egg': The preArc form is based on O'Grady's (1990:86) proto-(Nuclear-)Pama-Nyungan **muka*.

5 'excrement': A widespread Australian **kuna* has been recognised since Capell (1956:87).

6 'fat': No etymology is available. The preArc **O* vowel means *a* or *u*, not *i*, since there is no prepalatalisation. If we can trust the absence of prestopping in the *n* (which is unreliable in clusters) the initial *C* would be nasal.

7 'foot': Kay and Aly have added an increment *tye*. Kay has the term *ingke* (or *ikngke?*) in the meaning 'claw'. Both have another extended form *ingkelthele* 'finger-nail, toe-nail', which is found in ECAr in the meaning 'claw'. It would appear that (a) the original pArc meaning of *ingke* was 'claw, nail'; (b) an early derivative was *ingkelthele* 'nail, claw'; (c) pAr semantically shifted *ingke* from 'nail' to 'foot'; (d) Kay and Aly extended *ingke* by adding *-tye* to produce a meaning 'foot'. A plausible preArc form is **mingka*, if Pitta-Pitta *mingkara* 'finger-nail' is cognate.

8 'hand': The preArc form is based on the Western Desert cognate *miltji* 'nails, claws' and the extended *milja(r)n* 'fingernail' in Yapa-Ngumpin languages. The semantic shift to 'hand' is a distinctive Arandic innovation (see Wilkins 1996:283–5).

9 'head': All varieties of Aranda have extended the original *ake* by means of an element, either *aperte* or a reflex of **uperte/apwerte* (which may be the word for 'stone'). PreArc **maka* is supported by cognates in a number of Pilbara languages (O'Grady 1966:#822). The alternative **kaka* is reconstructible for pThura-Yura (J. Simpson, pers. comm.).

10 'hit with missile': Anm has combined the verb root with a preverbal element *lte*. The preArc is based on a pPN stem reconstructed as *RLDuwa-* by Evans (1988:104) and as **ruwa-* by Hendrie (in O'Grady and Tryon 1990:73).

11 'liver': The preArc form is based on Barkly regional forms such as Injilanji *malamba*, West Wakaya *melempa*, Wampaya *malampa*, Waanyi *malambi*, Warumungu *malimpa/irri*. (Warlpiri *yilima* and *nyilima* are interpreted as loanwords from Arc.)

12 'man': Kay has extended the inherited form with an increment *-ye*. The longer form *artweye* also occurs in Aly, Anm and ECAr in the compound *apmerek-artweye* 'landowner'. No etymology is yet available. (For **O* see comment at No.6.)

13 'mouth': All varieties of Aranda have extended the root by adding the HAVING suffix *-akerte*. The preArc form has long been recognised as Pama-Nyungan (Koch 1997b:298) in the meaning 'tooth'. A semantic shift to 'mouth' took place in Arc, as well as elsewhere.

14 'nose': The original vowel of pArc is uncertain; cognates further afield suggest **mulha* (Koch 1997b:296). O'Grady reconstructs **milya* (O'Grady and Tryon 1990:84).

15 'see': For preArc see O'Grady's (1990:85) pPN **miira-* 'see, watch, perceive', reflected in Western Desert *mira-* 'watch'. The semantic shift to the generic 'see' is diagnostic of the Arc subgroup.

16 'sit': PreArc **nyina-* (or **nyina-*) is a long established pPN root (Koch 1997b:297).

17 'speak': There are obvious cognates in the form of *wangka-* in most language subgroups in western PN—including Yapa (Warlpiri), Ngayarta, Kanyara-Mantharta, Western Desert and Thura-Yura. But the lack of rounding in a *wa-* word is an exception to Arc sound changes (Koch 1997b:283f.). A form *kangka-*, such as occurs in Bidjara 'call out', also in Lardil, would be a better source. Could there have been a change **k > w* in western PN?

18 'stand': The preArc form is based on the established pPN **tyana-* (Koch 1997b:298).

19 'tongue': The preArc form is based on a long established pPN form (Koch 1997b:298).

20 'two': LAr adds *-ame*; *atherrame* is found in other varieties as well (e.g. ECAr), beside *(a)therre*. The pPN form was proposed by Capell (1956:93) and Dixon (1970:90).

21 'urine': For pPN **kumpu* see Capell (1956:89), Dixon (1980:100).

Although all varieties have cognate terms for the group 1 words, we see a distinction between Kaytetye and Aranda in several places: (a) Aranda but not Kay has shifted *ingke* semantically from 'claw, nail' to 'foot' (set 7); (b) Aranda but not Kay has compounded *ake* with **uperte* to extend the term for 'head' (set 9); (c) Aranda but not Kay has extended **arre* 'mouth' by means of the HAVING suffix *-akerte* (set 13); (d) only Kay has extended **urte / artwe* 'man' (set 12) to *artweye*.

3. Aranda vs. Kaytetye words

Here I discuss Hale's group 2, items 22 through 42, words that are shared by all varieties of Aranda whereas Kay has a non-cognate word in the same meaning. I re-present in Table 4 the words in modern orthography, and include a reconstructed proto-Aranda (pAr) form, as well as a suggested proto-Arandic (pArc) form. The order here has been changed from that of Table 3; here I first give the forms for all the varieties of Aranda, followed by the pAr reconstruction, then follows the Kay form, and finally the pArc reconstruction. Following the table I discuss what the pArc form is likely to have been. This amounts to deciding which of the two branches of Arandic has innovated.

Table 4: Aranda vs. Kaytetye words

No.	22	23	24	25	26	27	28
Gloss	bird	cry	die	drink	eat	eye	fall down
NAly	uthipe	artne-	ule-	antywe-	arkwe-	atnngge	aytne-
SAly	thipe	artne-	ule-	antywe-	arkwe-	atnngge	aytne-
Ak	uthipe	artne-	ilwe-	antywe-	arkwe-	alknge	tnye-
PR	thipe	artne-	ilwe-	antywe-	arkwe-	alknge	tnye-
AS	thipe	artne-	ilwe-	antywe-	arkwe-	alknge	itnye-
Anm	thipe	irne-	ule-	ntywe-	irlkwe-	anngge	anye-
WAr	thipe	irtne-	ilwe-	ntywe-	irlkwe-	alknge	tnye-
SAr	thipe	rtne-	ilwe-	ntywe-	urlke-	alknge	iytne-
LAr	uthipe	artne-	ilwe-	untye-	urlke-	alknge	iytne-
pAr	*uthipe	*artne-	*ule-	*untye-	*urlke-	*atnngge	*aytne-
Kay	thangkerne	ake-	ampwarre-	kwathe-	ayne-	irlwe	atnthe-
pArc	*uthe		*ule-	*untye-	*ayne-	*alknge	*aytne-
preArc	*thuthu	*kaka-, *TarnO-	*pula-	*punta-	*ngarni	*miilngV	*warni-

No.	29	30	31	32	33	34	35
Gloss	food (veg.)	get/fetch	give	go	hear	lie	meat
NAly	amerne	ine-	anthe-	alhe-	awe-	aynte-	akere
SAly	amerne	ine-	anthe-	alhe-	awe-	aynte-	akere
Ak	merne	ine-	nthe-	lhe-	awe-	antye-	kere
PR	merne	ine-	nthe-	lhe-	awe-	inte-	kere
AS	amerne	ine-	anthe-	alhe-	awe-	inte-	kere
Anm	amerne	ine-	anthe-	alhe-	awe-	inte-	kere
WAr	merne	ine-	nthe-	lhe-	awe-	inte-	kere
SAr	merne	ine-	nthe-	lhe-	we-	inte-	kere
LAr	merne	ine-	nthe-	lhe-	we-	inte-	kere
pAr	*(a)merne	*ine-	*anthe-	*alhe-	*awe-	*aynte-	*(a)kere
Kay	etnye	iytle-	itnye-	ape-	ilpathe-	une-	weye
pArc	?	*iyne-	*itnye-	*ape-	*awe-	*une-	*akere, *uye
preArc	*NEmVrnV	*mani	*yinyV- < *nyunyV	*wapa-	*ngawi-	*nguna-	*wakari, *kuya

No.	36	37	38	39	40	41	42
Gloss	one	root	smoke	spear	stomach/ belly	strike/kill	water
NAly	anyente	arterkerre	kwerte	rnterne-	atnerte	atwe-	kwatye
SAly	anyente	arterkerre	kwerte	rnterne-	atnerte	atwe-	kwatye
Ak	nyente	arterkerre	kwerte	rnterne-	atnerte	atwe-	kwatye
PR	nyente	arterkerre	kwerte	rnterne-	atnerte	atwe-	kwatye
AS	anyente	arterkerre	kwerte	rnterne-	atnerte	atwe-	kwatye
Anm	nyente	irtekerre	kwerte	rnterne-	atnerte	atwe-	kwatye
WAr	nyente	irtekerre	kwarte	rntarne-	tnerte	twe-	kwatye
SAr	nyente	rtekerre	kwarte	rntarne-	atnerte	twe-	kwatye
LAr	nyente	arterkerre	kwerte	rnterne-	atnerte	ute-	kwatye
Kay	wenyerre	kartawarre	ilpalhe	aytne-	aleme	alarre-	arntwe
pAr	*(a)nyente	*arterkerre	*ukerte	*(r)nterne-	*atnerte	*ute-	*ukatye
pArc	*(a)we-	*arterkerre	*ukerte	*aytne-	*atnerte	*ute-	*uke
preArc	*CVwV-	*CartOkVrrV	*tyukurtu	*Ra-ni	*kunarti	*CutO-/*watO-	*nguku

22 'bird': pAR **uthipe* possibly is a combination of **uthe* + **ipe*. This would allow for the possibility that Kay form is also a compound, presumably **uthe* + *angkerne*, the latter possibly a derivative of *angke-* 'speak'. PreArc **thuthu* is suggested by Warumungu *juju* and Warluwarric *thuthu*.

23 'cry': The preform of Kay seems to be **kaka-*, which has cognates in Warumungu and the Warluwarric languages. No clear etymology is available for pAR **artne-*, whose preform should be **TarnO-*, where **T* is a non-nasal and **O* is vowel other than *i*. Perhaps pArc had both forms.

24 'die': Kay is formally *ampwe* + *arre-*, and has the structure of an inchoative, which suggests an earlier meaning 'become *ampwe*'. In Aly *ampwe* means either 'old' or 'thin, skinny', and the derived inchoative *ampwerre-* means either 'become old' or 'become thin, skinny'. It appears Kay has shifted the inchoative semantically, perhaps originally as a euphemistic expression, to 'die'. The word replaced is likely to have been **ule-*, which can then be reconstructed for pArc. A preform **pula-* is suggested by cognates in Queensland languages: Yanda *pula-*, *wula-* in pPama, Bidjara, Guwa.

25 'drink': Kay is from **uke* + **athe-* 'water eat' (Koch 1997b:295). If we assume that this collocation, which occurs in many other Australian languages, replaced a monomorphemic verb, this is likely to have been the form **untye-* which is found in all of Aranda. Evidence for the prior existence of this root in Kay comes from the term *nty(w)errele*, which means both 'thirsty' and 'potable liquid'. This reconstructs as **untyerrele*, which is presumably a derivative of **untye-* 'drink'. The preArc is based on cognates such as Warumungu *jala-punjjan*, Pitta-Pitta *puntha-* 'suck', pNgayarta **punhtha-* 'swim, drink' and pKanyara *punytya-* 'lick'.

26 'eat': pAr **urlke-* is cognate with a Karnic verb *yurlku-* (pKarnic 'swallow'; cf. *yurlku* 'throat' (Pitta-Pitta, Wangka-Yutjuru *yirlka*)). Kay *ayne-* reflects an earlier **ngarni-*, which is an inflected form of a very ancient root **nga-* 'eat' (Koch 1997b:296). *Nga-rni* occurs in Warlpiri as the nonpast tense form of *nga-*. One must assume that an inflected verb form was reanalysed as the root in Kay, presumably after a requirement came into force that all

Arandic verb roots must be disyllabic. I posit that Kay here continues pArc and that pAr has innovated by shifting a verb meaning 'swallow' to 'eat'.

27 'eye': The Kay form *irlwe* also occurs in ECar and other Aranda (spelled *urle*), but in the meaning of 'forehead'. A cognate of the Aranda term does occur in Kay; it is *a(t)nngē* but it means 'seed'. ECar also has *anngē* as 'seed' (beside *alkngē* 'eye!'). I reconstruct for pArc **urle* in the meaning 'forehead', from pPN **ngurlu* (Koch 1997b:297), and for 'eye' tentatively **alkngē*, possibly from preArc **miilngV*, an extension of pPN **miil* 'eye' (Koch 1997b:294, 296).

28 'fall down': PAr **aytne-* reconstructs to an earlier **Ta(r)ni-*, where *T indicates a non-nasal consonant. Plausible extra-Arandic cognates are *warni-* in pMantharta, pNgayarta, Watyarri, Wirangu, Nukunu *wartni-*, and WD *warni-* with shifted meaning 'throw'. Hence we can assume a preArc **warni-* > **aytne-*. The source of Kay *atthe-* is unknown, but the root recurs in the complex form *attheyayte-* 'climb', where the element *-ayte-* contributes the upward semantic component (cf. the verb root *ayte-* 'rise' < **parti-*).

29 'vegetable food': Since neither the Aranda nor the Kay terms has plausible external cognates, a judgement on the likely pArc form is impossible. PArc **(a)merne* presupposes **NEmVrnV*, where *N is any nasal and *E is a non-rounded vowel.

30 'get/fetch': Kay *iyle-* is presumably cognate with the denominative transitivity form that occurs as Kay *-ayle-*, Western Aly *-ele-*, Eastern Aly and ECar *-ile-* (and possibly ECar/Aly *ile-* 'tell'). PAr **ine-* has a likely cognate in Kay in the alternative denominative transitivity form *-eyne-*. Both transitivity forms have originated in compound constructions, with the second element a verb meaning 'get, take', etc. It is possible that two verbs were present in pArc. The pAr form **ine-* may reflect pArc **iyne-* and continue a preArc **mani-*, which would have been in origin an inflected form of the pPN verb **ma-* 'get, take' (Koch 1997b:296), reflexes of which form transitive compounds in many PN languages. Cognates are Arabana-Wangkangurru *mani-*, pWKarnic **mani-*, Kalkatungu *mani-*, Warlpiri *ma-ni* (a nonpast inflected form).

31 'give': The Ar forms descend from **wantha-*, which is attested in the meaning 'leave, put' in pNgayarta, pKanyara-Mantharta, and Mirminy. The meaning must have shifted to 'give' in pAr. This leaves the Kay form as the reflex of the inherited pPN 'give', **nyu-*. In preArc this root would have suffered the lenition of the initial nasal, derounding of the vowel, and extension by the absorption of an inflection; cf. the western forms Warlpiri *yinyi* nonpast, Walmajarra *yinya* past, pNgayarta (O'Grady 1966:#714) *yinya-*. I posit an Arc development *itnye-* < **yinyi/a* < pPN **nyunyV* (Koch 1997b:293, 297).

32 'go': The root *ape-* of Kay is found in Ar *petye-* 'come' (where *-tpe-* contributes the 'hither' direction) and probably in the frequentative affix *-pe-*, so it is clearly inherited from pArc. **alhe-* for 'go' appears to be an innovation of pAr. **ape-* has a clear cognate in Warumungu *api/a-*, but a possible cognation with a widespread PN root *wapa-* (Koch 1997b:293, 299) is problematic since one would expect **wa-* to have resulted in rounding of the consonant (cf. comments on no. 17 'speak').

33 'hear': Kay appears to be a compound of 'ear' plus an uncertain verb **athe-* (hardly *athe-* 'excrete', possibly the **athe-* < **patha-* 'bite, eat' found in *kwathe-* 'drink'). So the Ar form is likely to continue a pArc form **awe-*. A plausible cognate is the Karnic *ngawi-* found in Arabana, Wangkangurru, and Wangka-Yutjuru).

34 'lie': Kay is from pPN **nguna-* (Koch 1997b:293, 297). The Ar forms probably descend from an earlier **wanti-*, attested as 'lie' in the Thura-Yura languages (J. Simpson, pers. comm.) and as 'fall' in Warlpiri and so reconstructed for pPN by Alpher (1991:91). We can assume parallel semantic shifts 'fall' > 'lie' in pAr and Thura-Yura.

35 'meat': Kay *weye* is from **uye* < **kuya*, a widespread PN term meaning 'fish' or, in many western languages, 'animal' or 'meat' (Koch 1997b:296; McConvell 1997). The Kay form may have been borrowed from Warlpiri or Warumungu *kuyu* before Arandic initial dropping took place. The Ar form may be cognate with the word *wakari*, 'fish' in western Queensland (e.g. Kalkatungu) as well as Nyamal but 'meat' in Tharrkari and Pintupi (respect register). There is some doubt, since one would expect *wa-* to result in rounding of the *k*. If the first vowel were long, however, the *w* probably didn't round the *a*, so Ar **akere* could descend regularly from a preArc **waakari*. I don't know if there is any evidence from other languages of a long vowel in this word. It is possible that both words for 'meat' were present in pArc.

36 'one': The Ar forms reconstruct to **(a)nyente*, of which there is no trace in Kay. Kay *wenyerre*, *awenyerre* is often extended with the post-case suffix (or clitic) *-arte*, which occurs commonly on quantifiers. This stem is probably related within Kay to *wenhe* (oblique stem *wethe-*) 'same, aforementioned', which in turn is related to Northeastern Arrernte *wethe* 'you-know-who'. This suggests a pArc stem **(a)we-*, with a sense of 'same', etc., an extended form of which was adapted in Kay to the meaning of singularity. (Both *nyente* and *awenyerre* are used by language speakers to refer to synonymy or words that have similar meanings (M. Turpin, pers. comm.)) Whether pAr also had the form **(a)nyente* in the sense of 'one' is possible but not determinable. The Warlpiri and Warlmanpa *jinta* 'one', with cognates in the Ngumpin languages, is suspiciously similar to Ar *nyente* but cannot easily be related.

37 'root': Kay can hardly be unrelated to pAr **artekerre*, yet the initial *k*, the internal *w*, and especially the consistent low vowels cause difficulty. East Wakaya *irtikurru* appears to be a loan from Aranda, and Wangkangurru *nhartikira* may be too, with a prothetic consonant. The most likely candidate for pArc would be the same as pAr. The preArc is undetermined, except that the second vowel cannot have been *i*, since there is no prepalatisation of the preceding consonant.

38 'smoke': The Kay form is isolated and in view of the internal *a* may be a compound in origin. The pAr **ukerte* is likely to have been the pArc form as well, since a plausible extra-Arandic cognate is reconstructible for pKanyara-Mantharta. (Forms similar to the Aranda ones, Wangka-Yutjurru *kutu*, Pitta-Pitta *kuthu*, and Warlmanpa *yukurtu*, are explicable as loans from Arc languages.)

39 'spear': The Kay form is plausibly cognate with Ngumpin forms such as Walmajarra *lani*, the past tense form of *la-*. The root is phonemically *rla-* in Ngumpin, from an earlier **ra-*. Because of these extra-Arandic cognates, the Kay form (as with 'eat' and 'give') must be inherited from pPN **Ra-* (Koch 1997b:293, 298; cf. Evans' (1988:104) **RLDa-* 'throw spear'). At some stage in the prehistory of Arandic all monosyllabic verb roots would have been reanalysed as disyllabic with the absorption of an inflectional suffix into the root (on absorption see Koch 1995 and 1996). The pAr form **(r)interne-* (the ECar dictionary gives variants with and without retroflexion) looks as if it could be an adaptation of Warlpiri *panti-rni*, the nonpast form of *panti-* 'spear'.

40 'stomach/belly': Kay represents a semantic expansion from the common Arc form *aleme* 'liver' (Turpin 1997). So in the sense of 'belly' the pAr may have also been the pArc form. This form appears to be a derivative of *atne* 'excrement, guts', parallel to similar lexical structures in Arabana *kudnarti*, Wangkangurru *kudnakarti*, and Warluwarra *kunapartu*. A plausible preArc form would be **kunarti*.

41 'strike/kill': The Kay form is apparently bimorphemic in origin, possibly a compound including *arre-* 'put'. Hence the Ar form is more likely to have been inherited from pArc. No plausible cognates have been found, however. According to the sound changes established in Koch (1997b), the pre-Arc form would have been either **CutO-* or **watO-*, with a second vowel other than *i*.

42 'water': The Ar forms descend from an **ukatye*, which represents some kind of extension of the pPN **nguku* (Koch 1997b:295), either a compounding of **uke + *atye* or the reflex of a trisyllabic form such as **ngukatyi* (although the preservation of the medial *a* is not understood). PArc **uke* is preserved in Kay *kwathe-* 'drink' (set 25 above) and *akwelye* 'rain'. The etymology of Kay *arnuwe* is unknown; by sound laws it continues **NurntO*, where **N* is a nasal and **O* is a vowel other than *i*.

4. Divergent words

Table 5: Non-congruent words

No.	43	46	47	48	49	50	51	98
Gloss	armpit	bark	big	bite	black	blood	breast	white
Kay	ilhenpe	rteympe	alkenhe	atnhe-	irrpwerle	arrknge	aylpatye	arltere
NAly	iykwe	irrtnye	alkenhe	utnhe-	irrpwerle	arrknge	aylpatye	arltere
SAlly	iykwe	arntape	ilkwe	utnhe-	irrpwerle	arrknge	werlatye	arltere
Ak	iykwe	arntape	anteke	ke-	urrperle	irrknge	werlatye	arltere
PR	iykwe	arntape	akngerrtye	ke-	irrpwerle	alhwe	werlatye	mperlkere
AS	lhenpe	irrkngelhe	akngerre	utnhe-	urrperle	alhwe	werlatye	mperlkere
Anm	lhenpe	irrkngelhe	ngerre	unhe-	irrpwerle	alhwe	ipaty	mperlkere
WAr	lhanpe	irrkngelhe	kngerre	utnhe-	irrpwerle	alhwe	ipaty	tyurlkere
SAr	lhanpe	irrkngelhe	kngerre	tnhe-	urrperle	ulhe	ipaty	tyurlkere
LAr	lyenpe	tayerre	narne	ke-	iltyere	irrknge	werlatye	arltere
pre- ⁴		*irrkngelhe		*(a)ke, *utnhe-		*ulhe		
pAr	*lhenpe		*Vkngerre	*utnhe-	*urrperle			*rltere
pArc	*ilhenpe	*arntape		*utnhe-	*urrperle	*irrknge	*atye	*arltere
preArc		*parntapi	*TEngVrr	*TunhV-	*wurrparla			*karl tara

In Table 5 I present a representative sample of eight words from Hale's group 3, word sets 43–100, which I call 'divergent words'. I discuss briefly their histories as an illustration of the problems that are posed by non-congruent word sets. To decide on the most likely proto-form for both pAr and pArc requires evaluating each of the variant forms in terms of their status as inherited vs. innovated. Criteria will include considerations of areal distribution, semantic

⁴ The forms indicated by 'pre-' in Table 5 indicate words which are reconstructable to a dialect area intermediate in time between Proto-Aranda and a particular group of modern dialects.

shift, word-formation, and borrowing from outside the subgroup. Here it is important to be aware of the geographical relations, as displayed on Figure 2. The areal distribution of four word sets is given in Figure 3.

The easiest case to interpret historically is where only one language variety, other than Kay, has a non-congruent form. This single aberrant form is taken to be an innovation, and the form represented by the remaining varieties is assumed to continue pAr. Thus for set 49 'black' all varieties except LAr have a reflex of **urrperle*, which must have been the pArc form. Pintupi *wurrpaḷa* is a possible external cognate, although borrowing from Arandic cannot be totally excluded. (Wakirti Warlpiri *wurrpulu* 'black ochre' is possibly a loan from Arandic.)

A related situation obtains where each of several varieties has a unique term, in contrast to a uniform term for the remainder of the varieties. Here each of the unique terms is likely to represent an innovation. Thus for set 47 'big' the only widespread forms are reflexes of **kngerre* and **kngerrtye* (both likely extensions of an original form that ended in *rr*). This cognate set is even more widespread than appears from set 47, since *akngerre* 'many', 'important' (?) is given in the Aly dictionary, and an early wordlist from Charlotte Waters attests it in LAr: *agnirrcha* 'great' (Christopher Giles in Taplin 1879:146). So **(a)kngerr-* is reconstructible at least as far back as pAr. According to Breen (pers. comm.), the isolated Ak *anteke* is actually a mistake as 'big'; it rather means 'wide'.

Where one term is confined to several varieties that form a contiguous geographical block, we can similarly conclude that this represents a local innovation and that the more widespread form continues the original. Thus in set 43 the geographic distribution favours the reconstruction of **(i)lhenpe* as pArc, since the other term **uylke* is restricted to the northeastern area. (Here Hale gives the Ak and PR forms with *lyk* rather than *ylk*; as noted for no. 3 'ear', I am uncertain whether this difference is phonologically significant; see Breen (this volume) for discussion.)

Where one term has a peripheral and discontinuous distribution, it is likely to continue the earliest form, since shared innovation is excluded by the geographical location of the varieties. Thus in set 98 'white', *arltere* occurs in the northern and southern varieties. Closer searching shows that it also occurs in ECar in the sense 'really white'. The other two words attest a pAr compounding form **rlkere*, which further recurs in ECar *arrerlkere* 'pale yellow or whitish colour'. pArc **arltere* has a plausible cognate in Western Desert *karltara* 'clear'. (Warlpiri *yarltiri* is interpreted as a loan from Arandic.)

Similarly, for set 50 'blood' the *a/irrkng*e forms show a discontinuous distribution in the north-eastern area and the extreme south, whereas *ulhelalhwe* occurs in a continuous block across the western and central area. This pattern suggests that the latter is an innovation and the former the pArc form.

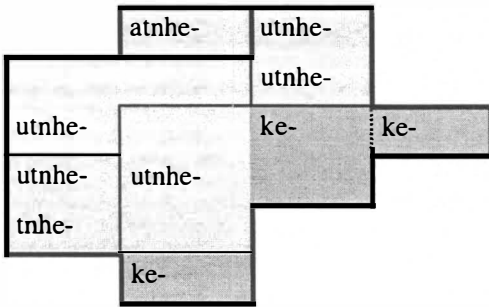
A case like set 48 'bite' is more complex. Over most of the territory we have reflexes of **uthne-*, with loss of rounding in Kay and SAR. The *ke-* form is confined to the east and south; but *(a)ke-* is also given in the ECar dictionary for the Alice Springs region alongside of *utnhe-*. This may indicate an areal innovation. Without the dictionary data from Alice Springs, we might rather treat the distribution of *ke-* as discontinuous. On the other hand, we may eventually have reason to conclude that LAr and the eastern varieties were not discontinuous but in contact around the fringes and even with the Simpson Desert. A pArc **utnhe-* form points to a preArc **TunhV-*, where **T* is a non-nasal.

In some cases, such as set 51 'breast', none of the words continues the original form. All words include an element *-atyē*, which is combined within three different first elements. Thus **atyē* is likely to have been a pArc form. The first elements show areal distributions: *aylp-* in

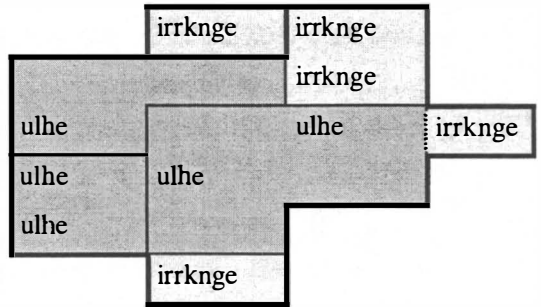
the north, *werl-* in the east and south, and *ip-* in the west. The last-mentioned is likely to be **ipe*, which on the basis of its spatial distribution may have been borrowed from the Western Desert word for 'breast', which is *(y)ipi*.

Finally, set 46 'bark' illustrates some of the complexities that await us. The form **arntape* has a further cognate in Kay *karntape*, with an unetymological *k-*, and occurs in modern ECAR in the meaning of 'hard but not dried bark'. It is clearly related to the Ngumpin-Yapa (e.g. Warlmanpa, Walmajarri) *parntapi*, although the preservation of medial *a* is so far unaccounted for by sound laws. The form *irrkngelhe* occurs in a compact central-western area, in ECAR in the sense 'dried bark'. This may represent an areal innovation or the reflex of a second 'bark' word in pArc, there being a need for terms for several kinds of bark. Kay *rlteympe* is a compound of **urlte* 'hollow tree' and **inpe* 'skin'. NAlY *irrtnye* is extended from 'skin'. LAr *tayerre* is isolated and unexplained.

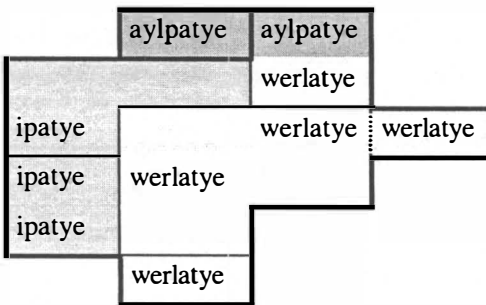
48 'bite'



50 'blood'



51 'breast'



98 'white'

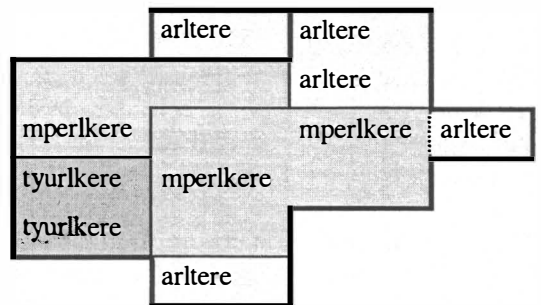


Figure 3: Areal distribution of four word sets

5. Summary and conclusions

We have examined the reconstruction of 50 of Hale's 100 items of basic Arandic vocabulary. Of the 21 forms shared by all 10 varieties of Arandic, 11 (nos. 2, 4, 5, 10, 13, 14, 16, 18, 19, 20, 21) have solid PN etymologies. Most of the others have plausible cognates in other PN languages. Only three (nos. 3, 6, 12) remain obscure. The forms provided with PN etymologies have formed the basis for establishing the Arandic sound changes, as expounded in the companion paper, Koch (1997b).

For the 21 words of the second group, where the two branches of Arandic show different forms, it was nevertheless possible to posit plausible pArc forms in most cases. For 11 sets (24, 25, 27, 28, 30, 33, 37, 38, 40, 41, 42) the Aranda form was judged to continue most closely the original pArc; for 6 sets it was the Kay (26, 31, 32, 34, 36, 39); for sets 35 and 23 it was suggested that both could be inherited; for set 22 both terms were interpreted as compounds with a pArc first element; only set 29 remained totally obscure. Judgements were made on the basis (a) that one branch had created a new word out of two elements (Kay 24, 25, 33, 41), (b) that one branch had experienced semantic shift (Kay 27, 40; Aranda 26, 31, 34), (c) that traces of one term were also found in the opposite branch (25, 27, 30, 32, 36, 42), (d) that external cognates justified the antiquity of one form (Kay 26, 31, 32, 34, 39; Aranda 28, 30, 38, 42). Sometimes several criteria reinforce one another. The weakest argument is (d), since it may eventually turn out that most of the (monomorphemic) words were present in pArc, albeit not necessarily with their present meanings.

For the third group, meanings for which the Aranda (non-Kaytetye) branch of Arandic presents alternative forms, we have seen that attention to the geographical distribution is of paramount importance in sorting out the historical stratification of the forms.

The results offered here should be regarded as tentative and illustrative of the methodology of reconstructing vocabulary. Some of the substantive conclusions may need to be altered in the light of further and more thorough study of all the available lexical data on the Arandic languages. Such study, which is now possible on the basis of the massive lexical documentation being done in the Central Australian Dictionaries Program of the Institute for Aboriginal Development (see Green & Turpin, this volume), can be expected to reveal the existence of words (or elements of words) with the same or slightly different meaning in varieties of Arandic other than those in which they are found in Hale's list, where the most readily available translation of the English is given as the only representative for a particular variety. Further refinement of the preArc forms may also become possible when further extra-Arandic cognates are found for terms given here.

Regardless of what future progress might be made in the study of Arandic etymology, it is encouraging to learn how much can be inferred about the historical development of Arandic vocabulary from a small but well-structured set of data—100 words from each of ten locales. For this we are in the debt of Ken Hale's brilliant and energetic fieldwork of 1959–60 and his prompt analysis and publication of the basic research results for this fascinating subgroup of Australian languages.

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6 *Common sense: continuing in the comparative tradition*

JENNIFER GREEN AND MYFANY TURPIN

There are many reasons why lexicographic work is important. Comparative linguistics, for example, depends very heavily upon accurate documentation of the vocabularies of individual languages and dialects, and the task of those of us who are involved in the effort to reconstruct the linguistic history of Aboriginal Australia will be greatly eased when larger amounts of reliable lexical resource materials become available. (Hale 1983:98)

1. Introduction¹

When Ken Hale embarked on his project of eliciting language data for Central Australian languages he anticipated that the ‘dictionary of Arandic’ would be ‘explicitly comparative, since it deals with a language-dialect complex’ (1983:78).² Hale mastered Arandic languages with his characteristic and legendary speed, and perhaps with this comparative goal in mind, he used one Arandic language to elicit other related languages. The extract below, taken from a field recording made on his first trip to Alice Springs in

¹ This paper draws upon lexicographic work in progress at the Central Australian Dictionaries Program at the Institute for Aboriginal Development (IAD) in Alice Springs. We would like to thank the many language speakers who have worked on dictionary projects over the years, as well as ATSIC and AIATSIS for their on-going support for the Dictionaries Program. In particular we thank Veronica Dobson, and Hilda Pwerl, Weetji Mpetyan, Gracie Mpetyan, Janie Ampetyane, Jacob Peltharr and others at Stirling community. Thanks also go to Rita Peltharr, Rita Ngal, Lena Ngal, Mary Ngal, Rosy Ngal and others at Laramba community. For providing helpful comments on drafts of this paper we thank Robert Hoogenraad, Harold Koch, David Wilkins, Gavan Breen, John Henderson, David Nash, Jane Simpson and Mary Laughren.

² The Arandic language family includes the following languages: Eastern and Central Arrernte (ECAR), Western Arrernte (WAr), Alyawarr (Aly), Eastern Anmatyerr (EAnm), Western Anmatyerr (WAnm) and Kaytetye (Kay).

1959, is an example of his methodology. In this instance an Alyawarr speaker and a Kaytetye speaker were paired together to elicit parallel grammatical sequences.³

- (1)a. *Nhanyem-an mpwel-ew-ak-enh.* (Aly)
 b. *Nyarte-pe mpwe-w-ake-yenge.* (Kay)
 this-FOC⁴ 2du-DAT-SMOG-POSS
 'This is yours.' (e.g. father and child)
- (2)a. *Ilek-ew-arl nga apeyalh-ew?* (Aly)
 what-DAT-REL 2sgNOM come-P
 b. *Wante-w-arre nge ape-nhe-ngerne?* (Kay)
 what-DAT-REL 2sgNOM go-P-HITH
 'Why did you come?'
- (3)a. *Artwa atha aw-ew angk-entyewarl.* (Aly)
 b. *Artweye atye elpathe-nhe angke-ngewarle.* (Kay)
 man 1sgERG hear-P talk-D/S
 'I heard a man talking.' (AIATSIS tape 4566)

Forty years after Hale's initial recordings were made, work is in progress on dictionaries of both the Anmatyerr and Kaytetye languages in Central Australia. These dictionary projects are proceeding simultaneously, and in some communities a pattern has been established of working with teams of people who are bilingual (or multilingual) in Kaytetye and Anmatyerr, and often in other Arandic languages as well. This approach, while presupposing that the researchers have some ability in the languages they are working on, builds upon previous linguistic research on the relevant languages, and makes maximal use of a multilingual environment.

This paper examines the numerous advantages of eliciting language data using a comparative lexicographic methodology. In §2 we discuss how the relationships between cognate forms in Arandic languages can be made explicit in order to blend language data files to produce an Arandic 'megafile'. This maximises the benefit of pre-existing language data for current language research. In §3 we discuss issues arising in a multilingual group situation, and make preliminary comments about the relevance of speakers' metalinguistic knowledge in lexicographic research. In §4 we discuss how a comparison of data from a number of Arandic languages enhances our understanding of semantic relations, and in §5 we conclude by suggesting future directions for lexicography.

³ Hale worked in 10 localities within the Arandic speaking area eliciting from a wordlist of 400 items. This document became known as the *Arandic Word List* (Hale n.d.), and in its entirety remains still unpublished (Hale 1962; Koch and Turpin 1997:234).

⁴ Morpheme breaks in the various Arandic language examples in this paper reflect different orthographic conventions which are based on varying analyses of the underlying morphological structure of these languages. See Breen and Green (1995). Abbreviations used in glosses are as follows: ABL – ablative; ABS – absolutive; D/S – different subject; DAT – dative; du – dual; EMPH – emphasis; ERG – ergative; FOC – focus; HITH – hither; INST – instrumental; INCH – inchoative; LIG – ligative; LOC – locative; NEG – negative; NOM – nominative; NMZ – nominalizer; OM – opposite patrimoiety; P – past; pl – plural; POSS – possessive; PRIV – privative; PROP – proprietive; PRS – non-past; PRS:CONT – present continuous; PURP – purposive; REC – reciprocal; RED – reduplicated form; REF – reflexive; REL – relativiser; SEMB – semblative; SEQ – sequential; sg – singular; SMOG – same patrimoiety, opposite generation moiety; S/S – same subject; STAT – stationary.

1.1 Linguistic relationship between Anmatyerr and Kaytetye

Anmatyerr and Kaytetye are both Arandic languages belonging to the Pama-Nyungan family. Estimates of the total number of Arandic language-speaking people range from 4,500 to 6,000.⁵ Hale recognised early on that Kaytetye was distinct enough from the other Arandic languages to warrant a division within the Arandic language group. On the basis of comparative lexical data he identified the Artuya sub-group, which has only Kaytetye, and the Urtwa sub-group, which includes all other dialects except Lower Arrernte (Hale 1962 and 1983:96).⁶ Two varieties of Anmatyerr are now distinguished—Eastern Anmatyerr, which is spoken to the east of the Stuart Highway in communities such as Utopia and Stirling, and Western Anmatyerr, sometimes referred to as *Kalenthelkwer*,⁷ which is spoken to the west of the Stuart Highway in communities such as Napperby and Mt Allan. In some communities such as Stirling, where much of our comparative lexicographic work is taking place, both Kaytetye and Eastern Anmatyerr are spoken and many adults are fluent in both (see map).

2. Creating the megafiles

The dictionaries program at the Institute for Aboriginal Development (IAD) in Alice Springs was first established in 1984. Many dictionaries and other publications have resulted from these years of work, and these have relied on compilations of data from many sources, including the work of Ken Hale. The method of dictionary making at IAD is essentially one of using word processors to manipulate structured text files, rather than using relational database management packages.⁸ The term ‘database’ in this paper refers to the compilation of these text files.

The existence of these large computer databases has enabled much more efficient use of previous material, and to take full advantage of this, all the Arandic language data files were compiled into one large file.⁹ Following a suggestion from David Nash, we inserted a ‘sort key’—in effect a surrogate headword for each headword.¹⁰ This ‘sort key’ differs from

⁵ See Hoogenraad (1993), Green (1994:2), and Henderson and Dobson (1994:8). In this paper we are using the term ‘language’ to refer to locally named varieties of the Arandic group, regardless of the linguistic closeness or otherwise of their relationship to each other.

⁶ See papers by Breen and Koch (this volume) for a discussion of the Arandic language family. Artuya and Urtwa are the words for ‘man’ in the respective subgroups—*artweye* (Kay), and *artwa* (Aly, EAnm) or *artwe* (ECAr). See Evans and Wilkins, this volume, for further discussion of the history of this language naming practice.

⁷ Various pronunciations of this language name include Ntheyelkwer, Kalenthelkwer and Nthelkwer.

⁸ See Goddard and Thieberger (1997) for a discussion of various approaches to dictionary data management.

⁹ The datafiles, wordlists and dictionaries used to construct the megafile included the Alywarr dictionary database, the Eastern and Central Arrernte database, Breen 1988, 1996a, 1996b, and 2000; Purle, Green and Heffernan 1981; and the Anmatyerr dictionary database.

¹⁰ The use of the sort key to make the Arandic megafile was developed by Robert Hoogenraad and Jenny Green in 1997, with substantial phonological advice from Gavan Breen. The sort key words were not intended to be proto-Arandic forms. In the late 1980s John Henderson developed a Nisus computer macro, with similar functions to the sort key, to generate pan-dialectal Arandic forms in order to facilitate comparisons across dialects. In 1981, at Hale’s suggestion, David Nash constructed a list of Arandic words sorted alphabetically by first consonant (David Nash, pers. comm.). Dixon (1983:148) describes his use of what he calls the ‘phonicon’—where words are ordered by phonetic similarity rather than alphabetic order—to elicit Dyirbal vocabulary.

the headword in that it neutralises some of the phonological and orthographic variation across Arandic languages, in order to facilitate comparisons between them by placing cognate words together.

Arandic languages are interesting because of the phonological changes they have undergone (Hale 1983:97; Koch 1997; Breen and Pensalfini 1999:8; and Breen, this volume). There is also significant phonological variation between speakers who identify as belonging to the one communalect (for example, within the Anmatyerr group), with regard to the absence of initial vowels, pre-stopping, the location of rounding in the word, and the alternation between lamino-alveolar and prepalatalised apical-alveolar consonants. This surface phonological diversity raises significant challenges for the lexicographer, especially in terms of working out practical ways of representing this variation in dictionaries. For the dictionary user these problems are heightened when variability occurs near the beginning of words. Table 1 shows the phonological and orthographic variations that were taken into account when designing the sort key.

Table 1: Phonological and orthographic variations neutralised in the sort key

phonological variations neutralised		
1	initial vowel ~ no initial vowel	#VC → #C
2	prepalatalised apical ~ lamino-alveolar	j _C → C ^j
3	prestopped nasal ~ nasal	c _N → N

orthographic variations neutralised		
1	final vowel 'e' ~ 'a' ~ ∅	CV# → C#
2	'u' ~ 'w' to represent rounding	#u _C → C _w
3	retroflex ~ apical alveolar ¹¹	r _C → C

Example (4),¹² an edited excerpt from the megafile after the sort key has been applied, shows how the sort key reduces language specific spelling differences, such as differing orthographic conventions with regard to word-initial vowels. For example, *iltye*, *eltye* and *iltya* represent the phonemically identical words for 'hand' in various Arandic languages. The reduction of orthographic and phonological variation to group cognates together also reduces some contrastive phonological differences within a language, which in practice means that cognates may be interspersed with minimal pairs, as in (4) below. However this grouping of contrastive words, such as *altya* 'kin', *iltya* 'hand', and *ltya* 'juice', is also an advantage as it enables on the spot verification of phonological differences.

(4) \sk lty
 \h **altya** \l Aly \df close relation, close family, kin
 \h **altye** \l ECAR \df a relative, family member
 \h **elty** \l WAnm \df 1. hand \df 2. finger

¹¹ Word-initial retroflexion of non-rounded consonants is noncontrastive. Predictable retroflexion of apicals occurs after a schwa vowel following an apical. There is variation between the Arandic languages as to the orthographic treatment of retroflexion in these positions.

¹² The codes in these examples are as follows: \sk sort key, \h headword, \l language, \df definition.

\h **iltye** \l WAR \df hand; front foot of animal
 \h **iltya** \l Aly \df hand, finger
 \h **iltye** \l ECAR \df 1a. the hand \df 1b. finger, fingers, thumb
 \df 2. the similar parts of animals, insects, etc.; the front feet,
 claws, etc. \df 3. needle on a meter, speedometer, weighing machine,
 etc., hands of a clock
 \h **ltya** \l Aly \df juice of meat, blood from meat
 \h **ltye** \l ECAR \df juice, sap, nectar, meat juice, liquid fat
 \h **eltye** \l Kay \df hand

Examples (5) and (6) illustrate how the sort key neutralises two of the phonological variations found in Arandic languages. The variability of pre-stopping in Arandic languages is shown in (5).

(5) \sk mer
 \h **amer**; **mer** \l WANm \df 1. camp \df 2. home \df 3. place \df 4.
 country
 \h **mer** \l EANm \df camp
 \h **pmere** \l WAR \df camp, home, house, place, surroundings
 \h **apmer** \l Aly \df 1. country, home, place, camp, house, area,
 land \df 2. used before the name of a particular country or place
 \df 3. placenta
 \h **apmere** \l ECAR \df 1a. country, land, region
 \df 1b. an area of land and the things on it (trees, etc.);
 countryside \df 2. home, house \df 3a. place, location, site \df
 3b. direction, place \df 4a. A general word for places and areas
 which can go before the word for a place or type of place \df 4b.
 Goes before words of which one of the meanings refers to a (type
 of) place or area and makes it clear that it is this place meaning
 rather than another meaning of this word \df 5. Occurs in some
 phrases describing times
 \h **apmere** \l Kay \df camp

The phonological distinction between lamino-alveolar and prepalatalised apical-alveolar consonants made in some Arandic languages is shown in (6). Kaytetye and Alyawarr tend to prepalatalise alveolars, especially non-nasals, where Western Anmatyerr and Arrernte have palatalised alveolar consonants.¹³

(6) \sk tyanken
 \h **atyankerne** \l ECAR \df 1. a type of mistletoe plant \df 2. the
 edible fruit of this plant
 \h **tyankern** \l WANm \df mistletoe
 \h **tyankerne** \l WAR \df mistletoe fruits, all kinds
 \h **aytankern** \l Aly \df 1. type of mistletoe \df 2. mistletoe
 berries

A number of phonological correspondences not originally factored into the sort key have become apparent during fieldwork (see Koch 1997 and Breen, this volume, for a diachronic account of these correspondences). For example the presence of rounding in cognate terms varies across Arandic languages, as in Table 2 below.

¹³ See Breen, this volume, for an analysis of prepalatalisation as a suprasegmental feature which affects the consonant position rather than the consonant phoneme.

Table 2: Some examples of rounding variation in Arandic languages

Gloss	ECAr	EAnm	Aly	Kay	WANm	WAr
<i>Acacia victoriae</i>	<i>arlepe</i>	<i>arlep</i>	<i>arlep</i>	<i>arlepe</i>	<i>arlwep</i>	<i>urlepe,</i> <i>lwepe</i>
shade	<i>ulye</i>	<i>ulya</i>	<i>lywa</i>	<i>elye</i>	<i>lyw(ang)</i>	<i>lywentye</i>
number 7 boomerang	<i>irlkwe</i>	<i>iykwa</i>	<i>iyłka</i>	<i>eylke</i>	<i>rlkw(ang)</i>	—

Kaytetye lexemes sometimes have initial peripheral consonants which are absent in the cognate forms in other Arandic languages, for example *kalyeyampe* (Kay) and *alyeyamp* (Anm) ‘frog sp. (*Limnodynastes spenceri?*)’. There is also an alternation between the consonants ‘h’ [ʉ], ‘w’ [w] and ‘k’ [k], both within an Arandic language and between Arandic languages—for example compare *awelengkwe* (Kay) with *ahelengkw* (Anm) ‘dangerous’.¹⁴

Regular phonological variations are highlighted through the multilingual elicitation methodology. These variations are apparent between the languages, but there is also significant speaker variation within the languages (see §4.2 below for speaker variation in the pronunciation of the word for ‘eye’). Data on this synchronic speaker variation and on borrowing provide important information for establishing patterns of phonological change.

While the use of the sort key is by no means a fail-safe method of placing cognates together, it has many advantages. The juxtaposition of headwords from different dialects or languages enables a quick assessment to be made of the differences in definitions or glosses for words that already appear in various dictionaries or wordlists. It reveals how lexicographers adopt different strategies to order and define word senses. For example, the Eastern and Central Arrernte Dictionary attempts to consistently separate English polysemy from Arrernte polysemy by using letters for multiple English senses, and numbers for multiple Arrernte senses, as can be seen in the Eastern and Central Arrernte examples in (4) and (5) above (Turpin 1998:221). This methodology suggests semantic hypotheses to be tested in the field, and highlights both the cross-linguistic similarities and differences in form–sense associations. It also reveals gaps in the documentation of the lexicon.¹⁵

2.1 Working through the megafiles

The megafile (with certain fields, such as the numerous example sentences, deleted from the original dictionary databases) is in effect the fieldwork text from which Kaytetye and Anmatyerr language material is elicited. This tool has been shown to be effective in the

¹⁴ The voiced uvular approximant [ʉ] occurs infrequently, and both [w] (through derounding) or [k] (through lenition) have been proposed as the origin of this phoneme (Koch 1997:278).

¹⁵ Although comparing languages, or dictionaries, on the basis of the number of words is problematic, the following gives an idea of the scale of these dictionaries, and perhaps an indication of potential ‘lexical gaps’ in these to date. The Alyawarr Dictionary has 2506 headwords, the Eastern and Central Arrernte Dictionary 2685 headwords, and the Introductory Dictionary of Western Arrernte 1694. However, the derived forms, secondary senses and phrasal constructions account for the real differences between these dictionaries. The Eastern and Central Arrernte Dictionary has 7101 definitions or glosses, the Alyawarr 3802, and the Western Arrernte 3426.

group fieldwork situation, such as at Stirling, where both of these languages are elicited in parallel. Alphabetical elicitation highlights minimal pairs and semantic extensions of lexemes which would otherwise be obscured by eliciting through semantic domains. The change of topic due to alphabetical ordering provides interest and creates a 'quiz' or 'sale of the century' type atmosphere—nobody can guess what the next prompt word will be, or even what language it might be in.

This approach by no means precludes divergence from the alphabetical ordering. There may be considerable discussion in the first instance about the word in question, and this in itself is extremely valuable, leading to new data. The conversations stimulated by this process follow many phonological, grammatical, and semantic tangents and result in a rich collection of taped text material. The transcripts of these field tapes contain both Kaytetye and Anmatyerr language material in sequence and thus provide valuable comparative data.

3. Issues arising in a multilingual group situation

Working on dictionaries with a multilingual group has many obvious advantages. In the first instance, this approach recognises that the *lingua franca* in these communities is not English. Participants in the group working situation are usually bilingual, and at Stirling many adults in conversation swap with ease between Kaytetye and Anmatyerr.¹⁶ It is easier for language workers to think of what a particular word is if the prompt is a Kaytetye or an Alyawarr word rather than an English word. Nevertheless, there is often heated discussion as to the language identity of particular lexical items—individuals vary as to what is, in their opinion, 'proper Anmatyerr' or 'proper Kaytetye'.

This dynamic clearly demonstrates that these languages share inherited vocabulary as well as borrowings from neighbouring languages. The extent of the overlap in vocabulary, whether shared or borrowed, is less apparent when the languages being documented are not contiguous geographically—for example Alyawarr and Arrernte. In the border regions, where there is a high level of multilingualism in adjacent languages, the issues of lexical identity are highlighted. The difficulty in identifying discrete languages and dialects for dictionary publications is in quantifying the effects of temporal, regional and speaker variation.

While it remains to be seen to what extent these dictionaries play a role in language standardisation, for the lexicographer a practical issue arising from the question of language identity is which words to include in which dictionary. On the one hand the dictionaries attempt to reflect the reality of spoken language, which often includes borrowings from neighbouring languages, yet on the other there is an attempt to recognise the identity of lexemes as properly 'belonging' to a particular language, according to the perceptions of language speakers.

A number of factors need to be taken into consideration when working with a multilingual group. There may be either exaggeration of lexical, phonological and semantic similarities between languages, or exaggeration of their differences depending on the group dynamic. In a group situation there is recognition that certain individuals are the appropriate people to talk about particular plants or animals, as the rights to talk about certain words are embedded in the relationships of speakers to country and Dreamings. Working in a group

¹⁶ The group situation plays an important role in language maintenance, as it provides a forum for language learning and the transmission of cultural knowledge.

also reveals that even the most common words exist in the context of pragmatic rules which include restrictions on their utterance. For example, words which are the personal names of the deceased, or words which are similar phonologically to these names, are not spoken freely and the replacement word *kwementyay(e)* is used instead.¹⁷ Speakers may request that some senses of words be removed from dictionaries because of the potency of their pragmatic content, and some lexemes are excluded from dictionaries altogether. Whilst in private some speakers may dissent from comments made in the group situation, the group provides a legitimate forum to develop strategies to deal with words which are sensitive or taboo and takes the onus off individuals.

3.1 Tapping metalinguistic knowledge

Hale (1972:394) has called for “an *exchange* of competencies between linguists and persons interested in the study of their own languages” (Hale’s emphasis). A mutual understanding of linguistic concerns and culturally appropriate methodology is being built up through long-term regular teamwork using the megafile as a basis for cross-linguistic research. One outcome of this is the exploration of the ‘vernacular metalanguage’ employed by native speakers to describe linguistic phenomena. This is not a new idea, as the following extract from one of Ken Hale’s Alyawarr recordings, made in 1959, demonstrates.

- (7) *Alyawarr althalth ngath, altwerl-ampeny.*
 Alyawarr light this.side west-area
Akngerrakw rlterrk-arl Rntewerrk-areny.
 east strong-REL Rntewerrk-denizen.of
 ‘The Alyawarr on this side is *althalth* [light]—in the western area. To the east in the Rntewerrk area it is *rltterr* [strong, heavy].’¹⁸ (AIATSIS tape 4570)

Terms such as *rltterr* ‘strong, hard, difficult’, *althalth* ‘soft, light’, *arregker* ‘fast’, *arrerlker* ‘clear, transparent, light’, and *ulthenty* ‘heavy’ are used in various Arandic languages to describe attributes of speech styles or dialects, as in the following example where a speaker of Eastern Anmatyerr reflects on the ‘sound’ of Western Anmatyerr.¹⁹

- (8) *Ntheyelkwer map arregker, kern-antey,*
 (WAnm) group fast high-as.well
Anmatyerr little bit ulthenty-arl, heavy one.
 [ourselves] little.bit heavy-REL heavy.one

¹⁷ Another example is the restriction on saying the names of certain relatives. Whilst working on the megafile Turpin asked one of the Kaytetye team members for the Kaytetye equivalent of the Alyawarr word *arraylp* ‘sharp’. The woman was silent and looked at Turpin awkwardly. It was then explained to Turpin that this was the name of the woman’s son-in-law, and that she was the only one in the group for whom this word was restricted.

¹⁸ Rntewerrk is the name of a country to the east of Utopia (Moyle 1986:109). The term *rntewerrk* also refers to the seeds of the *ahakey* plant (*Canthium latifolium*), an associated Dreaming. This country name appears in Hale’s list of Alyawarr place names, which were provided by people from Macdonald Downs in 1959 (Hale 1959).

¹⁹ Some Anmatyerr speakers use the terms *rltterr* and *althalthw* to describe the opposition between ‘heavy’ and ‘light’ with regard to style of speech. The absence of rounding on the lexeme *althalth* as recorded by Hale is noted.

Itna akenh angk-em arrerlker light one.
 3plNOM whereas talk-PRS light
 'The Western Anmatyerr people talk fast—high as well. Anmatyerr
 [ourselves] sounds a bit heavy, whereas they talk in a light way.'

At times, the descriptions 'heavy' and 'light' when applied to individual words seem to indicate the distinction between retroflex and non-retroflex consonants, although further work is needed to establish the precise phonetic correlates of these descriptions.

- (9) "Urlemp *ayeng an-ep-an-em*" *heavy-apeny,*
 on.own 1sgNOM sit-LIG-RED-PRS heavy-SEMB
 ulemp *little bit light.* (EAnm)
 ghost.gum
 'Urlemp ['on my own'], [as in] "I am sitting on my own", is a
 bit heavy—*ulemp* ['ghost gum'] is a little bit light.'

The Stirling team is now adept at contrasting words which are phonologically similar (termed *arrer ant atherr* 'two close ones' or *arrer-ek-arrer(e)* 'close to each other').

- (10) *Kwaty urnt-em an unt-em, arrer-ek-arrer.* (EAnm)
 water rain-PRS and run-PRS close-DAT-close
 'Urntem ['raining'] and untem ['running']—both [sound] close to each other.'

The following example is of a spontaneously volunteered pair of 'close words':

- (11) Alwerrng *an atnwerrng.*
 sinew and mush
Mern-arl atnwerrng-an. "Atnwerrng *tha arkw-em-aw.*"
 food-REL mush-FOC mush 1sgERG eat-PRS-EMPH
 Alwerrng, alwerrng *string weth-arl.* (EAnm)
 sinew string string that.one-REL
 Alwerrng ['sinew'] and atnwerrng ['mush']. The food is *atnwerrng*. [As in
 "I'll eat some mushy stuff". *Alwerrng* is that string.'

In (11) the speaker is showing that the contrast between /l/ and /tn/ is the only phonological difference between the Eastern Anmatyerr words for 'sinew' and 'mush'. This is part of the evidence that language speakers perceive the relationship between lateral alveolars and nasal alveolars (including prestopped nasals) as phonologically closer than that between lateral alveolars, lateral post alveolars and lateral interdentals.²⁰

A metalinguistic viewpoint is evident in the above examples (9)–(11). These comments are by an Anmatyerr speaker who has been involved in language work for over two decades.²¹ Discussions about language analysis are an integral part of the fieldwork process, and working with the same group over a period of time develops metalinguistic awareness.

²⁰ Evidence for this comes from variation in pronunciation of some words within a language, for example *rlterlte* ~ *rlternte* 'new born' (Kay).

²¹ Hilda Pwerl, who began working with Jenny Green on language research in 1977.

4. Comparative semantics

Working in a cross-linguistic group enables fruitful exploration of comparative semantic issues. Hale (1983:97) recognised this by working cross-linguistically, comparing the semantics of Warlpiri and Arandic languages. Evans (1997:140) has called for “comparative studies of as many languages as possible” because “one dictionary may record information another neglects, one group may remember what another group forgot, and one group may talk publicly about connections that are esoteric for another”. The compilation and comparison of data from across the Arandic group reveals crucial links in polysemy chains. These patterns of systematic polysemy across different languages with different forms indicate the salience of the semantic connections in various domains (see for example Wilkins 1996; Evans and Wilkins 1998, and this volume).

In the bilingual group, members of one team often adopt a ‘good’ example sentence that the other team has provided. This can produce precise equivalents between the two languages, offering comparative grammatical, phonological and semantic data. The examples below, elicited sequentially, highlight the difference between the reflexive construction in Kaytetye and Eastern Anmatyerr.

- (12)a. *Mantarr ayeng iylw-elh-etyek.* (EAnm)
 clothes 1sgNOM take.off-REF-PURP
- b. *Mantarre atyewenhe alheyne-wethe.* (Kay)
 clothes 1sgREF take.off-PURP
 ‘I’m going to take my clothes off.’

The process of discussion is cumulative, and speakers of one language build upon the other language team’s sentence, adding further valuable semantic and cultural data which helps to explicate subtleties of semantic difference. For example, the verbs in examples (13) and (14) below, *arrngertewem* (EAnm) and *arrngeyenneke* (Kay), were previously glossed as ‘to block’. After considering further semantic evidence, they may be better glossed as ‘to block off, block the way, or restrict access or action’.

- (13) *Kwaty-el rwew-el arrngertew-em, ilpay.*
 water-ERG flood-ERG block-PRS creek
Tyerry nthakenh alhe-tyakenh.
 person how go-NEG
Arn-el-an arrngertew-em road-ant-arl.
 tree-ERG-FOC block-PRS road-just-REL
 ‘The flood water is blocking (the way across) the creek.
 People can’t get through. A tree just blocks the road.’ (EAnm)
- (14) *Arrngeyne-nyerre arntwe alenye-le, elpaye,*
 block-P water flood-ERG creek
eytey-apeke arrngeyne-nye arwel-apek-arre arnte-nhe-le.
 road-might block-P tree-might-REL break-P-ERG
 ‘The flood water blocked (the way across) the creek, or a fallen tree
 might have blocked off the road.’ (Kay)

The cross-language methodology produces consensus as to a word's meaning in other related languages, even when there is no standardised English equivalent. For example Kaytetye and other Central Australian languages distinguish two separately named varieties of a plant with edible fruit, *Solanum chippendalei*.²²

(15)	(EAnm)	<i>unemangkerr</i>	<i>anakety</i>
	(Aly)	<i>anemangkerr</i>	<i>anakety, kanakety</i>
	(Kay)	<i>kwenemangkerre</i>	<i>kanaketye</i>
	(Warlpiri)	<i>ngayaki</i>	<i>wanakiji</i>

4.1 Parallel semantic evidence from related languages

The megafyle listings juxtapose lexemes whose semantic relationship would not necessarily become apparent simply by working through semantic domains. The arguments for semantic connection are greatly enhanced by 'independent parallel evidence' from other languages which exhibit similar polysemous extensions of non-cognate forms (O'Grady 1990:14; Evans 1992; Evans 1997; Wilkins 1996). Working in a cross linguistic group provides such data. Even where the basis for a metaphoric relationship between lexical items remains unknown to the lexicographer, observing this parallelism is of assistance in identifying the equivalence of terms (see Nash 1997).

Five types of semantic extension are identified below. These types are distinguished on the basis of the phonological and semantic relationships between the source words in the languages under consideration. In (16) below the source words (which are skin names) are either cognate or borrowed.

(16)	Language	Source word	<i>Nicotiana velutina</i>
	EAnm	<i>(K)ngwarray</i>	<i>(k)ngwarray-(k)ngwarray</i>
	Aly	<i>Kngwarrey</i>	<i>kngwarrey-kngwarrey</i>
	Kay	<i>Kngwarraye</i>	<i>kngwarraye-kngwarraye</i>
	Warlpiri	<i>Jungarrayi</i>	<i>jungarrayi-jungarrayi</i>

In examples (17) and (18) the source words are phonologically unrelated, yet have the same denotation (See Evans 1997). Whilst the semantic relationship between 'aunties' and a particular plant with a round prickly burr or that between the skin name *Kngwarray* and the plant (*Nicotiana velutina*) remains obscure to an English speaker, there is clearly a connection for speakers of central Australian languages, as unrelated forms in different languages show the same polysemy.

(17)	Language	Source word ('auntie')	<i>Sida platycalyx</i>²³
	EAr	<i>awenheye</i>	<i>awenheye-awenheye</i>
	EAnm, Aly	<i>awenhey</i>	<i>akeley-akeley</i>
	Kay	<i>akeleye</i>	<i>akeley-akeleye</i>
	Warlpiri	<i>pimirdi</i>	<i>pimirdi-pimirdi</i>

²² George Chippendale, after whom this species was named, was the botanist who identified plants collected by Hale in 1959.

²³ 'Auntie' is father's sister; *Sida platycalyx* is a plant with a doughnut-shaped burr.

(18)	Language	Source word ('moon')	'larva of a Christmas beetle'
	ECAr	<i>atnyentye</i>	<i>atnyentye-atnyentye</i>
	EAnm	<i>atnyenty</i>	<i>atnyenty-atnyenty</i>
	Aly	<i>alkent</i>	<i>alkent-alkent</i>
	Kay	<i>arelp</i>	<i>arelp-arelp</i>

Example (18) shows that the metonymic relationship between the word for 'moon' and 'Christmas beetle larva' in a wide range of Arandic languages is based on shape as "it looks like a crescent moon" (Henderson and Dobson 1994:320).

In (19) the source words are phonologically unrelated, yet they belong to the same semantic domain (Macropods), albeit with different meanings. Evans (1997:136) uses the term 'sign metonymies' to describe such semantic relationships between the names for biological entities from different classes and kingdoms. While the semantic link between 'kangaroo' and 'native lemon grass' is not clear, the connection between 'euros' and this grass may in this case be habitat—the grass grows on rocky hillsides which are inhabited by euros. Although the Warlpiri terms for this grass are not based on the word for either 'kangaroo' or 'euro', it is reported that 'a Warlpiri legend tells of a special type of wallaby, with a human form, which lives on this grass and is immortal' (Latz 1995:156).

(19)	ECAr, EAnm, Aly, Kay	<i>aherr(e)</i>	'kangaroo'
	ECAr, EAnm, Aly	<i>aherr(e)-aherr(e)</i>	'native lemon grass' ²⁴
	Aly, Kay	<i>areyneng(e)</i>	'euro'
	Kay	<i>areyneng-areynenge</i>	'native lemon grass'

Example (20) below shows where the basis for the polysemy differs between some of these languages.

(20)	<i>arnture</i> (ECAr) 1. hot rocks in a fireplace 2. gun
	<i>urltaty</i> (EAnm) 1. a premonition in the form of a twitch in the nose, eye or ear, 2. gun
	<i>iylpwer</i> (Aly) 1. hollow branch or log 2. gun
	<i>ware</i> (Kay) 1. fire 2. gun
	<i>arntte</i> (Kay) 1. stone 2. gun

Some patterns of polysemy are only apparent when data from all Arandic languages are taken into account and the Arandic languages are viewed as a 'language-dialect' complex (Hale 1983:78). Elements of a semantic complex may be retained in some languages and absent from others. For example, lexemes no longer present as free forms in a particular language may remain fossilised in compound forms. An example is the Kaytetye verb *eympeympe-kwathenke* 'sip, suck', based on the word *inpinp(e)* 'marrow' which is found only in other Arandic languages. In a parallel fashion, the Eastern Anmatyerr verb *ltyantywem* 'sip, suck' is based on *ltya*, found only in Alyawarr and in Eastern and Central Arrente. Table 3 shows this cross-linguistic polysemy.

²⁴ *Cymbopogon ambiguus*.

Table 3: The 'marrow', 'nectar', 'meat blood' and 'sip, suck' complex in Arandic languages

Language	'marrow'	'meat blood'	'soupy substances'	'nectar', 'sap'	'sip, suck'
ECAr	<i>inpinpe</i>	<i>awerrpe</i>	<i>kere urrknge</i>	<i>ltye, akarrwe</i>	<i>ltyantyweme</i>
EAnm	<i>inpinp</i>	<i>awerrp</i>	<i>arlkwerrng</i>	<i>akarr</i>	<i>ltyantywem</i>
Aly	<i>inpinp</i>	<i>ltya</i>	<i>arlkwerrng</i>	<i>akarr</i>	<i>ltyantyweyel</i>
Kay	<i>pwetyarre</i>	<i>karlkwerrnge</i>	<i>arlkwerrnge</i>	<i>elwe, akarre</i>	<i>eympeympe-kwathenke</i>

Metonymical extensions of nominals which are the prototypical referents (or collocates) of an action, to form verbs which describe the action, are commonplace. Bone marrow, nectar from flowers, and meat juices are all consumed in a particular way which is not adequately described by the semantic range of the simple verb meaning 'drink' in Arandic languages. Kaytetye, for example, derives *eympeympe-kwathenke* 'to sip, suck' (as in Table 3) from the simple verb *kwathenke* 'to drink':

- (21) *Pwetyarre atye eympeympekwathe-rrantye.*
 bone.marrow 1sgERG suck-PRS.CONT
 'I'm sucking bone marrow.' (Kay)

The propensity of collocates to become compounded is not surprising, and further examples occur in Arandic languages. Alternatively, the compound lexeme may have been simply borrowed into the language without the phonological source word ever having been present.

4.2 Exploring semantic networks: 'eye' in Arandic languages

As has been shown elsewhere, polysemous extensions of lexical items are particularly productive in the domain of body parts (see for example Wilkins 1996; Chappell and McGregor 1996; Turpin 1997). Working through the megafile reveals meaning extension and polysemy proper, as can be seen in the partial analyses of the semantic extensions of 'eye' in Arandic languages. It enables the conceptual mapping of language to be explored, thus reflecting the subtle shades of meaning of lexical items, and the semantic connections upon which figurative language is based.

The polysemy of the word for 'eye' evident in some Arandic languages and its semantic extension to include meanings such as 'flame', 'jealousy', 'seed', and 'being "found" [conceived]' is a phenomenon frequently noted in other Aboriginal languages (see for example Austin, Ellis, and Hercus 1976). These patterns of systematic polysemy across different languages with noncognate forms indicate the salience of the semantic connections in this domain.²⁵

²⁵ For example 'eye'/'seed' polysemy is widespread in Australian languages, including Warluwarra (Breen, pers. comm.), Kalkutungu (Blake 1969:102) and Lardil (Ngakulumungan Kangka Leman 1997:175, 176). For further discussion of the semantic relationship between 'eye', 'seed' and 'being 'found' or conceived' see Green (1999).

Table 4 shows two distinct forms for the word ‘eye’—*erlwe* (Kay) and *alknge* (ECAr). The form of the latter varies substantially across the other Arandic languages, for example, Eastern Anmatyerr speakers pronounce this word alternatively as *alknga* ~ *alnga* ~ *atnnga* ~ *annga*. Koch (1997) postulates two proto-Arandic forms, **urle* ‘forehead’ and **elknge* ‘eye’, and a historical relationship is posited between *erlwe* ‘eye’ in Kaytetye and *urla* ‘forehead’ in other Arandic languages (Koch 1997:294).²⁶ Reflexes from both proto Arandic forms are found in all the Arandic languages, despite the fact that *erlwe* ‘eye’ is found only in Kaytetye, and *alknge* ‘eye’ and its phonological variants only in the other Arandic languages. The semantic extensions of ‘eye’ as shown in Table 4 are divided into three sections based on the productivity of these two protoforms.

The ‘elicitation pathway’ which led to discussion of the word *atnngwannng-ilem* ‘distract someone’ (EAnm) as shown in Table 4 is a good illustration of the methodology. In this case the Western Arrernte equivalent *alkngurlkngileme*, glossed as ‘to comfort’, was the starting point for discussion (Breen 2000:2). Neither the Kaytetye nor the Anmatyerr equivalents of this word existed in the previous database records, and so Anmatyerr speakers (with some knowledge of Western Arrernte) gave the phonologically related equivalent term. Although it is tempting at first glance to disregard the rounding in the word *alkngwe* and its equivalents (*alkngwe* ~ *atnngw*) and assume that these compounds are yet another instance of ‘eye’ polysemy in some Arandic dialects, the Eastern and Central Arrernte term *alkngwe-alkngwe-ileme* is clearly derived from the word *alkngwe* ‘unaware, not paying attention’ rather than from *alknge* ‘eye’ (Henderson and Dobson 1994:97). However, the Kaytetye semantic equivalent, *erlwapereyenneke* (lit. ‘take the eye’), which is based on *erlwe* ‘eye’, revealed further language specific ‘eye’ polysemy.

4.3 Distinguishing polysemy from homophony

The theoretical issue of defining and testing for homonymy and polysemy is fraught with difficulties even in a monolingual situation. Further problems arise in the context of bilingual dictionaries, where the division of meanings into distinct senses and the ordering of these senses may reflect polysemy found in either the source language or the target language. Geeraerts (1993:264) concludes that “there is methodological uncertainty surrounding the concept of polysemy” and suggests that the “methodological status of lexical semantics is in urgent need of further analyses” (see also Tuggy 1993; van der Eijk et al. 1995; Goddard and Thieberger 1997; and Evans 1997).

A comparison of dictionaries of related Arandic languages shows different strategies for dealing with these issues. There are inconsistencies in the treatment of polysemy and homophony in the dictionaries, as well as gaps in the data and real semantic differences between the Arandic languages. For example, there are two distinct entries *alyelk*, by implication homophones, in the Alyawarr Dictionary.

²⁶ The word *ngurlu* ‘edible seed’ in Warlpiri and other languages to the north of the Arandic area is possibly a cognate of **urle*.

Table 4: Some semantic extensions from the proto-Arandic forms **urle* and **elknge*²⁷

proto-form	gloss	Eastern and Central Arrernte	Eastern Anmatyerr	Alyawarr	Kaytetye	Western Arrernte	Western Anmatyerr
<i>*elknge</i> , <i>*urle</i>	eye	<i>alknge</i>	<i>alknga, alnga, annga, atnnga</i>	<i>alnga, annga, atnnga</i>	<i>erlwe</i>	<i>alknge</i>	<i>anngang</i>
	tear	<i>alkngultye</i>	<i>alkngwely</i>	<i>arrngwely, anngwely</i>	<i>erlwelye</i>	<i>alkngultye, alknguntye</i>	<i>anngwenty</i>
	forehead	<i>urle, ule</i>	<i>urla, ula</i>	<i>alkngayt, anngayt, rlwemper, rlwa, lwa</i>	<i>rlwetnperre, rletnperre</i>	<i>urle</i>	<i>rlwang</i>
	flame	<i>alkngenthe</i>	<i>anngenth</i>	<i>lherrm</i>	<i>rlwenthe</i>	<i>alkngenthe</i>	<i>anngenth</i>
	warn	<i>alkngarre-ileme</i>	<i>anngarrilem</i>	?	<i>erlwarreyenke</i>	<i>†lhelareme</i>	<i>anngarrilem</i>
<i>*elknge</i>	openly, in front of eyes	<i>alkngetherre</i>	<i>alkngetherr</i>	<i>anngetherr</i>	<i>atnngetherre</i>	<i>alkngetherre</i>	<i>anngetherr</i>
	eyelash	<i>alkngarlpelhe</i>	<i>anngaympelh</i>	<i>anngaympelh, alkngaympelh, alngaympelh</i>	<i>atnngaympelhe</i>	<i>alkngirlpelhe</i>	<i>anngarlpelh</i>
	eyebrow; ridge above the eyes	<i>alkngarnte</i>	<i>alkngarnt, alkngayt ntat</i>	<i>alknga ntat, anngaympelh, alkngaympelh, alngaympelh</i>	<i>anngayte</i>	<i>alkngarnte</i>	<i>anngarnt, anngayt</i>
	jealous	<i>alkngwetnheme, ingkerte</i>	<i>alkngwetnhem, annngwenhem</i>	<i>arwelth</i>	<i>etwengkarenke</i>	<i>ingkerte</i>	<i>annngwenhem</i>
	be "found", conceived	<i>alkngirreme</i>	<i>anngirrem, angwerrm-irrem</i>	<i>alkngirrem</i>	<i>angwerrmarrenke</i>	<i>alkngirreme</i>	<i>anngirrem, angwerrm-irrem</i>
	seed	<i>anng</i>	<i>annga, alknga, atnnga</i>	<i>annga, alknga</i>	—	<i>anng</i>	<i>ngang, anngang</i>
<i>*urle</i>	facing towards	<i>ularre</i>	<i>urlenger, ulenger, urlarr, ularr</i>	<i>urlaneng, rlwaneng</i>	<i>erlwengere</i>	<i>twarre, ularre</i>	<i>rlwarr</i>
	recognise	<i>†alhengkareme</i>	<i>†alhengkarem</i>	<i>†alhengk-areyel</i>	<i>erlwengkarenke</i>	<i>†lhengkareme</i>	<i>†alhengkarem</i>
	comfort or distract someone	<i>alkngwe-alkngwe-ileme</i>	<i>atnngwannng-ilem, alkngwannng-ilem</i>	?	<i>erlwapereyenke</i>	<i>alknguriknge-ileme</i>	?

²⁷ Where there appears to be no equivalent term this is marked with a dash; a question mark indicates that the equivalent term is unknown. Some equivalent terms seem to be based on the proto-Arandic form **ulhe* (**elhe*?) 'nose' (Koch 1997:294). These are marked with a dagger.

- (22) **alyelk**¹ 1. smooth 2. slippery
alyelkelheyel slip over
alyelkerreyel slide or slip over
- alyelk**² 1. unsettled, queasy, nauseous (of stomach)
atnert alyelk nauseous stomach
alyelkerreyel become nauseous and unsettled (stomach) (Green 1992:32)

Compare the Eastern and Central Arrernte Dictionary entry for the cognate form *alyelke*, and the separate entry for the lexeme *alyelke-irreme* 'be affectionate to someone'. In contrast to Alyawarr, in Eastern and Central Arrernte *atnerte alyelke* refers to a 'trim and taut' stomach rather than the feeling of nausea, showing a real semantic difference between the languages (Veronica Dobson, pers. comm.):

- (23) **alyelke** 1. smooth. 2a clean and tidy. 2b smooth, clean and new-looking.
 3. healed up (the skin having become smooth again). 4. a newborn baby
alyelkelheme 1. slide, slip over, skid. 2. slither, writhe, wriggle
alyelke-irreme be affectionate to someone, especially a child (Henderson and Dobson 1994:109).

As in Alyawarr, in Eastern Anmatyerr the term *alyelk* means both 'smooth, slippery and 'unsettled or nauseous'. The following example shows *alyelk* used in the sense of 'feeling nauseous'.

- (24) *Atnert alyelk-irr-em ayeng,*
 stomach nauseous-INCH-PRS 1sgNOM
- might ayeng antew apək irr-em, atherrk-eng.*
 might 1sgNOM vomit might INCH-PRS grass-ABL
- Atherrkeny akweteth antew irr-enh-irr-enh.*
 green.time always vomit INCH-NMZ-INCH-NMZ
 'I am feeling nauseous—I might vomit from the green grass. The green
 time always makes you vomit.' (EAnm)

A further meaning extension of the term *alyelk* is shown by the following examples, where the term is perhaps best translated as 'tasteless', 'bland', or 'without identity'. This meaning extension is also evident in Eastern and Central Arrernte (Veronica Dobson, pers. comm.).²⁸

- (25) *Ker iynteng-arl iynt-em akeng ikwa an-etyekenh-arl irr-ek alyelk.*
 meat rotten-REL smell-PRS bad taste be-NEG-REL become-P tasteless
- Ker salt-penh-kweny alyelk inngart.* (EAnm)
 meat salt-SEQ-PRIV tasteless really
 'Meat that smells rotten and has become tasteless is *alyelk*. Meat without salt is really tasteless.'

²⁸ Yet another meaning extension of *alyelke* is attested in Eastern and Central Arrernte (old form), where it means 'nothing' or 'without'. Thus *merneke alyelke* (food-DAT *alyelke*) means 'without food' (Veronica Dobson, pers. comm.)

- (26) *Ikw-ek arrangkw ikwa anpern-err-enty an-etyakenh,*
 'skin'-DAT nothing 'skin' be.related-REC-NMZ be-NEG

ikw-ek arrangkw alyelk.
 skin-DAT nothing without identity

Alhernter map-an ikw-ek arrangkw, alyelk. (EAnm)

white.people group-FOC 'skin'-DAT nothing without.identity

'Not having a skin name is like not being related—not having a skin name is *alyelk*.

Non-Aboriginal people don't have skin names—they are *alyelk* ['without identity'].'

The proposition that the various meanings of the word *alyelk(e)*, and in particular the 'smooth' and 'queasy' meanings, are polysemous rather than an instance of homophony is strengthened by the existence of the lexeme *urlkere*, with a similar semantic range, in Eastern and Central Arrente.

- (27) **urlkere** 1. smooth 2. slippery 3. slimy 4. newborn baby

atnerte urlkere a queasy feeling in the stomach (Henderson and Dobson 1994:598)

Additional Arrente data show derived verbal forms *urlkere-irreme* 'feel nauseous' and *urlkere-ileme* 'make nauseous', as in the example below (Veronica Dobson, pers. comm.).

- (28) *Kwatye alkarle-le ayenge atnerte urlkere-ile-me.* (ECAr)

water bad.taste-ERG 1sgABS stomach nauseous-CAUS-PRS

'Bad tasting water is making me feel sick in the stomach'

Comparative data from a number of related languages where noncognate forms show parallel semantic ranges suggest that the relationship between the various meanings of *alyelk* is a case of polysemy rather than homophony. The above examples show how an understanding of the range of semantic associations of terms is deepened through a comparative approach, which not only furthers our knowledge of language-specific polysemies but provides evidence for the relatedness of forms previously assumed to be separate.

4.4 Cultural knowledge and polysemy

While the basis for some polysemies is seemingly transparent, the connections between others are more esoteric, and cultural or background knowledge is necessary to understand their meaning. "The problem for lexicographers" is "how to articulate and represent such cultural knowledge" (Evans 1997:150). Keesing (1979:14) suggests that semantic readings are dependent on symbolic structures—"assumptions about ancestors and causality, magic and mana, infuse and motivate semantic systems and pragmatic rules". Verification of linguistic connections involves a process of mapping such cultural knowledge onto semantic phenomena. Wilkins (1997:441) refers to the "crucial role which detailed ethnography plays both in establishing plausible semantic associations and in fleshing out the unique local cultural understanding of known universal or areally widespread associations". However, Moyle (1986:125) has warned against the "temptation towards selective interpretation based perhaps on a moment of inspiration" or on an "over-enthusiastic etymological

reconstruction”.²⁹ Working in a multilingual group and utilising relevant available data can provide crucial evidence for what would otherwise be mere speculation.

Although such conclusions need to be treated with caution, an example of explicating a ‘missing semantic link’ by using a comparative approach is the case of *rlwaylp(e)*, glossed in Alyawarr as “1. kurdaitcha, featherfoot, ritual avenger 2. unregistered (motor car)” (Green 1992:219).³⁰

- (29) *Artwa rlwaylp atw-enh-atw-enh, travel-alh-eyel,*
 man kurdaitcha hit-NMZ-hit-NMZ travel-go-PRS:CONT
atey ingwer apek atw-etyek,
 man different perhaps hit-PURP
or arelh ingwer apek rlwaylp-el atw-etyek. (Aly)
 or woman different perhaps kurdaitcha-ERG hit-PURP
 ‘The kurdaitcha are killers, they travel around to punish another man,
 or maybe a woman.’ (Green 1992:219)

Further Eastern Anmatyerr and Kaytetye data show yet another meaning extension of *rlwaylp(e)* (Kay) and *urlaylp* (EAnm)—in this instance in the domain of grubs, which undergo metamorphosis in underground roots, then emerge in a transformed state as moths or butterflies.

- (30) *Kel ra an-erl-an-em int-erl-an-em,*
 then 3sgNOM be-CONT-STAT-PRS lie-CONT-STAT-PRS
irrarl-irr-etyakenh anyemayt antey.
 cocoon-INCH-NEG witchetty still
Ikwer-they anem ra alh-em urlaylp anem,
 3sgDAT-ABL now 3sgNOM go-PRS chrysalis now
irrarl anen irr-em... he go away now. (EAnm)
 cocoon now INCH-PRS
 ‘Then it stays there, lying there. It has not yet turned into a cocoon and is still a
 witchetty grub. Then it becomes an *urlaylp* then—it turns into a chrysalis—it goes
 away now.’
- (31) *Rlwaylp-lk-arre-nk-arre eylwekere errpwele-rtame eylwekere,*
 chrysalis-now-INCH-PRS-REL poor.thing black-EMPH poor.thing
ayne-nke-rtame kwere. Ekarle-pe alheyle-ngele. (Kay)
 eat-PRS-EMPH 3sgACC shell-FOC take.off-S/S
 ‘The one that turns into a chrysalis is black, the poor thing, we eat it. It sheds
 its skin.’

²⁹ It goes without saying that this process of ‘etymological reconstruction’ is not simply a concern of historical linguists. For example, an Arrernte speaker once postulated that the word ‘anthropologist’ is related to the word ‘apologise’. Similarly, it is believed by some that the name ‘Strehlow’ is based on the phrase ‘Three Law’, because “they thought he had three laws—Church Law, White Law and Blackfella Law” (Jeannie Devitt, pers. comm.). See Green, this volume.

³⁰ Carl Strehlow referred to the word *kurdaitcha* as an ‘English word introduced’ (Dixon et al 1990:156). See also Spencer and Gillen (1899:476–96). Although the word is used widely in the Central region, it is not recognised as Arandic by some speakers of these languages.

Table 5 shows comparative data illustrating semantic extensions of words for 'kurdaitcha' in some Arandic languages.³¹

Table 5: Some semantic extensions of words for 'kurdaitcha'

Language	'kurdaitcha'	'chrysalis'	'turn into chrysalis'	'unregistered car'
ECAr	<i>inentye, arliltye, artwe mwake</i>	<i>irrarle, ularlpe</i> (old language)	<i>irrarle-irreme</i>	<i>mwetekaye inentye</i>
EAnm	<i>urlaylp</i>	<i>urlaylp, irrarl</i>	<i>urlaylp-irrem, irrarl-irrem</i>	<i>mwetek rlwaylp</i>
Aly	<i>rlwaylp</i>	<i>arlely</i>	<i>arlelyerreyel</i>	<i>mwetek rlwaylp</i>
Kay	<i>rlwaylpe</i>	<i>rlwaylpe</i>	<i>rlwaylpelk-arrenke</i>	<i>mweteke rlwaylpe</i>
WAnm	<i>ngkekern</i>	<i>irrar, ngkekern</i>	<i>irrarl-irrem, ngkekern-irrem</i>	<i>ngkekern-ngkekern</i>

The following Kaytetye example illustrates the metaphoric link between 'kurdaitcha' and 'unregistered cars', which, like the 'kurdaitcha', sneak about avoiding detection.

- (32) *Mweteke nharte rlwaylpe, paper-waneny,*
 car that kurdaitcha paper-NEG
bush-le-p-aperte ape-rrane-nke back way-p-aperte bush-le,
 bush-LOC-FOC-only go-PRS:CONT-PRS back.way-FOC-only bush-LOC
rlwaylpe-rtame re. (Kay)
 kurdaitcha-EMPH 3sgNOM
 'That car is unregistered, it has no registration paper, it only goes in the bush on back roads, it's unregistered.'

That the cognate forms *rlwaylpe* (Kay) and *urlaylp* (EAnm) show parallel polysemy is one kind of linguistic evidence for a postulated semantic link between domains which previously appeared to be unconnected. In Warlpiri there is a clear semantic link between *jarnpa* 'kurdaitcha', *jarnpa-jarnpa* 'thieving in a sneaky manner' and *jarnpa-jarnpa* 'moth stage of an edible grub' (Warlpiri Dictionary database).³² In Warumungu the unrelated form *yungkurnu* is glossed as 'the dark brown-black stage of the witchetty grub immediately before it emerges' and 'devil man, kurdaitcha' (Simpson 1999).

The salience of the ability of the *rlwaylp(e)* to 'change himself' is a unifying attribute in these domains of 'kurdaitcha' and 'grubs'. Kurdaitchas transform themselves from their everyday identity and disguise traces of their movements by wearing emu-feather foot

³¹ The term *rlwaylp(e)/urlaylp* itself may be based on the proto-Arandic form **urle* 'eye, forehead', although the meaning of *-aylp* is at this stage unclear. The Warlpiri word *milpa* 'eye' also refers to entities such as seeds which are 'eye-like' with respect to shape or size. This includes the holes from which grubs emerge (Mary Laughren, pers. comm.) For some speakers of Eastern and Central Arrernte, *alknginere* (based on *alknge* 'eye') refers to the larval stage of cicadas (Henderson and Dobson 1994:96), a clear semantic parallel to EAnm *urlaylp* 'chrysalis'.

³² In the database the two meanings of *jarnpa-jarnpa* are presented as distinct entries.

coverings—grubs undergo a transformation from a larval state into moths or butterflies. At the symbolic level the concept of metamorphosis itself may be the ‘bridging context’³³ between the various meanings of *rlwaylp* and *urlaylp*.

Having established the pervasiveness of the semantic range of *rlwaylp(e)* and its equivalent terms in several central Australian languages, we now extend this discussion to several other lexemes which demonstrate partial synonymy with *rlwaylp(e)*. In Eastern and Central Arrernte *arililtye* is another term for ‘kurdaitcha’ or ‘traditional executioner’. The cognate term *arlelty* in Alyawarr is glossed as ‘cocoon’ or ‘chrysalis’. In examples (33a and b) below it can be seen that in each of these languages a second lexeme, respectively *arililtye*² or *arlelty*², is presented as a homophone of *arililtye*¹ or *arlelty*¹:

- (33)a **arililtye**¹ traditional executioner (ECAr)
synonyms kwertatye, inentye, artwe mwake
arililtye² stiff, hard to move
arililtye-irreme 1. get stiff. 2. have the kind of fit where a person stiffens up then collapses, especially when a baby holds its breath (Henderson and Dobson 1994:208)
- (33)b **arlelty**¹ cocoon, chrysalis (Aly)
arleltyerreyel turn into a cocoon or chrysalis (?)
arlelty² ignoring everything around, fixated, oblivious, won’t move
arleltyerreyel cry (Green 1992:74)

A comparison of the Alyawarr example (34) containing *arleltyerrem* ‘turns into a chrysalis’ (lit. ‘chrysalis-INCH-PRS’) and the Eastern Anmatyerr example (35) containing *urlaylp-irrek* ‘turned into a chrysalis’ (lit. ‘chrysalis-INCH-P’) shows the partial synonymy, in the domain of grubs, of the words *arlelty* (Aly) and *urlaylp* (EANm).

- (34) Arlelty-err-em *arrpem ahekwenayt, alh-em ntelyapelyap-apeny,*
cocoon-INCH-PRS also river.red.gum.grub go-PRS butterfly-SEMB
ahern-they tyerr-elh-ey-aynt-emel. (Aly)
ground-ABL emerge-REF-LIG-CONT-S/S
‘The grub from the base of the river red gum tree also turns into a chrysalis, and then goes about like a butterfly, after emerging from the ground.’
- (35) *Tyap ra tyerr-elh-ek urlaylp anem.*
grub 3sgNOM emerge-REF-P chrysalis then
Aympelh-akert ra alh-em ntelyapelyap anem.
wings-PROP 3sgNOM go-PRS butterfly then
Urlaylp-art int-ek-penh. Urlaylp-irr-ek, urrperl-irr-ek. (EANm)
chrysalis-REL lie-P-SEQ chrysalis-INCH-P black-INCH-P
‘Then the grub emerged as *urlaylp*. It had wings and flew off as a moth then —after lying there as *urlaylp*. It darkened and transformed into a chrysalis.’

It may be that the state of immobility (or pupal stage) which is integral to the transformation from grub to moth provides a semantic clue which links the previously postulated homophones *arililtye*¹ and *arililtye*² (*arlelty*¹ and *arlelty*²). Although more evidence

³³ ‘Bridging context’ is discussed in Evans (1997:135), and in Evans and Wilkins, this volume.

is needed to resolve this issue, the above examples illustrate the effectiveness of a comparative methodology. Semantic similarities and differences between Arandic languages are both highlighted in order to fully explicate and provide the rationale for attested links between differing senses of words.

5. Conclusion

The development of the sort key and group fieldwork methodology provides comparative phonological data which lays the groundwork for more sophisticated understandings of phonological change within the Arandic language family and beyond. In effect this builds on Ken Hale's early and insightful intuitions (Green, this volume):

I used to try to make up Arrernte words from Warlpiri. The first time I did that, and did it right, I was so proud. There is a plant called *wakati* in Warlpiri. I think it's some kind of flat creeper.³⁴..Anyway it should come out as *akat* in an Arandic language you know. I could never find one that did that. Then finally I found Anmatyerr has that word and it comes out as *akat*—exactly as it should. Oh. Beautiful.

This approach provides essential data for both etymological research and for identifying types of semantic extension in Australian languages (Koch 1983; Austin 1983; Wilkins 1997). It has been suggested by some that the relationships between various senses of words in dictionaries, as well as those between derived forms, need to be made explicit (Evans 1997; van der Meer 1999). The approach discussed in this paper provides one way of making progress towards this goal by revealing the nature of semantic links in Central Australian languages.

The comparative approach employed in these dictionary projects not only makes maximal use of both previous research and the multilingual skills of language speakers, but it opens up the possibility of a different kind of dictionary, in which the target language is not English—for example a Kaytetye–Anmatyerr dictionary or an Alyawarr–Kaytetye dictionary, or indeed the comparative 'dictionary of Arandic' that Hale envisaged.

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³⁴ The plant Hale is referring to is *Portulaca oleracea* (munyeroo, pigweed). Western Anmatyerr speakers call this plant *akat*, and the Warlpiri and Pitjantjatjara call it *wakati*.

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7 *On the love of languages*

ARAM A. YENGOYAN

In May or June of 1966, my wife, my daughter of two and a half years of age, and I arrived in Alice Springs, Northern Territory on the ‘Ghan’ from Adelaide and Port Augusta. On board, we brought up a Land Rover and a small trailer which was to be our home for seventeen months while I did fieldwork among the Pitjantjatjara in Amata and Ernabella, in the State of South Australia. I had heard that Ken Hale was also in Alice Springs starting work on Warlpiri, and we finally met. It was my first encounter with Ken, though I had heard about his remarkable linguistic abilities when I was at the University of Michigan, where I taught from 1963 to 1990.

This essay is in part personal and also, in part, deals with some of Ken’s writings on Aboriginal Australian languages as well as his theoretical pieces. These two parts are intertwined as a result of a friendship which has spanned a third of a century, through conversations, phone calls, meetings, and an exchange of letters. I still have the letters from Ken which go back to the late 1960s, most of which are filled with acute and perceptive insights into language and culture issues that we have worked on either separately or mutually.

During the 1966–67 period, my family and I would come up to Alice Springs, and there we would see Ken and Sally for days, talking about the miserable state of political affairs, with the United States getting further involved in the Vietnam War; the developing racism in Alice Springs; and the horrendous cost of vegetables and fruits in the local stores. Sally’s dinners were a godsend, and her cooking of Mexican food was always a high point during these sporadic visits. But Ken and I would squirrel away to talk ‘shop’, either at home or at the local pubs. It was in this context that I saw Hale’s remarkable skills at language. It was one thing for him to speak to Warlpiri speakers in Warlpiri, but it was another to watch him move from Warlpiri to Arrernte, Kaytetye, Warumungu, or Luritja. Each Aboriginal man was moved by his abilities. They would lean over and ask me if he was a missionary; I would say “No, he is a linguist”, and they would ask, “What is that?” All of this transpired at different times in the ‘old’ Alice, which had more space for Aboriginal people in the town centre.

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Forty years on: Ken Hale and Australian languages, 113–122.
Canberra: Pacific Linguistics, 2001.

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113

These were my first encounters with Hale's linguistic skills and his virtuosity in moving from one speaker to another—always done in a natural, self-effacing manner, low key, modest to an extreme, and humble beyond what the word means. Yet, for Ken this was also a great learning device: the speaker would respond to him in a more complex way, which in turn would push Ken on to explore why one construction was acceptable while another might be doubtful. For me, the myth of his skills was thus revealed as a hard reality that was truly exceptional in its implications.

Yet, this keen insight and understanding of particular language structures had still another aspect. Since Hale had worked on Warlpiri some years prior to 1966, he would note the kinds of grammatical parallels that Warlpiri had with other languages. In this case, I still note the comparisons he made between Warlpiri syntax and certain syntactic features in Gaelic. Although difficult for a linguistic novice like me to follow, his discussion of these features was lucid and informative. On another comparative note, Ken thought there might be some vague prehistorical connections between Australian Aboriginal languages and some of the 'tribal' languages of South India. Again, in his way of seeing connections, he patiently discussed this in a clear and impressive manner.

On his return to the States, Ken and Sally moved to New England, where Ken took a position at the Massachusetts Institute of Technology. And from time to time I heard that he was tapping into the local Native American languages in a way reminiscent of his work with the native languages of the American Southwest. Ken, in all his modesty, would claim that he really knew very little about languages in the Southwest and that he worked only in a sporadic way, nothing really sustained. Yet, this kind of random fieldwork, whenever he had time off from teaching, has led to some of his most important work. Here I refer to his piece 'A note on subject-object inversion in Navajo' (1973), which is hardly a note. Hale, in his skillful combining of limited knowledge of Navajo and intuitiveness, dealt with a problem that had never been resolved by Sapir and Hoijer and the other giants of Navajo linguistics. And although labeled a note, this article revolutionised our thinking about the speaker in regard to levels of hierarchy as embedded in contrasts such as human/nonhuman/inanimate.

Sometime in the late 1970s, I was driving with Ken from the MIT campus to his home in Lexington. He needed gasoline, so he stopped at a gas station that he had frequented in the past. As the attendant was pumping gas, I heard Ken talking to him in a language that brought back my childhood. Ken spoke fluently; occasionally, he would make mistakes, they would laugh and continue. This went on for about ten minutes, and we left.

I soon realised, as I was listening, that the language was Turkish. The language of my family was Armenian, which all of us children spoke. But when my parents wanted to say something in our presence that we would not understand, they changed to Turkish. I had picked up a few words, and that was it. When we drove on, I told Ken about my memories of Turkish, and how it was used by my parents—and my limited knowledge of it. But Ken was fluent. He had worked on Turkish only with the attendant, adding vocabulary, becoming involved in matters of grammar, but always probing the various small, detailed nuances of the language that make it unique.

I suspect that anyone working with Ken at one time or another was able to observe the depth and intensity of this linguistic skill. Yet, from my experience, the learning of languages, be it Turkish or Gaelic, was even more importantly part of a generalised intellectual curiosity that Hale possessed, one that continually propelled him to seek new and different encounters.

If the beginning section of this essay has dealt with my personal ties to Ken, the last part will dwell on some of the theoretical and political points that I think underlie Hale's work,

both in Australia and the American Southwest. As a start, it must be noted that there are connections between the personal and the scholarly. In part, it was and is this personal interaction which I think permits me to deal with some of the long-range facets of his work and, in turn, to appreciate how my intellectual exchanges with Hale also have influenced my own work. Yet, it must be stressed that the mutual interchanges we have had over ideas and empirical work were only *minimally* mutual. There was little that I, not being a linguist, could contribute to Ken's store of knowledge; but again, we always moved the conversations to abstractions, which are fortunately open to all.

In this vein, I want to focus on three themes that I think make Ken Hale's work both unique and, even more, politically relevant. And in conclusion, I want to discuss some of the influences that he has had on my own work in central Australia.

One of the basic concepts critical to his work is the ability to move from the particular and possibly the unique to the universal or semi-universal and vice versa. Throughout four decades of writing on languages and language, Hale's writings have been able to move back and forth with the aim of showing how one level informs the other. The best insight into this process is seen in Hale's piece (1976) titled 'Linguistic autonomy and the linguistics of Carl Voegelin'. Here, he sets forth the contrast between Autonomous Systems and Dependent Systems views in the analysis of language. In the Autonomous category, "A language consists of a number of distinct systems, each possessing inherent principles of organization which are utterly independent of factors relating to any other linguistic system or to extralinguistic factors" (Hale 1976:120), while in the Dependent, "A language consists of a single unified system—or else a set of tightly integrated systems—whose inherent principles of organisation are often intimately related to factors belonging to conceptually distinct realms, including extralinguistic factors" (Hale 1976:121).

The contrast is critical for our understanding of how universals are to be comprehended. Universals are primarily found in generative principles as exemplified in the work of Chomsky, Halle, and others who were once labeled as transformationalists, or in the realm of typologies as characterised by the work of Hale's teacher Carl Voegelin.

What has been a lifelong concern for Hale is the determination of the loci of universals. He concludes that:

my feeling is the universals in this case belong properly to the category of *relative implications* within the typology which grows out of the Autonomous Systems view of language. That is to say, these universals are not to be represented directly in the grammars of specific languages. (Hale 1976:127)

By tracing the Autonomous/Dependent Systems distinction, Hale (1975) deals with the problem of embeddedness in language and culture. Here the paramount question is, does the absence of the universal in the particular refute the existence of the universal? In analysing Warlpiri forms of enumeration, Hale notes that the concept of counting is probably a universal, but its conventionalised manifestation or its empirical existence might be absent. The central issue is that the absence of the trait in the particular does not disprove the existence of the universal, which must be comprehended as a concept and not in its empirical existence. To move from the universal to an empirical existence, one must recognise that culture, like language, is a process of embeddedness. Thus on first appearance, cultural or linguistic features might be absent in the particular, but the investigator must keep in mind that certain features might be subsumed or subordinate to other correspondences.

Throughout his writings, Hale (1971, 1973, 1975) constantly stresses that the central task is to relate the particular to the universal and vice versa. But my impression is that, with all this entire range of linguistic skills at his disposal, Hale yet seems to prefer analyses that

probe the particular. While he is aware that details and facets of a language at one level may be relatable to generalisable and comparative (possibly universal) ends, he takes pleasure in turning his analysis toward a level of investigation that may yield findings that are unique to the given context but *not* amenable to generalisations. Much of Hale's work is guided, I think, by his quest to find why and how some languages possess so much internal variation and difference from other languages, at the syntactic and also the morphological level. The issue for him is not one of expanding the universal to account for internal variation, which would ultimately make the universal so general that all of its theoretical power would be lost. Rather, what he finds essential is to maintain the sense of language and its speakers as a creative phenomenon and of linguistic creativity as the ability of speakers to intellectualise their language using a sense of play that creates ever-new combinations.

The best examples of this process of intellectualisation and play are revealed in Hale's (1971) analysis of Warlpiri antonymy and in the various pieces on Lardil and Damin, the most notable being his (1982) discussion of kinship terminology (see also Hale & Nash 1997). Both cases are quite complex, yet in each, Hale was able to decipher a linguistic logic which formed the basis permitting young novices to learn *Jiliwirri* or *Damin* in an extraordinarily short amount of time.

Although Hale is cautious in discussing how these speech forms emerged, I would like to venture a few speculations. In both cases, these secret or semi-secret languages cannot be traced to borrowing from neighbouring languages. And in one, Damin, the phonological system makes contrasts unlike those in that of any other Aboriginal language. Antonymy, as a structural principle, is widespread in many Aboriginal languages, and in most cases it is the source of contrastiveness and difference. Yet it is imperative to recognise that to create a self-sufficient system of contrasts with minimal means, at some time in the past a few individuals played with their language. This can be done by establishing a sense of distance such that speakers step outside of their discourse, through a sense of distance creating contrasts as a form of play and inventiveness. The observations are a result of distancing and differentiations which might be minimal so they can be learned quickly by novices, and of a philosophical speculation which permits persons to reflect on what they do with speech and what kinds of elaborations can be created. In my own work with Pitjantjatjara speakers, I have noted how some speakers could rework principles of word order in ways that were still linguistically and culturally acceptable. Not only were these elaborations intellectual games, but also they elicited a strong feeling of pleasure among the speakers, as creative uses of language. Hale (1971) also notes the pleasure which Warlpiri men felt when they discussed how *Jiliwirri* as a form of opposition was not only creative but all-embracing.

Hale's interest in how linguistic play works and what it creates stands in a generation of linguistics and linguists which has stressed formalisms and abstract theoretical paradigms. Language games, of which Australian-language 'respect' registers, Damin, and Pig Latin are examples, have been among the kinds of often-overlooked particularities that have excited Ken's interest from the start. He has recognised that such games hold, in addition to their intrinsic interest, great interest for the linguistic theoretician because they place extraordinary reliance on generative rules to express thoughts that in ordinary language might require no act more sophisticated than the choice of a single word. This makes the rules more accessible to the examiner. And, unlike many linguists who focus their attention narrowly on the generative rules, Ken has always been alive to the social contexts in which these systems are used. Furthermore, I have always felt that the uniqueness of languages and their elements and small nuanced particularisms have continually whetted Hale's appreciation of the creativity of the games that speakers play with their language.

The idea of play was noted earlier by the anthropologist A.L. Kroeber (1952) and by the Dutch historian Johan Huizinga, in *Homo ludens* (1949). What makes Hale's work remarkable is that he has recorded how this idea works, what is done, how far it can be expanded, and the kinds of implications that speakers draw from their own utterances and the respective structures. The process of intellectualisation which I am discussing might or might not be universal, but wherever it is found it is a result of differentiation, distanciation, and the ability of speakers to move outside their linguistic milieu and comprehend a speech pattern as a linguist might.

Language games are played in most societies, perhaps all. At one time or another, most Americans as children have been versed in Pig Latin. We learn this, often, at school but out of school, perhaps on the playground; we retain it for the rest of our lives but it is not a serious or important part of our culture. In school we learn to use language as a straightforward, exact, concise, and lucid mode of expression, and we learn to analyse language, usually for purposes of literary discussion and criticism, through the use of writing. Analysis of language as spoken rather than as written is not part of the mainstream educational process, and analysis of language games is often beneath notice. But in many languages, especially where the oral tradition is dominant, language games and linguistic creativity form a large and critical part of the data for assessing how language is internalised by speakers, who are able to reflect on what they are saying and on the processes by which they can form utterances which are new yet still meaningful to the speakers.

Another facet of this kind of linguistic creativity is its connections to examples of linguistic drift (Sapir 1921; Eggan 1963) and to the general issue of involution (Goldenweiser 1936). In both drift and involution, a pattern becomes dominant and is crystallised; consequently, internal complexity within the pattern increases but the complexity cannot be transformed into a different or a new structure. Language games and the ensuing play can become extreme, enhancing the ability of speakers in these games to create utterances and oppositions which eventually might mystify others who have been excluded. Although we have little empirical evidence for determining the connections between games or play and drift or involution, one might speculate that games and play would be transgenerational and that over time, they might be crystallised as results of drift.¹

Hale's lifelong curiosity and polyglot abilities have always focused on the particular, which might or might not reflect universals or semi-universals. For those of us who have seen Hale work in the field, it is always a pleasure to watch him delve from the particular to the sub-particular as a means of participating in the nitty-gritty that makes a language truly unique. Surely the detailed nuances of language have little to do with communication per se, but they do reflect the creativity which only native speakers (and Hale) can pursue to their logical (and possibly absurd) ends with a sense of pleasure and glee.

Coupled with these interests has been Hale's lifelong concern for training native speakers to do linguistic analysis in their own languages. As early as the middle 1960s and early

¹ Ed. note: The 'drift' of more recent anthropologists differs from Sapir's (1921), but the author points out that Fred Eggan was a student of Sapir's at the University of Chicago in the 1920s. A possible example of the 'crystallisation' of a repeatedly created game-like process (a 'drift'-like tendency, in Sapir's sense) begins with the widely attested replacement, in the formalised 'baby talk' of a number of Aboriginal languages, of the flapped liquid /rr/ with the glide /y/. See for example Mary Laughren's 'Warlpiri baby talk' in *Australian Journal of Linguistics* 4(1984):73-88. A sound change that has affected most of the Wik languages of Cape York Peninsula is the change of an original *rr to /y/. If formalised 'baby talk' is a kind of 'language game', then it is conceivable that this sound change is an instance of the crystallisation of a process begun in a game.

1970s, Hale (1965, 1972) expressed his interest and subsequent involvement with training native speakers in linguistics. Initially, Hale and Mr Albert Alvarez, a Papago speaker, worked together within a transformational grammar framework. However, it soon became apparent to Mr Alvarez that certain problems were emerging, one of which was the absence of the semantic domain in such an analysis. The virtue of this kind of collaboration is that the native speaker, *cum* linguist, can expand on abstract rules as well as clarify uncertainties that might emerge. This might be a minor point, but what is essential to note is that the inability of linguists to clarify uncertainties, or what Hale (1965:117) notes as a mystery, has usually led linguists to class uncertainties under the rubric of free variant, which is a way of combining things that cannot be explained or classified. Working with Mr Alvarez on the spot allowed Hale to deal with matters of uncertainty with an insight which only the native Papago speaker possessed. Throughout his work in Warlpiri and Lardil, Hale has worked closely with native speakers as a means of trying to deal with the ambiguities and the extent to which these can be comprehended within the existing structure or perhaps as manifestations of linguistic play.

In the early 1970s, Hale's commitment to native speakers addressed the question of the professionalisation of the discipline. Within the context of North American universities and their graduate programs, few native speakers have been able to pursue higher degrees. The professionalism and the top-heavy degree requirements have favoured a particular group of people who can afford the 'luxury' of spending five to nine years in graduate studies towards MA and PhD degrees. The intellectual, political, economic (and even moral) structure of the university goes against the idea of training native speakers in their language and in the kinds of work which might result from such training. And if they were able to achieve this (and some have), the very logic of academia works against it.

One requirement is a means of accreditation that will be geared to native speakers, who can seldom afford the lengthy period of graduate work. Hale has on a number of occasions worked with native speakers at MIT with the aim of training them in linguistics so that they could return to their communities and continue work on their languages. In some cases, they have been able to receive a PhD. A real concern, however, is to provide a means of training which would be recognised within the profession but which would avoid the lengthy time commitment currently demanded. This appeal was voiced by Hale in the early 1970s, but American universities and their graduate programs have been extremely slow or reluctant to meet the challenge. As Hale was well aware thirty years ago, addressing the issue of the value of the languages of small indigenous groups in larger industrial societies required much more than the granting of doctorates: there is among other problems the enormous matter of the economy that these educated persons, PhD-holders or not, are to come home to. The failure of the universities to act with energy and original thought on the matter of linguistic training for non-university-trained people from nonliterate traditions is part of a much larger picture of lack of concern, by no means limited to the universities, for the intellectual riches of these traditions and for the dilemmas faced by those who wish to continue to cultivate them while at the same time earning a living. The consequences of this contempt are now visibly and permanently damaging. Globally, many languages are endangered, the remnants of their native speakers having been reduced to a half-dozen or fewer speakers. In many cases, it might be too late to rectify the situation or even to record anything. If Hale's appeals of thirty years ago had been even partially addressed by the profession and also the universities, an important signal would have been sent that might have made a difference, however token at first, in this regard.

Another facet of language endangerment is what local people themselves might feel about what is happening. Linguists, like other social scientists, have long argued over the age-old adage, "If you want to kill a culture, you first kill its language". The trend of global history and imperialism would support this, though there might be exceptions. And while many social scientists may have debated the validity of this kind of discourse, for almost all indigenous people I have worked with in central Australia and in the southern Philippines, as well as from what I know of the native peoples of northern California, this is not a debatable issue; it is a manifest truth.

This brings me to the last point, on how Hale's work over the past four decades inverts the normal career paths that linguists in general have pursued. In linguistics, like most of the social sciences, an academic is known by his or her theoretical, comparative, or interpretive pieces that address the intellectual concerns and paradigms central to the scholarly profession at the time. The writing of abstract grammars, transformational rules, arguments over binding and government, etc., have dictated what a scholar was all about. If one worked on an 'exotic' language, one usually worked on the deep structure as it reflected universals in such matters as clause structures. All of these activities were done in the prime of one's scholarly writing. But dictionaries and vocabularies were different. Compiling of word lists into dictionaries and lexicons was something that one normally did in the twilight of one's scholarly career. Again, the assumption behind this kind of division of labour was that dictionaries and lexicons could be done by anyone; they were something which was routine and mundane; they did not require any deep analytical thinking; and last, they only required a sorting out of 3x5-inch file cards into some alphabetic logic.

Hale started compiling dictionaries and vocabularies at an early phase in his career. In fact, the Warlpiri dictionary project was started in the 1970s and, with intense native-speaker participation, is nearing completion. Hale et al. (1981) issued a preliminary Lardil dictionary a few years later, and that project was finalised recently (Ngakulmungan Kangka Leman 1997). A close reading of Hale's *vita* also indicates that his fieldnotes, which he would always generously allow others to use, were the basis of vocabularies and word lists for a number of languages such as Warumungu, Ngarluma, Warlmanpa, Yindjibarndi, and others.

But, as any reader would acknowledge, there are dictionaries and there are dictionaries. In both Warlpiri and Lardil, the meticulous analysis of roots and compound forms has made the entire endeavour a project of intense care and detail, combined with a dedication that is truly unique. Furthermore, Hale has always been concerned with producing dictionaries that can be used by native speakers. The detailed treatment of each entry includes the various meanings of the word and its linguistic category, each designation followed by illuminating examples. Each entry is fully explored in regard to its potential nuances and the conditions of its use. Browsing through the Preliminary dictionary of Lardil, a reader finds any number of entries nearly equivalent to an encyclopaedia article.

For Hale, the dictionary has not been a venture of the twilight. His work on dictionaries has clearly been done in conjunction with the wide range of theoretical grammatical and semantic analyses that have always been central to his scholarship and converge in the study of the place that the lexicon occupies in formal grammar. Furthermore, dictionaries, over and above the involvement of native speakers in their production, have a critical role in Hale's political stance. Speakers of 'exotic' languages, endangered or not, have long felt that dictionaries and useful vocabularies are the most important contribution that linguists can provide to their social life and to the succeeding generations, for each of whom language loss threatens anew. Throughout many areas of Aboriginal Australian societies as well as the

southern Philippines, the dictionary has had a high emblematic as well as a practical value. Again, we find similar demands made by speakers of indigenous languages of northern California. This call for vocabularies over abstract theoretical grammars has inverted the appearance of a normal career trajectory for a professional linguist, where name and fame are linked to theoretical pronouncements, not dictionaries. Hale understood this need very early in his career, and it was his way of giving something back to the speakers of languages whom he had so closely worked with. What has been Hale's very special achievement here is the wrapping up of the practical, the political, and the intensely theoretical into a single genre.

The demand for dictionaries will in all probability increase as native speakers feel that they must leave something for their children and grandchildren. This desire has been clearly voiced:

At the 1992 Athapaskan Linguistic Conference in Flagstaff, Navajo linguist Paul Platero ("Language Loss among Navajo Children") challenged the audience, "You who make your living off our language and culture, do your theoretical work, yes, but do something that will encourage our language." (Daniel McLaughlin, cited in House 1991:217)

Hale's politics and scholarly production understood this message nearly four decades ago. Dictionaries, lexicons, vocabularies, and word lists should be the lasting legacy which will encourage language reproduction and diversity.

Returning to my personal interconnections with Hale, his letters, writings and conversations over the past three decades have inspired some of my own work among the Pitjantjatjara. In comparison to what Hale has published on similar topics, my work is most rudimentary. In a paper on linguistic and cultural dualism, I explored the differences between the past tense and the imperfective in regard to events which the Pitjantjatjara consider as sacred and/or secular (Yengoyan 1989). Linguists have long debated how the past tense is constituted in some of the Western Desert languages, and even whether it exists. In this work, I followed up on the idea that the past tense is normally used for events and situations that have no sacred counterparts, but are simply activities that are mundane and nonexistent once they are performed, such as eating or taking a trip. But sacred events either in the most ancient past or in the recent past must be conveyed as a continuity, events which have no finalisation. In such cases, the imperfective is used to maintain the continuity of action which links the ancient past into the present and possibly into the most distant future.

In 1990, I followed up some of Ken's suggestions regarding negation and the problems of translating negation from English to Pitjantjatjara (Yengoyan 1990). Through an analysis of Pitjantjatjara dreams which I had collected in 1966–67 and in 1970, differences in the use of negation were interpreted in terms of the language of dreams as opposed to everyday conversation. By demonstrating that the absence of negation in dreams relates to different societal contexts (*prescriptive* rule structured societies in contrast to *proscriptively* structured societies), one is able to assess the expression and degree of conjunction and disjunction between the waking life and the dream life in particular societies. Although this paper was inspired by Freud's and Benveniste's thoughts on negation, Hale's early insights and conversations were the original impetus for developing what became a very complex issue.

This essay has no final summary; instead it should be read as a set of reflections on Hale as an individual and as a scholar. One of his letters to me, dated October 30, 1978, is a two-page detailed interpretation of central coincidence and terminal coincidence as they relate to various clause structures, the perfective and the imperfective. The letter is full of detail, which again supports my earlier premise that it was these detailed nuances which were Hale's

particular love in languages. In developing this position, I am more and more convinced that the essential creativity of languages, in all its facets, is what Hale wants to understand and convey.

Surely his concern for understanding language creativity is also enhanced in the kinds of linguistic context which Hale has pursued throughout his life. I suspect that there is some sort of elective affinity connecting his impressive polyglot skills and those languages which he has analysed. Language creativity is an emergent reciprocal bond between himself and what he encounters, either in central Australia or in a gas station in Lexington.

The love of languages as it combines nuances and details of languages in the plural with a strong moral commitment to language diversity (Hale 1992) can best be captured (or encapsulated) in Hale et al.'s (1981:294) opening discussion of Damin vocabulary.

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8 *Critical reflections on the history of bilingual education in Central Australia*

ROBERT HOOGENRAAD

... the introduction of bilingual education programs in NT Aboriginal communities in the early seventies was a marvelous and highly symbolic event signal[ing] a fundamental, positive, and irreversible change in the relationship between Aboriginal languages and formal educational structures in Australia. This was naive optimism, of course. Sadly, what is surely an inalienable right—to use and develop one's native language—is not safe from forces of economic and sociopolitical contingency. (Ken Hale, 1999:42)

To deny a people an education in their own language where that is possible is to treat them as a conquered people and to deny them respect. (The Honourable Kim E. Beazley Senior, 1999)

1. Introduction¹

In 1972 the Federal Government of Australia decided to “launch a campaign to have Aboriginal children living in distinctive Aboriginal communities given their primary education in Aboriginal languages” (Whitlam 1972).

¹ The author is employed as a linguist by the Northern Territory Department of Education. The views expressed in this paper are not necessarily endorsed by my employer. I take full responsibility for the views expressed. I wish to acknowledge discussions on bilingual education over the last decade with my linguist colleagues and educators who work, or have worked, in the NT, particularly at IAD and with NTDE. I also acknowledge my indebtedness to the many Aboriginal people I have worked with and who have taught me since 1983. I am especially indebted to the long-term staff working in Warlpiri schools. I dedicate this paper to the memory of Kay Napaljarri Ross (d. 21 October 2000), who served Yuendumu School for 25 years. Abbreviations used: NTDE – Northern Territory Department of Education; BIITE – Batchelor Institute of Indigenous Tertiary Education (was Batchelor College); ESL – English as a Second Language; TESL – Teaching English as a Second Language.

The proposal was made to Whitlam earlier that day by the Honourable Kim Beazley, Senior, then Federal Minister for Education responsible for education in the NT, on the basis of his observations of remote Aboriginal schools in the late 1960s when he was Shadow Minister for Education. In the Hermannsburg Lutheran Mission school, literacy was taught in *both* English and Western Arramta. In other bush schools—where teaching was in English only—children were easily distracted by Beazley's presence as a visitor and clearly were not following the lesson, while in Hermannsburg school, "if I went into their classroom where the teacher was teaching in Aranda, . . . nobody swung around and looked at me. Their focus was on what the teacher was saying" (Beazley 1999).

Beazley and Whitlam were responding to the obvious logic that, *ceteris paribus*, any child would learn best if instructed in their own, first language, rather than in a foreign language. The 'all things being equal' is of course the rub, and is the point of this essay.

In June 1974 Geoff O'Grady and Ken Hale carried out a survey of bilingual education programs newly being established by the Federal Government in a small number of Aboriginal communities in the NT. They produced a short report including twenty-five recommendations, discussion of the recommendations, and an introduction in which they described the major premise underlying their recommendations,

that the success of any education program depends upon the extent to which the school is an integral part of the community which it serves. . . .one of the goals of bilingual education should be to enable Aboriginal communities to gain local control over the education of their children and young adults, with the role of non-Aboriginals becoming more consultative in nature—i.e., more consultative than directive. . . . We . . .urge generally that maximum efforts be made over the coming years to engage Aboriginal people in the implementing of the bilingual education program. (O'Grady & Hale 1974)

This paper uses this premise and their recommendations to put the short history of bilingual Aboriginal education in Central Australia into a critical perspective, in terms of the history of Aboriginal education, the history and developing functions of literacy in the vernaculars, the history of the use of English by Aboriginal people, and in particular, the changing role of local Aboriginal people in the education of the children in their community.² The aim is to provide a basis for judging the success or failure of bilingual education relative to so called 'English only' Aboriginal schools and Aboriginal education in the NT in general.³

I examine these issues with respect to Northern Territory Central Australia, an area that stretches from *Lajamanu* and the Gulf of Carpentaria to the SA border (see Map 1).⁴ It covers four major language areas, with 58 Aboriginal schools, many of them small, and more than 3,170 Aboriginal students. Only 11 schools had bilingual programs. See Table 1 for additional detail and see the map for the language areas, bilingual schools, and other communities mentioned in the text.

2 The recommendations are listed in full in the Appendix to this paper, but without the accompanying discussion. Recommendations are referred to by the number given in the Appendix.

3 'English only' is the term that has been used by NTDE to describe Aboriginal schools where, supposedly, the only language used is English.

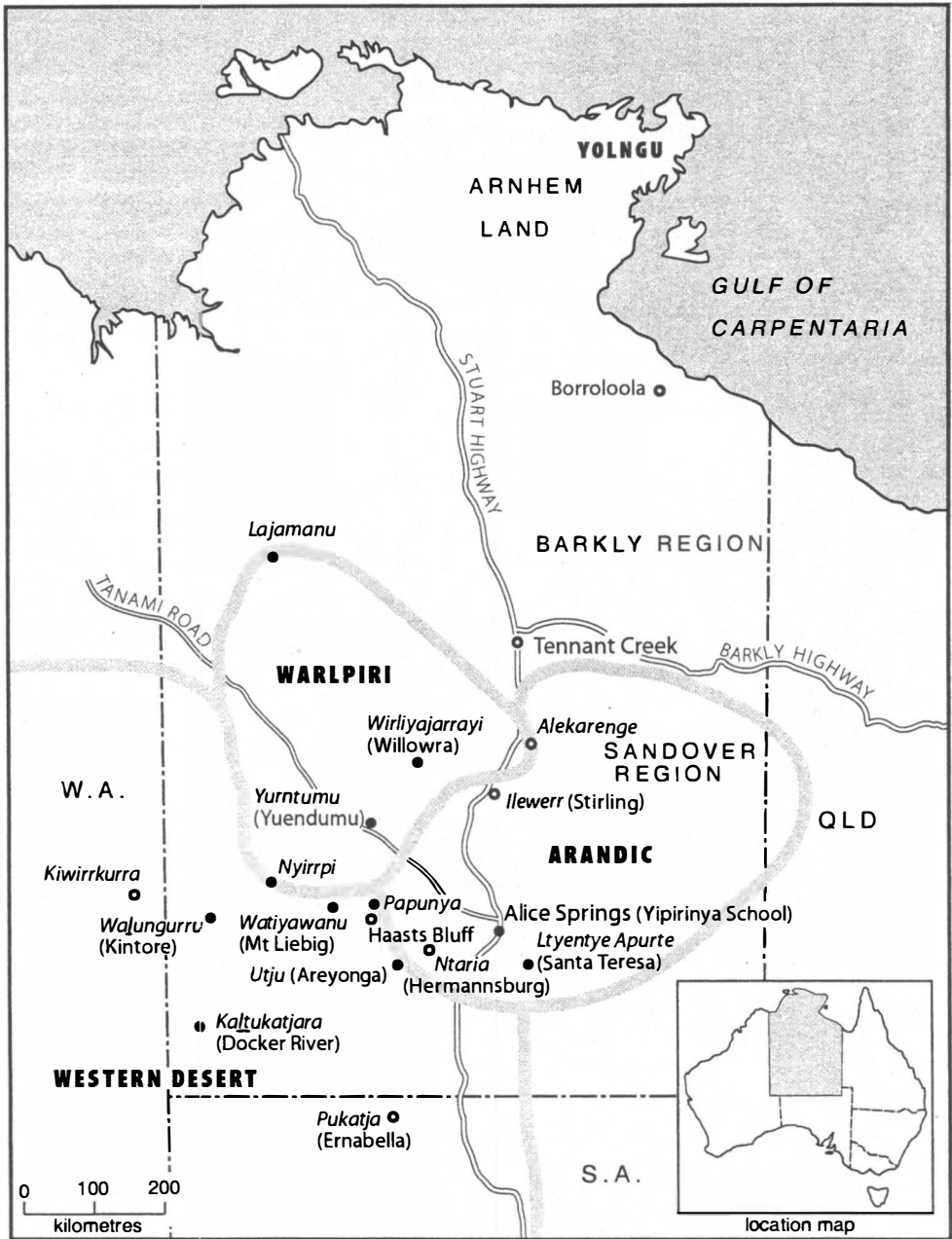
4 The local Aboriginal language orthography version of placenames is in italics; the official place name is in plain style, unless it is identical to the local version, like *Lajamanu* (see Map 1).

Table 1: The language areas and details of Aboriginal schools

Language area	Languages and dialects	No. of Aboriginal schools ¹	No. of small schools ²	No. of bilingual schools (1998) ^{1,3}	Aboriginal enrolments (1999) ¹	No. of trained Aboriginal teachers ⁴
Barkly	Warumungu and other languages, but typically using Aboriginal English or Kriol	10.2	8	NIL	399	1
Northern Arandic	Eastern & Western Anmatyerr, Alyawarr, Kaytetye	18.4	15	NIL	795	2
Southern Arandic	Eastern & Central Arrernte, Western Arramta	11.7	8	1.7	564	5
Warlpiri	Warlpiri (five dialects)	4.6	1	4.2	640	10
Western Desert	Yankunytjatjara & Pitjantjatjara; Eastern Luritja & Pintupi Luritja	13.1	6	5.1 (3.1) ³	774	5
TOTALS for Central Australia		58	38	11 (9) ³	3172	23

NOTES

1. Not including the Tennant Creek Primary and High Schools, with high proportions of Aboriginal students, or Yirara College of the Finke River Mission in Alice Springs, which has secondary aged boarding students from remote Aboriginal communities across Central Australia. *Alekarenge* has Warlpiri (47%), Alyawarr and Kaytetye (35%), and Kriol (18%) speaking students. The bilingual Yipirinya Independent Aboriginal School in Alice Springs has classes for Eastern & Central Arrernte and for Western Arramta (70%), Warlpiri (17%) and Luritja (13%). These have been apportioned in the table to the appropriate language areas, such that, for example, the Warlpiri contingent at *Alekarenge* is counted as 0.47 of a school and the Warlpiri contingent at Yipirinya is counted as 0.17 of a school, and these are added to the figure 4 (for the four Warlpiri schools in Warlpiri country) to give a notional 4.64 schools (rounded in the table to 4.6). *Ltyentye Apurte* is an Eastern Arrernte Catholic Education bilingual school.
2. Schools with one or two teachers, including 16 schools with visiting teachers only.
3. Bilingual programs were phased out in Government schools in 2000, and replaced by so-called 'Two-way Learning' programs. *Walungurru* (Luritja) and *Kaltukatjara* (Pitjantjatjara) lost their teacher-linguist and other resources given to (most) bilingual schools and are currently not official 'Two-way Learning' schools. *Nyirrpi* (Warlpiri) and *Watiyawamu* (Luritja) never had resources such as a teacher-linguist, but are officially Two-way Learning' schools.
4. There are also further trained Aboriginal teachers who are not teaching for a variety of reasons.



key: ● bilingual school (February 2000) ● non-bilingual school ■ language area (approximate)

Map 1: Schools and Communities referred to in text

1.1 What is bilingual education?

Bilingual education means just that: education in which two languages are used—in Aboriginal Australia, typically the students' own first language, the vernacular, and the language of the dominant society, English. But the reality has been far from simple, with often contradictory interpretations evident in policy, in the official recommended models of bilingual education, in actual practice in bilingual schools, and in the philosophy of 'two-way' expressed by Aboriginal people. For a thorough discussion see the review of *Bilingual Education in Aboriginal Australia* by Gale (1990).

My definition of bilingual education is deliberately naïve, because I believe that an obsession with models and aims has led to a blindness to the *bi* in bilingual, and for that matter the *two* in 'two-way'. This has led to a frequent failure to give equal value to the role of *both* English and the vernacular, and more seriously, a failure to apply the *bi* to education in the Aboriginal bilingual context.

In this essay I address three vital questions:

- (a) What does bilingual and bi-educational, or 'two-way', schooling mean to indigenous Australians?
- (b) Is it the right of these indigenous minorities to be educated in their vernaculars?
- (c) What does it mean for these indigenous minorities to take responsibility for the education of their children?

I will explore these questions in terms of three positions, that of the opponents of bilingual education, that of the Aboriginal people whose children are being educated, mainly in remote communities, and that of the (non-Aboriginal) proponents of bilingual education, including those who implemented bilingual education programs.

2. The historical setting

The outstanding feature of the contact history of Central Australia, crucial to an understanding of the current situation, is how rapidly European settlement occurred, how traumatic the consequences were, and how rapidly Aboriginal societies had to adapt to a totally changed situation. Initial settlement took place in the 1870s, and within a decade most pastoral leases along the Stuart Highway had been taken up, and then later those to the east. The resulting destruction and transformation of the traditional social order continues to destabilise all aspects of Aboriginal life, including both traditional Aboriginal and Anglo-Australian education. While the area further to the west and into WA remained almost free of pastoral leases, and the last Aboriginal people known to have come from the bush into a settled community—*Kiwirrkurra* in WA—did so only in 1984, the western communities have not been exempt from the transforming and destructive influences.

2.1 Vernacular language maintenance and English

Aboriginal people started learning English soon after first contact with the invading English speakers (see Gillen's letter of 5th June 1896 in Mulvaney et al. 1997:118). Today almost all Aboriginal people speak at least some English, although it continues to be true that some old people, and some very young children, speak almost none. Conversely, almost no

English speakers learn the vernaculars, a consequence of the asymmetry of the power relationship.

In the area under discussion, the Western Desert dialects, Warlpiri, and the Arandic languages and dialects are still spoken as first languages, even to some extent in Alice Springs. The most common lingua franca is Aboriginal English, but so also are Aboriginal languages such as Luritja, Warlpiri, Arrernte, and Alyawarr. From *Alekarenge* northwards, in the Barkly region, the traditional languages are declining in daily use, replaced by Aboriginal English and, increasingly, by Kriol, which in many respects resembles Aboriginal languages. Over the last two decades, many people, including children, are spending increasing amounts of time in the larger population centres such as Alice Springs, Tennant Creek, Borrooloola, and Katherine. This has the potential to cause a shift to Aboriginal English and then to Kriol even in apparently monolingual Aboriginal communities. It also seriously affects school attendance and hence educational outcomes. The loss of the traditional language and the shift to Kriol poses special problems for an understanding of the notion of 'two-way' schooling. While children are the crucial pivot in language decline, they are also pivotal in language revival. While the school is not the only agency of language maintenance, decline, or revival, many Aboriginal people rightly see the school as a major locus of language maintenance or revival (see §4.1).

2.2 Schooling and literacy

The first Aboriginal school in Central Australia was established in 1887 at Hermannsburg Lutheran Mission (now *Ntaria* community). Instruction and literacy teaching was in *both* English and Western Arrarnta from about 1896. Sadly, this early bilingual program had ceased by the 1970s (Kral 2000), although two newly qualified Western Arrarnta teachers have begun to try to re-establish a 'two-way' program. After the auspicious start in Hermannsburg, it was not until the late 1930s that any further literacy teaching in another vernacular, Pitjantjatjara, was attempted in Central Australia, at Ernabella Mission (now *Pukatja* community) in SA. An Aboriginal Mission school was established in Yuendumu after the Second World War (Noel Coutts, pers. comm.), but as late as the 1960s the Commonwealth Government would not fund Aboriginal mission schools if the medium of instruction was not English (Gale 1990:51, quoting Beazley 1964). From 1950 to the early 1970s the Federal Government education service established Aboriginal schools in most Aboriginal communities, but there remain areas with small Aboriginal populations that are out of reach of a school, and it is believed that a substantial proportion, perhaps 5 per cent, of Aboriginal children are still not enrolled in any school.

Literacy for Aboriginal people living in remote communities was introduced only with schooling, and there are still very few daily functions for literacy on Aboriginal communities outside the school.⁵ It is important to see Aboriginal literacy in perspective. It took many centuries for literacy, in Latin, to become established in Britain. King Alfred the Great, in the late ninth century, was literate, and indeed wrote in both Latin and English (Anglo-Saxon), but for many centuries after this, the majority of English kings were illiterate (Strang 1970). It was not until the early twentieth century that (near) universal literacy in English was attained in the UK. Though Aboriginal people in remote Australia are yet to attain anything

⁵ See Gale (1997) and Kral (2000) for the history and developing functions of vernacular Aboriginal reading and writing.

like universal literacy, by such historical standards the development of Aboriginal literacy has been rapid and spectacular in the extreme, and this despite neglect and lack of support: O'Grady and Hale's (1974) plea to "flood the place with literature" (recommendation 21), though poignant, was unfortunately not acted on.

The Aboriginal vernaculars were at first written by German or English speakers, using ad hoc spellings, and the use of ad hoc spellings by English speakers continues to prevail, giving rise to a plethora of spellings, e.g. for language, place, and personal names, each the creation of someone trying to capture the very different sound system—phonology and phonotactics—of an Australian language as they think they heard it (see Hoogenraad 1993, Appendix 3: 'On writing and pronouncing Aboriginal languages'). However, standard practical orthographies have now been developed for all languages in Central Australia.

The orthography that was developed for Pitjantjatjara in the late 1930s was subsequently used, with adaptations, for other Western Desert dialects. Warlpiri did not get a standardised orthography until 1972, developed at *Lajamanu* by SIL, and Eastern and Central Arrernte got one in the late 1970s, developed in Alice Springs by IAD and Yipirinya School. This was subsequently used, with adaptations, for other Arandic languages and dialects (see papers by Green, Green & Turpin, Breen and Koch, this volume). Since the 1970s, orthographic conventions have been developed in consultation with literate speakers of the respective languages.

Unfortunately, orthographic conventions in use across Central Australia differ for closely related languages and even for dialects of the same language and even across state boundaries for the same dialect! Orthographic uniformity would be of great practical advantage for education across the region. Given the functional strength of the English writing system despite the vagaries of English spelling and dialect differences in the pronunciation of vowels (see Stubbs 1980:43–72), and the success of orthography and spelling reform in large nations (e.g. Malaysia and Indonesia in 1979), this is not an impossible goal.

When bilingual education was introduced in 1973, Aboriginal languages were still relatively poorly documented. Since then, there has been much more research, which has led to discoveries that are relevant to the writing of these languages, and to a growing realisation of their richness and complexity. The first texts were transcriptions of oral texts or translations of English texts, and these needed editorial interventions and decisions to be made without recourse to a body of written texts. Aboriginal people writing in the vernacular had to adapt the composition practices they learnt for English to the needs of vernacular writing. There is a need to allow Aboriginal writers to modify the orthography, writing conventions, and writing styles as their experience of writing in the vernacular grows, since the orthographies are not necessarily optimal for reading (Hoogenraad & Harrison 1999b):

In the initiation of a Bilingual Program in a new community, therefore, we envisage the possibility of the program starting with a 'half baked' orthography. We believe that this would not be detrimental in the long run, it would, indeed, give the Aboriginal people an enhanced opportunity to be involved in the decision-making which would lead to a revised writing system. (O'Grady & Hale 1974, discussion under recommendation 20)

Unfortunately this vision and their appeal "that everyone concerned try to think in a more relaxed way about orthographies" have gone largely unheeded.

3. The beginning and the end of bilingual education in the NT

No education program will succeed if it is not supported by the community. There was clearly community support for the new bilingual programs in the 1970s (Dhaykamal 1999; Graham 1999; Baarda 1994; Garngulpuy, Batumbil, and Bulkunu 1999; and Warlpiri Teachers at Lajamanu 1999). But the enthusiasm for bilingual education generated in Aboriginal communities has been consistently underestimated by the Government and by Education Department officials, because there is almost no real communication between Aboriginal communities and government, and their Indigenous consultative bodies are constituted by government appointment and hence are not necessarily representative of Aboriginal people, especially those in remote communities (People of Nguiu 1999).

From the beginning, Aboriginal people saw bilingual education as “the first real recognition by Government of the value of Indigenous language, culture and law”, whereas “Government and bureaucratic proponents” believed it would result in “improved school attendance and better outcomes in English literacy and numeracy” (Collins 1999:121). In fact the new bilingual programs engendered an air of excitement. In July 1974, Ken Hale ran a program of Warlpiri literacy and linguistics for Warlpiri assistant teachers and others associated with the new bilingual education program in *Yurntumu* (Hale 1999, Baarda 1994). His fares were paid by the local store—the Yuendumu Social Club. In 1983, several Warlpiri people told me about this experience with evident excitement, and to this day they retain and use the technical linguistic discussion of the Warlpiri sound system and grammar taught to them by Ken Hale. As late as 1999 Alice Nelson-Limbiari Nangala/Napurrula, who had travelled from *Alekareng* to *Yurntumu* to attend Hale’s program, was still referring to it (Jane Simpson, pers. comm.).

Support for the development of the new programs came from experienced field linguists—Bible translators and research linguists such as Ken Hale (see recommendation 14). A Departmental bilingual support unit employed a dozen or so staff, including an anthropologist, ESL specialists, and six linguists, five of them school-based. Linguists assisted in the development of written materials and helped local Aboriginal adults to read and write the vernacular. These linguists did not require teaching qualifications, so from 1976 the position of teacher-linguist was established. A teacher-linguist needed to be a trained teacher, ideally with substantial experience of Aboriginal bush schools, but there was no requirement that they have any linguistic qualification or experience (Laughren 1988; Gale 1990, and Sommer 1991).

3.1 Early and continuing opposition

There was opposition to bilingual education from the beginning. Beazley (1999) describes how, after the announcement by Whitlam that Aboriginal children would be given their primary education in Aboriginal languages, “Next morning [15 December 1972] when I arrived at the Education Department there was turmoil... , they said, it would be impossible. . . . This was hated by many. Distinguished individuals regarded the preservation of Aboriginal languages as an evil”. Although such antipathy could still be expressed publicly in the 1970s, such views are now considered improper. Nevertheless, the underlying ideology, which does not recognise the legitimacy of Aboriginal languages in a ‘modern, progressive’ Australia, persists. See for instance the views recently expressed by the Chief

Minister of the NT, the Honourable Denis Burke, that providing interpreters for Aboriginal people “to my mind is akin to providing a wheelchair for someone who should be able to walk” (Crossin 1999).

From at least 1976 there were rumours that government support for bilingual education was waning and might be withdrawn (see for example Eedle 1976, a Department of Education circular to counter these rumours). There was a drastic reduction in system support for bilingual programs from the 1980s onwards, so that for instance by the mid-1990s the support staff were reduced to one Principal Education Officer responsible both for Aboriginal languages and for bilingual education, and four regionally based linguists responsible for support for bilingual programs, for other Aboriginal language programs in non-bilingual schools, and for giving linguistic advice on the teaching of English as a second or foreign language.⁶

Passive resistance by Education officials is well documented by Sommer (1991). From the beginning, the bilingual programs also had to contend with resistance from some of the teachers: “There still remain small pockets of resistance and a few individuals who appear to be opposed to the principle of bilingual education, not only teachers but also non-Aboriginal personnel living in Aboriginal communities” (Department of Education 1974, §22).

Why are only some schools bilingual? Most bilingual schools were established in the first decade or so after 1973. To become bilingual the community and the school council had to apply to the Education Department. But if the school’s principal was unwilling (Warlpiri Teachers at Lajamanu 1999:52), then it was highly unlikely to happen and totally unlikely to succeed. A lack of sanctions and an absence of effective monitoring of what actually happens in classrooms in daily practice also meant that the classroom teacher could undermine the bilingual program with impunity, and the principal could simply not run the bilingual program in the school (Baarda 1994, Warlpiri Teachers at Lajamanu 1999:52). The Haasts Bluff bilingual program ceased functioning in the early 1990s, without any formal community decision, and *Lajamanu* lost its teacher-linguist and literacy workers between 1991 and 1997 and these were reinstated only after extended community pressure (Warlpiri Teachers at Lajamanu 1999:52–53).

As a result, over the last two-and-a-half decades, many nominally bilingual classrooms, and even nominally bilingual schools, were in fact ‘English only’. It is probably the case that many students who went through a supposedly bilingual program were in effectively non-bilingual, ‘English only’, classrooms for much or even all of their schooling. This is relevant for judging the success of bilingual programs, but it is undocumented.

3.2 The end

The opposition to bilingual programs finally prevailed. On the 1st of December 1998, the NT Minister for Education and Training announced that “. . . the bilingual program will progressively make way for the development of ESL programs” (the Honourable Peter Adamson 1998). Aboriginal educators, the bilingual schools, and the affected communities were not consulted in the 1998 review of NTDE that led to this decision (Northern Territory Department of Education 1999). At least some non-local staff in bilingual schools

⁶ In mid-2000 a Government decision further reduced the number of Linguist positions to three, and they were renamed ‘Language Acquisition Officers’ (Czernekzyj 2000).

applauded the decision, showing that the bilingual program had operated without their active support or despite their passive resistance.

The announcement was met with distress in most Aboriginal communities, not only by the Aboriginal staff in the schools but also by many others in the community, especially senior leaders, who saw this as a disparagement of their traditional language and culture. Despite the widespread protests by Aboriginal school staff and community members from a large range of remote communities during 1999, the decision was confirmed by the NT Education Department in 2000, though as a concession twelve ex-bilingual Government schools were allowed to run the as yet undefined 'two way learning' programs (Collins 1999:125–7, 130), albeit under stringent assessment of outcomes not applied to NTDE's other Aboriginal programs (Czernezkyj 2000).

The decision to phase out bilingual programs in the NT was part of a wider review of education (Northern Territory Department of Education 1999). This highlighted the crisis in Aboriginal education, indicated by the abysmally low levels of English and English literacy being achieved by most students in Aboriginal schools. As a result, Senator Bob Collins was commissioned to carry out a review of Aboriginal education for the NT Government in 1999. Although bilingual education was specifically omitted from his terms of reference, he found that as a result of the Government's 1998 announcement "many people in the communities affected . . . wanted to talk about nothing else" (Collins 1999:119).

The Review confirmed the poor outcomes of Aboriginal students: "eleven to sixteen-year-old students in remote Indigenous schools were averaging around Year 2–3 levels" (Collins 1999:17). Of course, this begs the question of what reasonable outcomes would be in such schools, given the short history of Aboriginal education and literacy discussed in §2.2 above. Though Collins (1999) did not find that the bilingual program was responsible for poor outcomes, the Review does not always make it clear that the failure of Aboriginal education extends to 'English only' schools (e.g. Collins 1999:127; see Nichols 2000 for a critique of its uneven handling of language issues). Like O'Grady and Hale (1974), the Review emphasised the need for "the direct involvement of parents and communities in the delivery of education services to their children" and highlighted "high teacher turnover and poor attendance" as key factors (Collins 1999:17, 19). The Review confirmed that "trained local [Aboriginal] teachers are much more stable than non-local teachers" (Collins 1999:89), and added "that persuading local Indigenous people to undergo the long process of teacher training is a good long-term investment for improving Indigenous education" (Collins 1999, quoting Hoogenraad 1999:13).

The Review expressed the belief that the term bilingual education "no longer reflects what is happening in classrooms, and is so divergently interpreted and misunderstood that it should no longer be used". It suggested that the term be replaced by "two way learning", a term which removes the current tendency to see learning in the vernacular and in English as somehow in competition. The evidence is that competency in one tends to be reflected in competency in the other, and in any case, vernacular instruction is taking place regardless" (Collins 1999:125). Teachers in 'English only' schools often complain that they should be resourced like bilingual schools since their classrooms are also bilingual, operating in both English, the language of the teacher, and the local vernacular, the language of the pupils and assistant teachers (see Hoogenraad 1993 and 1994). In line with this, the Review framed five recommendations about 'two-way learning' (Collins 1999:130, recommendations 98 to 102):

98. extend 'two-way learning' programs to all communities that want it,
99. such programs should be rigorously assessed,
100. a formal policy should make NTDE support explicit,
101. the program should be flexible enough to cover the range of language situations,
102. there should be high-level research into the use of the vernacular in the classroom.

Though less than a quarter of Aboriginal schools in the NT were accredited to deliver bilingual programs, they contained more than 45 per cent of the Aboriginal students. So about 55 per cent of students in Aboriginal schools are in classrooms that are not getting the extra support that bilingual programs get, and more than three-quarters of Aboriginal schools, most of them small, have no access to supported vernacular language programs that meet the needs of their students. This raises the problem of how to provide the necessary support for 'two-way learning' programs if they are extended to all communities but resources are not increased.⁷ This issue is taken up in §6.

In view of the history of effective resistance to officially established and accredited bilingual education programs on the part of some school staff (see §3.1 above), it is necessary to implement recommendations 98 and 100 above, which sanction the establishment and support of 'two-way' programs in communities that want them, and to heed O'Grady and Hale's recommendation 1. But almost a year after the release of the Collins review, there is no evidence that any of these recommendations except perhaps recommendation 99—rigorous assessment—will be implemented.

3.3 Aboriginal mobility

Collins (1999:141–148) notes that low attendance—typically two-thirds of enrolments—is a critical factor in poor performance. It results from two factors: the extreme difficulty of settled life in under-resourced, poorly serviced communities, and the very high mobility of Aboriginal people. Aboriginal mobility is a crucial factor for every aspect of service delivery to Aboriginal communities. This mobility has increased enormously over the last two decades, due to better transport, increased disposable wealth, and the lifting of institutional controls over Aboriginal people (Peterson 2000). A recent detailed Centre for Remote Health study by Warchivker et al. (2000) in one remote community in the NT shows a mobility rate of about 35 per cent over the period of one year. This corresponds closely to the results of a careful monitoring of attendance by *Yurntumu* school, which indicates that, despite an overall attendance rate of 66 per cent, attendance is around 95 per cent of those children actually in the community on any one day. Warchivker et al. (2000) show that mobility is largely based on ceremonial travel and family visiting, which reflect deep-seated and positive cultural values. The implications are that school attendance cannot be increased substantially without far-reaching changes in these cultural values and/or in the modes of delivery of education. This can only be achieved by an ongoing dialogue in the Aboriginal communities.

⁷ In fact, resources have been reduced: see Northern Territory Department of Education (1999) and Czernezkyj (2000), an NTDE memo to ex-bilingual schools.

4. Aboriginal people's involvement in education

Given O'Grady and Hale's (1974) view "that the success of any education program depends upon the extent to which the school is an integral part of the community which it serves", it is vital that we understand the Aboriginal view of education. The majority Aboriginal view is based on the following premises—see Aboriginal contributions to *Ngoonjook* (vol.16, 1999):

- It is necessary for Aboriginal children to learn to speak and write English well.
- Aboriginal children should learn 'two-way', with equal weight given to the local community's language and valued knowledge and to English and mainstream knowledge.
- It is the community's responsibility to teach and maintain the local Aboriginal language, and most Aboriginal commentators, but by no means all, believe that the school is a major vehicle for this.

4.1 The concept of 'two-way' and 'two-way education'

The use of the term 'two-way' by the education system, by educationalists since Harris (1990), and by Collins (1999) in fact usurps its long use by Aboriginal people in Northern Australia. There is an ongoing Aboriginal dialectic on the relationship between traditional culture and Law and the new order they must adapt to since the invasion of their countries by Europeans. This is an issue that is widely discussed by senior traditional Aboriginal people under the rubric 'two-way', but also 'two-idea', 'two-law' etc. This not only recognises that Aboriginal people now live under two laws, in two cultures, but strives to reconcile them and give them equal status ('level' in Aboriginal English).

McConvell (1982:61–63) reports that in 1975 "the concept of 'two-way school' was widely used" in the Kimberley, and he reports especially on the detailed exposition of the concept by the Gurindji leader Pincher Nyurmiyarri Janama. The term 'two-way learning' was also used by the Arrernte people who established Yipirinya Independent school in Alice Springs in the late 1970s. Keeffe (1988:41) reports that in 1987 Murphy Roberts, an Aboriginal teacher from Papunya school said, of Anangu (Aboriginal) and Walypala (White) aspects of education: "They are not separate paddocks". And Engineer Jack Japaljarri, a senior Warlpiri man from *Kunayungku* and *Karliwampa* near Tennant Creek, used the term 'two-idea' during a meeting about mining exploration in 1988 to indicate that while in the past there was just one Law, today there are two, Aboriginal Law and 'white-fella Law' (Ross & Hoogenraad 1988:10–11; Hoogenraad 1994:177). During my survey of the Barkly and Sandover regions (see Map 1) during 1990 and 1991, I heard the term 'two-way' used frequently, unsolicited, by senior Aboriginal men throughout the regions in the context of discussions of the introduction of Aboriginal language and culture programs into their community's school. Jenny Green (pers. comm.) heard it used in much the same way by an Anmatyerr man in *Ilewerr* community in March 2000. There are no Aboriginal people that I am aware of who consistently advocate that Aboriginal people should not adopt, and adapt to, aspects of 'White' culture. 'Two-way' is an evolving ideology about how that adaptation should take place (Hoogenraad 1994).

The discussion of 'two-way' in the Aboriginal community is neutral as to the role of the school. As a rule, Aboriginal women are more likely to want the vernacular included in the school's program, while men are less likely to unless they have seen it done successfully. (It is

also the case that very few Aboriginal men teach in schools.) The following shows people's change of attitude after they saw a successful program in action:

At *Ilewerr* in 1990 a group of senior men were very guarded and I was convinced they were too polite to tell me that they were opposed to the inclusion of Anmatyerr language in the school. But in 1991 they were enthusiastic about the idea; they had been on a school trip to *Ltyentye Apurte*, and were most impressed with its Bilingual Education program, commenting especially on the fact that they had seen English and Arrernte written side-by-side, on equal terms [they actually said 'level']... (Hoogenraad 1994:181)

Significantly, with the help of a supportive teacher, two senior women and two younger literate helpers began teaching Anmatyerr and Kaytetye in Stirling school in 1998. They were supported by the linguists Jenny Green and Myf Turpin from the Central Australian Dictionaries Program at IAD (see Green & Turpin, this volume). Men were supportive of the program. It has since lapsed because of a lack of support both from the system and from a new teacher.

Although the concept of 'two-way' is compatible with bilingual education, it is at variance with NTDE's accepted model, which specified only that initial literacy and initial teaching should be in the vernacular. Though the official aims of bilingual education were relatively broad, and the aims remained fairly constant, the order in which they were presented, and in some cases their wording, has changed dramatically (Laughren 1988: compare for instance Department of Education 1973 and 1979 and Northern Territory Department of Education 1989). Tellingly, the aim "to develop closer communication, involvement and mutual understanding between school and the community it serves and promote in children and their parents a positive attitude towards education and school attendance" has been consistently listed seventh out of eight, contrary to the central place given to this by O'Grady and Hale in 1974 (see the Appendix and above) and by other proponents of bilingual education. In practice, the aim of instruction in the vernacular was not properly supported, and even the aim of teaching initial literacy in the vernacular was not achieved in many bilingual programs.

The development of the child's first language—the vernacular—was never one of the aims, and very few bilingual programs have undertaken explicit vernacular (first-language) development, as opposed to developing initial literacy in the vernacular. However, it is clearly the case that what Aboriginal people—especially Aboriginal school staff—expected from bilingual education was 'two-way' education, in which *both* the vernacular and English were 'level', i.e. of equal status. Raymattja Marika's 1998 Wentworth Lecture (Marika 1999a, also 1999b) provides an eloquent statement of this from the point of view of a Yolŋu (Northeast Arnhem Land) educator.

In Central Australia, the Warlpiri schools—*Yurntumu*, *Lajamanu*, *Wirliyajarrayi*, and *Nyirrpi*—have been developing a Warlpiri curriculum for over a decade (Egan 1999, Warlpiri Teachers at Lajamanu 1999). It began in 1988–1989 with workshops to develop a curriculum for secondary-aged Warlpiri students (Hoogenraad 1990 and 1991). Senior people developed a classification of traditional Warlpiri knowledge, organised around the central concept of 'Country'. 'Country visits' is the central teaching and learning strategy, whereby students camp on their own personal country in the company of their senior family who are responsible for that country. The knowledge and skills learned are then followed up in subsequent classroom lessons. This educational concept has been widely adopted and adapted by other language groups and communities across Central Australia and the Barkly. The Intelyape-lyape Akaltye Project has developed an early childhood Arrernte curriculum,

with the support of the Bernard van Leer Foundation of Holland. It has been accredited by the NT Board of Studies (Intelyape-lyape Akaltye Project Team 1997). It is hoped that implementation of the curriculum in two Arrernte bilingual programs will begin soon.

It is clear from these processes of developing local vernacular education programs that what Aboriginal people expect from a 'two-way' education program is that it will develop their children to *both*

- become fully participating members of their own society, *and*
- be able to participate in the wider Australian society on equal terms with other Australians.

This vision is clearly much broader than conceiving bilingual education as merely the use of two languages, and I will use this as a working definition of 'two-way' education in Aboriginal Australia. Such programs would develop not only English but also the child's vernacular, just as the English-speaking child's English proficiency is developed in mainstream schools, and they would do so by teaching the society's valued knowledge.

While Aboriginal people agree that gaining a strong command of spoken and written English is very important, they are usually content to leave the responsibility for the English part of the program to the non-Aboriginal teachers (see Burgman 1988). I will argue that it is essential that this should be a shared responsibility between local Aboriginal educators and non-local educators.

4.2 Aboriginal people as teachers

Reason tells us that to learn you need to understand the teacher's language, something that is by no means intuitively understood by many monolingual English speakers, including teachers. Especially for young children, the ideal language of learning and instruction is therefore their first language. For children in Aboriginal schools in the NT this means the language of the community, which will be either a traditional vernacular, a creole (e.g. Kriol), or Aboriginal English, as recognised by recommendation 17 of O'Grady and Hale (1974; cf. also recommendation 16).

Since there were no trained Aboriginal teachers in the NT when formal schooling began to be extended in the 1960s, and there were still very few when bilingual education began in 1973, the classroom teachers continued to be non-local, with no knowledge of the vernacular, and there was little likelihood that they would learn it fluently (Graham 1999, Baarda 1994). The solution, then as now, was to employ an Aboriginal assistant teacher. This job title is promising: not a teaching assistant, but an Assistant Teacher, because (in theory) they have to teach the children in the vernacular. But they are not trained as teachers, they are not even trained to interpret for the teacher, and they are actually not even trained to assist the teacher, though they are typically both older and more experienced than the teacher. Moreover, the teacher is not trained to co-teach with an assistant teacher (Graham 1999).

In properly functioning bilingual classrooms (by no means all!), Aboriginal assistant teachers had a clear teaching task, to teach literacy in the vernacular and, in theory at least, to instruct in the vernacular, with the trained teacher unable to provide much direct assistance. By contrast, most Aboriginal teaching assistants in 'English only' schools have no clear teaching task. In fact, some cannot read or write, an indication of the lack of value placed on them as teachers by the education system.

After the initial decade of consolidation of the bilingual programs, in the mid 1980s a substantial proportion of assistant teachers, especially ones who had been working in bilingual classrooms, began training as teachers. This took them out of the classrooms and the community for extended periods of time. Themselves the product of 'English only' schooling in the 1950s and '60s, with relatively low levels of spoken and written English, the majority took until the mid-1990s to complete their full teacher training. It is an indication of their enthusiasm that they persevered.

Aboriginal teachers trained by Batchelor College and employed by NTDE make up the largest cadre of trained Aboriginal professionals from rural communities in the NT. The majority of them started their teaching apprenticeship as assistant teachers in bilingual schools. For instance, in 1995 two-thirds of Batchelor College teacher graduates were from bilingual schools, and four out of five of the Aboriginal principals are in bilingual schools (all in the Top End). Of the twenty-three trained Aboriginal teachers now teaching in Central Australia, 78 per cent are in bilingual schools (see Table 1). This is arguably the greatest achievement of bilingual education in the NT to date, and it is the most potent mechanism for the community to exercise its responsibilities and rights to educate its children.

These Aboriginal teachers are in a pioneering role, needing to develop new ways of teaching literacy and oral language in both the vernacular and English, more closely adapted to the children's language abilities and learning strategies and the realities of their learning environment. They undertook the long process of teacher training with the expectation that they would be teaching bilingual programs, which they understood as being 'two-way' programs, developing their students' education *both* ways. The withdrawal of support for bilingual programs has the potential to undermine their aspirations. They need support to develop appropriate curriculum, materials, and teaching methods, including the 'other half' of 'two-way' programs—a vernacular education syllabus (O'Grady & Hale 1974, recommendation 8). Given that the majority of them are the first generation to have the benefit of any schooling, they also need ongoing mentoring and professional development if they are to reach their full potential, as noted by O'Grady and Hale (1974, recommendations 2, 5, and 6). Mentoring for Aboriginal teachers, and more recently also for assistant teachers, is now provided by NTDE in partnership with BIITE.

The trained Aboriginal teachers in bilingual schools form a very stable work force—most of them being employed in the same school for a decade or more, first as assistant teachers and later as trained teachers. By contrast, the non-Aboriginal staff in bush schools are generally very short-term (Collins 1999:75–77) and expensive to recruit and to support in rural Aboriginal communities. They also require inservicing on the special requirements of teaching in remote communities where literacy levels are extremely low and the language of the community is not English. Almost none of them have ESL teacher training. Given their relatively short stay (much less than two years on average), the inservicing is not cost-effective in the long term, as it needs to be constantly repeated for new recruits. By contrast, local Aboriginal trained teachers do not need to be recruited, and they tend to stay for the long term, so that inservicing and mentoring have very long-term benefits.

There is some inequity between non-local and local teachers in that only non-local teachers are entitled to housing and to an assistant teacher provided by NTDE. The latter is justified by NTDE on the grounds that the local teacher does not need an assistant teacher to translate for them. But given the poor attendance and the resulting large range of student ability found in nearly all Aboriginal classrooms, a teacher cannot deal adequately with a class of up to twenty-five students without assistance. Furthermore, the Aboriginal teachers that are now teaching went through long 'apprenticeships' as assistant teachers, before and

during their teacher training. Aboriginal teachers have raised the issue that, because they are not entitled to an assistant teacher, the opportunities for such 'apprenticeships' are drying up as Aborigines come to occupy a greater proportion of the teaching positions in a school.

4.3 Teaching teams and partnerships in Aboriginal education

In the absence of a trained local teacher, there need to be teaching teams, comprising the teacher and a trained assistant teacher. If no suitably trained or skilled people are available, then O'Grady and Hale's recommendations 1-6, dealing with the situation of a program's initial development, the professional development of teachers new to the program, and the professional development of Aboriginal staff, need to be implemented. Where there is a paucity of suitably skilled Aboriginal people available, their recommendation 7, which deals with adult education in the community, needs to be implemented.

For trained local teachers the question of English language teaching arises. Currently a team-teaching approach is required in most instances, but this is a changing reality as the competence in literacy and English of succeeding generations improves (see §2.2 above). In early English language instruction, where good clear pronunciation by the teacher is necessary, and for English teaching in the higher grades, a possible innovation could be to have trained *assistant* teachers who speak standard Australian English. However, one of the strengths of Aboriginal teachers as English language instructors is their better understanding of the reasons for the students' mistakes, something which an English speaker without knowledge of the vernacular rarely has. Teachers (or assistant teachers!) with ESL training will be required in Aboriginal schools for the foreseeable future to work in partnership with Aboriginal teachers, and these Aboriginal teachers will require ESL training.⁸

5. Arguments for and against bilingual education

Having provided the educational setting, a short history of bilingual education, and the Aboriginal point of view on 'two-way schooling', I will now review the substance of the current debate between proponents and opponents of bilingual education.

5.1 The opposition's arguments

The opposition to bilingual education appears to be based on the following premises, which are discussed by Nicholls (1999):

- It is necessary for all Australians to speak and write English, as the national language of Australia, while Aboriginal languages are of no practical use.
- The use of Aboriginal languages in schools interferes in the learning of English.
- It is the community's responsibility to teach and maintain the local Aboriginal language, not the school's.

⁸ Aboriginal teachers and assistant teachers have tended to be subject to much heavier scrutiny than non-Aboriginal teachers. The fact is that most non-Aboriginal teachers are also in need of support, especially for the teaching of English.

- The extra resources required for bilingual education do not lead to improved outcomes in spoken or written English.

5.1.1 *The threat to English acquisition*

The evidence advanced for, and against, the belief that bilingual education is responsible for poor results in English is anecdotal and lacks rigour (Devlin 1999). There is strong anecdotal evidence that students in remote Aboriginal schools who perform well in English and literacy from grades 3 or 4 onwards tend to have an old family member who is a very good storyteller, but is illiterate and usually speaks little or no English. And graduates of bilingual programs with good vernacular literacy and strong vernacular language skills almost always also have the best English and good English literacy. This confirms experience worldwide, which reports that in a bilingual situation, good performance in the dominant, mainstream language is dependent on a strong first language (Collins 1999:125, McMahon & Murray 1999). It contradicts the commonly held view that, in remote Aboriginal schools, teaching and using the child's first language will *impede* the learning of English.

Many influential opponents of bilingual education—including government ministers and senior education bureaucrats who have been in a position to influence the ongoing viability of bilingual education in the NT—regard it as a vehicle for vernacular language maintenance at the expense of English. They assert that Aboriginal education was more successful in the past, in the days of 'English-only' mission education. If this were so there must be a generation born before 1945 on bush communities which has better English and better literacy than younger generations. But in Central Australian bush communities there are very few middle-aged Aboriginal people who have really good literacy and English, and those who do had exceptional life histories.⁹ Almost none of the trained Aboriginal teachers (see Table 1 and §4.2 above) are amongst these, and it is the experience of Aboriginal teachers that their best students—including the younger Assistant Teachers and Literacy Workers—are attaining better levels of literacy and English than they have themselves. This needs to be acknowledged and celebrated.

The intake into Batchelor College (now BIITE) teacher education program in the mid-1980s, though predominantly experienced assistant teachers from bilingual programs, was the product of non-bilingual schooling in the 1950s and '60s. Batchelor College had to counsel a substantial number of students to discontinue their studies because their literacy was limited to sight words (i.e. they have no 'word attack' skills, the ability to 'sound out' words they have not encountered before). So the 'English only' education of the past produced failures as well as successes.

But given the additional resources put into bilingual programs—mainly extra staff—the pertinent question remains as to whether students from bilingual programs have better English and literacy than students of the same generation from comparable non-bilingual schools. This is difficult to judge, because until recently, assessment of students in the NT was sporadic, and records have not been kept (Collins 1999; Graham 1999). The more recent

⁹ This evidence is anecdotal, based on the experience of many of my colleagues in Central Australia, though prior to the 1970s better attendance, due to low mobility, did produce better results in the few Aboriginal schools then operating (Noel Coutts and Inge Kral, pers. comm.). Research, including intergenerational interviews, is currently being undertaken with a small grant from the U.N. to collect better data.

National Benchmark testing regime, instigated by the Federal Government, is carried out by the school without any external moderation or supervision, so that the comparability of its results across schools is open to challenge. A strong argument for ending bilingual education programs has been that *on average* bilingual schools *do not* get better results than non-bilingual schools, but the average hides the range of differences. Since the results from individual schools are not available, we are not in a position to judge if properly functioning bilingual programs produce better, poorer, or the same results as comparable non-bilingual programs, or more importantly, what factors lead to better and worse outcomes (Devlin 1999). Poor ESL teaching is certain to be the major factor. An example was *Kalukatjara* bilingual school, where the best of the students were achieving literacy in Pitjantjatjara on a par with the literacy achieved (in English) in mainstream schools. But those same students were achieving very poor outcomes in English oracy and literacy, because of poor and inconsistent teaching, which did not draw on the students' first language abilities.

It has been implied that 'English only' programs in Aboriginal schools are superior because they are immersion programs. There is no doubt that immersion is the best way to learn another language. I learnt English in this way at age 11 as an immigrant from Holland, not in the classroom but from my Australian playmates in the playground and after school. But English cannot be learnt by immersion in Aboriginal communities, as there is no English speaking community to be immersed in (see §2.1 above), and one English-speaking teacher cannot 'immerse' fifteen to twenty-five students in English in the classroom (see Collins 1999:127–8).

Instruction in English in Aboriginal schools—including schools with a majority of Aboriginal students in towns such as Alice Springs, Tennant Creek, and Borroloola—can successfully begin only after the child has acquired sufficient understanding and fluency. So they need to learn English as a second language partly through the medium of their first language. This has rarely been achieved in Aboriginal schools. The fact is that with a few signal exceptions, English and literacy have not been taught well in Aboriginal classrooms, whether bilingual or English only: English is often not taught at all, it is merely used as the language of instruction.¹⁰ Certainly the teaching of English does not begin from an understanding of the relationship between the students' first language and English (Hoogenraad & Harrison 1999a), and there are very few teachers with expertise in ESL teaching. In fact, very few of the ESL Advisors and ILLS teachers are trained in TESL. There is also no structured ESL program to guide the teacher (Collins 1999:129). Ultimately, the only fully satisfactory solution is to have truly bilingual local Aboriginal ESL-trained teachers who can operate equally effectively in the local language of the community and in standard Australian English; only with such competencies would teachers be able to build on the child's attempts at English.

The contention that the community, not the school, is responsible for language and literacy development in the community's vernacular, and that the education system is only responsible for English and literacy in English, is unreasonable and unjust. In mainstream

¹⁰ There has been one positive development. "Since 1998, the Northern Territory Department of Education has used the Commonwealth-funded ESL ILSS [ESL for Indigenous-Language-Speaking Students] program to provide intensive ESL support to students during their first year of formal schooling." (Collins 1999:27). Collins recommends that "as an immediate measure, NTDE with DETYA [the Department of Education, Training and Youth Affairs] progressively extend the ESL ILSS program across all primary years" (1999:131).

(English) schools, the community is not held to be solely responsible for the student's development of English, the community's language, nor for teaching English literacy.

5.1.2 *The threat to teacher autonomy*

Nicolas Peterson, an anthropologist who was on the Bilingual Consultative Committee during the 1970s, observes (pers. comm.) that the opposition to bilingual education by teachers (see §3.1 above) often seemed to derive from the threat to their autonomy in the classroom, being posed by having to share it with an Aboriginal assistant teacher teaching in the vernacular.¹¹ Primary school teachers, not trained to team-teach, often new to teaching, and having to deal with an unfamiliar and difficult teaching situation, find themselves having to leave a substantial part of the program in the hands of the assistant teacher, who often has more teaching experience, but no training and poorer literacy. In addition, communication is perforce in English, as the teacher does not speak the vernacular. This puts both at a disadvantage. The teaching assistant has to communicate with the teacher in their second language, leading to miscommunication. The teacher cannot understand what is happening in their classroom when the assistant teacher is communicating with the children in the vernacular. In this situation, unless assistant teachers are particularly strong-minded, they easily become passive participants in the teaching process—'pencil sharpeners' at the back of the room, in charge only of discipline.

This, of course, is not to deny that there have also been instances of dynamic team-teaching, giving assistant teachers the opportunity to acquire the skills of teaching while also providing an exhilarating experience for the non-Aboriginal teacher, who takes on the role of 'teacher-educator' rather than just teacher.

5.2 The proponents

The support of bilingual education appears to be based on the following premises:

- It is the child's right to be educated in their first language.
- It is easier for the child to acquire literacy in their first language, leading to better outcomes in English literacy in the long term.
- The child will learn better if instructed in their first language.
- Bilingual education will assist in the maintenance and possibly even the strengthening of the vernacular.

In addition to the widespread Aboriginal support for bilingual education in the NT (see §4), support also came from teachers and others who had formed close associations with Aboriginal people on remote communities, such as the few long-term teachers and their Aboriginal assistant teachers and their families, and linguists (including Bible translators),

¹¹ The history of institutionalised but unconscious racism in Australia is probably largely responsible for this. There is a parallel in the use of Aboriginal interpreters which supports this assessment. Many professionals, such as lawyers and anthropologists, will not use an interpreter because they cannot understand what the interpreter is saying in the vernacular. They are disturbed by the loss of control and seem to prefer to believe that they are in control of the communication rather than accept that there is miscommunication.

anthropologists, and other researchers working closely with Aboriginal community members. Typically, senior Aboriginal men and women were a vital link, and the relationships that developed were ones of mutual respect, in which each side had a different but complementary role together with complementary knowledge and skills to contribute (Graham 1999). Linguists and many teacher-linguists, because of their long-term commitment and the fact that they worked closely with senior members of the communities, have tended to provide both knowledge about and good relations with communities for the schools concerned.

Many such people made an effort to learn the local language, no mean feat, as these languages are quite different from Western European languages. As a result, they tended to develop a healthy respect for the language and an understanding of just how difficult it is for speakers of the Aboriginal language to learn English. To them it was obvious that it was only sensible to teach bilingually in the local school.

5.2.1 Teaching initial literacy

It is important to realise that literacy in one language, if acquired well, will transfer easily to literacy in another language. All things being equal, the learning of initial literacy is going to be easier in the vernacular, and we know that it will easily transfer to English literacy provided that the student has a reasonable command of spoken English. But it is important to ask what conditions have to be satisfied before 'all things are equal'. There need to be teachers or assistant teachers trained in literacy teaching, who speak the vernacular and are literate in the vernacular, an initial literacy teaching program and materials, and enough interesting vernacular reading matter to support a reading development program throughout primary and secondary education (O'Grady & Hale 1974, recommendations 9, 11, and 13).

If these conditions don't pertain it *may* be better to teach initial literacy in English, after ensuring that the students have a basic grasp of oral English and reasonable sound discrimination and pronunciation skills, although this will delay initial literacy teaching, which is also not desirable (see O'Grady & Hale 1974, recommendations 18–21). Another possibility may be to formally teach initial literacy in both the vernacular and in English, something which happens ad hoc anyway. I do not know of any evidence for or against the efficacy of this.

It was non-local teachers who—with Aboriginal teaching assistants and the very few one- or two-year-trained Aboriginal teachers—enthusiastically began to develop the bilingual programs in the 1970s (Graham 1999; Baarda 1994). These teams had no prior experience of bilingual education, little or no linguistic knowledge about the vernacular, and no experience of teaching literacy—especially initial literacy—in the vernacular. The Aboriginal people involved had acquired literacy in the vernacular by transfer from often imperfect English literacy, and there was no long community tradition of literacy to draw on. As a result, initial literacy acquisition in the vernacular was often seen as a rather difficult process. There is a need now to critically re-evaluate vernacular literacy teaching programs to speed up the process of initial literacy acquisition, and to take advantage of the improving literacy of Aboriginal teachers and the improved range and depth of vernacular reading materials now available.

5.2.2 The languages of instruction

In mainstream schools the language of instruction is English, usually even when teaching a foreign language such as Japanese. In remote Aboriginal 'English only' schools, the language of instruction is usually only English, unless the teaching assistant does some teaching, or in the rare instances when there is a local Aboriginal teacher, in which case the language of instruction is the local vernacular, often interspersed with English. In bilingual programs the situation has tended to be more fluid. The language of instruction is still usually English, but assistant teachers have been much more likely to do quite a lot of the teaching. They, and the trained Aboriginal teachers who are increasingly teaching in these programs, are using the vernacular as the language of instruction, again interspersed with English.

I have discussed the need for Aboriginal teachers and assistant teachers, and the need for their support, in §4 above. If the teacher does not speak the vernacular fluently and there is no assistant teacher present—maybe the assistant teacher is away training—then it is necessary to teach in English. So, in the real world, whatever the theory, the non-local teacher has to compromise in order to teach as the circumstances demand.

6. Conclusions

As I have shown, bilingual education was something new in the 1970s, 'pulling itself up by its own bootstraps'. It was without a tradition and existing expertise to call on. Most importantly, the Aboriginal bilingual teaching force was gaining experience and then undergoing training, and is only now experimenting with how to teach truly bilingually, and with help, developing the necessary curricular tools. As a result, there continues to be a need for ongoing critical self-evaluation, re-evaluation, and critique of bilingual programs—and indeed of Aboriginal education in the NT—particularly of teaching practices and of materials in daily use. There is also an unfilled need for detailed syllabuses for both English and the vernacular, to guide teachers, especially new teachers with no classroom experience in this context. We must proceed on the assumption that Aboriginal teachers will continue to teach bilingually ('two-way'), and that this will spread as more Aboriginal people begin their careers as trained teachers, in more bush schools.

The low levels of literacy, numeracy, and formal schooling in the community (§2 et passim), Aboriginal mobility and its effects on attendance (see §3.3 above), and the high teacher turnover demand a radical rethinking of the stages of schooling and how schooling is delivered.

6.1 What might a true 'two-way' program be like?

A sound 'two-way' program in a community where the vernacular is a traditional language would include

- initial literacy and numeracy programs;¹²

¹² In the context of the low levels of literacy, numeracy, and schooling in the community, there is a need for senior storytellers and others in the community to provide an enriched vernacular language and literacy experience for young children prior to formal schooling (see §5.1.1). Community agencies such as old people's programs and child care programs, as well as the preschool program in the school, could jointly develop appropriate strategies.

- a course that develops all aspects of the children's first language, both written and spoken, along with knowledge of their culture (see §4.1);
- an English course that starts with spoken English from preschool, continues to develop English oracy in an appropriate cultural context, and introduces English literacy as soon as the children can distinguish and articulate the sounds of English and display reasonable fluency;
- a program to develop fluent reading and writing in both the vernacular and English.

In a community where the vernacular is Kriol, a further course, or courses, will be needed to revive or extend the children's knowledge of the traditional language(s) if the community wants that (see O'Grady & Hale 1974, recommendation 15).

6.2 How can bilingual or 'two-way' programs be effectively supported?

The courses described above will require detailed syllabuses and inservicing to guide teachers, as there is no long tradition of teaching such courses to draw on. This includes English, which is not currently being taught effectively in most Aboriginal classrooms (see §5.1.1). Such an English course might usefully be built on a contrastive analysis of English and the vernacular, something to which Aboriginal teachers have proved very receptive (Hoogenraad & Harrison 1999a and O'Grady & Hale 1974, recommendation 12). This will require experienced support personnel to work with the staff from all schools in a 'language cluster' (see below), including a teacher with experience in language teaching—ideally experience in teaching English as a foreign language—and a linguist (O'Grady & Hale 1974, recommendation 4).

Potential programs, curriculum, syllabus and materials development, and professional development all require professional support from an experienced language teacher, a language resource advisor (i.e. a teacher-linguist), and a linguist, working in partnership with Aboriginal teachers and community members (see McRae et al. 2000:29). There will also be a need for both local and centralised literature and materials production services. For these initiatives to be most effective and cost-efficient, it is essential to maximise the number of schools that such support staff can collectively service, as otherwise small schools will never get that support.

The Warlpiri schools provide a possible model for organising 'clusters' of schools in language groups, where Aboriginal educators give each other mutual support in conjunction with other professional staff. In Central Australia, such language clusters might include: the Western Desert schools (Pitjantjatjara, Yankunytjatjara, Luritja, and Pintupi), the southern Arandic schools (Eastern, Central, and Western Arrernte), and the northern Arandic schools (Alyawarr, Eastern and Western Anmatyerr, and Kaytetye) (see Map 1 and Table 1). An added advantage of such language clusters is that it maximises the number of Aboriginal and experienced non-Aboriginal staff who can be involved in developmental work. The experience of the Warlpiri schools shows the potency of such cooperation.

6.3 A summary of the major conclusions

In what precedes, I have demonstrated these points:

- Some bilingual programs were only nominally bilingual, and cannot be used to judge the efficacy of bilingual education compared with 'English only' programs.

- Because of the paucity of rigorous independent assessment in Aboriginal schools and the fact that records were not kept, it is not possible to compare the educational outcomes even of functioning bilingual programs with those of non-bilingual or nonfunctioning bilingual programs.
- True bilingual education is similar but not identical to the Aboriginal notion of 'two-way schooling'.
- It is the child's right to be educated in both their own language and in the language of the dominant society, English. Equity and the achievement of local control of education demands that all Aboriginal schools have access to 'two-way' education.
- The limited transfer model of bilingual education used in the NT, which neglected development of and instruction in the child's first language and culture in favour of initial literacy in the vernacular, did not meet Aboriginal educational aspirations and was not true *bilingual* education.
- The development of the daily use of literacy at the community level and the development of functions for vernacular literacy are prerequisites for successful education.
- True bilingual education requires bilingual teachers who are trained in TESL and fluent and literate in both the vernacular and English. The greatest achievement of bilingual education in the NT has been that it is producing a growing cadre of trained bilingual Aboriginal teachers.
- The establishment and development of a bilingual program takes about a decade, subsequent teacher training by Aboriginal people takes a further decade, and the development of a bilingual teaching style and a bilingual curriculum will probably take another decade. All stages of this process require professional educational and linguistic support and a rethinking of the role of non-Aboriginal teachers in Aboriginal schools (O'Grady & Hale 1974).

But above all, I hope to have demonstrated that there is an urgent need for a true dialogue between educators—both Aboriginal and non-Aboriginal—and senior Aboriginal people ('the old people'), to establish the Aboriginal community's real educational goals and plan how an accommodation can be reached to meet both indigenous and mainstream educational needs.

7. To end . . .

I leave the last word to T.G.H. Strehlow, whose father, Carl Strehlow, began bilingual education in Hermannsburg in about 1887:

Above all, let us permit native children to keep their own languages,—those beautiful and expressive tongues, rich in true Australian imagery, charged with poetry and with love for all that is great, ancient and eternal in the continent. There is no need to fear that their own languages will interfere with the learning of English as the common medium of expression for all Australians. In most areas of Australia the natives have been bilingual, probably from time immemorial. Today white Australians are among the few remaining civilized people who still think that knowledge of one language is the normal limit of linguistic achievement. (Strehlow 1958:27, quoted in Hill 1999:163)

APPENDIX: The O'Grady and Hale recommendations, extracted from O'Grady and Hale (1974)

The thread running through the recommendations is a call for local control (quoted in §1 above). The recommendations (which are interspersed with discussion in the report) are these:

1. That bilingual education programs be established as quickly as possible in communities which request them.
2. That bilingual education programs be run on a half-day basis (8.00 to 12.00), at least during the first two or three years of operation.
3. That the Aboriginal base of the bilingual education staff be constantly broadened.
4. That special provision be adopted for the recruitment of non-Aboriginal staff in Bilingual Education programs.
5. That newly recruited non-Aboriginal staff be given time each day for language and culture study.
6. That provisions be made for the temporary replacement of the bilingual education personnel who are on leave for various courses of study.
7. That adult education facilities at the site of each bilingual program be strengthened and that language-related study constitute a regular component within it.
8. That efforts be continued to develop curricula relevant to the needs of each Aboriginal community with emphasis on the use of the Aboriginal language in teaching aspects of these curricula.
9. That efforts be begun as soon as possible to broaden the scope of educational materials in Aboriginal languages.
10. That the principles of Language Engineering be made known on a community-wide basis, so that the conceptual apparatus of the vernacular can be brought as quickly as possible into alignment with the modern world.
11. That efforts be made to solicit from the AIAS linguistic and anthropological research felt by each community to be relevant to the implementation of the Bilingual Program.
12. That the School of Australian Linguistics¹³ be approached about making a feasibility study of the use of linguistics as a means of teaching scientific method in bilingual schools.
13. That a growing library of tape recordings be established in association with each bilingual education program for the purpose of documenting the oral literature and specialised knowledge of the community.
14. That non-Aboriginal linguists (or anthropologists) doing independent research in a given area be encouraged to involve themselves in the establishment, maintenance and broadening of Bilingual Programs.
15. That in multilingual communities, community feeling and the degree of similarity among the various languages be primary factors in determining the precise form of a Bilingual program.

¹³ Usually referred to as SAL. See Black and Breen, this volume, for a history of SAL.

16. That in implementing Bilingual Education in communities where the linguistic usage of adults and children is markedly different, studies be undertaken to determine which variety of language the children feel most comfortable with, and that they be taught in this medium in their initial school experience.
17. That the English-based creole be used in early education in communities where children speak it as their first language.
18. That the introduction of literacy in English be adjusted according to the proficiency of children in vernacular literacy and oral English.
19. That each new bilingual education program seek to provide training in vernacular literacy for all school children enrolled at the inception of the program.
20. That a final orthography should not be viewed as a sine qua non of a bilingual program.
21. That communities with a beginning Bilingual Program be imbued with the slogan, 'Flood the Place with Literature' as a means of encouraging the most rapid and effective attainment of literacy in the vernacular.
22. That Aboriginal communities be encouraged to appoint individuals or committees to draft a Guide to manners for non-Aboriginal teachers entering the Bilingual Program, and that this document be translated into the English language and be made available in the form of a bilingual brochure.
23. That selected high school students resident at the three Colleges (Dhupuma, Kormilda, Yirara)¹⁴ be enabled to offer Aboriginal language instruction to individual students from the local high schools.
24. That previous efforts to explain the nature of Bilingual Education to a wider Australian audience be expanded.
25. That the Department of Education arrange for the production of one or more feature-length films depicting the Bilingual Education program in operation.

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¹⁴ Dhupuma College no longer exists; Kormilda College is now run by the Church of England and is no longer an Aboriginal college, although it currently still takes non-fee-paying Aboriginal students from bush communities; Yirara College is now run by the Lutheran Church.

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9 *Semantic contrasts in Warlpiri verbal morphology: a Warlpiri's verbal view*

ROBIN JAPANANGKA GRANITES AND MARY LAUGHREN

1. Introduction

In late 1975 the first author¹ flew from Yuendumu in Warlpiri country to Boston to document Warlpiri in partnership with Professor Ken Hale at the Massachusetts Institute of Technology. As part of their joint investigation of the grammar of Warlpiri, Granites wrote a number of mini-essays on the meaning differences associated with contrasting pairs of sentences selected by Hale. From that body of work, we have chosen to present here sentence pairs which illustrate minimal contrasts of verbal morphology.² Granites' original monolingual texts are reproduced with English translations by Laughren (parallel in the right column), together with Laughren's morpheme-by-morpheme glosses and 'free' translations of the examples. Additional comments by Granites on the meaning associated with some of the

¹ Robin Japanangka Granites is a Warlpiri man born at Yuendumu, NT in 1953. His paternal grandfather was associated with sites such as Janyinki in south-west Warlpiri country; his mother's father's country is the Warlukurlangu area in southern (Ngaliya) Warlpiri country. He has lived all of his adult life at Yuendumu. Also working on this project with Robin Granites and Ken Hale at MIT from December 1975 to January 1976 was Dr David Odling-Smee, then Principal of Yirara College in Alice Springs, formerly Principal of Yuendumu School. This collaboration between Granites, Hale, and Odling-Smee is recorded in a number of unpublished typescripts including Granites (1976) and Granites, Hale and Odling-Smee (1976) and in taped language recordings. It also provided the core for Laughren, Hoogenraad, Hale, and Granites (1996). Mary Laughren went to Yuendumu in 1975 to take up the post of linguist with the Australian Department of Education. Thus both Granites (as literacy worker) and Laughren (as linguist) collaborated in the early years of the Warlpiri–English bilingual education program at Yuendumu, to which Hale gave unstinting support in professional development, in language documentation, and in providing guidance and help whenever approached.

² The contents of this article overlap with that of Granites (1976) in that most of the examples and accompanying Warlpiri text presented herein appears in the 1976 typescript, which also included Hale's English translations of Granites' Warlpiri text.

sentences — typical context, presuppositions — and appropriate translations have been added in English.

Hale's commitment to training language speakers in the investigative techniques of modern linguistics to enable them to document and analyse their languages and to be involved in their formal description has been an outstanding feature of his career (Yengoyan, this volume). In this volume honouring Hale's contribution to linguistic research in Australia we are able to provide witness of some small part of this endeavour.

2. Warlpiri sentences — what they mean

In the set of sentences (1–11) the nominal *karnta* 'woman' and the verb *wangka* 'speak, say, talk' are used. What are varied are the functional categories: auxiliary forms and verbal inflectional suffixes.³

- (1)a. *Karnta ka wangka-mi.*
 woman:NOM AUX:PRES speak-NPAST
 'A woman is speaking/speaks.'

Ngulaju, karnta kujaka jalangu wangkami ngaju-puru palka-puru, purda-nyanyi karna palkangku.	That describes (a situation where) a woman is speaking now in my actual presence, I can actually hear her.
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- b. *Karnta wangka-mi.*
 woman:NOM speak-NPAST
 'A/the woman may/can speak/Let a/the woman talk.'

Ngulaju, karnta kujaka jinjinyi-mani yapakarirli yungu wangkami jaru.	That describes (a situation where) someone is trying to get a woman to say something.
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Roughly equivalent to English 'Let the woman (not a man) talk for herself'. It's like an order to a third person.

- (2)a. *Karnta wangka-mi.*
 woman:NOM speak-NPAST
 'A/the woman may/can speak/Let a/the woman talk.'

Ngulaju, kankarlu-warnu-piya. Kajilparna wangkayarla "Karnta wangkami", ngulaju karna-jana jinjinyi-mani yapa panukari yungu karnta wangkami.	That is the same as above (1b). If I were to say, "Let the woman talk", then I am urging other people to let a woman talk.
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³ Abbreviations used: AUX – auxiliary; CONT – continuous; ERG – ergative case; FUT – future; IRR – irrealis mood; NOM – nominative case; NPAST – non-past; POT – potential; RPAST – remote past.

- b. *Karnta kapu wangka-mi.*
 woman:NOM AUX:FUT speak-NPAST
 'A woman will speak.'

<p>Ngulaju, kapu wangkami ngaka marda, murnma kulaka wangka-wiyi. Murnma ka wurulypa nyinami. Kajilparna wangkayarla "Karnta kapu wangkami" ngulaju kapu wangkami nyanungu ngaka ngampurrpa-jarrinjarla.</p>	<p>That is, she will talk later on perhaps, she is not yet speaking. She is still silent. If I were to say, "The/a woman will speak", then that means that she herself will speak after (I say that) because she herself wants to.</p>
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- (3)a. *Karnta-lpa wangka-ja.*
 woman:NOM-AUX speak-PAST
 'A woman was speaking.'

<p>Ngulaju, karnta kujalpa wangkaja kaninjarni yuwarlirla. Kujarna yukajarra, ngulajulpa wurra-juku wangkaja wirntaraju.</p>	<p>That is, a woman was talking inside her house. When I went in she was still talking in an audible voice.</p>
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- b. *Karnta wangka-ja.*
 woman:NOM speak-PAST
 'A woman spoke.'
 'The woman said so.'

<p>Ngulaju, karnta kuja nyurru wangkaja. Lawalku-jala ka nyinami wurulypalku. Nyurru-jala wangkaja.</p>	<p>That is, the woman had already spoken. She is not anymore. She is now silent. She has finished speaking.</p>
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Because of the range of meaning of the verb *wangka* this sentence can be interpreted as "Cause the woman said so.", i.e. gave me permission. As in the context of someone challenging my right to be riding the woman's bike. I use this sentence to assert my right to ride the bike — I can ride her bike, cause the woman said so. Perhaps no one was around to witness this apart from the woman and me, the bikerider and speaker.

- (4) *Karnta wangka-nya.*
 woman:NOM speak-PRES
 'There's the woman speaking.'

<p>Ngulaju, palka kuja wangkanya. Murrarni-nginti linpa karna purdanyanyi karnta-juku: "Yali karnta-juku wangkanya!"</p>	<p>That is, there's a woman who is actually speaking. From the other side I hear the voice of just that woman: "That's the woman speaking all right."</p>
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- (5)a. *Karnta kaji-ka wangka-mi.*
 woman:NOM AUX:POT1-PRES speak-NPAST
 'The woman might speak.'

<p>Ngulaju, karnta kujaka wapanjinani wurulypa, ngulaju ka ngampurrpa-wangu wangkanjaku yanirni. Kajika marda ngaka wangkami. Ngulakujaku karna yikingki kanjani wangkanja-wangu karnta yalumpuju.</p>	<p>That is, a woman who goes around in silence, who comes not wanting to talk. She may perhaps talk later. To avoid that I treat that woman who isn't speaking with caution.</p>
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This might be typically said in the context of a meeting or corroborree. A man gives an order to other men to keep a close lookout for this woman who's not allowed to talk, she might be deaf or mentally unbalanced.

- b. *Karnta kala-ka wangka-mi.*
 woman:NOM AUX:POT2-PRES speak-NPAST
 'The woman is liable to speak.'

<p>Ngulaju, karnta kujaka ngampurrpa nyinami wangkanjaku, ngula karnalu warrawarra-kanyi kalaka wangkami. Kajilpa wangkayarla, kalakalu marda pinyi wajawaja-puruju, kajilpa wangkayarla.</p>	<p>That is, a woman who wants to talk and who we keep an eye on in case she talks. If she were to talk then they are likely to punish her such as during the 'sorry business' time, if she were to speak.⁴</p>
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As opposed to (a) in which the presupposition is that the woman in question does **not** want to talk, in (b) it is presupposed that the woman **does** want to talk.

- (6)a. *Karnta kala wangka-ja.*
 woman:NOM AUX:RPAST speak-PAST
 'The woman used to talk/had spoken.'

<p>Ngulaju, nyurruwiyi yungulpa wangkaja. Jukurralpa-nyanu yirri-puraja wangkanja-karrarlu, nyurruwiyi.</p>	<p>That is she used to speak before. She used to relate her stories, before (but not now).</p>
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- b. *Karnta-lpa wangka-ja.*
 woman:NOM-AUX speak-PAST
 'The woman was talking.'

<p>Ngulaju, karnta yungulpa wangkaja pirrarni yuwarlirla. Kujarna yukajarra kaninjarni, ngulalpa wurra-juku wangkaja, ngaju-purulku manu ngaju-wangurla-rlangu.</p>	<p>That is, a woman was speaking in a house yesterday. When I went inside (that house) she was still talking—after I was present and also (before) when I was not there.</p>
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⁴ The presupposition here is that the woman referred to is under a ban of silence because of her relationship to a recently deceased person.

- (7)a. *Karnta-lpa wangka-yarla.*
 woman:NOM-AUX speak-IRR
 'The woman should/ought to speak.'

Ngulaju, karnta yungulpa wangkayarla nati ngarrka. Ngampurrpa karnarla nyina karntaku yungu wangkami, nati ngarrkaku, lawarna.	That is, a woman should talk, not a man. I want for a woman to talk, not for a man. I don't want that.
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- b. *Karnta wangka-yarla.*
 woman:NOM speak-IRR
 'The woman should have spoken.'

Ngulaju, karnta yungu wangkayarla. Ngampurrpalparnalurla nyinaja yungu- nganpa yimi ngarrikarla jaru. Kula wangkaja, lawa. Ngampurrpalparnaluru nyinaja yungu karntaju wangkayarla.	That is a woman should have spoken. We were wanting her to say something to us about it. She didn't speak (said nothing). We were wanting the woman to talk.
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- (8)a. *Karnta wangka-yarla.*
 woman:NOM speak-IRR
 'The woman should have spoken.'

Ngulaju, karnta kalu jinjiny-mani yungurla ngarrkaku wangkami parrajaku-rlangu.	They are urging a woman to ask a man for a coolimon or something like that.
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- b. *Karnta kapu wangka-yarla.*
 woman:NOM AUX:FUT speak-IRR
 'A woman would have spoken.'

Ngulaju, karntalpa ngampurrpa nyinaja yungu wangkayarla. Lawa mardalpa kurnta-jarrija, ngampurrpa-jalalpa nyinaja wangkanjakuju.	That is, a woman was wanting to talk. But she didn't as maybe she was told off. But she had definitely been wanting to talk.
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- (9)a. *Karnta kula-ka wangka-mi.*
 woman:NOM AUX:NEG-PRES speak-NPAST
 'The woman doesn't/can't speak.'

Ngulaju, karnta yangka kulakarlipa purda-nyanyi, lawa, warungka-piya- nyayimi. Kulalpa linpa yilyayarla lawa, wangkanja-marda-wangu.	That is, we cannot hear that woman at all. It's as though she's really dumb. She can't emit any sound at all, she can't talk.
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- b. *Kula-ka karnta wangka-mi.*
 AUX:NEG-PRES woman:NOM speak-NPAST
 'The woman isn't speaking.'

<p>Ngulaju, yangka kajilpaju payikarla "Yanta yali karntakurlangu-kurra ngurra-kurra, purda-nyanjanka kajika wangka-japa". Kalakarna pinarni yani yangka wati-kiirra, kalakarnarla wangkami, "Lawa, kularna purda- nyangu". Kalakarnarla kujalku wangkami, "Lawa, kulaka karnta wangkami. Wurulypa ka nyinami".</p>	<p>That is like if someone asks me "Go to that woman's place, go and listen to what she might say". I might come back to that man and I might say to him, "Nothing, I didn't hear her". I might then say to him, "Nothing doing, it's not the case that the woman is speaking. She is keeping quiet".</p>
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- (10)a. *Karnta kula wangka-ja.*
 woman:NOM AUX:NEG speak-PAST
 'The woman didn't speak/has not spoken.'

<p>Ngulaju, lawa kula wangkaja; wurulypalpa nyinaja. Panukari- mipalpalu wangkaja.</p>	<p>That is, she didn't talk; she was sitting silent. It was only other people (who) were talking.</p>
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- b. *Karnta kula wangka-yarla.*
 woman:NOM AUX:NEG speak-IRR
 'The woman wouldn't/couldn't speak.'

<p>Ngulaju, karnta kujalparnalu jinjiny- manu wangkanjaku, ngulalpa-nyanu jaarl-karrija — wangkanja-wanguku, manu ngula-piyaju karnalu-jana ngarrirni, wingki, wangkanja-marda- wanguju.</p>	<p>That is, a woman whom we urged to talk, she stopped herself from speaking. People like that we describe as unco-operative (i.e. unwilling to talk), (or) as speechless (unable to speak/not speaking).</p>
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- (11)a. *Karnta kapu wangka-mi.* (same as (2b))
 woman:NOM AUX:FUT speak-NPAST
 'The woman will speak.'

<p>Kuja-piya "Karnta kapu wangkami", ngulaju kapu wangkami jalangu. Murnma-wiyi ka karrimi wurdungu. Ngaka kapuju wangkami.</p>	<p>If one says like this, "A woman will speak", then (it means) she will speak presently. She is still silent (at the time I say this), and she will talk to me some time after that.</p>
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- b. *Karnta kapu wangka-mi-yi.*
 woman:NOM AUX:FUT speak-NPAST-CONT
 'The woman will keep on speaking.'

Manu jintakari kuja, "Karnta kapu wangkamiyi", ngulaju kapu tarnnga wangkamiyi mata-wangu parrakari-parrakari. Kula wurdungu-jarrimi.	And the other sentence, "The woman will keep on talking", that means she will talk forever without tiring day in and day out. She won't be quiet.
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It can also be used in the same context as "The woman is going to talk about her past problems year after year."

In the following sentences (12), the vocabulary is more varied, but the principle of contrasting pairs is maintained.

Miyi-nyangkalu-jana yimi nyampu-jarra kujaka-pala jarnku-ngunami:	Examine these two sentences which differ (lit. 'lie apart from each other'):
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- (12)a. *Ngarrka-ngku kaji-lpa makiti marda-karla,*
 man-ERG AUX-AUX gun:NOM have-IRR
kalaka marlu luwa-rni.
 AUX kangaroo:NOM shoot-NPAST
 'If the man has a rifle, he is likely to shoot a kangaroo.'

- b. *Ngarrka-ngku kaji makiti marda-karla,*
 man-ERG AUX gun:NOM have-IRR
kapu marlu luwa-karla.
 AUX kangaroo:NOM shoot-IRR
 'If the man had a rifle, he would have shot the kangaroo.'

Nyampu-jarra kapala jarnku ngunami kuja-piya: Kankarlu-warnu (a), ngulaju ngarrkangu kujaka marlu nyanyi palka jalangurlu, lawa, makiti-wangurlu, ngampurrpa ka nyinami marlu luwarninjaku. Manu kanunju-warnu (b), ngula marlu kuja nyangu pirramirli marda, makiti-wangurluyijala, kapu luwakarla palka-kurlurluju	These two differ like this: The top one (a) means that the man who is actually seeing a kangaroo now (at the time of speaking) doesn't get it because he has no gun but he wants to shoot a kangaroo. While the bottom one (b) means that he saw a kangaroo maybe the day before (time of speaking) and likewise he had no gun, but had he actually had one he would have shot it.
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3. Conclusion

While much more could be written by Granites and others about the meaning differences between these sentences than the brief notes made in 1976, these examples amply show the benefit of tapping directly into native-speaker intuition (a methodology that has been at the forefront of linguistic inquiry since the 1950s). Having native speakers explain semantic nuances in their own language helps to avoid the bias and limitations on the expression of

grammatically encoded meaning distinctions which may not map directly or easily from the language under investigation onto the language of enquiry.

To take just one example from this corpus to illustrate this point, the auxiliary forms *kaji-ka* (5a) and *kala-ka* (5b) have a distribution which suggests they are interchangeable and synonymous, seeming to have the status of dialectal or even stylistic variants since they are found in the same grammatical contexts and appear to lack any semantic contrast. Both express epistemic modality or 'possibility'. However Granites' explanation shows that the possibility of a change taking place in the future (subsequent to the utterance)—in this specific instance, a change in the behaviour of the woman from not speaking to speaking—is evaluated against the desire of the woman to change her behaviour in this way. The presupposition signalled by *kaji-ka* in (5a) is that the woman is not speaking and does not want to speak, hence the likelihood of her speaking is more remote than in (5b) where *kala-ka* signals a presupposition of desire on the woman's part to change her behaviour, hence a stronger likelihood that this change will occur which will involve her speaking.

Other contrasts⁵ which are made in the corpus presented here include those which operate in the Auxiliary base system, such as the contrast between clauses containing a verb in the NONPAST form (e.g. *wangka-mi*) with or without the auxiliary base *ka*, and the contrast between those clauses containing a verb in the PAST or IRREALIS form with or without the auxiliary base *-lpa*. Comparing the sentence in (1a) with the sentence in both (1b) and (2a), it is clear that the presence of *ka* signifies the realisation of the state of affairs at a time which includes the time of speaking. It is an assertion. In the absence of *ka* the sentence does not express an assertion but refers to a possible state of affairs which may be realised post-utterance. The proposition 'WOMAN SPEAK' is interpreted as modulated by desire on the part of someone involved in the speech act either as speaker (Granites' explanation in (1b)) or onlooker (Granites' explanation in (2a)) other than the 'woman' referred to. Contrast this deontic modal value in (1b/2a) with its absence in (2b/3a), in which the auxiliary *kapu* combines with the nonpast verb inflection. Given what is known at the time of the utterance of the 'possibility' or 'likelihood' of the proposition holding in the relevant situation at a time subsequent to the utterance, the speaker asserts the realisation of the proposition. In (8b) (and (12b)), in which *kapu* combines with the irrealis verb inflection, the nonrealisation of the proposition, contrary to expectation, is asserted. This has the effect of transposing both the time of evaluating the likelihood of realisation as positive and its later negation (because relevant conditions changed) to a period prior to the utterance.

When the auxiliary *-lpa* is associated with the 'past' verb inflection (3a/6b), it contrasts with zero auxiliary (3b) aspectually: *-lpa* signals that the proposition holds over several intervals of time starting before the utterance and continuing up to a time closer to the time of utterance. This continuative or imperfective aspect is absent in (3b). When *-lpa* is associated with the irrealis verbal inflection (7a), it similarly contrasts with zero auxiliary (7b) in altering the relationship between the time of utterance and the time at which it was deemed necessary (and/or desirable) that the proposition hold but at which time it did not hold: *-lpa* includes the time of the utterance, whereas in the absence of *-lpa* the relevant time frame ends prior to the utterance. The counterfactual presupposition, in this case, '¬ WOMAN SPEAK' derives from the irrealis morpheme on the verb.

Warlpiri is famous in the syntactic literature for its freedom of word order (see Austin, this volume). The semantic contrast between sentences (9a) and (9b), which only differ in the

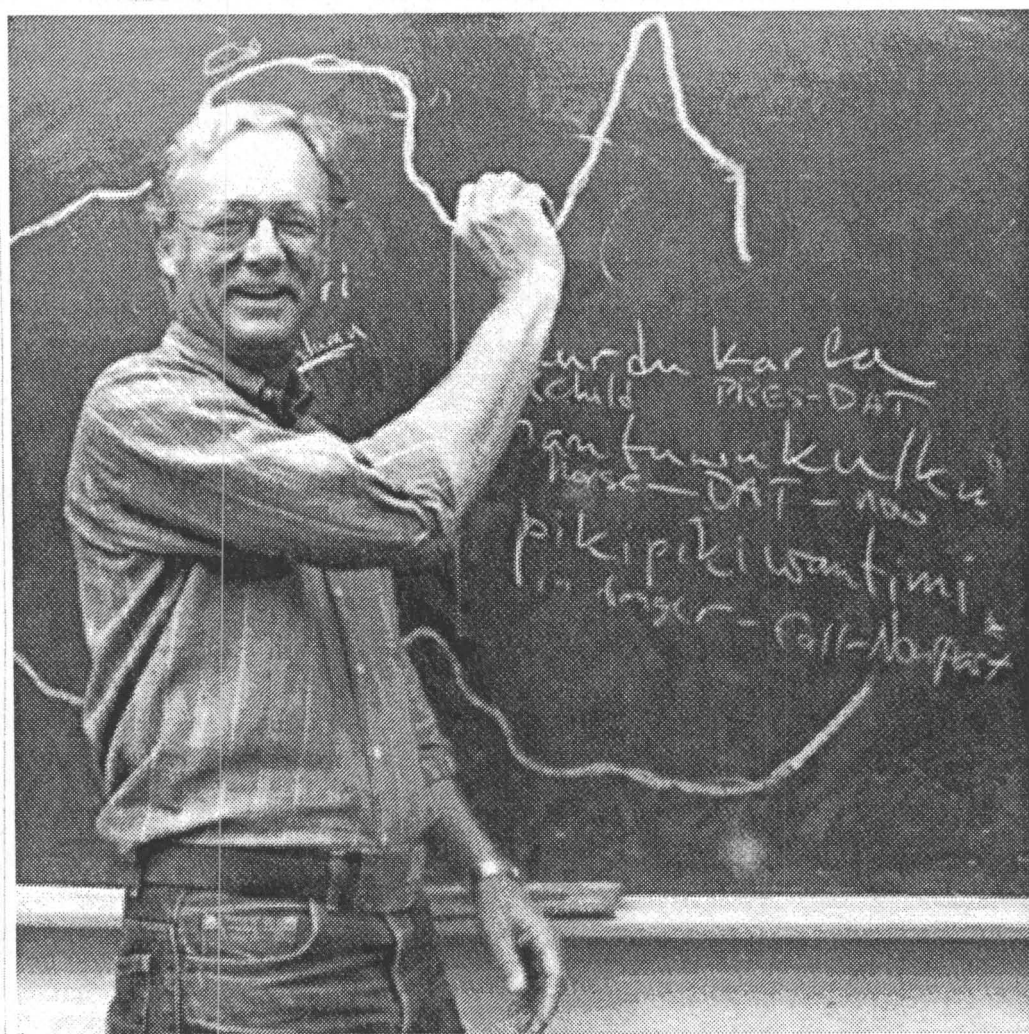
⁵ More details about Warlpiri verbal morphology are given in Hale (1982), Hale, Laughren, and Simpson (1995), Nash (1986), and Simpson (1991).

order of the first two constituents—the subject NP and Auxiliary are flipped—is explained by Granites as a difference between a TOPIC-COMMENT structure in (9a) in which one says of the woman in question that she does not and/or can not speak, and a structure in which the focus is on the woman, *karnta* being inside the scope of negation *kula*. This sentence is to be interpreted against a presuppositional background that the woman is liable or likely to speak. Effectively, (9b) contradicts that presupposition.

Thus, we see here how native speaker insights, through paraphrasing sentences or explaining how they may be interpreted, almost always open gates into a rich and complex linguistic pasture which can be painstakingly and systematically foraged and digested.

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*Ken Hale at the blackboard, Building 20, MIT.
The sentence illustrates a Warlpiri dative-adjunct preverb.
Photo courtesy of MIT.*

10 *The School of Australian Linguistics*

PAUL BLACK AND GAVAN BREEN

1. Introduction

The School of Australian Linguistics (SAL) was an unusual institution that provided language and linguistic education to some two thousand speakers of about a hundred Australian languages and dialects between 1974 and 1989 (SAL Review panel 1989:4).¹ Although its establishment was officially justified as supporting the bilingual education programs that were then starting in the Northern Territory of Australia, undoubtedly it was also inspired by Ken Hale's (e.g. 1965, 1972; Alvarez & Hale 1970) stress on the importance of enabling such speakers to undertake linguistic studies of their own languages. Hale (1972:376) not only pointed out how "many important aspects of the structure of a given language are essentially beyond the reach of the scholar who is not a native speaker", but he was also quite open about the sociopolitical implications of the typical research endeavour:

Anthropological linguistics, no less than anthropology itself, is "a child of Western imperialism"... In effect, anthropology and anthropological linguistics became disciplines in which Westerners studied, published, and built teaching and research careers around the cultural and linguistic wealth of non-Western peoples. (Hale 1972:384)

Naturally Hale (1972:391) was not interested in bringing speakers of indigenous languages into such an imperialistic system, whose professionalism "had the effect of isolating the field of linguistics from the people, of making it increasingly difficult to see how their subject matter is in any way of potential service to the people". Instead, using Native Americans as an example, he maintained that:

¹ We are especially grateful to Barry Alpher for supplying details of the early years of SAL, and also to Tina Black, Neil Chadwick, Bob Dixon, Nick Evans, Kevin Ford, Lys Ford, Patrick McConnell, and David Nash for their comments on drafts of this paper and/or other relevant information. Naturally we would not suggest that any of them shares all the views expressed in this paper; people's experiences at SAL surely varied considerably.

the people who can best decide its relevance to concerns of American Indian communities are the members of those communities. The distribution of linguistic talent and interest which is to be found in an American Indian community does not necessarily correspond in any way to the distribution of formal education in the Western sense. If this talent is to flourish and be brought to bear in helping determine the particular relevance of the study of language to the communities in which it is located, then ways must be found to enable individuals . . . to receive training and accreditation which will enable them to devote their energies to the study of their own languages. (Hale 1972:392–3)

The School of Australian Linguistics seemed to be such a way, though hardly a straight and narrow one. We'll return to this matter in the conclusion, so that we can draw on our account of what SAL was like and how it developed over the years. In providing this account we have tended to focus on the students and staff and their activities, mindful of how many were involved in the School over the years—in addition to the two thousand speakers of Australian languages, some two dozen linguists experienced teaching at SAL for a semester or more. McKay (1991) has also written about the School, with a focus on its educational program.

2. Getting Started

McKay (1991:38) described SAL as the result of a proposal by R.M.W. Dixon, David Glasgow, Sarah Gudschinsky, and S.A. Wurm to establish a College of Australian Linguistics to provide linguistic training for Aborigines in connection with bilingual education. As Glasgow (pers. comm.) recalls the meeting in Canberra in about April 1973, five or six others were involved as well, but he and Gudschinsky went to it with a proposal for establishing some sort of body to train speakers of Aboriginal languages in linguistic analysis, and they found that Dixon and Wurm came with a similar proposal that could be amalgamated with their own into one at the meeting. Dixon (pers. comm.) recalls a second meeting as well and notes that Peter Ucko, who was then Principal of the Australian Institute of Aboriginal Studies, also played a significant role. Dixon (1983:281–2) essentially characterises the establishment of SAL as a means of meeting Hale's concerns about educating speakers to undertake studies of their own languages. In any case the proposed institution was to provide:

. . . training to produce preliminary materials for bilingual education programs, advanced linguistic training in the basic methodology and procedures of linguistic analysis, training to advise and assist Aboriginal communities on linguistic matters within the framework of the bilingual education program, and finally training to carry out sociolinguistic studies to assess the feasibility of bilingual education in particular languages. (Department of Education 1973:21, in McKay 1991:38)

O'Grady and Hale (1974:1) attended the inaugural meeting of the SAL Advisory Board. They saw an additional role for linguists at SAL and elsewhere in ensuring the adequacy of the linguistic analyses on which bilingual education was based (1974:3–4), and they also recommended that SAL “be approached about making a feasibility study of the use of linguistics as a means of teaching scientific method in bilingual schools” (1974:2). The latter proposal relates to an earlier suggestion by Hale (1972:391) that:

The subject matter of linguistics is perhaps uniquely amenable to use in education at secondary and primary levels as a means of teaching concepts and methodology of general applicability in scientific enquiry (for example, hypotheses, explanation,

empirical evidence, and the construction of supporting argument), and it seems to me entirely reasonable for linguists to explore the possibilities which this suggests for the future position of linguistics and of linguists in general education.

By August of 1974 SAL had been established as one of what eventually became six schools within the newly established Darwin Community College in Darwin. There is brief report in the *Handbook of Darwin Community College* (1976:144), but Barry Alpher (pers. comm.) reports in more detail that it started with Toby Metcalfe as Head of School, Alpher as Senior Lecturer, and Jeff Heath and Sue Kesteven as temporary lecturers, and it ran its first course from October to November in facilities provided by the Summer Institute of Linguistics in Berrimah, on the edge of Darwin.

There were five rather exceptional students in this first course. One was Ephraim Bani, who had already been collaborating with Terry Klokeid in the study of his language, Kala Lagaw Ya (Bani & Klokeid 1972 and 1976) and who went on to produce the first (and to date only) linguistic description in (and of) an indigenous Australian language in a refereed journal (Bani 1987). Two others were David Jentian and Gerald Robinson, both Ngalkbon speakers; Jentian was or became well known for his work in the bilingual program at Barunga, and he also made a crucial contribution to the understanding of the kinship basis of dual person-marking in Ngalkbon (see Alpher 1982:27, note 1). The remaining two were the Warlpiri speakers George Jampijinpa Robertson and Robin Japanangka Granites, who were subsequently very productive in linguistic scholarship in their community (Yuendumu). Granites subsequently visited Hale at MIT in 1975-76, helping provide the basis for a grammatical survey (Granites, Hale & Odling-Smee 1976) and some short grammatical essays in Warlpiri (see Granites & Laughren, this volume).

On Christmas Day 1974 Darwin was devastated by Cyclone Tracy. Alpher (pers. comm.) recalls that the students and temporary staff had already dispersed to their communities or centres of study, and the two permanent SAL staff, among thousands of others evacuated from Darwin, were relocated to Canberra. Nonetheless the School held a course in Alice Springs from April to June 1975 and one in Yirrkala in July and August (Alpher 1976, Courtenay and Alpher 1976). By the time of the latter course Karen Courtenay had joined the permanent staff and Gavan Breen and Ephraim Bani were employed as temporary lecturers.

SAL was then relocated to Batchelor, a small community some ninety kilometres south of Darwin. With Maria Brandl and later Barry Blake temporarily replacing Toby Metcalfe as acting Heads of School, SAL ran another course, with students from Oenpelli and Bathurst Island coming to Batchelor. Barry Alpher took on the job of acting Head at the beginning of 1976, and in that year the School conducted six courses, some of them offered on-site in Aboriginal communities (Darwin Community College 1977:27).

Batchelor was a pleasant location, and conveniently also home to two other programs for indigenous people, namely the Vocational Training Centre (VTC) of the Department of Aboriginal Affairs and the Aboriginal Teacher Education Centre (ATEC) of the Department of Education (Duke & Sommerlad 1976:65-9); the latter soon became Batchelor College, which in 1999 became independent from the Department as the Batchelor Institute of Indigenous Tertiary Education. Alpher (pers. comm.) notes that Batchelor was chosen as the new location for SAL because of the presence of ATEC and students who wanted to participate in both programmes, as well as because of the availability of housing for students and staff there and because of its proximity to the main campus of Darwin Community College. Duke and Sommerlad (1976:65, 134) also saw Batchelor as a less threatening location than Darwin, being less of a change from the home communities of the students.

SAL used ATEC facilities (reported as VTC facilities by Darwin Community College 1979:59) from October 1975 until its own were completed in August 1977. The latter included seven student residences and three large demountables that contained classrooms, offices, and a library. SAL linguists often ended up providing such support as driving the SAL bus, but support staff soon grew to include an administrative officer, student welfare officer, secretary, maintenance officer, and a part-time librarian.

By 1977 Alpher and Courtenay were joined by three other lecturers, namely Neil Chadwick, the late Gnani Perinpanayagam, and David Zorc. Kevin Ford was appointed Head of School at the end of 1977, Alpher left in July 1978 and was replaced in 1979 by Patrick McConvell, Perinpanayagam was replaced by Gavan Breen in late 1979, and Courtenay was replaced by Paul Black temporarily in 1981 and permanently from 1982. McConvell went on leave without pay in 1985 and did not return to duty at SAL, while Zorc left the program in about 1986. Graham McKay taught at SAL in 1982–85, Nick Evans in 1985–87, the late Steve Johnson in 1985–86, and Prith Chakravarti from 1988.

There were many others who taught at or for SAL for various shorter periods. An incomplete list of others who worked at SAL for at least a semester would include Felix Ameka, Anthony Cook, Tamsin Donaldson, Bronwyn Eather, Mark Harvey, Ian Green, Jean Harkins, John Hobson, Bill McGregor, Mari Rhydwen (then Maret), Anna Shnukal, Bruce Sommer, Nick Thieberger, and Melanie Wilkinson.

3. Programs

The programs of the School were at first quite loose and adaptable to the needs of the students. The 1976 handbook (Darwin Community College 1976:141) listed four linguistic units, three educational units, ten practical units, and seven electives, but these units were not necessarily to be delivered in any set span of time. Elsewhere (1976:144) it was noted that courses would run over four semi-semesters each year, and that students would cover only part of any particular unit within each semi-semester. It was nonetheless envisaged that the program would ultimately lead to an Associate Diploma of Australian Linguistics upon the completion of “a competent description of some part of his or her language” after “about two years of intensive, full time course work” (1976:144).

By the following year the list of units had changed somewhat—there were six linguistic, three educational, thirteen practical, and three ‘related’—and nothing was said about an award, but only that the course was to be submitted for accreditation.

After Ford was appointed Head of School a suite of certificate courses was developed that would remain much the same through the 1980s. These included a four-stage course in literacy and literacy work introduced in 1979 and a course in interpreting and translation in 1980. For several years it also continued to announce plans for an Associate Diploma in Linguistics, but this never eventuated. With the 1979 accreditation SAL also clarified its aims as follows (Darwin Community College 1979:59); the first of these certainly echoes Hale’s concerns:

- (a) Education aimed at making Aboriginal and Island[er] people self-sufficient in linguistically related spheres.
- (b) The linguistic training of Aboriginal people to assist the development of bilingual education, and for other practical and scholarly purposes.
- (c) The development of creative language skills among Aboriginal people.
- (d) The training of Aboriginal translators and interpreters.

The literacy and literacy worker program consisted of four stages, each of which was taught over an eight-week period in Batchelor, with portions occasionally taught in indigenous communities. Students completing the last three stages received the following three certificates, one for each stage:

- CLA: The Certificate of Literacy Attainment, for basic literacy in the student's first language—graduates should be able to write anything they would normally say—coupled with introductions to linguistics and literacy work.
- CTS: The Certificate of Transcription, for more advanced literacy and other skills, including the ability to transcribe the speech of other speakers as well as one's own.
- CLW: The Certificate of Literacy Work, further literacy and linguistic development with more stress on the preparation of a variety of literacy materials.

A few changes were made when SAL reaccredited this program in 1985. Increasing numbers of students were well enough prepared that they did not need the first stage of the course, but a more generalised, less linguistic version of it was retained as the 'Preliminary Course' for those that did need it. At the same time the program was extended by the addition of a more advanced stage that led to a Certificate in Linguistics (CLN); this ran once in 1986 to produce eight graduates (SAL Review Panel 1989:12).

By 1980 an eight-week Certificate of Translation and Interpreting (CTI) program had been accredited both as a course and as a level II qualification by the National Accreditation Authority for Translators and Interpreters (NAATI), and it was first run near the end of that year. This was an especially demanding program, and since students often had difficulty completing it, the 1985 reaccreditation broke it into a two-week segment that students could complete for a Language Aide's Certificate with NAATI level I accreditation, with just the stronger students going on to complete the full CTI through another seven weeks' work (SAL Review Panel 1989:35).

All of the SAL certificate courses had clearly practical ends, orientated to vocational purposes, but at the same time they could also be seen as vehicles for promoting the intellectual development of students by helping them explore the use of linguistics on their own languages. This might have been taken much further within an Associate Diploma in Linguistics, but having developed plans for this program, the School was never able to put them into operation.

4. Teaching

Teaching at SAL was a fascinating experience that required much rethinking of how education works—perhaps it's just as well that only a couple of the lecturers had any formal teacher training! As McKay (1991:38) put it:

The School was highly innovative in its original concept, without any parallel in the Australian Aboriginal field. Of necessity it had to break new ground in its teaching programs and, up until the time of its absorption into Batchelor College in July 1989, these were still developing in response to the very complex factors presented by Aboriginal communities, Aboriginal languages and their speakers.

One thing SAL did differently from many institutions was to bring modules of courses out to the communities on occasion, beginning with some of the earliest courses in 1975 and continuing through the life of the School. We'd like to believe that this influenced the development of similar practices within Batchelor College during the 1980s. At the same

time, the accreditation of the programs tended to confine the School to offering normal sorts of classroom instruction. Since much of the program was designed to prepare indigenous people to work as literacy workers and linguists, typically in school situations, classes filled most of the working week from 8:00 to 3:30 (later 8:30 to 4:00), but with Friday afternoons off. Just as in a work situation students were not expected to do homework, however, and thus the classes included time for students to complete projects and assignments.

In some of the classes students undertook language-specific study or project work in groups that shared the same or similar languages—the residential program in Batchelor could accommodate three or four such language groups at one time—but there were also combined classes for more general studies. Some of the classes were (rather informal) lectures, but others involved writing, data sharing, and project work that might occasionally take the students off campus, e.g. to collect samples of ‘bush tucker’, to videotape dances or, on one occasion, to videotape interviews of Batchelor College students.

Perhaps the most unusual aspect of the program was its potential for true two-way education (see e.g. McConvell 1994), with students contributing their knowledge of their own languages and lecturers contributing linguistic expertise and other skills. This tended to have several benefits, not the least of which was the value placed on the students’ backgrounds in what Cummins (1986) called an additive approach to cultural/ linguistic incorporation. Also, even though Aboriginal students tend to be stereotyped as passive and unresponsive in classes, it provided a basis for real dialogue between lecturers and students. To explain the concept of a pronoun, for example, the lecturer might elicit basic pronoun paradigms for each of the languages represented in the class, providing students with an opportunity to contribute information that their instructor may not already have known, as well as an opportunity for students to learn something about each other’s languages.

This teaching was not without its challenges, however. One was to find ways of unpacking linguistic concepts to make them both intelligible and useful to students who had the advantage of fluency in their own languages but whose academic English skills were often very weak. Since the typical SAL student had completed five or six years of primary education some years earlier, little could be taken for granted. For example, an explanation that suffixes are added to the end of a word might prove inadequate because students were not sure which end was meant. They had to learn that sticks and tables may have two ends, but that we speak of a word as having a beginning and thus just a single end. Indeed, even the distinction between a letter and a word was new to some students.

Another problem that became apparent was that some students were unable to access such things as dictionaries simply because they did not know how alphabetical order worked. This was easily remedied through teaching. A more subtle problem that one lecturer noticed a while after joining SAL was that students were progressing to higher levels without learning to classify things in terms of having ‘something in common’, e.g. to group things into sets so that one can give a reasoned answer to the question ‘Why is this one in this set and not in that one?’, or to arrange words in rows and columns on the basis of common features or aspects of meanings.

Such problems were exacerbated by the fact that students often varied considerably in their academic background and English ability, so that it was sometimes difficult to find a balance between moving too quickly for some students and too slowly for others. One approach used was to pitch the classes and materials at the students who needed the most support, but to include more advanced material, as options or asides, for the benefit of the students who were prepared to go further. In any case, maintaining interest in the subject

matter was not always easy; David Zorc did it so well that he developed a reputation of having 'magnetic eyes'.

Lecturers occasionally spoke of using linguistics as a basis for 'teaching concepts and methodology of general applicability in scientific enquiry', as Hale (1972:391) put it, but it's not clear to what extent they consciously attempted this or to what extent the linguistic studies, contextually embedded as they usually were, helped students master general principles of Western scientific enquiry. Our own experience suggests that even mainstream postgraduate students may not easily change entrenched ways of thinking (while Hale, of course, referred specifically to primary and secondary education).

Two anecdotes may illustrate the problem. One is of a student who had studied at SAL in the 1970s and returned to complete the certificate courses in the 1980s. The earlier study had obviously been extremely important to him, since he not only spoke highly of it, but in fact brought back with him work he had completed at that time, including phonetic description which he had written in his own language. He had certainly mastered some basic linguistic concepts, but at the same time it became clear that he had not fully embraced the spirit of scientific enquiry. If one of his current lecturers tried to deviate from what he had learned earlier, e.g. by using the term 'fricative' instead of 'spirant', he wouldn't accept it, saying that the other was right because Karen Courtenay had taught it to him.

A second anecdote suggests that it was not uncommon to place more faith in personal relationships than on logical demonstration. On one occasion an advanced class of Torres Strait Islanders was visited by a linguist working on their language, and he and the SAL lecturer took this as an opportunity to debate the merits of alternative solutions to problems of orthography. After the class the students did not refer to the logic of the argumentation, but instead they were quite outspoken and defensive about how the visitor had dared to 'attack' their lecturer. Of course, to be fair, we also know of some prominent academics who might also take a challenge to their theories as a personal affront.

To return to teaching, another interesting challenge was helping students develop writing ability in languages in which the instructors themselves were generally not fluent. A few lecturers developed lesser or greater fluency in one or more languages, but at some point all of us had to teach speakers of languages we were not yet familiar with. For the most basic literacy skills this was no problem; we simply learned the orthographic conventions that enabled us to determine how well students' spellings conformed to their pronunciations. We also asked students to help each other and encouraged them to become increasingly self-critical. For example, we might ask students to read their compositions aloud to the class. Even though others in the class typically would not be inclined to give critical comments, students became more conscious of the details of their own work as they read it to others, so that they might often stop to make corrections.

This involves a principle once pointed out by Gertrude Stein (1935:55-7) in her inimitable way. In writing we tend to lose sight of our audience as we focus on form, and in speaking we lose sight of form as we pay attention to our audience, but reading written material aloud tends to make us sensitive to how the form suits the audience. As Stein (1935:57) puts it, "In short you are leading a double life". A similar thing would happen when students were about to publish their work in the School newsletter or as a separate book: often they began to notice all sorts of things that deserved correction.

The Certificate of Translation and Interpreting involved a special problem in this regard: how could instructors without fluency in the languages ensure accuracy of translating and interpreting? For translation the principle of back-translation was used, and it was taught to the students as a useful technique for ensuring accuracy. One student would translate

something in one direction, such as from English to his or her own language, and then another student would independently translate the result back into the original language, so that the result could be compared with the original document.

For interpreting an analogous procedure was developed as part of the final examination. Listening to a tape in a language laboratory, students would have to make an oral translation of an English monologue delivered a sentence at a time. For each language group half the students would be working with one English monologue and half with another. Their oral translations were then copied onto another tape without the English, which had been recorded on a separate channel. The two groups then exchanged tapes so that each group could do an oral back-translation of the work of the other. Where the back-translation deviated from the original, instructors studied the tapes to see whether the problem was in the original translation, the back translation, or both.

Such oral back-translation was too cumbersome to be used in the teaching of interpreting skills, but this did not matter since interpreting difficulties usually became fairly obvious in the classroom situation. Much of the practice involved role play that was in part videoed, and when students made mistakes they tended to be so obvious that no one had to point them out when the videos were reviewed. More generally stress was on 'getting the right reaction', and students were made conscious of problems that might even survive back-translation. Something like 'take this medicine twice a day' might well survive back-translation, but in the wrong sense in the student's first language: the hearer may wonder where the medicine is supposed to be taken to.

As these brief notes may suggest, however useful SAL teaching was to the students, it certainly provided the lecturers with valuable insights into the natures and practicalities of language and education.

5. Into a new decade

The late 1970s and early 1980s have been characterised by Gale (1997:118) as "almost a boom period" for bilingual education in the Northern Territory, and so it was for SAL as well. Into the 1980s courses continued to be offered both on campus and on-site, and in 1981 Gavan Breen established a separate branch in Alice Springs (see §6). In addition to their own programs SAL linguists regularly provided instruction on language and linguistics to teacher education students at Batchelor College, and they also ran occasional short courses for both indigenous and non-indigenous students.

In accord with its aim of "making Aboriginal and Island[er] people self-sufficient in linguistically related spheres" SAL made some attempt to employ indigenous lecturers. With the help of such lecturers McConvell was able to run the entire first-stage course on Saibai Island in 1980. In 1983 Black followed his lead by running the same course on Thursday Island, with SAL graduates Ron Day and Gloria Kabai respectively teaching Meriam Mir and Kalaw Kawaw Ya literacy, with Ephraim Bani and Imasu Aragu teaching more general classes on linguistics and language and culture, and with Black mainly teaching English as a Second Language. Thursday Island High School kindly provided what facilities it could; one of the main venues was the sloping ground under one end of the school library.

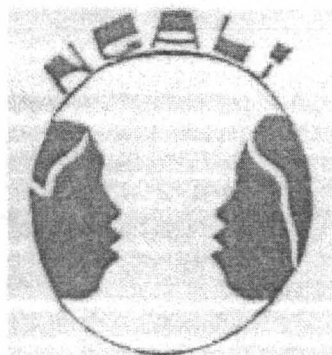
SAL students and graduates were also employed to teach short courses on their languages to non-speakers, with SAL lecturers providing more general sessions on Australian languages that dealt with such practical matters as how to pronounce words written in their orthographies. This became a yearly event through much of the 1980s. Black recalls how David Lalambarri Yunupingu introduced students to Gumatj by teaching them entirely in the language. By the end of the first hour he was able to use Gumatj to get students to stand up, walk to the door, say *djutjtjutjnha* ('goodbye'), and step out.

Another measure of SAL activity was its students' publications. As early as 1974 its students had produced small books in Ngalkbon, Kala Lagaw Ya, and Warlpiri which were eventually printed by the Darwin Community College printery. By 1979 students had produced materials in eighteen different languages, and in the 1980s reliable photocopying equipment made reproduction (if not their creation) even easier. Many of the books were readers like those used in bilingual programs in the Northern Territory, but sometimes with more linguistic sophistication.

SAL students included some exceptionally talented writers and illustrators. Among the latter, Patrick Whop, who had previously spent years working on railways around Australia, went on to further studies in graphic design at Darwin Institute of Technology (as Darwin Community College had been renamed). As for the writers, there is a story that can be told about the late Kathy Trimmer. For a creative writing class she wrote a sad story in English about having lost a younger sister. The other students felt very deeply about this and expressed their sympathies until Kathy pointed out that it was just creative writing and never actually happened.

Students also published in the SAL newsletter, which was called *Ngali* after a widespread form for the first-person dual inclusive pronoun, thus 'you and I'. This meaning was also encapsulated in a standard cover design consisting of a circle containing silhouettes of two faces facing each other, designed by Thomas Maywunydyjwuy Gaykamangu. The eleven issues that appeared between 1979 and 1987 changed with the technological development of the School, the earlier ones being typed and mimeographed while the later ones were prepared on word processors and photocopied. The content consisted of various reports, short stories, poems, puzzles, and brief linguistic studies in English and/or the students' own languages. The linguistic studies included such contributions as Trimmer's (1983) evidence for an unusual contrast between dentals and palatals in a Western Desert variety as well as descriptions of language use (Language Situations 1982 and 1987) that have subsequently been used in courses at Northern Territory University.

The tenth anniversary issue of *Ngali* included a summary (SAL's tenth year 1984) of SAL's activities in 1983. By the end of the year SAL had taught over a thousand students in 122 courses of one to eight weeks in duration and it had awarded 195 certificates. During 1983 alone seven full-time staff and 27 part-timers (including seven indigenous lecturers) taught 250 students (or 213 full-time and 60 part-time enrolments) in 18 courses of one to 24 weeks duration in nine locations, including Alice Springs, Batchelor (within Batchelor College as well as SAL), Elliott, Maningrida, Nguiu, Thursday Island, Turkey Creek, Uluru, and Waruwi. The Maningrida course was part of SAL's first solid external program, designed to enable students to complete much of their studies without leaving their home communities. By



the end of 1983 external programs had also begun in Areyonga, Lajamanu, Ngukurr, Willowra, Yirrkala, and Yuendumu.

During 1983 language-specific instruction was offered in thirty different varieties, including Eastern and Western Arrernte, Anmatyerr, Gurindji, Kalaw Kawaw Ya and Kala Lagaw Ya, Kija, Kriol, Luritja, Maung, Meriam Mir, Mudburra, Ndjébbana, Pitjantjatjara, Rembarnga, Tiwi, Wangkatha, Warlpiri, Warumungu, Wik-Mungkan, and the following Yolngu Matha varieties: Dhalwangu, Djamparrpuynu, Djapu, Gälpu, Liyagalawumirr, Manggalili, Marrakulu, Marrangu, Wangurri, and Warramirri. The course at Uluru was run on behalf of the Conservation Commission, and staff also taught in a Darwin Community College course for teacher linguists and provided some instruction to police recruits and to students in a pre-health workers course.

Some staff produced issues of a second SAL-based newsletter in 1986 and 1987. This was the *Language Maintenance Newsletter*, edited by Nick Evans, Steve Johnson, and Patrick McConvell. Four issues provided English notes and news on language maintenance issues, with the last issue announcing that it had become necessary to charge a subscription fee of \$3.00—the death knell of the publication?

SAL staff and students were involved in various other professional activities as well, including meetings of the Aboriginal Languages Association (ALA). At the inaugural meeting in Alice Springs in 1981 three SAL lecturers presented papers (Black 1982 (presented in absentia), Breen 1982, and McConvell 1982). In 1982 SAL and Batchelor College jointly hosted the second meeting of the Association in Batchelor. In 1984 SAL took a bus load of students to the third meeting, in Alice Springs; student reports on the third conference were published in issue 9 of *Ngali* in December 1984. (For later ALA developments see Aboriginal Languages Association 1991.) SAL also concerned itself with issues in interpreting and translating, including the yet unresolved problem of providing Aboriginal language interpreting services in the ‘Top End’ of the Northern Territory. It hosted a national meeting on interpreting and translation in Batchelor in about 1982 and another meeting on the Top End situation in 1989.

Since 1976 staff in Batchelor also participated in meetings of the Top End Linguistic Circle (originally the Linguistic Circle of Rum Jungle) with linguists from such other organisations as the Summer Institute of Linguistics and the Department of Education. Alice Springs staff were similarly involved in the Central Australian Linguistic Circle, and also in the organisation of the annual conference of the Australian Linguistic Society in Alice Springs in 1984. In 1987 SAL staff and students were involved in a conference on “cross-cultural issues in educational linguistics” held jointly by Batchelor College and what had now become the Darwin Institute of Technology (Chadwick 1990; Green 1990; Walton & Black 1990).

Working at SAL was taxing, and in their devotion to helping students produce their own publications lecturers tended to find less time for their own. They nonetheless managed occasional scholarly publications, and perhaps it’s worth noting some of them here. Some documented SAL experience (e.g. Zorc 1982; McConvell, Day & Black 1983; Black 1991) and a few were published by SAL itself: McConvell 1980 (jointly with the Strelley Literacy Centre), Black 1983 and 1986, and Zorc 1986. Lecturers and indigenous linguists also co-authored work (e.g. Turner & Breen 1984; Ford & Ober 1991), became embroiled in a debate on code-switching and domain theory (McConvell 1984, 1985, 1988, 1991 and 1994; Black 1990a and 1993), and wrote on issues of linguistics in education (Chadwick 1984a and 1990), language maintenance (e.g. Chadwick 1984b and Johnson 1987) and language planning (Black 1990b).

6. The Alice Springs Branch

Gavan Breen joined the staff of SAL in November 1979 on the understanding that after spending a year at Batchelor he would move to Alice Springs and start teaching courses in Central Australia. He had been employed temporarily on two previous occasions: the second time to develop an orthography for the Central Australian language Arrernte (then spelt Aranda).

The first course began on 2nd February 1981 at Yipirinya School, an Aboriginal-run school that was then struggling to gain recognition and support from the Northern Territory government. Yipirinya was in its early stages and was trying to get bilingual programs in the local languages established, and the bulk of the courses during the first three years were directed toward that end. However, work for other Central Australian communities began in a small way in the same year; the second course, starting in May, included two students from Santa Teresa, and the first on-site course was held at Yuendumu in July. The three major courses that year were all level 1 (the first stage of the literacy worker course) and involved a total of 22 prospective Yipirinya teachers or literacy workers, the two from Santa Teresa, and four Anmatyerr girls who had heard about the courses by word of mouth. The first course for non-speakers of an Aboriginal language was also held in 1981. The first level 2 (CLA) courses were held in 1982 and the first level 3 (CTS) course in 1983.

After the first three years the pressure on and from Yipirinya had eased and it was possible to do more for others. During 1983 a full CLA course was given to senior Yirara College students, followed later by twice-weekly literacy lessons. Beginning literacy courses were delivered to school students or groups including school children in such communities as Alpururulam (Lake Nash) and Artitjerre (Harts Range). In 1983 a course for the Wangkumara language was run in Bourke, NSW, as the first interstate course run from Alice Springs and the first SAL course in a language no longer spoken.

For six months in 1984, Breen was on study leave (working on the Arrernte Dictionary project) and was replaced by Patrick McConvell, who ran a number of courses including the first in South Australia (at Ernabella). During 1985 it was possible to employ two temporary lecturers for extended periods because of an unfilled position at Batchelor and because Breen was (at least nominally) on partial leave without pay; Jean Harkins was employed for six months and John Hobson for nine months. That was perhaps the high point of SAL in Central Australia; the branch ran thirty courses, including a series of three one-week courses in each of six communities with bilingual education programs. Also that year Hobson ran the first on-site course from Alice Springs in Western Australia, at Punmu. Another first was a course run in Alice Springs entirely for students from bush communities.

Despite the number of courses that year, Breen was not fully occupied in servicing requests and was able to actively recruit students for the first time since the branch opened. In April he visited seven Alyawarr communities, with the result that he was able to organise three on-site literacy courses later in the year for a total of over forty students. Over the next few years something like ten per cent of the thousand-odd Alyawarr speakers attended at least part of an SAL course.

In 1986 Breen made a similar tour of Anmatyerr communities; the results were less spectacular, but still pleasing. In July of that year the first course on behalf of the Barkly Region Aboriginal Language Centre (now Papulu Apparr-kari) was held in Tennant Creek. Later courses organised by them or at their request were held at Mungkarta (McLaren Creek), Murray Downs, Alekarenge, and Borroloola. The first courses run in the Centre for

Batchelor College were held in 1983. These too were held in many bush communities, where they were also opened up to local people who were not Batchelor College students.

A number of students in courses in Central Australia were later employed temporarily to teach literacy in their languages in later courses. Other part-time teachers were employed as needed to teach such units as ESL, graphics, language and culture, and applied linguistics.

Throughout the 1980s, office accommodation was supplied by the Institute for Aboriginal Development, mostly for no charge. In return Breen rendered certain services to the Institute, including teaching their weekly evening Arrernte courses for some years and taking on certain duties during periods, one quite long, when their own linguist position was vacant. He also instituted and for some years was principal researcher for the Institute's well-known and very productive Arandic Languages Dictionaries Program (now Central Australian Dictionaries Program).

The Institute was, however, not able to make teaching space available, apart from a couple of short periods, and the branch relied on the generosity of numerous other bodies, including, at various times, the Aboriginal Health Worker Training Centre, Congress Farm (the Central Australian Aboriginal Congress alcohol treatment facility), Yirara College, Centre for Appropriate Technology, Community College of Central Australia, the Catholic Church, and the Alice Springs Education Centre. On one occasion the lecturer and students arrived at the classroom only to find that the furniture had been removed and the room was no longer available, and they had to find another place before they could start. On-site courses were held in some odd places—once in a tent that the lecturer had borrowed from Tangentyere Council and brought with him from Alice Springs.

Student transport was a constant problem and often had to be provided by lecturers; other help was received from Congress Farm, the Commonwealth Education Department, the St Vincent de Paul Society, and most of all, Yipirinya School. As well as teaching, the lecturer's responsibilities included research, course development, recruitment, administration and driving, student welfare, money-lending (delays and inefficiency in the payment of Abstudy living allowances being chronic), and even at times child-minding.

The most problematical procedure of all was bringing students from bush communities to town for courses. It was only in the 1990s that many remote communities have obtained reliable telephone services; communication during the 1980s was at times almost impossible. One could never be sure who would arrive, or when or how, or with how many children. The accommodation situation in town was often desperate, for one reason or another. The inefficiency and irresponsibility of some people upon whom the lecturers and/or students relied at times was most frustrating. Breen's normal feeling at the end of such a course was "Never again!"

For several years, there was a desire on the part of some persons in authority for the Alice Springs operation to be transferred to the Community College of Central Australia (now part of Centralian College). When this possibility was first raised in 1983 the College decided it did not want it and could not afford it. Another attempt in 1986, in the name of 'rationalisation of resources' (and with a note saying "As usual let us transfer the bare minimum of funds") got as far as being approved by the Minister for Education before the lecturer heard of it. In reply, a memo from Kevin Ford to the relevant Dean referred to "fabulous statements" made to the Minister about the expense, difficulty of administration, and nature of the courses offered by the branch and stated that the branch was "the most cost-effective part of SAL". After Breen supplied the College with details of the operations of the branch and the support received from Batchelor and from organisations in Alice

Springs, and after the Institute for Aboriginal Development expressed its concern, the move was dropped.

7. The last years

The final years of SAL began at the end of 1985, when the Northern Territory Government replaced the administration of SAL's parent institution, Darwin Community College, and renamed it the Darwin Institute of Technology. This heralded an era of 'belt tightening' that also affected bilingual education programs in the Northern Territory, whose senior and support staffing were gradually reduced. SAL soon lost its 'school' status to become the Department of Linguistics within the Faculty of Arts, although it continued to be known informally as the School of Australian Linguistics. A 1989 review (SAL Review Panel 1989:4) summarised the effect on SAL by noting that in 1985 it had eight full-time staff teaching 541 students (the equivalent of 43 full-time students) and producing 68 graduates, but in 1988 it had only five full-time staff teaching 143 students (19 ETFSU) to produce 23 graduates, even though the demand for SAL's services had been increasing.

In mid 1989 control of SAL was transferred to Batchelor College as the Darwin Institute of Technology was incorporated into the new Northern Territory University. The transition into the College was not smooth: it seemed that every positive suggestion for integrating SAL and its staff into the College was met with a slap in the face, whether because of a general College policy or simply due to the personality of a key member of the College management. An apparent source of friction was the fact that most SAL lecturers had doctorates and all were working under higher-education conditions, which were quite different from Department of Education conditions in the College.

In late 1989 Batchelor College arranged for a review of SAL to be undertaken by an independent panel of twelve, including seven indigenous members (from the Aboriginal Languages Association, Batchelor College, Feppi (the Aboriginal advisory group of the NT Department of Education), the Barkly Language Centre, and an Aboriginal teacher) and five nonindigenous members (from the Department of Education, Batchelor College, and the newly formed Northern Territory University). The panel was quite complimentary about SAL's work and ended up making nineteen constructive recommendations (SAL Review Panel 1989:5-9). In summary these were that:

- (1 and 2) SAL continue as a school within Batchelor College, retaining the same name, and having its own advisory committee;
- (3) It assist the College in developing preliminary studies and access courses;
- (4 and 5, 7) Literacy training be provided in communities as far as possible, with support and encouragement for indigenous teachers of literacy, and using SAL lecturers only when indigenous teachers are unavailable;
- (6, 8 and 9) SAL extend and improve its external programs and review and reorganise its certificate courses so that much of them can be taught in communities;
- (10) The Certificate of Translation and Interpreting be continued and offered to students in other Batchelor College programs;
- (11) SAL develop an associate diploma in linguistic studies;

- (12) Batchelor College's School of Education Studies place greater stress on preparing all students as language teachers and researchers for TESL, LOTE, literacy, and language research and curriculum development;
- (13 and 14) "SAL be recognised and acknowledged as the appropriate centre for linguistic research related to Aboriginal languages" (1989:7), provide training to indigenous people to ensure cooperative and participatory research, liaise with various other organisations, and report its results to indigenous communities;
- (15 and 18) Staffing include a Head of School, a senior lecturer and lecturer based in Alice Springs, a lecturer based at the Barkly Languages Centre, and positions in Batchelor including a senior lecturer in TESL, five lecturers covering Northern Territory areas and the Kimberley and the Pilbara, and two indigenous tutors or lecturers-in-training specialising in north-east Arnhem Land and northern Queensland respectively, all having duties including research, teaching, and administration;
- (19) Suitable positions be filled with indigenous staff over the next five years.

The first recommendation was ignored, as SAL became the Centre for Australian Languages and Linguistics (CALL) within a School of Community Studies. Some of the other recommendations were heeded, e.g. as CALL developed an associate diploma and later a full diploma. In any case the situation at the College did not encourage SAL staff to stay with the new program: Black left at the end of 1989 and Ford, Chadwick, and Breen followed within a year or two, leaving Chakravarti as the only SAL lecturer to continue with the centre. CALL seems different enough that it is better thought of as a new program, with its own strengths and weaknesses, rather than as a natural continuation of SAL. It may change even further now that Batchelor College has become independent of the NT Department of Education as the Batchelor Institute of Indigenous Tertiary Education.

8. Conclusions

What conclusions can be drawn from our experience with SAL? It was an innovative program in a number of useful ways, but still constrained by the administrative necessity of running classes and trying to fill them with many students, the number of 'bums on seats' gaining increasing importance into the late 1980s. SAL tended to lack the advantages of the on-the-job training that was often carried out within bilingual and other language programs, although the more formal studies it did provide had their own value.

In any case SAL seems to have been a worthwhile experience for many of its students and graduates. Certainly it inspired student enthusiasm and loyalty. As one SAL student president put it:

S.A.L. is a fantastic, brilliant school which opens the minds of language speakers to teach, read, write and do phonetics and various other skills of linguistics. (Whop 1984:1)

A few graduates had some prominence in matters relating to indigenous languages. For example, Mariana (or 'Marina') Babia went on to teach her language, Kalaw Kawaw Ya, at Thursday Island High School and then, while completing the Batchelor College Diploma in Linguistics, worked at Northern Territory University developing and teaching units on indigenous languages (Babia & Black 1996 and Walton & Babia 1996). Other graduates of note include Daudai Brown, the late Marlene Cousens, Ron Day (honoured as the top

graduate of the whole of Darwin Community College in 1984), Veronica Dobson, Elizabeth ('Lizzie') Marrkilyi Ellis, Frank Ger, Mario Mabo, Florence Ngalawurr Mununggurr, the late Kathy Trimmer, Lorna Wilson, and Charles Nawungurr Yunupingu. Graduates of the much longer Batchelor College teacher education program have often become more prominent, but SAL also contributed to that program to some extent.

With regard to Hale's idea of using linguistics to teach general scientific principles, it's not clear that SAL made much real headway with its adult learners. Probably this hardly mattered for many, since they had little use for the culture of Western science in their daily lives and employment. At least the School was able to use linguistics to help them become better prepared to deal with their own languages.

Hale's (1972:393) ideal of an education that leaves speakers free to 'determine the particular relevance of the study of language to [their] communities' involves a dilemma. Such educators as Paul Ramsden (1992:66) stress that adult learners learn best when they can see the relevance of what they are studying. If this relevance is supplied by their lecturers, however, how are they going to be left free to find it for themselves? On the other hand, to the extent that they are left to determine the relevance for themselves, will curiosity alone be enough to sustain their learning until they can achieve this? Undoubtedly the solution is somewhere between these extremes, and SAL staff probably varied considerably in how they saw the balance between theory and application.

Perhaps some of the SAL lecturers got as much out of the School as their students. It was a tremendous opportunity to help indigenous language speakers apply the normally esoteric concepts of linguistics to various practical concerns, and to learn a great deal from our students as we did this.

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11 *Rhetoric and diction in the oral epic: Molly Tasman Napurrurla's Jajirdikirli*

LEE CATALDI

Homer is rapid in his movement, Homer is plain in his words and style, Homer is simple in his ideas, Homer is noble in his manner (Matthew Arnold, in *On translating Homer*, 1896:66)

This is how Arnold defines the classical epic; that is the epic of classical Greece, which has of course come down to us in written form but which was originally an oral construct. Although Arnold wrote of the *Iliad* and the *Odyssey* as if they were produced by someone he called Homer, Arnold was as well aware as anyone that it has never been established that such an oral product when it eventually found its way into written form was the unadulterated work of one person. On the other hand Arnold like most editors of the *Iliad* and the *Odyssey* definitely thought that the two poems aesthetically demonstrate the work of a narrator of genius (however you define that) that people call Homer. We are luckier with Molly Tasman Napurrurla's narrative in that it has been transcribed once from the recording and the transcription has been checked against the tape. We know and can demonstrate that the artistry is Molly's.¹

¹ This paper was presented at the Common Day of the annual meetings of the Australian Linguistic Society (ALS) and the Applied Linguistics Association of Australia (ALAA), University of WA, Perth, on 29 September, 1999. The original recording and transcribing of the narrative *Jajirdikirli* was done by Peggy Rockman Napaljarri and myself in 1990 as part of a project to record and transcribe Warlpiri narratives funded by AIATSIS. This project was inspired by Warlpiri people asking for these narratives to be recorded, and was one of the earliest of such narrative recording projects which have been requested by Aboriginal people and have been carried out by them with or without European assistance. The willingness of Australian government organisations to spend money on such projects and the interest of traditional indigenous people in documenting their own linguistic heritage would not in the areas where I work have been possible without the work and enthusiastic support of Ken Hale.

As Arnold describes it the classical or oral epic (since poems of this type are found in other languages besides classical Greek) is distinguished from other non-epic poetry by being noble. This idea of nobility is conveyed in other descriptions as the sublime or the grand style. I don't want to go into the argument about what is or is not the sublime. I would prefer to deal with this in terms of the grand style. The grand or high style is a rhetorical concept and through the corpus of rhetorical treatises and text books was both well known and frequently described. Wilson, a Renaissance rhetorician, described it: "The great or mighty kind, when we use great words or vehement figures" (Sonnino 1968:213). So if we are to characterise a Warlpiri oral narrative as an example of an epic, the narrative should demonstrate rapidity of movement, plainness of diction, simplicity of ideas, and the grand style.

Plainness would seem inconsistent here, but in the context of a discussion of English translations of Homer, what Arnold meant by this was precisely what a number of translations of Homer by English poets were not. The English poets from the late sixteenth century on could not help complicate ideas and diction. It is this lack of directness and a sort of endemic complexity in modern English (and European) poetry, the metaphor and ambiguity that in fact we demand from our writers which makes them unlike Homer. The plainness and simplicity Arnold said were characteristic of the oral epic we could also describe as clarity and directness, in both diction and thought.

The epic with which I wish to compare *Jajirdikirli* is the *Odyssey*, in particular the episode in the Cyclops' cave. This passage shows very well how Arnold arrived at his general description of Homer's style:

*So I spoke, but he in pitiless spirit answered
nothing, but sprang up and reached for my companions,
caught up two together and slapped them, like killing puppies,
against the ground, and the brains ran all over the floor, soaking
the ground. Then he cut them up limb by limb and got supper ready,
and like a lion reared in the hills, without leaving anything,
ate them, entrails, flesh and the marrowy bones alike.*

(Lattimore translation, 1967:144)

This is rapid, clear and direct. Compare this passage from *Jajirdikirli*:

*Mantarrarni wapanja-yanu, yunpurru-kujurnu nyampujangka kurdu-kurdu,
yunpurru-kujurnu, nyampujangka yunpurru-kujurnu. Nyampujangka, yangka,
yiriwarrajangka kurdu-kurdu, pirtirra kujurnu, wartirlijangka kujurnu. Kala
yapaju wiri-wiri kujakula yunpurru-kujurnu.*

'It came along, its feet beating on the ground. It threw to the ground the bodies it had been carrying, the bodies of children and new-born babies. It threw down the babies hanging from its head-band and belt. It also threw down the bodies of adults.'

(Cataldi and Rockman 1994:14-15)

Like the passage from the *Odyssey* the passage from *Jajirdikirli* is rapid, clear and direct. Interestingly, both draw great expressive strength from the same aesthetic strategy, a set of actions which would be normal under other circumstances but which the villain's size and cannibalism render monstrous. The juxtaposition is ironic (which is why the word "simplicity" as used by Arnold may be misleading). In the passage from the *Odyssey* the actions of the Cyclops are those of any herdsman killing a couple of small animals; but the supper is made from two full-grown men. In the passage from *Jajirdikirli* the actions of the kinki are those of any hunter returning with several pieces of game; but what he carries consists of numbers of people: babies, children and adults.

What about nobility or rather, the grand style? Wilson described it as using “great words” and “vehement figures”. In other words he characterised it in respect of two things, the orator’s selection of words, his or her diction, which has to be “great”, and the orator’s use of the figures of rhetoric, which should be “vehement”. In relation to the figures of rhetoric, as described in the treatises of classical rhetoric, the passages I have chosen differ, as do the works themselves. As is well known, a certain kind of simile, “when one thing is compared to another in respect of similarity” (Susenbrotus, in Sonnino 1968:171), is characteristic of the epic style of the *Iliad* and the *Odyssey*, and the passage I have quoted contains an excellent example, *and like a lion reared in the hills, without leaving anything, / ate them*. The Cyclops is compared to a lion, which is noble (even to the ancient Greeks, certainly to the Renaissance) but which is also savage, particularly in its eating habits. Although a monster, it is a worthy opponent for the epic hero.

The characteristic figure of Warlpiri oral narrative is not the simile, but repetition, which is interestingly defined by the renaissance rhetorician Scaliger as “an instrument of proportion for gauging the concordance between the similar and the dissimilar” (Sonnino 1968:160). In Warlpiri narrative repetition is a very highly developed rhetorical instrument and it is used for a number of purposes. One is to represent duration, as in *Yanu. Wala-parrurnunyanu, wala-parrurnu, yukakari-yukakarinyanu wala parrurnu, wala parrurnu, wala parrurnu* ‘He went. He tried out his changes, he tried out his changes, he tried out these different things while keeping low down in the green bushes’ (Cataldi & Rockman 1994:14–15). The repetition here shows for how long the hero practised his magical transformations of himself into various animals, and also of course emphasises how hard and conscientiously he practised these and concomitantly how difficult (and therefore hard and great) they are to do. Another purpose of repetition is emphasis, as in the example I have given, where the hero’s painstaking effort is emphasised. And finally it is also used for what the classical rhetoricians describe as amplification, “the way in which style may elevate ...the subject in hand” (Quintilian, in Sonnino 1968:28), that is to make the subject of the discourse appear larger, more important, more grand.

To return to Molly’s description of the kinki, . . . *yunpurrrku-kujurnu nyampujangka kurdu-kurdu, yunpurrrku-kujurnu, nyampujangka yunpurrrku-kujurnu* ‘it threw to the ground the bodies it had been carrying, the bodies of children and new-born babies’. By repeating *yunpurrrku-kujurnu*, the action of throwing the bodies to the ground, it emphasises how many bodies the kinki was carrying, and thus its size and its monstrous capacity for killing, how formidable an opponent it is for the epic hero. In this way just as the lion comparison contributes to the grandness of the narrative and the greatness of the Greek hero, so the repetition of the action of throwing, so many times, contributes to the elevation of the Warlpiri hero, and to the Warlpiri grand style.

It is recognisable in many forms of verbal art that the work is constructed so that various strands arrive together in memorable sections, sections in which aesthetic technique and the control of emotion coincide with, reinforce and are reinforced by the developments of the plot. In Book IX of the *Odyssey* such a section is when Odysseus puts out the Cyclops’ eye, a moment in the story of great tension and uncertainty made more terrifying by the discrepancy in size between the hero and the villain:

*They seized the beam of olive, sharp at the end, and leaned on it
into the eye, while I from above leaning my weight on it
twirled it, like a man with a brace and bit who bores into
a ship timber, and his men from underneath, grasping
the strap on either side whirl it, and it bites resolutely deeper.*

*So seizing the fire-point-hardened timber we twirled it
in his eye, and the blood boiled around the hot point, so that
the blast and scorch of the burning ball singed all his eyebrows
and eyelids, and the fire made the roots of his eyes crackle.
As when a man who works as a blacksmith plunges a screaming
great axe or blade or plane into cold water, treating it
for temper, since in this way steel is made strong, even
so Cyclops' eye sizzled about the beam of the olive.
(Lattimore translation, 1967:47)*

The simile here, the comparison between what they do with the stick and drilling holes in timber, fits with what the audience knows of the character of Odysseus, clever, persistent, workmanlike, systematic, and of course a seaman. This is magnified in the simile of the blacksmith. At the same time what happens to the Cyclops' giant single eye is horrifying, and also by way of the contrast with the healthy activity of the worker, disgusting. And the matter-of-factness of the comparison, between the horror of the cave and the calmness of work, is ironic.

In *Jajirdikirli* the moment when the hero and the villain finally meet, the moment for which the hero has prepared himself so diligently, is one of these memorable sections. The hero has finally decided to transform himself into a small stinging ant:

Jalangunya turlurl-wantija. Lirraju pujuly-pajurnujuku. Pujuly-pajurnu. Kulanganta nyiyarlu lintarr-yirrarnu. Julparra-pungu yalikirikirraluku. Purlurr-pakarnunyanu. Yuwayi, purlurr-pakarnunyanu. Yarda turlurl-wantija. Kujarnilki jila yarda juurl-pungu. Pujuly-pajurnu. Juurl-pungu kujayijala.

"Aww, nyiyarlu?" *purlurr-pakarnunyanu*, "Awwu, nyiyarluku kaju?"

Nyiyarluku kaju kujawangujala ngarralpa ngunaja? Ngulalpa yangka?"

Kujalpa nyampujarra mirdipijipiji-nyinaja. Ngulalpa yangka kujarlu kujalpa nyangu, tuurl-pajirninjarla parnkajarralpa. Kujarlu manulpanyanu yumpa! Yarturlukulku yarnkajarra, yarturlukulku manu wurranku. Manunjunurra yarturluku. Parnkajarni, parnkajarni, yarda tarda-yanu. Ngapajilparlajinta nganta wupal-wupal-pakarnu, wupal-pakarnu, wupal-pakarnu, wupal-pakarnulparlajinta ngapaji. Nganayi turlurl-wantija. Wapiji, ngari yarturlulpa mardarnu wapukurru. Turlurl-wantija. Ngalyalkulpa pujuly-pajurnu murnmajuku. Yarturlu manu, piirl-pakarnulpanyanu nyanungurluku. Yuwayi! Pakarnulpanyanu.

. . . Ngulalpa kujarlaji yardarni pujuly-pajurnunjunu. Yangka turlurl-wantija, yangkalpa yirri kujarlu nyangurra. Ngulalpa yaparr-pajirninjarla pajurnu. Jiralpanyanu pakarnu wapukurrurluju. Ngulajangka yardalpa turlurl-wantija. Kunalkulpa nyampu pajurnu, ngulalpanyanu kujarlu pakarnu.

'It was at this moment it bent down to drink, he stung it on the lips, he stung it on the lips. It had no idea what had started to drive it crazy with pain and it gave a great leap away from the water. It started to beat at its arms and head. It started gouging great holes out of its own flesh. Again it bent down to the water to try to drink. Then it spun round, crashing to the ground again. He bit it again. Again, it leapt into the air.

"Oh, what is doing that?" it cried, beating itself about the head, "Oh, what is doing this to me, like nothing I have ever experienced before? What is it, then?"

It sat down again with its two legs doubled up underneath. When our hero saw this, he rushed at it and stung it again and again. Then this is what it did to itself—it gathered big stones from around about. It went and got the stones, then it ran back, it ran back and sat down again. It thrashed around, trying to get at the water, bashing at the water. It bent down again towards the water. It had the big stones it used with the club. It bent down to the water again. He stung it again, a little later. It took up a stone and started beating itself severely. Yes, it beat itself.

... Then he stung it again. Again it bent down to the water, again it looked around trying to see what was tormenting it, again it started to pierce its flesh, again and again. It beat against its tendons with its own big club. Again it bent down to the water. It had cut itself right through the guts. It had also beaten itself.' (Cataldi & Rockman 1968:14–15)

As in the *Odyssey*, the world outside the conflict informs it. Here it is a hunter's eye that notes the damage the kinki is doing to itself, ripping its own tendons, stabbing itself in the guts, which will of course kill it. The sight is both horrifying and disgusting. The fate of the kinki, tortured and maddened by thirst to the point where it kills itself, is ironically appropriate to its vile actions, and also ironically the only way it can be overcome by a human being so much smaller than it is. The human changes into something smaller still. Just as in the *Odyssey*, knowledge and skill can defeat brawn and brutality.

In the original Warlpiri one can also note the presence of other features which can be described by classical rhetoric, something which is not possible using the English translations. The rhetoric we know was systematised by the Greeks and the Romans; that is, its categories were developed as a means of teaching the strategies of composition, primarily oral composition (for politicians and lawyers), and were derived from an examination of existing works whose origin was oral. Similar strategies are found in all the major works of oral cultures, and using the categories of classical rhetoric as tools of analysis can highlight the skill of an orator, can show how she achieves what she does. The figure Warlpiri narrators use most extensively for amplification is repetition, but repetition has a number of forms. In Molly Napurrurla's narrative these strategies are combined with great skill, even one might say genius. Her narrative combines alliteration, a scheme rhetoricians called ANADIPLOSIS, a scheme called EPIZEUXIS, and another scheme called PAREGMENON in this passage:

Yarturlukulku yarnkajarra, yarturlukulku manu wurrangku. Manunjunurra yarturlulku. Parnkajarni, parnkajarni, yarda tarda-yanu. Ngapajilparlajinta nganta wupal-wupal-pakarnu, wupal-pakarnu, wupal-pakarnu, wupal-pakarnulparlajinta ngapaji. Nganayi turlurl-wantija. Wapiji, ngari yarturlulpa mardarnu wapukurru. Turlurl-wantija. Ngalyalkulpa pujuly-pajurnu murnmajuku. Yarturlu manu, piirl-pakarnulpanyanu nyanungurlulku. Yuwayi! Pakarnulpanyanu. (Cataldi & Rockman 1968:14–15)

The conclusion of the passage is what is described as a PERIODOS, "a close-packed and uninterrupted group of words embracing a complete thought . . . use it . . . in a conclusion" (Cicero, in Sonnino 1968:48). Alliteration is the repetition of the same sound at the beginning of succeeding words, as in *Yarturlukulku yarnkajarra, yarturlukulku manu wurrangku*. Anadiplosis is the use of the same word at the beginning and the end of a unit, as in *Ngapajilparlajinta nganta wupal-wupal-pakarnu, wupal-pakarnu, wupal-pakarnu, wupal-pakarnulparlajinta ngapaji*. Epizeuxis is the one we are most familiar with in Warlpiri narrative, the immediate repetition of phrases for the expression of urgency, duration, effort, or magnitude, as in the repetition of *wupal-pakarnu* in the sentence above. Paregmenon is "a figure which of the word going before deriveth the word following . . . to delight the ear by the derived sound and to move the mind with a consideration of the high affinity and concord of the matter (Peacham, in Sonnino 1968:24), as in *wupal-pakarnu, wupal-pakarnulparlajinta* or *Wapiji, ngari yarturlulpa mardarnu wapukurru*. However, the passage as a whole with its marvellous combination of repetition and variation, which uses not only the lexicon but the freedom of word order and the case and other markings available in a language like Warlpiri, does entirely fulfil the rhetorician's requirements for the grand style, "to delight the ear by the derived sound and to move the mind with a consideration of the high affinity and concord of the matter".

I am not arguing that Molly Napurrurla used classical rhetoric to compose the narrative. Like the Homer or Homers who existed before classical rhetoric was codified, she uses the artistic strategies classical rhetoric describes.

As we have seen, the other feature of a work which rhetoricians cite in relation to style is the range of words chosen, the diction. Wilson, quoted earlier, said the grand style has “great words”. Arnold stated that Homer’s grand style had “plain” words. The relative absence of metaphor, the trope which dominates European writing from the Renaissance on, is clear in both the *Odyssey* and *Jajirdikirli*. In other words, in this sense, the diction of both is plain. Is the diction of *Jajirdikirli* what we might describe as ‘great’? The Warlpiri themselves make a distinction between styles of discourse, which they call *pirrjirdi* or hard and *rampaku* or light. Naturally the greater the matter, that is, the more important the content of a discourse, the more hard Warlpiri must be used. Hard Warlpiri at present is characterised by the following: few English borrowings, a rich and well-chosen Warlpiri lexicon which because of Warlpiri patterns of repetition includes the presence of many synonyms, and the use of what are considered the most difficult and the most learned features of Warlpiri grammar. A further consideration might be the presence of forms more elaborate than those used in normal speech. In the case of Homer we have the double adjectives, for example the one translated as “wine-dark sea” (not that we know much about Homer’s contemporaries’ normal speech); in Molly’s narrative we have the use of multiple preverbs, as in *tardardakurl-pungu kaninjarra*, meaning ‘he ran far inside it’ or *ngurrngu-ngurrngu-wangkanjanya*, which means ‘it moved along slapping its thighs’. This action is characteristic of women dancing and its attribution to the kinki generates a particularly acute disgust as the kinki appears to be celebrating, but it is celebrating the slaughter of people, not the sacred rituals necessary for their preservation.

The diction of *Jajirdikirli* also displays the copiousness necessary to the grand style, an abundance of synonyms or close synonyms, such as *jinpirri* and *yuurnpa*, both meaning ‘shovel-nosed spear’, or the many words used for striking, *purlurr-pakarnu*, *wapal-wapal-pakarnu*, *piirl-pakarnunyanu*, *pulyurr-pakarnunyanu*. Finally *Jajirdikirli* contains a number of examples of a tense very infrequently used in everyday discourse, a sort of past historic, as in *Kakarralpa ngarrirninjinanu* ‘He went eastwards telling people’ and *Nyurrujalalpa riwarri-maninjinanu* ‘He kept sharpening his spear so that it was always ready’.

So in respect of both its rhetorical features and its diction we can describe *Jajirdikirli* as an example of what classical rhetoric called the grand or noble style. Also in respect to its clarity, directness and rapidity it can be described as an example of the classical epic as Arnold understood it. This narrative is a very polished and splendid work and demonstrates, as I hope I have shown, artistry of the highest order.

If we compare *Jajirdikirli* with other narratives in the collection *Warlpiri dreamings and histories*, for example, ‘Miss Pink-kirli’ (Taking care of Miss Pink) or ‘Yapuntakurlu’ (The orphan), we can see that the range of diction and the level of *pirrjirdi* or hard Warlpiri grammar is different. ‘Yapuntakurlu’ is an account by Mary O’Keefe Napurrurla of experiences she had when as a young girl she was alone with her mother when her mother died, experiences which were very difficult and frightening, but not of the same status as the civilisation-saving labours of a culture hero.

In Warlpiri descriptions of genres of narrative, *Jajirdikirli* is *jukurpa* (‘dreaming, sacred’) but ‘Yapuntakurlu’ is *yijardu* (‘true, correct’), and this may also correspond to a difference in style. Here is Mary O’Keefe’s description of her state when she was finally persuaded to return to her family, whom she refused to physically approach:

And malikiyiya kalarnaju karlawana ngunaja. Kalajulu yirrarnu nyampurrarluju. Malikiyiya kalarna ngunaja karlawarla. No kalajulu ngamirljirla mardarnu, manu kalajulu parnta-yirrarnu karlawarla – yalumpurrarlunyanu yapangku ngarraju nganayi, yuwayi, . Ngunajalparna.

'And when we slept, I slept like a dog does at their feet. Those people placed me in that position. I used to sleep there like a dog does. I used to sleep there. I did not sleep in their arms. They covered a (water-carrier) for me. That is where the people, my uncles put me. I used to lie there.' (Cataldi and Rockman 1968:189–90)

We see the use of repetition, but, although the passage is very moving, particularly moving in its simplicity, and although it does convey its point about the disorientation of the child very precisely in the comparison of the child to a dog, it has none of the elaborateness of the language in *Jajirdikirli*, and little of the more obscure diction. The style here is appropriately the style of clear and elegant conversation, something which is classical rhetoric is called the plain or middle style (Sonnino 1968:213).

Edward Said, who developed the critique of the European attitude to what is non-European that we now use (who, in other words, deconstructed what Europeans meant by 'oriental'), remarked that the use of European categorical systems (such as that of classical European rhetoric) to describe non-European productions could be seen to serve a purpose other than assimilation. It can also confer status for the products of those who, not by choice, have to compete and survive in a world dominated by the European.

By showing that we can describe Warlpiri narratives using the categories of classical rhetoric (which has nothing to do with how the Warlpiri narrator produces the narrative) I have shown how we can compare these narratives with others in our own traditions that we value highly. Describing and evaluating *Jajirdikirli* in our own terms can enable us to appreciate it, albeit by viewing it in a distinctly non-Warlpiri way.

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12 *Explaining typological differences between languages: de facto topicalisation in English and Warlpiri*

TIM SHOPEN

Preferred text structure

Du Bois (1985:362) speaks of the need for a linguistics of *parole* or ‘preferred text structure’, arguing that the preferred ways that speakers have for using their languages contributes to the kind of structure that evolves in the languages: “Grammars code best what speakers do most” (Du Bois 1985:363), but he says this in a context where he is pointing to a pattern of behaviour he argues to be universal, PREFERRED ARGUMENT STRUCTURE. It is important to recognise that while there are some universal patterns of language use, people from different cultures have preferred text structures that differ from each other in significant ways. This could be a motivation for typological differences between languages.

As an example of this, consider two short cosmological narratives telling why things are the way they are. One is one of Grimm’s fairy tales, ‘The straw, the coal and the bean’, given below in English translation from the original German. The Grimm’s story can be taken as representative of Western European culture: on the flyleaf for the Routledge, Kegan and Paul 1975 edition of Grimm’s Fairy Tales, from which this translation is taken, W.H. Auden is quoted as saying that Grimm’s Fairy Tales is “among the few indispensable books upon which Western Culture can be founded”. The other narrative is ‘Jinjiwarnu rdukurduki-tiriititi-kirli’ (The crimson chat with the red chest), as told by Anthony Jampijinpa Egan at Yuendumu. It is originally in Warlpiri, and is given below in my English translation.

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187

The Straw, the Coal, and the Bean

In a village dwelt a poor old woman, who had gathered together a dish of beans and wanted to cook them. So she made a fire on her hearth, and that it might burn the quicker, she lighted it with a handful of straw. When she was emptying the beans into the pan, one dropped without her observing it, and lay on the ground beside the straw, and soon afterwards a burning coal from the fire leapt down to the two. Then the straw began and said: "Dear friends, from whence do you come here?" The coal replied: "I fortunately sprang out of the fire, and if I had not escaped by sheer force, my death would have been quite certain,—I should have been burnt to ashes." The bean said: "I too have escaped with a whole skin, but if the old woman had got me into the pan, I would have been made into broth without any mercy, like my comrades." "And would a better fate have fallen to my lot?" said the straw. "The old woman has destroyed all my brethren in fire and smoke; she seized sixty of them at once and took their lives. I luckily slipped through their fingers."

"But what are we to do now?" said the coal.

"I think," answered the bean "that as we have so fortunately escaped death, we should keep together like good companions, and lest a new mischance should overtake us here, we should go away together and repair to a foreign country."

The proposition pleased the two others, and they set out on their way together. Soon, however, they came to a little brook, and as there was no bridge or foot plank, they did not know how they were to get over it. The straw hit on a good idea and said: "I will lay myself straight across, and then you can walk over on me as on a bridge." The straw therefore stretched itself from one bank to the other, and the coal, who was of an impetuous disposition, tripped quite boldly on the newly built bridge. But when she had reached the middle, and heard the water rushing beneath her she was, after all, afraid, and stood still and ventured no farther. The straw, however, began to burn, broke into two pieces, and fell into the stream. The coal slipped after her, hissed when she got into the water, and breathed her last. The bean, who had prudently stayed behind on the shore, could not but laugh at the event was unable to stop, and laughed so heartily that she burst. It would have been all over with her, likewise, if, by good fortune, a tailor who was travelling in search of work, had not sat down to rest by the brook. As he had a compassionate heart he pulled out his needle and thread and sewed her together. The bean thanked him most prettily, but as the tailor used black thread, all beans since then have a black seam.

The Crimson Chat with the Red Chest

A long time ago in the Dreamtime when people were like birds and kangaroos there lived a lady with two sons. Once at mid day they all went out hunting for meat and yams. Then their mother told her two sons "Don't go south to the big swamp or the water monster will get you."

Just so they heard what their mother said. Then they were all hunting for meat and digging for yams.

After that the two of them went to play as they had been told. Their mother was digging for yams not seeing where they went. The two boys heard a bird whistling like a budgerigar. They looked at it for a long time. Then the two boys got closer. After that the bird flew from one tree to another. Then it led them towards the Mulga scrub and this supposed bird came to them as a water monster. After that it held the two boys tightly. They called out loudly. The monster did them in holding them under the water for a long time.

The wind was blowing from the south. Then the boys' mother heard them shouting. She couldn't see them. She ran to another woman and asked her, "Did you see my two boys?" The woman said "No, I haven't seen them." The mother then thought to herself, "Perhaps they are at the water." Just so, she ran south to the swamp. The track wasn't smooth. Then she saw the blood on the water. She started to cry. He hit herself on the head with a digging stick until blood came. She went home crying. She went along hitting herself making herself bleed. She cried into the night. The blood came running down her chest, and in the morning the sad woman died. Then she turned into a little red breasted crimson chat. You can see the blood stain on that bird's breast even today.

In the European story there are many comments about personality and motivation, and several remarks about feelings. Each character has a personality and is involved in making decisions in a world where anything can happen. The decisions in turn have consequences and the characters are seen as responsible for their fate. The straw had a good idea, the coal was impetuous, the bean was prudent, the tailor had a compassionate heart. The outcome with beans having a black seam is presented as an unfortunate result of what unfolded, but not something inexorable. The European story shows interest in the notions of agency and responsibility, on the basis of the idea that individual creatures have wills and intentionally take initiative to cause things to happen and that when things do happen individual creatures can be understood as responsible for the events because they consciously made decisions to cause them to happen.

In the Warlpiri story there is interest in the interaction of the characters with little said directly about their personality, feelings, or motivation. We are left to infer that the mother cared a great deal for her sons and felt great grief for them at the end. We are left to infer that the boys felt great fascination for the bird and that they felt great terror when it turned into a monster. We see the boys drawn towards the water monster without any focus on decision making or volition. We see the boys meet their doom because of it, but no comment is made about them doing what their mother told them not to do. It is not made clear whether they were aware that they were doing what their mother told them not to do. Things happen as result of volition and agency, but with focus on the interaction of the characters and the consequences of what they did, not on how the characters came to do what they did. The outcome, with crimson chats having blood-red breasts, is presented as an inexorable as well as a lasting consequence of what the people did.

The Warlpiri story above is typical of Aboriginal narrative and Aboriginal culture in Australia the way I know it. There is less attention to the notion of individual agency than there is in our culture. Aboriginal people believe strongly in the notion of group responsibility and group initiative, in a world where people place great attention on living in harmony with each other and with their environment. People's actions can have great importance but without the separation of the individual from the group. As a result there is interest in the interaction of people and things without much speculation on the motivation that leads

individual people to do what they do. These comments on the rhetoric of Warlpiri will now lead me to some comments on its grammar. I want to suggest that the first can be seen as motivation for the second.

De facto topicalisation in Warlpiri

I want to consider de facto topicalisation, looking in particular at Warlpiri nonanaphoric topicality, the kind where arguments are named with lexical items and *brought into topical prominence* by topicalisation devices. This means giving focus to a noun phrase which has not had topical prominence before. Swartz (1991) gives thorough treatment of the role of word order and zero anaphora in giving topical prominence to noun phrases in Warlpiri. I want here to consider morphological means of doing this.

Nonanaphoric topicality is the only kind that is relevant to the Ergative case marking on independent nominals. This is because in anaphoric topicalisation where topics are referred to anaphorically Warlpiri usually does the anaphora by ellipsis so that there are no independent nominals. In this kind of topicalisation, my text counts show that undergoers are marked morphologically as topics at least as often as agents. The notion of undergoer joins intransitive subjects and transitive objects, the positions that are united in the Ergative–Absolutive case-marking system that Warlpiri has. I believe the cultural values of Warlpiri people provide motivation for this case-marking system.

Table 1 summarises how topicality works in Warlpiri.

Table 1: Warlpiri topicality

Anaphoric topicality (ellipsis)	Nonanaphoric, de facto topicality (word order and morphology)
<p>Speaker assumes listener already holds same entities as he does at the centre of interest.</p>	<p>Speaker has something new at the centre of interest, wants to cause the listener to have the same thing at the centre of interest.</p>
<p>Speaker ellipses these entities. They are referred to only by bound pronouns that cross-reference verb arguments.</p>	<p>Speaker focuses this new entity by naming it in clause-initial or pre-verbal position, by marking it with the topic focus marker <i>-ju</i>, or both, thereby giving it topical prominence.</p>
<p>These bound pronouns have Nominative–Accusative case marking.</p>	<p>The independent nominals being given topical prominence in this way have Ergative–Absolutive case marking.</p>
<p>Agents are the topics most of the time.</p>	<p>Undergoers are the topics at least as much as agents.</p>

Subject position is the main topicalising device in English, and the passive is the construction that places the Undergoers of transitive expressions in subject position, giving them topical prominence. The text structure in English comparable to what we have seen in Warlpiri would be one in which passive sentences are used as often as active ones for transitive expressions.

I want to compare the de facto topicalisation in English with that in Warlpiri, looking in particular at Warlpiri nonanaphoric topicality, the kind where arguments are named with lexical items and *brought into topical prominence* by topicalisation devices. In anaphoric topicalisation it usually happens that the only case marking is on the bound pronouns that cross-reference subjects and objects. The only exception to this in the third person is when there is anaphoric reference by demonstrative pronouns (the narratives I report on are almost entirely in the third person). While it is in the nature of nonanaphoric topicalisation in Warlpiri to topicalise Undergoers as often as Agents, in anaphoric topicalisation it is clear that Agents are Topics more often than Undergoers are. This can be seen by the fact that A (transitive subject) is ellipsed far more than other core arguments.

Warlpiri is a free-word-order language with agglutinating, polysynthetic morphology. Cross-referencing occurs in the part of the sentence called the Auxiliary, which works in tandem with the verb to signal tense, aspect, and mood and occurs as a set of enclitics typically attached to the first constituent of the clause. We can see some of these features in the following examples:¹

- (1) *Jarntu-jarra-rlu-lpa-pala-jana ngaya nya-ngu.*
 dog-DU-ERG-IMPF-3.DU.SJ-3.PL.OBJ cat see-P
 'The two dogs were looking at the cats.'

In this example, the first constituent begins with 'two dogs'. Since it is a transitive subject, it carries the Ergative case-marking enclitic *-rlu*. Following the Ergative enclitic comes the set of enclitics that make up the Auxiliary, *-lpa* (Imperfect) and then the cross-reference markers, the subject bound pronoun *-pala* (third person dual Nominative) and the object bound pronoun *-jana*, (third person plural Accusative). The noun 'cat' is the object, and so is Absolutive (no case marking). There is no plural marker for 'cats'. Its number is signalled by the object cross-reference marker. The words in this example can come in any order. Only the set of enclitics making up the Auxiliary have a fixed position. One could equally well say:

- (2) *Ngaya-lpa-pala-jana jarntu-jarra-rlu nya-ngu.*
 cat-IMPF-3.DU.SJ-3.PL.OBJ dog-DU-ERG see-P
 'The two dogs were looking at the cats.'

¹ A Warlpiri speaker would count this as the same sentence as (1).

If we make 'the two dogs' the subject of an intransitive sentence (3), it will still have the same Nominative cross-reference marker, *-pala*, as it does as transitive subject in (1) and (2), but the noun *jarntu* will be in the Absolutive (no case marking), as it would be as object of a transitive verb. We can thus see the interaction of two case-marking systems, Ergative for independent nominals and Accusative for the cross-referencing bound pronouns.

- (3) *Jarntu-jarra-lpa-pala ya-nu-rnu.*
 dog-DU-IMPF-3.DU.SJ go-P-hither
 'The two dogs were coming this way.'

Clauses in which both the subject and object are named, as in (1) and (2), do occur, but they are not the most common kind of utterance. Ordinarily, arguments that already have topical status have what I have called definite ellipsis (Shopen 1973). As Du Bois (1987)

¹ Abbreviations in interlinear translations: 1,2,3 – first, second, third person; DAT – dative; DU – dual; ERG – ergative; IMP – imperative; IMPF – imperfect; INF – infinitive; OBJ – object; P – past; PL – plural; POSS – possessive; SJ – subject; TOP – topic.

would predict, the argument most often ellipsed is the transitive subject (A). By my text counts in narratives, A is ellipsed 57 per cent of the time, P (transitive object) 35 per cent of the time, and S (intransitive subject) 39 per cent of the time. A more natural report of the situation reported in (1) or (2) would be one whereby the A already has topical prominence and is ellipsed, which is to say as an instance of anaphoric topicality, referred to by the bound pronoun that cross-references it but not represented by any independent nominal, as in (4).

- (4) *Nya-ngu-lpa-pala-jana ngaya.*
 see-P-IMPF-3 DU SJ-3 PL OBJ cat
 'The two of them were looking at the cats.'

Warlpiri can be said to have free word order in that no use of it is made to signal grammatical functions. Swartz (1988) argues that clause-initial position has the effect of giving pragmatic importance to the entity named in that position. I think this is correct as long as we allow for clause-linking, orienting expressions such as 'after that' or 'just so' that can occur in first position before the focusing position. Swartz argues that the focusing effect of naming something in clause-initial position pushes it into topical prominence so that both 'Focus' and 'Topic' are appropriate labels for the position. In other words he is saying that this is a kind of de facto topicalisation.

We find support for my claim that Warlpiri Agents are no more important than Undergoers in the de facto topicalisation when we look at what constituents occur in this clause-initial Focus position. I did a study of seven Warlpiri narratives from Yuendumu (with a total of 593 clauses), five of them on traditional topics and two of them about contact with white people. I found no significant difference between the two kinds of narratives. Of the 593 clauses, 43 per cent (254) had predicates (240 verbs, 14 nonverbal predicates) in this Focus position and 18 per cent had adverbial constituents, while 38 per cent (223) had core arguments. Recall that P is a primary position where Undergoers are expressed and A a position where Agents are expressed, while S expresses both Agents and Undergoers. What matters here is the comparison of P and A. Undergoers were focused more than Agents. Of the 593 clauses, 17 per cent (102) had S constituents (either heads or modifiers) in the Focus position and 1 per cent, or 7, had Datives, while 8 per cent (48) had A constituents and 11 per cent (66) had P constituents.

If we look at the percentage of the overt occurrences of core arguments that occurred in the clause-initial Focus position, we have 10 per cent (7 of 73) for Datives, 38 per cent for S (102 of 267), and virtually the same for A and P: 34 per cent for A (48 of 141) and 33 per cent for P (66 of 200). But ellipsis is a part of anaphoric topicality, and what matters for nonanaphoric topicality is the overt instances of each argument. These are the ones that carry the case marking and are relevant to what might motivate the case-marking system. Altogether, 168 Absolutive NPs were foregrounded in clause-initial position while just 48 Ergative ones were.

Another de facto topicalisation device is the use of focus markers that attach themselves to nominal expressions as enclitics. Like clause-initial position as described by Swartz, these markers have the effect of simultaneously focusing a constituent and giving it topical prominence. In the 593 clauses of my seven narratives, I have 288 instances of a focus marker, and all but two of them are *-ju* (which can vary to *-ji* by vowel harmony with an immediately preceding high front vowel). There are three instances of *-nya*, which has a meaning that allows it to be used with interrogative as well as statement force, and one of *-jala* 'of course' or 'you should have known', which also focuses a constituent.

A common use of *-ju* is to mark a noun which has already been mentioned but is not clearly enough in topic status to be ellipsed. It is being named in a way to give it some topical prominence. The focus marker *-ju* can be attached to a nominal being mentioned for the first time (46 of my 288 instances of nominals with focus markers carried new information or were first mentions), but in these cases it tends to designate an entity a speaker assumes is uniquely identifiable for the addressee, as with the use of the definite article in English for *secretary* when 'secretary' has not been mentioned before in *I went into the office and spoke to the secretary*. The focus marker *-ju* can occur more than once in a clause.

The following sentence provides illustration. This is from the story 'Warumungku watikirli' (About a Warumungu man), which is one of the seven narratives in my study and one of the two about contact with white people. The story tells how the wife of the Warumungu man worked as a servant for a white man who pursued her for sexual favours so that the Warumungu man came and shot and killed him. He and his wife fled and succeeded in eluding the police for some time but were finally captured. He was put in prison and died there under mysterious circumstances. This sentence occurs early in the narrative. The white man's name is Harry Henty. The Warumungu man's wife is referred to by her skin name Napangardi.

- (5) *Harry Henty-rli-ji-lpa warlapaju-rnu warrarda*
 Harry Henty-ERG-TOP-IMPF stop-P always
Napangardi-ji warrki-jangka-ju wuraji-kari-wuraji-kari-rli.
 Napangardi-TOP work-after-TOP evening-other-evening-other-ERG
 'Every evening after work Harry Henty always stopped Napangardi.'

Three nominal expressions have the focus marker *-ju/-ji*: *Harry Henty* as the **A**, *Napangardi* as the **P**, and the adverbial expression *warrki-jangka* 'after work'. *Harry Henty* and *Napangardi* have both been mentioned before, but 'after work' has not. Even though it has not been mentioned before, in the context of the story, 'after work' is nevertheless typical of the new mentions that are focus-marked. It can be assumed to be uniquely identifiable to the addressee, since two sentences before this one, the story-teller says that 'Napangardi was working at the house of Harry Henty'. The addressee could be expected to infer that there was a time 'after work'.

I made counts of independent nominal expressions in terms of their functions **A**, **S**, **P**, **Dative**, **Adverb** and **Predicate Nominal**, and I counted the number of times they had a focus marker attached to them. Sentence (5) illustrates an important detail about the structure of Warlpiri relevant to the counts. Notice the expression at the end of the sentence, *wuraji-kari-wuraji-kari-rli* (lit. 'evening-other-evening-other-ERG'). It is marked with an Ergative in the same way as *Harry Henty* at the beginning of the sentence. Both are **A** constituents, *Harry Henty* an **A** head and the expression at the end of the sentence an **A** modifier, both capable of carrying focus marking. Thus the total numbers of **A** and **P** constituents were different (329 **A** and 309 **P**) in my 593 clauses because I counted both heads and modifiers and there were more **A** modifiers than **P** modifiers. Perhaps **A** modifiers are a larger set than **P** modifiers because they can include what might in other languages be considered sentential modifiers, modifiers such as time and place.

Swartz (1991) discusses preverbal position as one providing focus. Consider the story I have just discussed, 'Warumungku watikirli' (About a Warumungu man). It has 131 clauses. If we make counts for the position in front of predicates, allowing for nonverbal as well as verbal predicates, then the focus marker *-ju ~ -ji* occurs in that position in 35 clauses, while it

occurs after the predicate in 14 clauses. This gives support to the view of *-ju ~ -ji* as a focus, topicalisation marker.

My text counts showed that **P** received focus marking at least as much as **A**. Of the 309 **P**, 44 (14.2 per cent) were focus-marked while 42 of the 329 **A** (12.8 per cent) were focus-marked. Again we can take into account the fact that **A** is ellipsed more often than **P**. When they were overtly represented (141 **A**, 200 **P**), **A** was focus-marked a greater proportion of the time than **P** (29.1 per cent vs. 22 per cent), but I would argue that this is not relevant. It is only a result of the fact that **A** is more prominent than **P** in anaphoric topicality. When we are looking at topicality in respect to case marking, what matters is the nonanaphoric topicality, how often the various case marked nominal expressions are topicalised. **S** has the greatest amount of focus marking. Of 439 instances of **S**, there were 90 that were focus-marked (20.5 per cent). Altogether there were 132 Absolutive nominals that were focus-marked, as opposed to 40 Ergatives. Table 2 gives the most relevant figures for focus-marking.

Table 2: Ellipsis and focus marking in seven narratives

	Total occurrences	Ellipsis	Focus-marked
A	329	188 (57.1%)	42 (12.8%)
S	439	172 (39.2%)	90 (20.5%)
P	309	109 (35.3%)	44 (14.2%)
Dative	111	38 (34.2%)	12 (10.8%)
Adverb	555	—	99 (17.8%)
Pred N	33	—	1 (3%)

For a demonstration of the topic-focus marking characteristic of nonanaphoric, de facto topicalisation and the ellipsis characteristic of anaphoric topicalisation, we can now look at an initial portion of the story translated near the beginning of my discussion, 'The crimson chat with the red chest'. The morphological topic-focus markers in the Warlpiri lines are in plain roman, and their glosses ("TOP") in the interlinear translation are in italics; a third line, in bold, marks these words and words that contain a reference, in the form of a pronominal clitic, to an ellipsed nominal.

(6)a. *Nyurru-wiyi kuja-lpa-lu*
already-before when-IMPF-3.PL.SJ

nyina-ja yapa jurlpu-pinki manu marlu-pinki-wiyi,
sit-P people bird-like and kangaroo-like-before

karnta-lpa nyina-ja kurdu wirriya-jarra-ku-palangu—jukurrpa.
woman-IMPF sit-P child boy-DU-DAT-parent dreaming
'A long time ago in the Dreamtime when people were like birds and kangaroos there lived a lady with two sons.'

- b. *Mirntangali ngula-lu ya-nu wirlinyi kuyu-ku manu yarla-ku.*
 midday that-3.PLSJ go-P hunting meat-DAT and yam-DAT
Wirlinyi-rla-lku ngati-nyanu-rlu-palangu ngarru-rnu kaja-nyanu-jarra-ju.
 hunting-LOC-then mother-POSS-ERG-3.DU.OBJ tell-P son-POSS-two-TOP
P-ju
 ‘*Nati-pala ya-nta kurlirra ngapa-kurra juju ngapa-ngawurrpa-kujaku.*’
 not-DU.SJ go-IMP south water-towards monster water-denizen-for.fear.of
 (S)
 ‘Once at midday they all went out hunting for meat and yams. Then their mother told her two sons “Don’t go south to the big swamp or the water monster will get you”.’
- c. *Junga-juku, pinanya-ngu-pala ngati-nyanu-ju. Ngula-warnu-ju,*
 true-still hear-P-3.DU.SJ mother-POSS-TOP that-from-TOP
(A) P-ju Adv-ju
pu-ngu-lpa-lu kuyu manu karla-ja-lpa-lu yarla.
 attack-P-IMPF-3.PLSJ meat and dig-P-IMPF-3.PLSJ yam
(A) (A)
 ‘Just so they heard what their mother said. Then they were all hunting for meat and digging for yams.’
- d. *Ngula-jangka-ju, ya-nu-pala manyu-kurra ngarri-rninja-warnu.*
 that-from-TOP go-P-3.DU.SJ fun-towards tell-INF-from
Adv-ju (S)
Ngati-nyanu-rlu-ju-lpa waparlku-rlu karla-ja.
 mother-their-ERG-TOP-IMPF without seeing-ERG dig-P
A-ju
 ‘After that the two of them went to play as they had been told. Their mother was digging for yams not seeing where they went.’
- e. *Wirriya-jarra-rlu-pala pina-nya-ngu jurlpuwirnpirli-nja-kurra ngatijirri-piya.*
 boy-DU-ERG-3.DU.SJ hear-P bird whistle-INF-towards budgerigar-like
Nya-ngu-lpa-pala tarnga-ngku.
 see-P-IMPF-3.DU.SJ a.long.time-ERG
(A, P)
Kutu-jarri-ja-lku-pala wirriya-jarra-ju.
 close-start-then-3.DU.SJ boy-DU-TOP
S-ju
 ‘The two boys heard a bird whistling like a budgerigar. They looked at it for a long time. Then the two boys got closer.’
- f. *Ngula-jangka-ju jurlpu-ju parrpardi-ja waiya-ngurlu jinta-kari-kirra*
 that-after-TOP bird-TOP fly-P tree-from one-other-towards
Adv-ju S-ju
waiya-kurra. Ngula-palangu nguru-ka-ngu yuwurrku-kurra manu-palangu
 tree-towards that-3.DU.OBJ lead-take-P mulga.scrub-towards and-3.DU.OBJ
(A, P)

palka-jarri-ja kula-ngana jurlpu, kala ngapa-wardingki juju.
 present-start-P not.suppously bird but water-dweller monster
 (S, Dat) (S)

'After that the bird flew from one tree to another. Then it led them towards the Mulga scrub and this supposed bird came to them as a water monster.'

g. *Ngula-jangka-ju-palangu jirri-marda-rnu wirriya-jarra-ju.*
 that-from-TOP-3.DU.OBJ hold tight-P boy-DU-TOP
 Adv-ju (A) P-ju

Kilji-pala purla-ja wirriya-jarra-ju.
 loud-3.DU.SJ cry-P boy-DU-TOP
 S-ju

Lawa-juku-palangu muru-pu-ngu tarnnga ngapa-ngka juju-ngku-ju.
 absent-quite-3.DU.OBJ insert-P a.long.time water-LOC monster-ERG-TOP
 (P) A-ju

'After that it held the two boys tightly. They called out loudly. The monster did them in holding them under the water for a long time.'

In this short text, we can see my generalisations upheld. Transitive objects (P) receive topic-focus marking slightly more than transitive subjects (A), showing that in nonanaphoric topicality Undergoers are at least as important as Agents; altogether, six Absolutive noun phrases and two Ergative ones are marked with the topic marker *-ju*. At the same time the transitive subject (A) is ellipsed six times as opposed to three times for the transitive object (P), suggesting that in anaphoric topicality agents are more important than undergoers; altogether, seven Absolutive phrases and six Ergative ones were ellipsed. Table 3 summarises these counts.

Table 3: Topic-focus marking and ellipsis in a passage from 'The crimson chat with the red chest'

	Marking	No.	Ellipsis	No.
Transitive Subject	A-ju	2	(A)	6
Intransitive Subject	S-ju	3	(S)	4
Transitive Object	P-ju	3	(P)	3
Other	Adv-ju	4	(Dat)	1

Preferred text structure in Warlpiri must be understood in the light of a distinction between anaphoric and nonanaphoric topicality. In nonanaphoric parts of the narratives I have studied, Warlpiri differs from English by giving topical prominence to the positions that express Undergoers at least as much those that express Agents. These are the parts of the narratives where case marking is used, and so we can see how Warlpiri is much more suited for an Ergative case-marking system on its independent nominals than English. There is thus evidence here for culture influencing the grammatical typology of a language.

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13 *What Warlpiri 'avoidance' registers do with grammar*

MARY LAUGHREN

1. Introduction

Ken Hale's voluminous Warlpiri field notes collected in 1959–60 and 1966–67 contain rich data on a whole range of speech registers, or more generally, communication registers. These include ritual registers (Hale 1971), song language (Hale 1984), 'babytalk' (Laughren 1984), and also varieties of 'avoidance' registers. Drawing heavily on Hale's fieldnotes as well as my own field research, my aim here is to describe how elements of the Warlpiri grammatical system are manipulated in the production of contrasting speech registers.¹

The so-called 'avoidance' registers which have been documented in a number of Australian languages constitute one element in a collection of social behaviours which mark different kin² and social relations between people (Alpher 1991:103–7, 1993; Dixon 1971, 1980:48–68; Hale 1982b; Haviland 1979). For example, just as a man must avoid physical contact with his wife's mother and her sisters—he must not enter her living area, follow in her footsteps, look at her directly—he must also 'hold back' in his verbal behaviour towards her. He must not address her directly or utter her name, nor may he use the language of the neutral speech register to refer to her or to anything related with her. Rather he must show appropriate respect by employing verbal restraint parallel to the spatial restraint—he must *juul-wangkami* 'speak up to a point beyond which he may not proceed', just as he must

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- ¹ This paper does not give a full coverage of the special lexicons used in avoidance speech which are documented in Hale's notes, nor does it provide a detailed analysis of the relationship between the linguistic behaviour described, other elements of 'avoidance' behaviour, and the social relations marked by 'avoidance' behaviour.
- ² This paper assumes a basic knowledge of Australian kinship systems as reflected in kin terminology. For more information see Berndt and Berndt (1977:80–3); Scheffler (1978), and, with specific reference to the semantic structure expressed by Warlpiri kinship terms, Laughren (1982).

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Forty years on: Ken Hale and Australian languages, 199–225.
Canberra: Pacific Linguistics, 2001.

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199

juul-yani 'go only so far—not the whole way' or *juul-nyina* 'stay at a remove from'. Avoidance behaviour including verbal 'avoidance' is called *yikirrinji* or *yirdinja-marda*.³

The spatial avoidance by a man of his wife's mother (*kurriji*) including her living area was explained to Hale by the late Sam Johnson Japangardi (SJJ) in 1966 as cited in (1).

- (1) *Kurriji-nyanu-kujaku yangka kujaka malirdi-nyanu—wurnturu warru yani. Kajikarla yani—kurdu-nyanu-mipa. Kujakarla ngulangku yangka yinyi karnia yali. Ngula-mipa karla yani. Kulalparla yantarla yangka—karnia yalikiji kujaka mardarni nyanungu-nyanu, kurriji-nyanuku yali, yangka Japanangka-rlangu kulalparla yantarla Napaljarriki, manu—Japangardi kulalparla yantarla-yijala yangka Jangalaku ngurra nyanungu-nyangu-kurra yangka kujaka Nampijinpa mardarni Japangardirli. Jangala-kurlangu-kurra, kulalparla ngulaji yantarla. Jangala-mipa kajikarla yani yangka wangkanjakuju wurnturu-kurra—kurriji-nyanu-kujaku. [HN 1966:898]*⁴

'It is to keep away from one's mother-in-law that her son-in-law must go the long way round keeping his distance (from where she is). Only her daughter can go up to her; it is the daughter that she gave to him (her son-in-law) who can go to her. He (the son-in-law) cannot go up to the woman who gave him her daughter as a wife, that is to his mother-in-law. For example a *Japanangka* man cannot go up to a *Napaljarri* woman, nor can a *Japangardi* go to the camp of a *Jangala* whose daughter *Nampijinpa* the *Japangardi* has as his wife. To such a *Jangala*'s place he cannot go. Rather it is the *Jangala* who goes to talk to him (*Japangardi*) by moving away from his camp to (go to) a place where *Japangardi* can avoid his mother-in-law (who is the wife of *Jangala*).' (My translation.)

The mother-in-law–son-in-law (*kurriji–malirdi*) relationship is not the only one that requires speakers to adopt avoidance behaviour which includes use of a special speech register—but the mother-in-law register is, as I will demonstrate, the most extreme measured by its degree of deviation from the neutral speech style. What I refer to here as the 'neutral' speech register is the language used in referring to one's own children and parents and to most relatives who belong to the same matrimoiety as oneself.

Avoidance registers involving lexical substitution are principally used to refer to affinal kin, that is to kin who are in the opposite matrimoiety to oneself (as represented schematically by the 'thick square' in Figure 1), who are referred to as *makurnta-warnu* 'shame-associated'. Kin in *ego*'s own matrimoiety (represented by the 'thin square' in Figure 1) are referred to as *makurnta-wangu* 'shame-without'.

³ This behaviour is reciprocal; a woman observes the same spatial and verbal constraints with regard to her son-in-law as he does towards her.

⁴ The page numbering of Hale's fieldnotes indicated here corresponds to the original manuscript pagination which is noted in the electronic files.

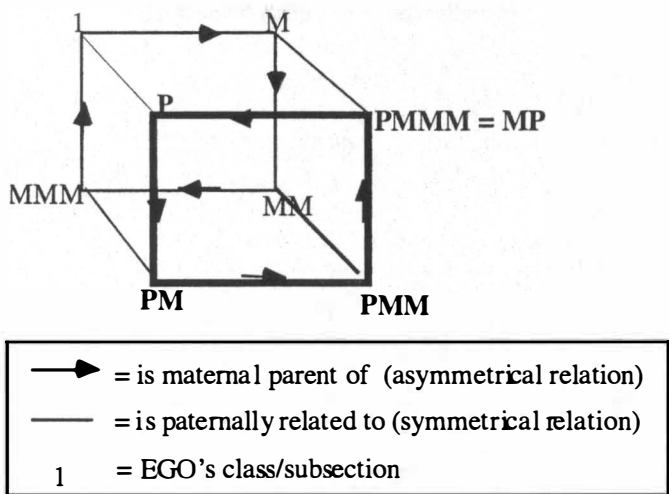


Figure 1: Warlpiri matrimoieties

In Figure 1, *ego's* kin class is represented as '1', *ego's* mother belongs to class 'M', her mother to class 'MM' (to which *ego's* sister's child also belongs since 'mother's mother' (M^2) is equated with 'woman's daughter's child' (M^{-2})) and *ego's* mother's mother's mother to class MMM (or M^3) (which is also the class to which *ego's* sister's child belongs since M^3 is equated with M^{-1} (woman's child) in this idealised system of kin relations). Similarly kin who are in *ego's* father's matrimoiety are all maternally related to each other, but related to *ego* via his or her father. In Figure 1, 'P' represents the class containing *ego's* father (and brother's child (P^{-1}) since P is equated with P^{-1} in this system). 'PM' represents the class of *ego's* father's mother (and is the class from which *ego's* spouse is ideally obtained). 'PMM' represents the class of *ego's* father's mother's mother (and crucially is the class to which *ego's* spouse's mother belongs, i.e. *ego's* mother-in-law (*kurriji*), as well as *ego's* son-in-law (*malirdi*).

While Warlpiri people plot genealogical relationships between themselves and others as a function of relationships between individuals, they also conceptualise a system of kin relationships which link classes of people. This classificatory kin relational system is, of course, ultimately derived from the system of relationships between individuals (Scheffler 1978). By neutralising certain distinctions, such as generational differences, all Warlpiri see themselves as belonging to a network which can be viewed as relating eight named classes. These are represented in Figure 1 by each of the points at which lines (representing either the 'maternal' relation or the 'paternal' relation) meet. These eight classes are referred to as 'subsections' in the Australianist anthropological literature, or more colloquially as 'skins' in central Australia.

The terms *Japanangka*, *Napaljarri*, *Japangardi*, *Jangala*, and *Nampijinpa* used by SJJ in (1) are some of the sociocentric subsection terms (or 'skin-names'). In Table 1, the relationship classes of Figure 1 are mapped against the subsection names appropriate if *ego* (in class 1) is in the *Japangardi* subsection (matching the point of view of SJJ given in (1)). Warlpiri has distinct male and female subsection terms; male terms starting with 'J', female terms with 'N'. These eight kin classes, or subsections, divide into two distinct sets, or moieties,

comprising of four subsections each. As noted above, the type of moiety division which is reflected in the use of avoidance speech registers is that of 'matrimoieties'.

Table 1: Warlpiri subsections arranged by matrimoiety

MAKURNTA-WANGU <i>Ego's matrimoiety</i>		MAKURNTA-WARNU <i>Ego's father's matrimoiety</i>	
KIN CLASS	SUBSECTION NAME	KIN CLASS	SUBSECTION NAME
1 <i>Ego's class</i>	<i>Japangardi</i> <i>Napangardi</i>	P <i>Ego's father's class</i>	<i>Japanangka</i> <i>Napanangka</i>
M <i>Ego's mother's class</i>)	<i>Jupurrurla</i> <i>Napurrurla</i>	PM <i>Ego's spouse's class</i>	<i>Jampijinpa</i> <i>Nampijinpa</i>
MM <i>Ego's mother's</i> <i>mother's class</i>	<i>Japaljarri</i> <i>Napaljarri</i>	PMM <i>Ego's mother-in-</i> <i>law's class</i>)	<i>Jungarrayi</i> <i>Nungarrayi</i>
MMM <i>Ego's mother's</i> <i>mother's mother's</i> <i>class</i>	<i>Jangala</i> <i>Nangala</i>	PMMM <i>Ego's cousin's class</i>	<i>Jakamarra</i> <i>Nakamarra</i>

Since the subsection system is the product of a reduction of the distinctions which underlie the system of named kin relations in Warlpiri, each subsection includes people who are related to each other in ways which are distinguished in the kin relation terminology. Table 2 summarises the equivalence between the eight kin classes represented by distinct subsection terms and named kin relationships. It is evident that apart from the distinctions made within *ego's* own class, it is in the classes which constitute *ego's* father's matrimoiety, or *makurnta-warnu*, that most distinctions in the ways in which kin are related to *ego* are lexically marked. These classes of kin, involved in affinal relationships with *ego*, are precisely those which trigger the use of avoidance registers which involve lexical substitution.

The neutral speech style is appropriate when a speaker is referring to a member of his/her own matrimoiety, while restricted or 'avoidance' speech involving special vocabulary is appropriate when referring to a member of the opposite (or father's) matrimoiety, as explained to Hale by SJJ, cited in (2).

- (2) *Kala makurnta-warnu-ju karnalu juul-juul-wangka. Japanangkarla, Jungarrayirla, Jampijinparla, Jakamarrarla. Makurnta-warnu-ju kalu nyina. Kala makurnta-wangu-ju—kualparnalu-jana juul-juul-wangkayarla—karnalu-nyanu jungarni-jungarni-jiki ngarrirni. Yangka yirdi-mani. Juul-juulpa-wangurlu. [HN 1966:0382]*

'As for people in the opposite matrimoiety (*makurnta-warnu*) (to ourselves) we [i.e., Japangardi men] speak in a restricted manner (to them) as in the presence of a *Japanangka*, *Jungarrayi*, *Jampijinpa*, or *Jakamarra*. They are of the opposite matrimoiety to us. But the people in the same matrimoiety (*makurnta-wangu*) (as ourselves)—we don't speak to them in a restricted way—we address each other straight out. That is we name things without holding back.' (My translation.)

Table 2: Warlpiri kin relationships arranged by matrimoiety

MAKURNTA-WARNU <i>Ego's matrimoiety</i>		MAKURNTA-WANGU <i>Ego's father's matrimoiety</i>	
KIN CLASS	KIN RELATIONS	KIN CLASS	KIN RELATIONS
1 <i>Ego's class</i>	<i>warringiyi</i> ff/ffz/bsc/sc of male 1 <i>papardi</i> 'senior' b' <i>kapirdi</i> 'senior' z <i>kukurru</i> 'junior' b <i>ngawurru</i> 'junior' z	P <i>Ego's father's class</i>	<i>kirdana</i> f <i>pimirdi</i> fz <i>ngalapi</i> bc/c of male 1
M <i>Ego's mother's class</i>	<i>ngati/ngamardi</i> m <i>ngamirni</i> mb <i>wantirri</i> mbsc	PM <i>Ego's spouse's class</i>	<i>yaparla</i> fm/fmb <i>yapirliyi</i> zsc/sc of female 1 <i>kali</i> 'spouse' = FMB of female 1 = ZSD of male 1 <i>ngumparna</i> FMB of male 1 <i>karntiya</i> ZSDB of male 1 <i>mantirri</i> FMBZ of female 1
MM <i>Ego's mother's mother's class</i>	<i>jaja</i> mm/mmb <i>mirntirdi</i> zdc/dc of female 1	PMM <i>Ego's spouse's mother's class</i>	<i>malirdi</i> mmbsc <i>kurriji</i> fzdd/mmbd <i>ngunyarri</i> fmmmb <i>pirlipirli</i> fmm <i>kanajardu</i> mbbd of female 1
MMM <i>Ego's mother's mother's mother's class</i>	<i>wantirri</i> fmf/fmfz <i>kurduna</i> mc, zc	PMMM <i>Ego's spouse's mother's mother's class</i>	<i>jamirdi</i> = mf/fmz/fzc/ = dc of male 1 = bdc of female 1 <i>wankili</i> mbs <i>jukana</i> mbd
Abbreviations: b – brother; c – child; d – daughter; f – father (includes fb); m – mother (includes mz); M – maternal class; P – paternal class; s – son; z – sister			

'Holding back' verbally when referring to or addressing a member of one's father's matrimoiety (*ego's makurnta-warnu*) consists of using the appropriate speech register. Not only does a particular avoidance register contrast with the neutral register, it also contrasts with other avoidance registers in its lexicon and/or its manipulation of certain grammatical elements.

Warlpiri avoidance register vocabularies used to refer to *makurnta-warnu* kin exhibit similar features to those documented for other Australian languages such as the Dyalnguy registers of Dyirrbal (Dixon 1971, 1972) and Yidiny (Dixon 1977) or the 'brother-in-law' register of Gugu-Yimidhurr (Haviland 1979). The manipulation of grammatical categories in avoidance registers has been less well documented than lexical substitution. It is particularly this aspect of Warlpiri avoidance speech that I want to focus on here, although I will briefly comment on some aspects of the distinctive avoidance lexicons especially as they interact with variations made to the grammatical categories of the language.

Both men and women use special avoidance registers, and while there is some overlap in both lexicon and grammatical manipulations, the registers used by male and female speakers are somewhat distinct. Hale's Warlpiri fieldnotes consist of transcriptions of spoken language from a variety of Warlpiri men of diverse ages and dialectal backgrounds. However, the avoidance register speech he recorded covers aspects of the female as well as the male varieties, as Hale's informants exemplify how women, as well as men, use avoidance register language. I have observed that men employ a greater range of special registers than women, using them to refer to other men, as well as women, as a function of their kin relationships. Women, on the other hand, do not appear to use parallel distinctive registers to refer to other women (although there are forms of speech avoidance between individual women marking their roles in a son's initiation). The principal speech style contrast made by women as part of avoidance behaviour is the use of a special register for reference to their daughter's husband and his 'brothers'—her *malirdi*—who is the son of her mother's mother's brother (*jaja*) and the maternal uncle of her husband (assuming a 'straight' (*jungarni*) marriage). The late Mickey Connell Jupurrurla (MCJ), with whom Hale worked in 1959, explained that the only female kin that a man used a special avoidance register to refer to were his *kurriji* (wife's mothers), although direct address to his *pimirdi* (father's sister) was also to be avoided and that an elderly *jamirdi* (mother's father's sister) should also be treated with verbal deference. Each of these relations belongs to *ego's* father's matrimoiety—they are *makurnta-warnu*. However, should a woman of the opposite matrimoiety be included with male kin of the opposite matrimoiety in a set of individuals being addressed or referred to, then avoidance terminology used to refer to the male kinsfolk would include their kinswoman as well.

2. Lexical substitution

The terms used by men to address and refer to other men in their father's matrimoiety divide into two sets, so that one can distinguish two *makurnta-warnu* avoidance subregisters: the PM 'brother-in-law' variety versus the combined PMM and PMMM/MP 'cousin' variety.⁵ These two subregisters differ from each other only in having distinctive addressee pronouns and a pair of distinctive verbs which express very general predicates (one of

⁵ In Aboriginal English as spoken by most Warlpiri people, the term 'cousin' is used to refer to members of *ego's* PMM and PMMM classes. This two way contrast in 'avoidance' vocabulary distinguishes the speaker's spouse's class (PM) from those of his 'spouse-bestowers' (PMM and PMMM).

speech, the other of spatial relations). These semantically general verbs replace more specific neutral register verbs, of which a sample is given in Table 3.

Table 3: Sample of male speaker *makurnta-warnu* lexicons

SPEECH REGISTERS	SPATIAL VERBS	SPEECH VERBS	ADDRESSEE PRONOUNS	OTHER VERBS
NEUTRAL	<i>nyina</i> 'sit' <i>karri</i> 'stand' <i>nguna</i> 'lie' <i>parntarri</i> 'crouch' <i>yani</i> 'go' <i>kulpa</i> 'return' <i>kanyi</i> 'take' <i>yirrarni</i> 'put'	<i>wangka</i> 'speak, say' <i>ngarrirni</i> 'tell'	<i>nyuntu</i> ~ <i>nyuntulu</i> 'you'	<i>nyanyi</i> 'see, look'
PM (male referent)	<i>marrarl-yani</i>	<i>kangarra-pinyi</i>	<i>yalampa</i>	<i>wungu-mani</i> OR <i>nyanyi</i>
PMM (male referent)	<i>miti-pinyi</i>	<i>japantarra-pinyi</i>	<i>yajini</i>	<i>wungu-mani</i>
(female referent)	(<i>ngarri-jarri</i>)	(<i>jaa-mayimayi-jarri</i>)	No addressee form	(<i>kinyarni</i>)
PMMM (male referent)	<i>miti-pinyi</i>	<i>japantarra-pinyi</i>	<i>yajini</i>	<i>wungu-mani</i>

The further distinction between a speaker's PMM 'mother-in-law' and PMMM 'cross-cousin' classes is linguistically marked only when the speaker and referent are of different sexes. The PMM class verbs in parentheses in Table 3, which are distinct from the verbs which distinguish PM from the other two classes, are used by men to refer to female members of the PMM class. For example, the avoidance verb *wungu-mani* 'see' used in the dialogue in (3) is replaced by the avoidance verb *kinyirni* where the speaker and referent, who belong each to the class of the other's PMM, are of the opposite sex, as in example (21b) below. Similarly the speech verb *jaa-mayimayi-jarrimi* replaces both *japantarra-pinyi* and *kanangarra-pinyi*. For this reason it may be useful to distinguish three avoidance registers (or subregisters) within *ego's* father's patrimoiety, rather than just two. There is also a very extensive avoidance lexicon which is used by men to refer to all *makurnta-warnu* kinsmen except members of their father's subsection.

The avoidance register lexicon differs from the neutral register in reducing the number of lexical items such that there is a many-to-one correspondence between many neutral register lexical items and their avoidance register translation equivalent. This is illustrated in Table 3 in which neutral register terms are paired with the appropriate substitution term in each of the 'affinal' avoidance registers used by Warlpiri men.

Whereas the language used to refer to opposite sex members of *ego*'s PMM class distinguishes itself from the neutral register and from the male-to-male *makurnta-warnu* subregisters, the language used by a man or woman to refer to their own spouse (in *ego*'s PM class) does not differ from the neutral register—husband and wife treat each other verbally as they do their own children and parents. Thus the contrast between reference to a male and female member of *ego*'s PM class is marked for a male speaker by a contrast between 'brother-in-law' speech, an 'avoidance' register, and the neutral register. The contrast between reference to a male and female member of *ego*'s PMM class is marked by the use of distinctive 'avoidance' subregisters.

3. Manipulation of the grammatical system

Those aspects of the grammatical system which are consciously manipulated as part of avoidance register speech include the person and number marking of the pronominal systems, the case-marking system, and to some degree the alignment of semantic roles with grammatical relations.

3.1 The pronominal systems of Warlpiri

Semantic distinctions in the categories of person and number are expressed by three distinct pronominal categories in Warlpiri: free form pronouns, bound pronouns and propositus pronouns suffixed to terms designating kin relations. The members of each of these categories are manipulated for pragmatic effect in avoidance register speech.

3.1.1 Free-form pronouns

The neutral register addressee singular pronoun form is *nyuntu* or *nyuntulu*. As indicated in Table 3, a man addressing either his wife's maternal uncle (in PMM class)⁶ or his wife's mother's maternal uncle (in PMMM) uses *yajini* instead of *nyuntu(lu)*. The contrasting term *yalampa* is used by a man to refer to his wife's brother (*karniyya*) or wife's father's father (*ngumparna* in the west, *kalyakana* in the east) (both in PM). However, while avoidance register lexical substitution applies to the free-form pronoun, it does *not* extend to the corresponding second-person bound pronominals: *-npa* as the singular subject form and *-ngku* as the singular object form.

This is seen in the passage from Hale's fieldnotes (1966–67:554) reproduced in (3) in which avoidance vocabulary is **bold**. For the reader's convenience I have broken up the passage into the narrator's 'commentary' (always spoken in the neutral register) and the 'reported speech' of his two interlocutors, *Japaljarri* and *Japanangka* (in which avoidance register speech contrasts with neutral register forms).

⁶ A speaker would refer to him or herself and their same-sex PMM kin by the dyadic term *wajamirni-rlangu* (Laughren 1982).

(3) Commentary—setting the scene:

Malirdinyanu kajilparla yantarlarni, Japaljarri, manu Japanangka, Japanangka kajilpa nyinakarla—ngurrangka yangka nyanungu-nyangurla, warlungka, Japaljarri kajilparla yantarlarni, malirdinyanuku, malirdinyanu kalu ngarrirni—wajamirninyanuku, wajamirninyanu kajilparla kuja wangka, Japaljarriji:

If one's wife's uncle (*malirdi*) were to come, say a Japaljarri comes to where a Japanangka may be sitting at home by his fire. Should Japaljarri come to (see) him, (to see) his wife's uncle—they (themselves) would actually call each other their *wajamirni*—then the Japaljarri would speak to his uncle-in-law like this:

I. Japaljarri:

"Yajinikirnangku yanurnu, nyanjaku. Yingarli ngali japantarra-pinyi wajamirni-rlangu, jaru nyampurla, [. . .]."

"I've come to see you, so that we two in-laws (*wajamirni-rlangu*) can converse⁷ here."

Commentary:

Kala Japanangka kajika wangka kuja,
Now Japanangka might talk like this,

II. Japanangka:

"Ngajukunpaju mitirni pungu yajini; yingarli nyampurla—ngaju-nyangurla—japantarra-pinyi."

"You've come to (see) me, so we can converse here at my place."

III. Japaljarri:

"Yuwayi, yajinikirnangku yanurnu; yirli wangkami manu—japantarra-pinyi yajini. Ngulakurnangku yanurnu. Ngulanya. Yingarli jaru japantarra-pinyi manu wangkami."

"Yes, I've come to see you; so we two can talk and you can converse (with me). That's why I've come. That's why. So we can converse and talk."

Commentary:

Kajika yanilki pina, Japaljarri, Japanangka kajikarla wangka,
When Japaljarri is ready to go back, Japanangka might say to him,

IV. Japanangka:

"Miti-pinyilki kanpa?"

"Are you taking your leave now?"

V. Japaljarri:

"Yuwayi, yanilki karna."

"Yes, I'm going now."

⁷ In my attempt to convey in the English translation some of the contrast between neutral and avoidance register forms I have systematically used contrasting English glosses, e.g. 'converse' and 'take leave/locate' to translate the avoidance speech and spatial predicates respectively.

Commentary:

Kajika Japanangkaju wangka,
The Japanangka might say,

VI. Japanangka:

"Ngakaju wungu-manta."
"Make contact with me (again) later."

VII. Japaljarri:

"Yuwayi, ngakarnangku nyanyi."
"Yes, I'll see you later."

Commentary:

Kajika Japaljarriki wangkamirra.
Japanangka might then say,

VIII. Japanangka:

"Miti-pungkarra."
"Take your leave."

The choice of the avoidance register verbs is determined by whether the predicate it expresses is attributed to the speaker's PMM kinsman. Since the first-person bound subject pronoun *-rna* in the first sentence of exchange I refers to the speaker, the verbs in that clause are chosen from the neutral register since they express predicates attributed to the speaker, i.e. *ya-nu-rnu* 'came' (lit. 'go-PAST-hither') and *nya-nja-ku* 'to see' (lit. 'see-INF-DAT'). However in the next sentence, the dual inclusive bound pronoun *-rli* and the free form pronoun *ngali* include the addressee, as well as the speaker, in their reference; hence the avoidance register 'speech' verb *japantarra-pinyi* is used in contrast with the neutral register *wangkami* 'talk', which the narrator uses in the following 'commentary' sentence in its uninflected present form *wangka*. In exchange II, the other interlocutor acknowledges his visitor in a sentence using the avoidance subject pronoun form *yajini* to address his visitor and the 'spatial' verb *miti-rni punggu* (lit. 'miti-HITHER pu-y') from the PMM avoidance register. Note however that in exchange III, the visitor reaffirms that he has 'come' (*ya-nu-rnu* in neutral register) in order that he and his addressee 'talk' (*wangka-mi* in neutral register and *japantarra-pinyi* in avoidance register). Because the reference of the subject bound pronoun *-rli* includes both the speaker and the addressee, the speaker coordinates the neutral lexicon verb *wangka-mi* (appropriate when the subject of the sentence containing the verb refers to the speaker) with its avoidance register substitute *japantarra-pinyi* (appropriate where the subject of the clause refers to an addressee in the speaker's PMM class). This coordination of neutral and avoidance register verbs, repeated in the last sentence of this exchange, is typical of the speech of a man referring to a *makurnta-warnu* kinsman. In exchange IV, the avoidance register 'spatial' verb *miti-pinyi* is used because the subject of the sentence refers to the addressee, whereas in V, the neutral register 'go' verb *yani* is used, since the subject (*-rna*) refers to the speaker. Similarly the special register 'see' verb *wungu-ma-nta* is used in VI in its imperative form, which implies subject reference to the addressee, while the corresponding neutral register form *nya-nyu* is used in VII, where the subject pronoun *-rna* refers to the speaker. In exchange VIII, with an imperative verb, the avoidance register verb is employed.

In (3) the avoidance register is constructed on the platform of the neutral register with the substitution of items belonging to the major lexical word classes, verbs and nominals, and the addressee pronoun forms. The substituted verb forms are all compounds: *japantarra-pinyi* for neutral *wangkami* 'speak, talk', *miti-pinyi* for neutral *yani* 'go', and *wungu-mani* for neutral *nyanyi* 'see'. The nominal *jaru* 'language, speech, talking' is used in place of the neutral register *yimi*, and the avoidance addressee pronominal *yajini* for neutral *nyuntu*. The grammatical forms such as the bound pronouns, including the address forms, *-npa* '2SUBJ' and *-ngku* '2OBJ', remain invariant between the neutral and avoidance register, as do words of closed class categories such as *ngaka* 'later' and the demonstrative *nyampu* 'this, here'. This type of exchange, where there is no modification to the marking of grammatical categories such as person and number, is typical of avoidance registers used by male speakers addressing or referring to male members of the opposite matrimoiety with whom they are in a relationship of mutual obligation and rights in connection with marriage exchange, but who are not also in a social relation publically contracted in special ceremonial contexts, such that one is the initiator of the other's child or sibling's child or is in an initiator-initiand relationship.

3.1.2 Bound pronouns

The same person and number distinctions are marked by both free and bound pronouns in Warlpiri (Hale 1973).

3.1.2.1 Plural for singular

The practice of using a plural form to address or refer to a single individual is a very widespread feature of politeness registers in the world's languages. It is also found within Australia. In Warlpiri this strategy is used to refer to an adult sibling (or member of the same subsection as the speaker) of the opposite sex and is also used between brothers initiated in the same ceremony—said to be *yarlpurru* to each other. It is also used by a man referring to his wife's mother or her sister (or by a woman referring to her daughter's husband). In Warlpiri, as in the Yir-Yiront respect register (Alpher 1991:103), plural forms are used for both singular and dual reference.

The example of the use of plural forms for singular reference in (4) is an exchange between two brothers taken from the text of a traditional Warlpiri story (Ross & Robertson 1976). The scene is set in (4a–c), in which the two brothers are introduced by the storyteller using the dual subject bound pronoun *-pala* in (4a) and its corresponding non-subject form *-palangu* in (4b). In (4d) the plural subject bound pronoun *-lu* is used in conjunction with the second-person subject form *-n* (followed by the epenthetic *-ku*) where one of the men addresses his *yarlpurru* 'brother-coinitiate'.

- (4)a. *Nyurruwiyi, purlka-jarra-lpa-pala nyina-ja ngurra-ngka jinta-ngka.*
 before elder-TWO-IMPF-DU.SUBJ be-PAST camp-LOC one-LOC
 'Once upon a time there were two old men living together.'
- b. *Yunta-ju kala-palangu karri-ja-yi jinta-wiyi.*
 shelter-TOP USIT-DU.DAT stand-PAST-CONT one-previous
 'They used to always share the same shelter.'

- c. *Wangka-ja-rla purlka-kari-ji jint-a-kari-ki-ji:*
 speak-PAST-3DAT elder-other-TOP one-other-DAT-TOP
 'One of the old men said to the other,'
- d. "Nyarrpara ka-n-ku-lu ya-ni jalangu-ju?"⁸
 where PRES-2SUBJ-EPEN-PL.SUBJ go-PRES today-TOP
 "'Where are you going today?'"

The sentence in (5) is addressed by one of the men to a woman he has created magically out of a possum and whom he wants to keep hidden from his brother. He uses the unmarked singular form in the imperative command *yuka-ya* 'enter-IMP', but in the associated clause he uses the plural subject form *-lu* to refer to his brother.

- (5) *Yuka-ya, kaji-ka-ngku-lu yarlpurru-pardu-rlu nya-nyi.*
 enter-IMP COMP-PRES-2SG.OBJ-PL.SUBJ cointiate-DEF-ERG see-PRES
 'Get in (there), or (my) agemate-brother might see you.'

On his return to camp the other brother notices that his brother has moved his sleeping quarters away from their former common sleeping area and wonders why, using the plural subject form *-lu* as shown in (6) in reference to him. When in (7a) he directly asks his brother the reason for this move, he uses the same plural subject morpheme *-lu* in conjunction with the second-person subject form *-n* with an epenthetic element *-ku* between the person and number subject morphemes. His brother's reply in (7b) clearly shows the use of singular speaker-referential subject morphology, since *-lu* is not added to the 1SUBJ form *-rna*.

- (6) *Nyia-rla-lu yarlpurru-pardu-ju ya-nu ngurra-kari-kirra-ju?*
 what-LOC-PL.SUBJ cointiate-DEF-TOP go-PAST camp-other-ALL-TOP
 'Why has (my) age-mate-brother moved to another sleeping area?'
- (7a). *Yuwa. Nyarrpa-rla? Nyia-rla-n-ku-lu ngurra*
 Yes how-LOC what-LOC-2SUBJ-EPEN-PL.SUBJ camp
nyampu-kujaku-ju ya-nu?
 this-EVIT-TOP went
 'Hey! What's this? What have you moved your sleeping area to get away from here?'
- b. *Karinganta pingi-kijaku-rna yanu.*
 can't.you.see ant-EVIT-1SUBJ went
 'Can't you see it's the ants that I've moved to get away from?'

In none of these exchanges between the two cointiate-brothers is there any use of nonneutral register vocabulary. The only way in which the relationship between the pair is explicitly marked is by the use of the relationship term *yarlpurru*. The use of plural morphology with singular reference is appropriate in this relationship, as it also is for cross-sex sibling reference. It is not restricted to the subject function, but is also found in the object

⁸ The following abbreviations are used in glosses in this paper: ALL – allative; ANAPH – anaphoric; ASSOC – associative; COMP – complementiser; CONT – continuous; DAT – dative case; DEF – definite; DU – dual; EPEN – epenthetic; ERG – ergative case; IMP – imperative; IMPF – imperfective; INCH – inchoative; INCP – inceptive; LOC – locative; NOM – nominative case; OBJ – object; P – emphatic marker of reported or repeated speech: 'I say', 'you say', 'obviously'; PERL – perlativ; PL – plural; POSS – possessive; PRES – present; SG – singular; SUBJ – subject; TOP – topic.

form, as illustrated by the use of the second-person plural object *-nyarra* when the brothers address each other in the dialogue in (8), in place of the singular *-ngku* used in (5) addressed to the possum-woman.

- (8)a. *Ngana-ngku-nyarra ngarrurnu yarlpurru-pardu?*
 who-ERG-2PL.OBJ told age.mate.brother-DEF
 'Who told you (my) age-mate-brother?'
- b. *Ngaju-rna-nyarra nyangu*
 I-1SUBJ-2PL.OBJ saw
- kaji-n-ki-li wuruly-yirrarnu karnia nyampu [. . .].*
 COMP-2SUBJ-EPEN-PL.SUBJ conceal-put woman this
 'I saw you myself when you hid this woman [. . .].'

These cointiate-brothers never use the neutral register kin terms for senior brother (*papardi*) or junior brother (*kukurnu*), nor do they call each other's names. Rather they restrict themselves to the use of the term which marks their special relationship, i.e. *yarlpurru*. This marked linguistic behaviour is an element of a broader pattern of social 'avoidance' behaviour between cointiate-brothers, which includes keeping distant from one's cointiate-brother when he is gravely ill and likely to die and, on his death, from his funeral. A man stays with the mothers of his dead cointiate-brother during the latter's funeral and observes similar spatial constraints in the period following the death, as do female kin of the deceased, especially mothers, wives, and mothers-in-law.

The features which distinguish cointiate-brother reference, namely use of plural forms for singular (and dual) reference and the avoidance of neutral register kin terms for sibling relationships, are also found in the language used by adults to address or refer to a different-sex sibling. Men address and refer to their sisters as *kari-pardu* (lit. 'other-DEF') 'the other', while women use the term *yakuri-pardu* (lit. 'armpit.sweat-DEF') 'the armpit sweat' to address and refer to their adult brothers. Similarly the use of personal names of siblings is avoided. The suffix *-pardu* is glossed as 'definite' (DEF) as it is used to refer to a single referent identified in the context of the discourse in which it is used.⁹ Other lexical items used in speech referring to one's cointiate-brother, and in sibling reference more generally, belong to the neutral *makurnta-wangu* 'shame-without' register, e.g. *nyanyi* 'see' (not *wungu-mani*); *yani* 'go' (not *miti-pinyi* or *marrarl-yani*) (cf. Table 3 and example (3)).

Plural forms for singular reference are also used by a man referring to his wife's mother (his *kurriji*), who is also his father's sister's daughter's daughter (in his PMM). A man does not directly address a woman in this kin category, be she his wife's actual mother or not. The passage from Hale's 1966-67 fieldnotes in (9), also recorded from SJJ, illustrates both avoidance vocabulary and plural forms for singular reference. Referring to his mother-in-law (*kurriji*), a man employs the PMM avoidance register 'spatial' verb *ngarri+jarri* (appropriately used by a male speaker in referring to his 'mother-in-law'; it corresponds to the PMM (and PMMM) verb *miti+pinyi* used by a male speaker referring to the brother of his wife's mother (see Table 3), as illustrated in (3.II, IV, and VIII) above), and he uses the plural subject bound pronoun *-lu*. Recall that in (3) each male speaker referring to a male in his wife's mother's brother's subsection uses the singular form for singular reference. A man

⁹ The suffix *-pardu* is also used on some dyadic kin terms, e.g. *lampanu-pardu* 'maternal uncle and niece/nephew', *wapirra-pardu* 'father and son', and has a number of uses which will not be addressed here.

asking the same question of one of his children to enquire about the whereabouts of his own wife (referring to her as mother of the child he is addressing), would ask the question in the neutral register as shown in (9b), even though his spouse and his child belong to a man's *makurnia-warnu*. In (9c) a male speaker enquires of his wife or brother-in-law of the whereabouts of the maternal uncle of his addressee; here avoidance register vocabulary is used, but no use is made of plural pronoun forms for singular reference.

- (9)a. Avoidance register: man to his wife [HN 1966:0360]:
Nyarrpara-rla ka-lu ngarri+jarri— parrnmanpa-rla?
 where-LOC PRES-PL.SUBJ locate mother(of spouse)-LOC
 'Where's the mother (of yours) located?'
 b. Neutral register: man to his child
Nyarrpara-rla ka nyina ngati-puraji?
 where-LOC PRES be mother-yours
 'Where's your mother?'
 c. Avoidance register: man to his wife/brother-in-law:
Nyarrpara-rla ka miti+pinyi ngalkari-puraji?
 Where-LOC PRES locate mat.uncle-yours
 'Where's your uncle?'

In (10), SJJ (HN 1966:0360) stresses the point that failure to use the plural form is inappropriate when referring to one's *kurriji* 'mother-in-law', for whom one is the *malirdi* 'son-in-law'.

- (10) *Kula-lpa wangka-yarla yangka kuja:*
 NEG-IMPF say-IRR like thus
 "Malirdi-nyanu yali kurriji-nyanu, ngarri+jarri ka."
 son.in.law-ANAPH that mother.in.law-ANAPH locate PRES
Lawa. Kuja-mipa ka wangkami,
 no thus-only PRES say
 "Ngarri+jarri ka-lu." *Kuja-mipa.*
 locate PRES-PL.SUBJ thus-only
Yangka— kurriji-nyanu-ku-ju ka-rla wangka
 like m.in.law-ANAPH-DAT-TOP PRES-DAT speak
malirdi-nyanu-ju— juul-wangka— yi-ka-lu ngarri+jarri.
 s.in.law-ANAPH-TOP hold+back-talk COMP-PRES-PL.SUBJ locate
Panu-ju yangka kuja-ka-lu yapa jilimi-rla nyina,
 many-TOP like COMP-PRES-PL.SUBJ person female:camp-LOC be
nyanungu-nyangu ka yangka nyina— kurriji-nyanu ngula-ngka-yijala.
 he-POSS PRES like be m.in.law-ANAPH that-LOC-ALSO
Ngula ka wangka kuja — "Yalumpu-rla ka-lu ngarri+jarri."
 that PRES speak thus that-LOC PRES-PL.SUBJ locate
 'One can't say of one's mother-in-law, "She's located". Not at all. One can only say it like this, "They are located." That's the only way, as when a man is talking about his mother-in-law he talks in a restrained way saying that they are located, the same

way he would if there were many people sitting in the women's camp. When referring to his own mother-in-law being there he speaks in the exactly same way as if speaking about many (people). Thus he says, "They are located there." (my translation)

Another example of the use of the plural subject form *-lu* with singular reference is shown in (11) (recorded by the author from Ruth Oldfield Napaljarri of Yuendumu, February 1999), in which a woman asks her female MP kin (*jamirdi*) about the whereabouts of the latter's son, who is the speaker's *malirdi* 'son-in-law'. Because the referent of the subject of the spatial predicate expressed by *ngarri+jarri-ja* is in the speaker's PMM class and is of the opposite sex, the speaker uses avoidance vocabulary and also the plural pronominal form for singular reference. Another feature of this example is that the kin expression referring to the speaker's *malirdi* is constructed as a clause without a verb (*nyuntu-nga japun-warnu-ju* 'you (are) the mother') using the kin term for the maternal parent relationship of the addressee to the referent—she is his *japun-* 'mother'—rather than the term for the referent's relation with either the speaker (*malirdi*) or the addressee (*kurdu* 'child').¹⁰

- (11) *Nyarpara waja-lu ngarri+jarri-ja nyuntu-nga japun-warnu-ju?*
 where:NOM P-PL.SUBJ locate-PAST you-2SUBJ mother-ASSOC-TOP
 'Where did you say your son (=our son-in-law) went?' OR 'Where is it he went?
 You're his mother.' (lit. 'Where did-you-say-they were located (that) you (are)
 the mother of?')

To summarise, lexical substitution is used of open class predicate terms to create a 'special' register for reference to kin in one's father's matrimoiety—the speaker's *makurnta-warnu* or 'shame' ones. Despite some overlap, there is a small set of vocabulary items which a speaker uses to distinguish his father's mother's subsection (PM), to which his spouse belongs, from the subsections of his spouse's mother (PMM) and maternal grandmother (PMMM)—this latter class containing speaker's own mother's father. In none of these is there any modification of the grammatical system where speaker and referent are of the same sex. Grammatical modification, but not vocabulary substitution, is used by a speaker referring to a member of their own matrimoiety and subsection, that is to a sibling, to mark an 'avoidance' relationship: speaker and referent are of different sex, or if both male, speaker and referent are coinmates. The grammatical modification consists of the use of plural forms for nonplural reference.

In showing deference to persons belonging to speaker's own class or subsection,¹¹ the only lexical items of the neutral vocabulary which are avoided and for which 'special register' terms are substituted are the 'sibling' kin terms. By contrast, where a male speaker refers to his mother-in-law (*kurriji*), or a female speaker to her son-in-law (*malirdi*), direct address is not appropriate. This register employs both lexical substitution and use of plural forms for singular reference to avoid individuation of the referent. The additional manipulations of the grammatical system used only in the 'mother-in-law' register will be examined in §3.1.3 and §3.2.

¹⁰ Warlpiri kin terms are tri-relational in that they encode the primary relationship between the referent and propositus and secondary relationships between these and the speaker (Laughren 1982). This aspect of linguistic avoidance behaviour is not discussed in this paper (see McConvell 1982).

¹¹ Avoidance vocabulary is sometimes used by men in reference to a subset of kin within their own subsection who are in the *warringiyi* or FF/FFZ relationship to themselves. I will not elaborate further on this practice here.

3.1.2.2 *Third-person forms for addressee reference*

Another strategy used to mark deference towards an addressee that is widely attested in the world's languages is to use third-person forms instead of second-person forms. This strategy also diminishes the directness of the addressing act (in which the referent is also the addressee), by treating the referent as a non-addressee excluded from the speech act. In Warlpiri this strategy is used between kin as a function of their relationship to a young man and the role they play in the rituals in which he is initiated into manhood. The initiator of a young man and the latter's father or maternal uncle address each other as *pirlaali* or *pirlawali*, as do the initiator and initiand (and his senior brothers). When one's *pirlaali* is the referent of the subject of a clause in an utterance addressed to him, not only are the unmarked third-person forms substituted for second-person forms, but special vocabulary is also used.¹² In the example given in (12a), the verb form *karrka-mi* is used in place of the neutral register motion verb *ya-ni* 'go' in (12b), while in (13a) this same verb is used in place of the neutral register stance verb *nyina-mi* 'sit, be, stay, live' in (13b). While *karrka-mi* also belongs to the neutral register lexicon, it is only used as a motion verb in that register. Note that the same conflation of stance and motion is a feature of the *makurnta-warnu* 'avoidance' registers discussed above. In (12c) and (13c) the reply to the question asked is formulated in the neutral register since the speaker is referring to self.

(12)a. *Nyarrpara-kurra ka karrkami-rra pirlaali?* [HN 1966:0356]
 where-ALL. PRES locate-THITHER pirlaali
 (lit. 'Where to is *pirlaali* locating?')

b. Neutral Register translation of (12a):

Nyarrpara-kurra ka-npa yani-rra?
 where-ALL. PRES-2SUBJ go-THITHER
 'Where are you going?'

c. Reply to (12a):

Karlarra ka-ma yani. [HN 1966:0356]
 west PRES-1SUBJ go
 'I'm going west.'

(13)a. *Ngayi. Kala nyarrpara-rla ka karrka?*
 really but where-LOC PRES locate
 (lit. 'Really. But where at is locating?')
 'Really. But where are you living?'

a'. *Nyampu-rla-juku mayi ka karrka?* [HN 1966:0356]
 here-LOC-STILL INTERR PRES locate
 (lit. 'Here at still is (he) locating?')
 'Are you still living here?'

¹² Following the more advanced stage of male initiation which involves subincision (*para*), the equivalent address term to *pirlaali* is *ngulyungulyu* (HN 1966-67:0375). The same linguistic conventions apply between men in this relationship as between those who address each other as *pirlaali*.

- b. Neutral register translation of (13a):

Ngayi. Kala nyarrpa-rla ka-mpa nyina?
 really but where-LOC PRES-2SUBJ live
 'Really. But where are you living?'

- b'. Neutral register translation of (13a'):

Nyampu-rla-juku mayi ka-mpa nyina?
 here-LOC-STILL INTERR PRES-2SUBJ live
 'Are you still living here?'

- c. Reply to (13a):

Yuwayi, nyampu-rla-juku ka-rna nyina. (HN 1960:0356)
 yes, here-LOC-STILL PRES-1SUBJ live
 'Yes, I'm still living here.'

This pattern of speech is also used between the initiator and the initiand—third person replaces the second-person form for address, and the verb *karrka-mi* is used as a general 'spatial' (stance and motion) verb if the speaker and addressee are in the same matrimoiety (*makurnta-wangu*). In place of *karrka-mi*, the verb *wanti-mi* is used as the general 'spatial' verb if the initiator and initiand belong to the opposite matrimoiety (*makurnta-warnu*). The verb form *wanti-mi* is also used in the neutral register, but there its range of meanings differs from that in its avoidance register use.¹³ In its neutral register use *wantimi* is roughly equivalent to English 'fall'. This verb is also used by an initiand in addressing his ritual guardian (*juka*), one of his brothers-in-law (*ngumparna*), the husband of his (elder) sister(s)—again a member of *ego's* father's matrimoiety.

3.1.3 *Propositus kin-term suffix pronouns*

Warlpiri has a set of pronominal suffixes hosted by kin terms which mark the person features of the PROPOSITUS in a kin relation.¹⁴ These are illustrated in (14). The suffix *-rlangu* in (14d) is the dyadic suffix (Laughren 1982; Merlan and Heath 1982).

- (14)a. *kirda-na* 'my father'
 b. *kirda-puraji* 'your (sg) father'
 c. *kirda-nyanu* 'one's father'
 d. *kirda-rlangu* 'father and child'

While the first-person suffix *-na* 'my' is frequently omitted, even in the neutral register, the addressee form *-puraji* is productively used. However this suffix is suppressed when referring to one's *malirdi* or *kurriji* of the opposite sex by a kin term appropriate to their relation to an addressee. This is illustrated in (15a) [HN 1966:0360], in which the bare unsuffixed kin term *parnmanpa* 'mother (of spouse)' is used although it is understood that the

¹³ In the 'mother-in-law/son-in-law' register *wanti-mi* is used as a general verb of 'giving', substituting for neutral register verb *yi-nyi* 'give'.

¹⁴ The *referent* of the expression 'your mother' is an individual who is the mother of the addressee, while the addressee, included in the referring expression, is said to be the *propositus*. Similarly, the *referent* of the expression 'my mother' is the mother of the speaker, the speaker being the *propositus*.

referent is the 'mother' of the addressee.¹⁵ This contrasts with (15b), in which both the speaker and the referent of the kin term are female; hence the inclusion of the addressee propositus suffix *-puraji* 'your' within the kin term. Similarly the use of the first-person propositus form *-na* 'my' is also suppressed on a kin term referring to a speaker's *malirdi* of the opposite sex.

- (15)a. *Nyarrpara-rla ka-lu ngarri+jarri parnmanpa-rla-ju?*
 where-LOC PRES-PLSUBJ locate mother:(NOM)-LOC-TOP
 'Where is/are (your) mother(s)?' (husband to wife)
- b. *Nyarrpara-rla ka ngarri+jarri parnman-puraji?*
 where-LOC PRES locate mother-**your**
 'Where's your mother?' (wife to husband/sister-in-law)

The contrast between suppression of the addressee propositus suffix on the kin term *parnmanpa* 'mother' referring to the male speaker's 'mother-in-law' and its presence on the kin term *kirda-puraji* 'your father' referring to his 'father-in-law' (a member of speaker's own matrimoiety) is nicely illustrated in (16).

- (16) *Parnmanpa-wana, kirda-puraji-wana ngarri-rra jarri-ya!* [wnr]¹⁶
 mother-PERL father-ADDRESSEE-PERL locate-THITHER INCH-IMP
 'Go off with (your) mother and your father!' (husband speaking to wife)

What is also clearly shown by (16) is that any utterance which includes reference to one's opposite sex *malirdi/kurriji* must substitute the appropriate avoidance register lexicon for neutral register forms whether or not the term refers to or expresses a predicate holding of him/her. Recall that, in the dialogue between men in each other's PMM class in (3), avoidance terms were used only if the term referred to or predicated something of that kinsman. This different sex/same sex contrast is further illustrated by (18a) and (18b).

The anaphoric propositus suffix *-nyanu*, used in (17b) where the propositus is understood to be the daughter of the addressee, is replaced in (17a (=11)) by the associative suffix *-warnu*. This is because the propositus referent is the speaker's *malirdi* 'son-in-law'; the speaker is a woman questioning her female MP relative about the latter's son. Note also that in the embedded clause indirectly referring to the speaker's *malirdi*, there is no bound pronoun referring to him. The second-person subject pronoun *-npa* refers to the mother of the speaker's son-in-law.

- (17)a. *Nyarrpara waja-lu ngarri+jarri-ja nyuntu-npa japun-warnu-ju?*
 where P-PLSUBJ locate-PAST you:NOM-2SUBJ mother-ASSOC-TOP
 'Where did you say your son (our son-in-law) went?'
- b. *Nyuntu-npa(-rla) japun-nyanu.*
 you:NOM-2SUBJ(-DAT) mother-ANAPH
 'You are her mother.'

¹⁵ The term *parnman-pa* consists of the lexical kin relation referring stem *parnman* and the epenthetic suffix *-pa*. This term is the appropriate one to designate the 'mother' of one's spouse or of any person in the same subsection as one's spouse.

¹⁶ From a traditional story told by the late Winnie Nangala Ross at Yuendumu, 1978, recorded by the author.

Similarly, in (18a), in which a woman is speaking to her daughter and referring to her daughter's husband and his brother(s), the dyadic suffix *-rlangu* is replaced by the avoidance register form *-wurduwurdu*. This contrasts with (18b), which has the neutral dyadic form appropriately-used by a man addressing his sister's daughter to refer to her husband and his brother.

(18)a. *Murrkardi-wurduwurdu-kurra-lu kinya-ka!* [HN 1959:[8]]
 brother-DYAD-ALL-PL.SUBJ look-IMP
 'Look at the brothers!'

b. *Murrkardi-rlangu-palangu nya-ngka!*
 brother-DYAD-DUAL.OBJ look-IMP
 'Look at the brothers!'

Another contrast between (18a) and (18b) is that while in (18b) the singular reference of the addressee subject is indicated by the absence of a subject bound pronoun and the dual reference of the object is indicated by the appropriate dual object form *-palangu*, in (18a) the nonsingular reference of the object is not marked by an object bound pronoun. Rather the plurality is marked by the plural subject bound pronoun (*-lu*), although the referent of the addressee subject is a single individual. These aspects of the avoidance register which affect the distribution and type of bound pronoun forms are further discussed in §3.2.

Not only does the contrast between the neutral register dyadic suffix form *-rlangu* and the avoidance register form *-wurduwurdu* differentiate between a dyadic kin relation expression whose referent includes an opposite sex member of speaker's PMM subsection from one which does not, it also marks a further distinction. The avoidance suffix is only used if the PMM kin referred to is a person related to the speaker as their *malirdi* or *kurriji* and not as their *ngunyarri* or *pirlipirli* (see Table 2). The latter relationships do not involve the same level of 'shame' and obligation in marriage alliances as the former. This use of the contrast between the *-rlangu* and the *-wurduwurdu* dyadic suffixes was lucidly explained to Hale by MCJ:

(19)a. 'Mangkanku-rlangu', *ngula kajika-palangu ngarrirni yangka [...]*
wantirri-nyanu, pirlipirli-nyanu. Yangka Jakamarra manu Napaljarri
kajilpapalarla nyinakarla—wantirri-nyanu manu pirlipirli-nyanu, kajilparla
Jupurrurla yantarlarni nyanungu-nyangu-kurra ngumparna-nyanu-kurra,
Japanangkaku, kajika payirni,

"Ngumparna! Palkanya ka kirdana ngajuku-palangu nyina?"

"Karija, yanu-pala, wirlinyi, pirlipirli manu wantirri; mangkanku-rlangu."

"Yuwayi, ngulajuku. Ngakarna yanirni nyanjaku."

"Yuwayi, pina marrarl-yanta karntiya. Ngaka pinarni marrarl-yanta. Yinpa nyanyi kirda-puraji. Nyuntuku-palangu."

"Yuwayi. Ngulajuku." [HN1966-7:1025-6]

'Mangkanku-rlangu, that is what one calls two people such as one's father's cousin and his wife if she is one's mother's cousin—like a Jakamarra and Napaljarri who are one's father's cousin (one's own *wantirri*) and one's mother's cousin (one's own *pirlipirli*). If a Jupurrurla man came to his sister's husband's place to see that Japanangka (man) he might question him, "Brother-in-law, is my father here?" "I don't know, they went out (my) *pirlipirli* and (my) *wantirri*, husband and wife (*mangkanku-rlangu*)." "OK,

that's all. I'll come back to see him later." "OK, return young brother-in-law. Return later. To see your father." "OK, that's all." (my translation)

- b. *Kajilpa Jupurrurla yantarlarni payirninjaku, Japanangkakurlangu-kurra ngumparna-nyanu-kurra,*

"Nyarrpara kirdanaju?"

"Wirlinyi ngarri-jarrija—mangkanku-wurduwurdu. Mangkanku-wurduwurdu ngarri-jarrija."

Mangkanku-wurduwurdu *kajilpa-palangu ngarrikarla Japanangkarlu, ngulaju Jakamarra—Napaljarri yangka kurriji-nyanu. Kulalpa yirdi-mantarla—kajika-palangu ngarrirni mangkanku-wurduwurdu.*

"Wirlinyi ngarri-jarrija—kala ngakarla marrarl-yantarni—wungu-maninjakuju kirda-purajikiji."

"Yuwayi, ngaka kapimarla yanirni ngumparna. Kaji wirlinyi-jangka kirdana pinarni yani." [HN1966-7:1026-7]

'If a Jupurrurla were to go to a Japanangka's place, his sister's husband's place and ask him, "Where's my father?" "(They've) gone out, husband and wife. Husband and wife have gone out." A Japanangka would refer to a Jakamarra and Napaljarri as *mangkanku-wurduwurdu* if the Napaljarri were his mother-in-law (*kurriji*). He can't name her, he would refer to the pair as *mangkanku-wurduwurdu* (saying), "Gone out, but return later to see your father". "Yes, I'll come later on, brother-in-law, when father has come back home." (my translation)

In the scenarios in (19a and 19b), a Jupurrurla man goes to the camp of his brother-in-law (*ngumparna*) and enquires of him as to the whereabouts of his own (i.e. Jupurrurla's) father. In the scenario in (19a) the Japanangka man, brother-in-law of the visiting Jupurrurla, refers to the married couple made up of the man whom Jupurrurla calls father (*kirdana*) and that man's wife as *mangkanku-rlangu*, whereas in scenario (19b) he refers to this couple as *mangkanku-wurduwurdu*. This linguistic distinction marks the fact that the *Napaljarri* woman referred to in (19a) is the Japanangka's *pirlipirli* whereas in (19b) she is his *kurriji*.

Of all the opposite sex members of *ego*'s PMM class, only a very small number fall into the category of *ego*'s *malirdi* (son-in-law) or *kurriji* (mother-in-law). These relations are differentiated from one's female *pirlipirli* and male *ngunyarri* kin on the basis of generational distinctions. Even more importantly, they are determined on the basis of exchange relationships between families, represented by related countries and dreamings. The actual avoidance relation is confirmed publicly in the ritual context of male initiation, as are other 'avoidance' relationships referred to in previous sections.¹⁷ It is this ritually marked relationship between *malirdi* and *kurriji* which requires the most elaborate avoidance behaviour including linguistic.

¹⁷ Significantly this relationship does not depend on a woman becoming the actual mother-in-law of the man who is ritually confirmed as her *malirdi* 'son-in-law' by the marriage of her own daughter (or even her close sister's daughter) to him.

3.2 Manipulating verbal diathesis and the marking of grammatical relations

In Warlpiri neutral register language, the relationship between a participant role derived from a verb's meaning and the syntactic categories which realise a predicate and its arguments is marked by a number of interacting morphosyntactic means (see Hale 1982a and 1983; Hale, Laughren, and Simpson 1995; Nash 1986; and Simpson 1991). In finite clauses, the grammatical relations of subject and object are marked by the distinct person and number category forms of bound pronouns encliticised to the auxiliary (Hale 1973). The parallel grammatical functions of NPs are marked by case suffixes. The unmarked nominative case is reserved for the subject of an intransitive verb and the object of a transitive verb. The marked ergative case is indicated by a suffix on the subject NP of a transitive verb. The indirect object function and certain adjuncts are marked by the Dative case suffix. Other nominal expressions can be integrated into a clause as postpositional phrases (NP+Postposition). These postpositions ('spatial case suffixes' or simply 'suffixes' in the terminology used below) mark 'semantic' cases, which express a range of meanings including spatial relations (Hale 1982a). Unlike English, in which there are many verb forms which have both transitive and intransitive uses and in which the creation of one sort from another is a relatively productive process, as is the conversion of both sorts of verb from a nominal, Warlpiri verb forms are strictly either transitive or intransitive.

3.2.1 Case marking in avoidance registers

Because of the conflation of meanings associated with the mapping of distinct neutral register forms onto a single avoidance register form, as shown in Table 3, the role of nominal suffixes in the determination of sentence meaning is greater in avoidance speech than in neutral register speech. This is partially illustrated by the special register utterances shown in (12) and (13) above. The presence of the allative suffix *-kurra* on *nyarrpara* 'where' in (12a) indicates that the verb form *karrka-mi* is to be interpreted as a change-of-location or motion verb equivalent to the neutral register verb *ya-ni* 'go', whereas the use of the locative suffix with the same verb in (13a) indicates that the verb is to be interpreted as a locative stance verb implying no change of location. The semantic contribution of nominal suffixes is not limited to those which convey spatial meanings; the grammatical case suffixes also play a crucial role in disambiguating meaning.

Given the neutral register's strict division of verb forms into either transitive or intransitive—but not both—the use of the same verb form in the avoidance registers as either transitive or intransitive is all the more striking. The role of functional categories such as nominal suffixes and bound pronouns in marking a verb's diathesis would seem crucial in avoidance registers, where cross-membership of transitivity class is permitted.¹⁸ An example of both transitive and intransitive uses of the 'mother-in-law/son-in-law' location verb *ngarri+jarri* is illustrated in (20), taken from Hale's 1966–67 fieldnotes (p.916).

¹⁸ See Nash (1986:195) for a brief mention of this phenomenon.

(20)a. Husband to wife:

Kurrngalypa-ju ngarri+jarri-nji-nta, kirda-puraji-kirlangu-rla.
 water:NOM-1IO locate-INCEP-IMP father-your-POSS-LOC
 'Go and fetch me water at your father's place.'

a'. Neutral register translation of (20a):

Ngapa-ju ma-ninji-nta . . .

b. Husband to wife (continued):

Ngumayi-parnta-kurra ngarri+jarri-ya, kurrngalypa-ku."
 M.in.L-ASSOC-ALL locate-IMP water-DAT
 'Go to your mother's for water.'

b'. Neutral register translation of (20b):

Ngati-puraji-kirlangu-kurra ya-nta ngapa-ku.
 mother-your-POSS-ALL go-IMP water-DAT

c. Narrator's commentary:

Ngula kaji-ka yangka wangka nyuntu-nyangu-ju karnta-ju.
 then COMP-PRES like speak you-POSS-TOP woman-TOP
 'Then your wife might say,'

d. Wife to husband:

"Yuwayi, ma-ninji-ni ka-rna ngapa
 yes fetch-INCP-NPAST PRES-1SUBJ water.NOM

kirda-na-kurlangu-rla manu ngati-kirlangu-rla."
 father-my-POSS-LOC and mother-POSS-LOC

'''Yes, I'll go and fetch (some) water at my father and mother's place.'''

e. Husband to wife:

"Yuwayi, yaruju-rlu ngarri+jarri-nji-nta, kurrngalypa."
 yes quickly-ERG fetch-INCEP-IMP water.NOM

'''OK, go and fetch the water quickly!'''

e'. Neutral register translation of (20e):

Yuwayi, yaruju-rlu ma-ninji-nta, ngapa.
 yes, quickly-ERG fetch-INCEP-IMP water.NOM

In this passage *ngarri+jarri* is used by the male speaker addressing his wife asking her to go to her parent's place to fetch water (*kurrngalypa* in avoidance register, *ngapa* in neutral register) for him.¹⁹ The neutral register translation of *ngarri+jarri* in (20a) and (20e) is the transitive 'fetch' verb *ma-ni* 'get', which is recognised by the wife in her agreement to go and fetch the water in (20d), using the transitive neutral register verb *maninjini* 'go and fetch' in its inceptive form. In (20b), on the other hand, the imperative form *ngarri+jarriya* is used intransitively, equivalent to the neutral language motion verb *ya-nta* 'go-IMP'. The use of the imperative verb form in the husband's voice in (20a), (20b), and (20e) provides the unambiguous addressee reference of the subject category. The nominative NP *kurrngalypa* 'water' in (20a) and (20e) can only be interpreted as the object, while the dative marked

¹⁹ Verbs built on the inchoative verbaliser *-jarri* are always *intransitive* in the neutral register. Avoidance register verbs built on *-jarri* are freely transitive or intransitive.

kurrngalya-ku in (20b) cannot bear the object function—the nominative case is reserved for the subject NP (unexpressed in this example). The presence of the ergative case marking on the modifying nominal *yaruju-rlu* 'quickly' in (20e) is possible only with a transitive verb. The nominative NP *kurrngalya* 'water' is clearly the object of this transitive verb.²⁰

3.2.2 Spatial suffixes on 'nominative' forms

In Warlpiri, nominative case NPs are in the phonologically unmarked citation form which is also the address form. Nominative case is assigned to the direct object NP and to the subject NP of an intransitive verb, while the marked ergative case is assigned to the subject of a transitive verb. Men referring to their wife's mother (*kurriji*, *malirdi*) disguise the bare citation/address form when the grammar requires the referring NP to be in the nominative case by adding one of the spatial case suffixes, typically locative or allative as shown in (21).

- (21)a. *Nyarrpara-rla ka-lu ngarri+jarri parnmanpa-rla-ju?* [HN 1966:0360]
 where-LOC PRES-PL.SUBJ locate mother.of.spouse(NOM)-LOC-TOP
 'Where is/are (your) mother(s)?' (husband to wife)
- b. *Murrkardi-wurduwurdu-kurra-lu kinya-ka!* [HN 1959:[8]]
 brother-DYAD(NOM)-ALL-PL.SUBJ look-IMP
 'Look at the brothers!' (mother to daughter, wife of one of the brothers)

In (21a), the subject NP is the kin term *parnmanpa* 'mother of speaker's spouse', which would be in the unmarked nominative case in the neutral language translation. To render the term referring to the mother-in-law of the speaker less direct by avoiding the form equivalent to a citation/address form, the locative suffix *-rla* is added without being associated with its 'normal' semantic function and without changing the participant role of the referent of the NP to which it is suffixed. Note that the locative suffix is hosted by a kin term which lacks any propositus pronominal suffix, as discussed above (§3.1.3). Similarly in (21b), the direct object kin referring NP *murrkardi-wurduwurdu*, which refers to more than one son-in-law of the female speaker (the avoidance dyadic suffix *-wurduwurdu* replacing the neutral form *-rlangu*), is augmented by the allative suffix *-kurra*, which plays no syntactic or semantic role—only a pragmatic one of creating an indirect referring form.²¹

3.2.3 Manipulating grammatical relations and case-marking

A further twist is added by changing the expected alignment of pronominal features with grammatical functions in the bound pronoun forms. This complication is illustrated in (22a), where in place of the expected second-person plural object form *-nyarra*, as used in the

²⁰ The syntactic behaviour of these special register verbs throws an interesting light upon the relationship between verbal meaning and syntactic structure, including case marking, grammatical relations, and semantic-syntactic mapping, which is beyond the scope of this paper but which covers an area of linguistic theory to which Hale has made an important contribution (e.g. Hale and Keyser 1993).

²¹ I have not been able to ascertain if the choice of locative over allative is significant. A similar practice of sufficing an allative case to an expression referring to one's mother-in-law was also documented by Jean Kirton in Yanyuwa, spoken on the western side of the Gulf of Carpentaria (John Bradley, pers. comm.).

neutral language translation in (22b), one finds the second-person plural subject form *-n-ki-li* and the anaphoric (reflexive/reciprocal) non-subject form *-nyanu*. In the neutral language 'translation' in (22b), one finds no marking of the subject since third singular is unmarked. That the verb is transitive in (22a) is shown by the ergative case marking on the subject kin-referring nominal *ngalkari-warnu-rlu* (lit. 'uncle (of spouse)-ASSOC-ERG') in which *-warnu* replaces the neutral register addressee propositus suffix *-puraji* 'your' used in the neutral translation in (22b), such that the term made up of *ngalkari* 'maternal uncle of speaker's spouse/sister-in-law/brother-in-law' and the associative suffix *-warnu* actually refers to the niece/nephew of the 'uncle'.

- (22)a. *Ngalkari-warnu-rlu kapi-nkili-nyanu purda-karri.* (HN 1959:[10])
 uncle-ASSOC-ERG FUT-2PL.SUBJ-ANAPH hearing-stand
 'Your uncle will belt you.' (lit. 'You (of whom he is the) uncle will feel (sorry) for yourselves (when he's done with you).')
- b. *Kapi-nyarra ngamirni-puraji-rli pinyi.* (Neutral register)
 FUT-2PL.OBJ uncle-YOUR-ERG strike
 'Your uncle will belt you (plural).'

Hence in this example the pragmatically intended referent of the term is the addressee—since *-warnu* indicates that the referent of the complex kinship term is a person in the converse relationship to the person whose relation to them is named by the kin term. Recall that we saw this strategy in the example in (17a), with *japun-warnu* (lit. 'mother of speaker's son-in-law-ASSOC') referring not to the 'mother' but to her 'son' (i.e. the speaker's 'son-in-law'). Formally, the 'patient' role is aligned with the subject NP and bound pronoun and with the object anaphoric bound pronoun. The 'agent' role is embedded within the ergative case-marked subject NP as the 'uncle' kin term *ngalkari*. When used as a neutral register term, the verb *purda-karrimi* is a semitransitive verb having a NOM subject NP and a DAT complement NP and meaning 'to listen out for' and also 'to feel, be aware of (some bodily state such as hunger or pain)' when used reflexively. Thus the neutral register transitive verb *pinyi* in (22b) is 'replaced' by a neutral register intransitive verb form (*purda-karri*) used (semi-)transitively in the avoidance register 'equivalent' in (22a).

Another example of the avoidance register using a neutral register verb of opposite transitivity status to the neutral 'equivalent' is given in (23a). The avoidance register way of conveying the meaning expressed by the neutral register intransitive stance verb *nguna* 'lie (down)' in (23b) is by substituting the transitive verb *kati-rni* ('press down on' in neutral register) within a reflexive construction. The neutral register modifying nominal *jarda* 'sleep' in (23b) is replaced in the avoidance register in (23a) by the modifying expression *lipa-karra*, which is given ergative marking since the avoidance verb *kati-rni* is formally transitive, although only one thematic role is assigned in this reflexive construction.²²

²² While reflexive forms are productively used in many Australian languages to derive intransitive verbs, Warlpiri does not conform to this pattern. It is only in 'mother-in-law' avoidance speech that the transitivity status of verb forms is interchanged in this way. Dixon (1971:447–8) discusses the productive use of reflexive morphology in the derivation of intransitive verbs from transitive verb forms in the Dyalnguy 'mother-in-law' register of Dyirbal. Knight (2000) documents the use of 'anti-passive' verbal morphology to 'intransitivise' verbs in the Bunuba avoidance register called Gun.gunma. See also Rumsey (2000:126–8).

- (23)a. *Kati-ka-rra-ngku* *lipa-karra-rlu-lku*. [HN 1959:[12]]
 press.on-IMP-THITHER-2SG.OBJ sleep-SUBJCOMP-ERG-CS
 'Lie down and go to sleep!' (lit. 'Press down on yourself while sleeping then.')
- b. *Jarda-lku nguna-ka-rra*. (neutral register)
 sleep-CS lie-IMP-THITHER
 'Lie down and go to sleep!'

4. Conclusion

Warlpiri 'avoidance' registers are constructed by deviating from the neutral (*makurnta-wangu*) register in a range of ways: special words are substituted for neutral register forms, different meanings are associated with neutral register forms, grammatical features are varied.

The 'male-to-male' *makurnta-warnu* 'avoidance' register, used by an adult male speaker referring to (including addressing) another adult male member of his father's matrimoiety, differs from the neutral register only in substituting special vocabulary items for neutral register forms. This register divides into two subregisters: 'brother-in-law' speech for PM class males (this being the class of speaker's spouse) and 'cousin' speech (which includes the classes PMM and PMMM from which *ego*'s spouse-bestowers are drawn). These subregisters are distinguished by a very small number of lexical items; the remainder of the avoidance lexicon is common to the general *makurnta-warnu* register. Male members of speaker's father's class (P) are excluded from avoidance speech (although father's sisters are not).

The other type of male-to-male 'avoidance' register is the 'initiation' register employed between individuals who have contracted special ritual relationships. In contrast with the non-ritual 'male-to-male' *makurnta-warnu* 'avoidance' register, 'initiation' registers deviate from the neutral register by varying grammatical categories to avoid direct individuated reference and address. In this regard, the initiation register divides into two subregisters marked by a few contrasting usages; these subregisters align with the *makurnta-warnu/makurnta-wangu* distinction. The *yarlpurru* subregister (that of coiniciate-brothers, who are *makurnta-wangu*) substitutes plural for singular and dual (§3.1.2.1), and the initiator subregister (that of initiator to initiand and of initiator to initiand's father and maternal uncle, who are *makurnta-warnu*) substitutes third person for second person (§3.1.2.2). The special lexical items associated with the initiator subregisters are drawn from the neutral register lexicon but are associated with a broader range of meanings, as is typical of avoidance lexicons.

The most elaborate or extreme avoidance register, to judge from its degree of deviation from the neutral register, is the mother-in-law-son-in-law register. This register is characterised by the absence of direct address, use of special 'avoidance' words and affixes in any utterance which includes reference to the 'avoidance' kin, and the variation of grammatical categories which goes well beyond those employed in the 'initiation' subregisters. Thus the social features which characterise this relationship—speaker and referent are of different sex, belong to opposite matrimoieties, belong to the class of each other's spouse-bestowers, and most importantly have had their special relationship ritually confirmed—are reflected or marked by a set of conventional 'avoidance' behaviours which includes the use of an 'avoidance' speech register which deviates maximally in both its lexicon and grammar from the neutral register.

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14 *Tribute to Ken Hale: our 1960 collaboration*

GEOFF O'GRADY

Ken Hale's most outstanding attributes are his generosity of spirit and indomitability.¹ He first displayed these qualities to me early in 1959 when he arrived in Australia on an NSF grant to do two years' fieldwork on Australian Aboriginal languages.

When he heard that my wife, Alix, and I were on summer fieldwork in South Australia, he proposed that he and I undertake an ambitious field trip the following year to the West that would take us half way around the continent. I was delighted to acquiesce, for there were very few trained linguists in Australia at that time. I was hoping to get accepted into a graduate program at Indiana University under Carl Voegelin, Ken's former supervisor. (Ken's subsequent letter of support was to play a crucial role in shaping the course of my family's and my lives).

In February 1960, Ken and I made our separate ways to Port Augusta, South Australia, and met on the railway platform there. At first I didn't see him, as he hung back modestly in the shadows. After we met, we piled into his Land Rover and drove out of town to a salt flat to camp on, and promptly got mired up to the axles in soft mud. That it took only two hours to get out of that situation was due to Ken's doggedness and capacity for sheer hard physical labour. All the while, he kept his cool.

There soon followed a 1500-mile trip west to Perth, during which we met a number of Aboriginal people and recorded data in five languages in three days. I felt humbled by Ken's incredible capacity for mental exertion: he would squat with pen, blue paper, and clipboard and, writing fast, very widely spaced, large, and bold notes, would have basic information on the pronominal system, case marking, verbal conjugations, tenses, moods, aspects, phonology, and so forth worked out during a morning's effort. All the while, he would be weaving into the database an amended version of the 100-item Swadesh list. (No wonder that many looked upon him in later years as the planet's greatest linguistic fieldworker!)

¹ This note originated as a tribute to Ken Hale on the occasion of his retirement from MIT and was posted along with many other tributes on the WWW in April 1999 at web.mit.edu/linguistics/www/ken/posted/posted.html#ogrady. A few additions and small corrections have been made.

'Let it emerge!' was one of his favourite dicta—as an outline sketch of the phonology of yet another language would flow forth from the data recorded by him. He brought to Australianists of that era a new awareness of a laminodental series of consonants which some researchers had simply missed.

Not that Ken's research in Australia involved just brief surveys. His very deep studies of Warlpiri and Lardil remain monuments to linguistic rigour and vigour to this day. And the Laughren–Hoogenraad dictionary of Warlpiri pioneered by him, and containing native speakers' vernacular essay-definitions covering each entry, represented a completely new departure in Australian linguistics.

On the highway (east of Norseman) we met a couple returning to Fraser Range station from shopping in Norseman, and they invited us to stay. Ken was not too keen on backtracking, and it was his vehicle. We might've gotten some very valuable material at Fraser Range. Mr Gull of Fraser Range was like one of Curr's correspondents, as I had corresponded with him and he filled out my questionnaire between September and December 1957.²

From Perth we headed north 1300 miles to Broome, staying three days in Northampton to work with Mr Jack Councillor, one of the last fluent speakers of Nhanta, whose usual occupation was exercising racehorses. Ken reflected that here was a man, the carrier of a linguistic and cultural tradition priceless beyond measure, and reflecting 40,000 years of human evolution in Australia, exposed to whimsical danger from a potentially misplaced hoof.

In Roebourne, Ken worked with Mr Bob Churnside on the Ngarluma language. We were to stay there three weeks as the guests of an independent group of Aboriginal people who were engaged in mining activities. They had two requests to make of us: that we provide them with an alphabet for the Nyangumarta language, and that we bring two of their number—Mr Monty Hale (Minyjurn) and Punch (Kupangu)—to literacy in the time available. Ken's insights on alphabet-creation and literacy development were of immense value, and today, nearly forty years later, there is a thriving literacy program at Strelley, out of Port Hedland, in Nyangumarta and English. As well, the periodical *Mikurrunya* is brought out in both languages in partial fulfilment of the principle, due to Ken, of 'flood the place with literature!' Ken was also to provide crucial input to the Northern Territory Bilingual Program in 1974.

The camp outside Roebourne was also where we met the legendary Don McLeod (1908–99), some days after our arrival. An assembly was held in the bed of a creek, to which Ken and I were invited. McLeod (known in Nyangumarta as Ngarnkawaru for his beard) addressed the gathering, and it was clear he enjoyed the complete confidence of the Mob. Ken and I were visited later still by the Roebourne Police, who stated that we had no right to be staying in an Aboriginal camp. They departed without taking further action, however. (I suspect that just a few years earlier the situation might have turned out very differently.) Near the end of our stay in the camp, the area was side-swiped by a cyclone/willy-willy passing well to the west down the coast, and some of the Mob were looking to

² Ed. note: The vocabulary attributed to Gull is included as No.25 'Malba (=Galagu?)' in O'Grady (1957–58:2–19). Hubert Lawson Courthope Gull (1887–1967) was the leaseholder of Fraser Range station from 1913 until the 1960s. Lawson Gull had learnt quite a lot of the local language Marlba (Ngadju). However Mick Cotter (pers. comm. to David Nash, Coolgardie, 25 November 2000) was in 1957–60 managing the property in Gull's absence, and it was he who completed the questionnaire by interviewing two men employed at the station.

cavities in the rocks as possible places of refuge. But the strong east winds hauled around to the northwest and eased.

From Broome we turned east for the 900-mile drive to Newcastle Waters in the Northern Territory. A hitchhiker called Syd had joined us (for a thousand-mile hitch, as it turned out). The summer monsoonal season was just ending, and at the crossing over the Fitzroy River a hundred miles east of Broome we were told that there was a bridge eighteen inches under the fast-flowing water. There were no visible guard rails, and crocodiles were known to be in the area. Here again, Ken displayed his characteristic *sangfroid*, driving over the submerged bridge as if this were an everyday activity.

Later that evening we were camped by the roadside when a truck loomed out of the darkness and stopped just short of us. Silence followed. Suddenly several solid-sounding objects thudded into the sand nearby. These turned out to be bottles of beer, and a voice called from the truck, "Have one on Diesel Dick!" Needless to say, we three quaffed the beer, highly amused by the whole situation. (Thirty years later, an older and wiser Ken remarked on the tragedy of people like Diesel Dick—a fluent speaker of Nyigina—who needlessly foreshorten their lives with excessive use of the demon drink).

There followed the most harrowing section of the 'road', now a track washed out here and there by the tropical rains, from Inverway to Top Springs. On one memorable stretch, we covered only 108 miles in a full day of driving. That evening culminated in an exhausted Ken's driving into a deep, narrow gutter which extended across the road. The right front wheel was badly bent, and we were scores of miles from possible help. By sheer determination, gutsiness, and practical know-how Ken gradually hammered the wheel straight.

'Indomitable': that word sums up the essence of Ken Hale. (And he can get really angry, which he did 1.5 miles east of Top Springs—but that's another story). In later years, he maintained steadfastly that the amount of linguistic knowledge gained on the trip was not commensurate with the huge distances covered over difficult roads.

I am honoured to be numbered among his friends, and am truly delighted to dedicate these reminiscences to him.

Dad also shared another story about being at the camp of Don McLeod who Dad says over the course of one evening turned him around politically. Up to that point, Dad says he was an Arizona cowboy and as such a sort of Goldwater Republican by default. They went to the part of the country where Geoff O'Grady was from and spoke the language and there they stayed with the infamous, rabble rousing, union organizing, Don McLeod. Don and Dad sat around the camp fire deep into the night talking politics. Dad said he was impressed by what Don had to say. He said he was the first person he had talked to who seemed to actually have the interests of the local people in mind. He was the first white person he had met who spoke to the Aborigines in straight English instead of this kind of patronising broken English he had heard until that point. So they talked and talked. Dad was sitting on his bed roll which he had stood upright and eventually as the night progressed and Don kept talking and talking Dad grew tired and sleepy and eventually fell right off his bed roll onto the ground. Don apologized profusely and let Dad go off to bed. But he said that night totally changed his perspective on politics and after that he was a champion of Don's work and his more enlightened point of view.

—Ezra Hale

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15 *Hale and O'Grady's 1960 SA and WA vocabularies*

DAVID NASH AND GEOFF O'GRADY

Introduction

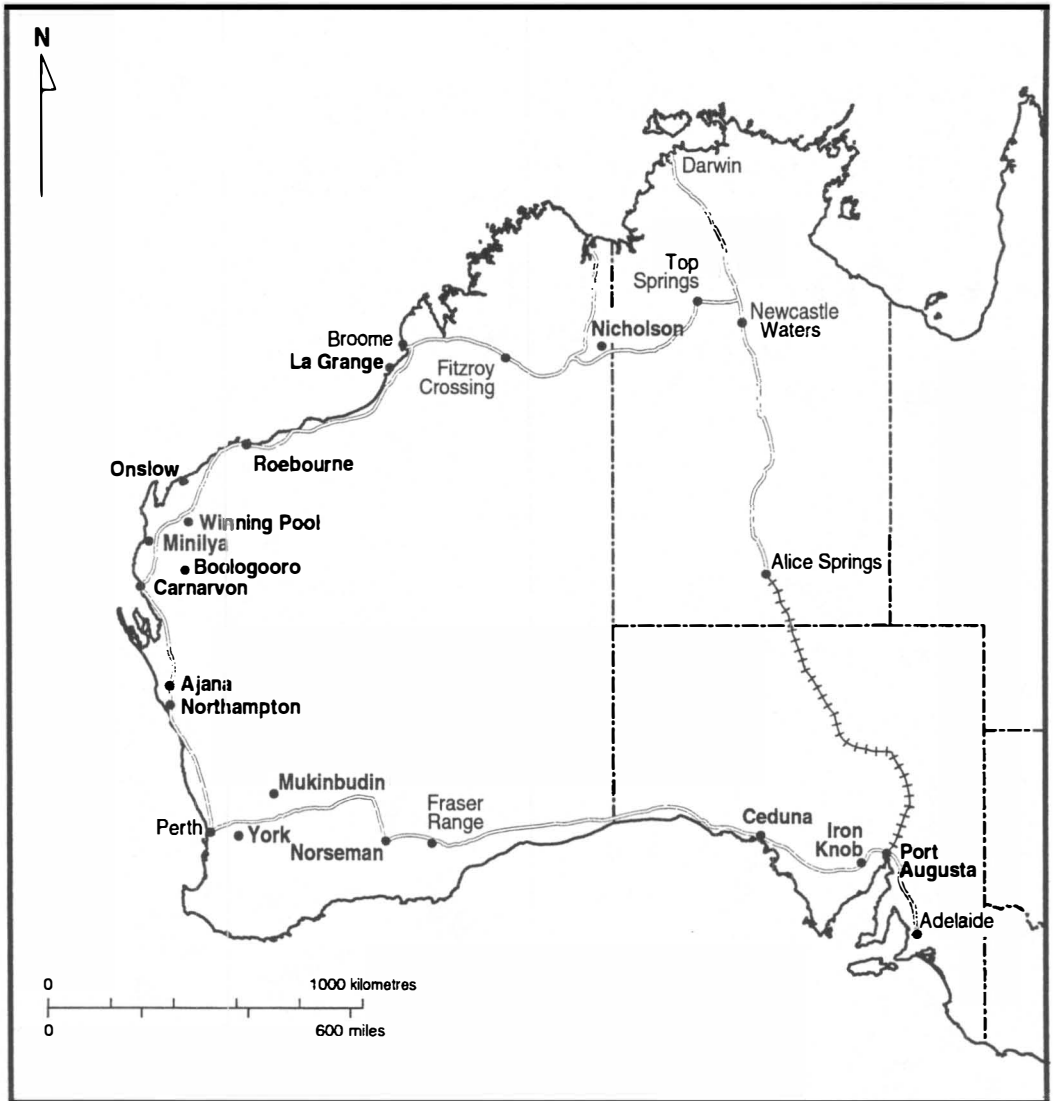
G.N. O'Grady and K.L. Hale spent a couple of very productive months in early 1960 jointly recording languages on a trip starting at Port Augusta and then proceeding 'clockwise' around W.A. O'Grady and Hale met up at Port Augusta in early March 1960: see the reminiscences of Sarah Hale (this volume) and O'Grady (this volume). Hale arrived first in Port Augusta from Alice Springs with his Land Rover and began work on Lower Arrente; O'Grady soon arrived from Sydney by train. On the drive from Port Augusta to Perth, they recorded Pankarla (Barngarla), Wirangu, Mirniny, Karlamayi, and Balardong. As they continued north, further languages were recorded, jointly or in parallel, and in increasing depth, as O'Grady (1966:78) has described:

Professor W.R. Geddes¹ was instrumental, in 1959, in securing a grant which enabled me to accompany Kenneth Hale on a joint field trip in the early part of 1960 to the Roebourne area, where he did intensive eliciting in Ngaluma [Ngarluma], but also obtained valuable materials in Jindjibandi [Yindjibarndi] and Kurama, as well as some forms in Kariera [Kariyarra] and Ngarla.² My own effort was devoted to Nyangumarda, but I was also able to add further to the Kariera and Bailko [Palyku] corpora.

This summary does not do justice to the amount of fieldwork achieved in those two months. The records of 27 languages are summarised in Table 1, in chronological order, corresponding also to the route shown on Map 1.

¹ Professor of Anthropology, University of Sydney.

² The Ngarla amounted to a few sentences, and being only confirmatory of O'Grady's 1954 work is not listed below, and was not drawn on for the summary in OGVV:80–2.



Map 1: Locations (in bold) where language was recorded by O'Grady and Hale in March–April 1960.

Some of the vocabularies early in the trip were written onto cyclostyled vocabulary questionnaire sheets which had been prepared by O'Grady at the University of Sydney. The Parnkalla and Karlamayi were recorded in this form (see O'Grady, this volume), which shows the semantic domain order used in the questionnaire.

Hale's sound recordings of five languages from the latter part of the trip were deposited, with transcriptions, in C.F. and F.M. Voegelin's Archives of the Languages of the World at Indiana University, later transferred to the Archives of Traditional Music at that university. The Archive catalogues the 1960 WA recordings as Guruma (here Kurrama), Wamman (Warnman), Tjiwarlin (Jiwarliny) and Djaru (Nyinyin).

Table 1: O'Grady and Hale 1960 records of SA and WA languages, in chronological sequence¹

O'G code	Language	Speaker	Place recorded	Date, details	Recorder	OGVV
ARR-S (ARS)	Lower Arrernte (Southern Aranda)	Tom Bagot ²	Port Augusta	?-5 March 1960, possibly over several days	Hale	
WGK	Wangkangurru	Mick McLean ²	Port Augusta	1 March 1960	O'Grady	139–140
ANT	Antikirrinya	Barney Lennon	Port Augusta	2 March 1960	O'Grady	
DIY	Diyari (Dieri)	Joe Shaw	Port Augusta	3 March 1960	O'Grady	
NUG	Nukunu	Gilbert Bramfield ³	near Port Augusta	4 March 1960	O'Grady	
ADN	Adnyamathanha	Malcolm McKenzie	Port Augusta	5 March 1960	O'Grady	
PNK	Pankarla (Barngarla, Parnkalla)	Harry Crawford [sc. Croft]	Iron Knob	6 March 1960	Hale, O'Grady eliciting	
WIR	Wirangu	Mrs Harry Miller	Ceduna	7 March 1960	Hale	
MRN	Mirminy	Pom Pom	at a windmill 8 miles north-east of Norseman ⁴	9 March 1960	Hale and O'Grady	134–5
KAL	Karlamayi	Teddy Champion	Mukinbudin	10 March 1960 ⁵	Hale	135

¹ The information in the table has been assembled from O'Grady (1966) and O'Grady et al. (1966a), from bibliographies (notably Thieberger 1993), and from conversations with O'Grady in 1988, 1999 and 2000. The code in the first column is that used by O'Grady (1957–58) and subsequently, including O'Grady and Tryon (1990:ix–xi). The last column gives the page references in OGVV = O'Grady, Voegelin and Voegelin (1966).

² Tom Bagot and Mick McLean are in the photograph in Austin, Ellis and Hercus (1976:69).

³ Mr Bramfield's portrait is in the front of Hercus (1992).

⁴ Pompom is noted as "Born at Balladonia and raised at Eucla". The interview was probably at Lawrence's farm, where Pompom Schultz lived (J. Schulz pers. comm to Nash 1999, and Mick Cotter pers. comm to Nash, 25 November 2000).

⁵ "Feb 1960" written on the top of the questionnaire is an error. (O'Grady pers. comm., March 2000)

O'G code	Language	Speaker	Place recorded	Date, details	Recorder	OGVV
BAL	Balardong	Tommy Cowan and Tommy Kickett	York	12 March 1960, O'Grady field tape 2.1	O'Grady	130
NAN	Nhanda (Nanta)	Jack Counsellor ~ Councillor ⁶	Northhampton	over 2 days. 131 leaves	Hale	119–28
MLG	Malgana (Malkana)	?	Ajana (north of Northampton)	mid-March 1960	O'Grady	119
YGN, YGS	Inggarda (Yinggarda)	Albert?	Carnarvon	probably 19 March 1960	Hale ⁷	114–18
THR-L (TRK)	Tharrgari	Snowy Nicholl	Carnarvon	19 March 1960, 42 items	O'Grady	111–12
WJI	Wajarri (Wadjarri, Wadjeri)	Sally	Boologooro Station	19 March 1960, at supper time, including 20 sentences	O'Grady ⁸	128–9
PAY (BAY)	Payungu (Bayungu)	Pompey	Minilya Station	20 March 1960 before breakfast	Hale	108–11
THL	Thalanyji	Willy	Winning Pool Station	20 March 1960	O'Grady ⁹	103–7
KUR	Kurrama (Gurama)	Algie Patterson	Winning Pool Station	20 March 1960; 60 pages	Hale	90–6

⁶ Mr Counsellor was exercising racehorses for a lady, who allowed him the afternoon off. He is mentioned in O'Grady's reminiscence (this volume).

⁷ Hale's 1960 fieldnotes on Kariyarra, Kurrama, Ngarluma, Bayungu, Inggarda, Warnman, and Yindjibarndi are referred to as sources by O'Grady, Voegelin and Voegelin (1966).

⁸ O'Grady's 1960 fieldnotes on Malkana, Tharrkari, Wajarri, and Thalanyji are referred to by O'Grady, Voegelin and Voegelin (1966).

⁹ No records of the Purduna (Burduna) dialect were made by O'Grady or Hale in 1960 (O'Grady, pers. comm.), *contra* Thieberger (1993:136, 354) based on a reading of O'Grady, Voegelin and Voegelin (1966:104).

O'G code	Language	Speaker	Place recorded	Date, details	Recorder	OGVV
PLK (NYB) ¹⁰	Palyku (Bailko)	Jack Dowden	Onslow	21 March 1960	O'Grady	84-90 (from 1958)
GRY (KRY)	Kariyarra (Kariera)	Adam Barker	Roebourne	22 March 1960	O'Grady, Hale	96-102
NMA	Ngarluma	Robert Churnside	Roebourne	March-April 1960 over 2 weeks	Hale	96-102
YIN	Yindjibarndi (Jindjibandi, Yinytyiparnti)	Jack Roy	Roebourne		Hale	90-6
WRN	Warnman	Jack Gardiner	Roebourne	3 April 1960	Hale	136-8
NYA	Nyangumarta	Punch (Kupangu), Monty Hale, Tobin, Albert	outside Roebourne	March-April 1960 over 2 weeks	O'Grady	
WLM	Jiwarliny	Willie	La Grange	early April 1960	Hale	
NYN	Nyinyiny	Birdwood Tjangala	Nicholson, Gordon Downs	April 1960	Hale	

¹⁰ NYB was the code for Nyiyabali. This data has been incorrectly identified as S.NYA (O'Grady pers. comm. to Nash 1988). Cf. the discussion by O'Grady and Laughren (1997:135n17) of the application of the names Nyiyapali and Nyangumarta.

The key results of these couple of months of field work were published in O'Grady, Voegelin and Voegelin (1966) as listed in the right-hand column of Table 1, and in various forms as follows.

- Hale's Lower Arrernte added to his general Arrernte study, and some vocabulary was published in Hale 1962; see also Breen (this volume).
- O'Grady's Nukunu is incorporated in Hercus (1992).
- The Pankarla and Karlamayi vocabularies appear in O'Grady (this volume).
- The Mirminy vocabulary appears in large part in a comparative 100-item test list published by O'Grady and Klokeid (1969:303–7).
- In 1992 Austin published separate vocabularies of Payungu, Thalanyji, Tharrgari, and Yinggarda incorporating vocabulary from O'Grady's notes on these languages.
- Hale's Yinytyiparnti (Yindjibarndi), Gurama, and Ngarluma fieldnotes were used by Wordick (1982), and the Ngarluma vocabulary was published by Wangka Maya, Pilbara Aboriginal Language Centre (1990).
- O'Grady's Nyangumarta publications are listed in Thieberger (1993), which is the best overview and bibliography of the W.A. languages of Table 1. Additionally, O'Grady's March 1960 recordings of Nyangumarta (and two Nyamal) songs were published on a gramophone recording and accompanying booklet (List 1964).
- Hale's Jiwarliny notes were typed by Nash in 1982 and deposited at AIATSIS as ASED A 0015, also ASED A 0287.
- Hale's Nyininy notes were the basis of the Nyininy wordlist published in Menning and Nash 1981.
- The data collected in March–April 1960 informed the classification published by O'Grady, Voegelin and Voegelin (1966) and O'Grady, Wurm and Hale (1966), and in turn in the inventory of Oates and Oates (1970), as well as numerous linguistic research papers, notably O'Grady (1966).
- O'Grady ran a Nyungic Project at the University of Hawaii, 1967–68, funded by the US National Science Foundation. Hale and O'Grady's Mirminy, and the NAN, THR-L, PAY, WRN, NYA and PLK of Table 1 were included when Nyungic data were keypunched onto cards and then transferred to magnetic tape. In 1988 the data was deposited at AIATSIS as ASED A item 0169.

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16 *The trickle becomes a flood: some of the context of the Hale-O'Grady work and its after-effects*

MARGARET SHARPE

A historical movement is often only recognised fully in retrospect. This is no new observation: Matteo Ricci, writing in 1608, began his *Historia* with the words:

It often happens that those who live at a later time are unable to grasp the point at which the great undertakings or actions of this world had their origin. And I . . . could find no other answer than this, namely that all things (including those that come at last to triumph mightily) are at their beginnings so small and faint in outline that one cannot easily convince oneself that from them will grow matters of great moment. (Spence 1984: 267)

But not only are the beginnings often small and faint, but when the undertaking reaches a critical mass, it may take its momentum from a number of individuals and organisations apparently working independently and without prior knowledge of each other, yet tackling the same issue. This seems to be the case in the study of Australian Aboriginal languages.

During my childhood, and all my life since, I was often the one who woke up to what was going on long after everyone else knew. This can be attributed, perhaps, to being short-sighted (not discovered and corrected until I was six) and having interests very different to those of most of my peers. For example, some of my primary school contemporaries remember me as that weird girl who wanted to fly the first rocket to the moon, which to all of them seemed an impossible event.

What has this reminiscence to do with this commemorative volume? Only firstly that I, like a number of others, came into linguistics through a side door or through serendipity—my basic training was in science, and secondly that I was not aware of the other influences leading to the flood of work on Australian languages taking place at that time. The flood had a number of tributaries feeding into it. Foremost there was the work of Arthur Capell, alone and with others, which had been ongoing since his return from his PhD studies in the UK in

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Forty years on: Ken Hale and Australian languages, 239–244.
Canberra: Pacific Linguistics, 2001.

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239

1938 (Newton, pers. comm. 2000); in 1949–50 the Summer Institute of Linguistics (SIL) began teaching and recruiting in Australia and established its Australian Aborigines Branch in 1961; also in 1961 came the establishment of the Australian Institute of Aboriginal Studies (AIAS) and from 1965 the start of the many fellowships and scholarships awarded for work on Australian languages; and in 1967 the Australian Linguistic Society came into being.

Technology also contributed to the gathering of linguistic data in Australia and elsewhere at this time. The ability to tape-record spoken language in normal fluent use revolutionised research in linguistics. I recall a demonstration of a wire recorder at Sydney University in the late 1950s or early '60s. Although it was not (to my knowledge) used in field work it was a foretaste of more portable recording gear of the future (as opposed to the luggables our early field recorders were). Barbara Sayers of SIL, who worked on Wik-Munkan, recalls seeing her first cassette recorder, the one I took with me to Darwin (probably in the late 1960s), and deciding it was essential equipment she must have! Computers came in a little later, in the eighties: I owned a so-called portable Osborne 1 computer, as did some other linguists and researchers. It was dubbed 'luggable'—it made the usual portable sewing machine seem light—and had a screen just marvellous for a short-sighted person like myself!

In the fifties Geoff O'Grady was working as a jackaroo in Western Australia with Aboriginal offshoots who spoke their traditional Nyangumarda language, which he began learning (Wurm 1997). About the same time, a student in the USA by the name of Ken Hale had drawn the topic 'Central Australia' out of a hat in an anthropology class. Thus began his consuming interest in Australia and its languages. When O'Grady was studying with Arthur Capell at the University of Sydney, I was working there as an Experimental Officer in the CSIRO Division of Physics, but although I knew Capell, I did not meet O'Grady. I had already (before starting my honours year in 1955) seriously considered getting involved in linguistics. The challenge to me at that time came from Wilf Douglas, who had become disillusioned with using English preaching and teaching when trying to convert Aborigines to Christianity, and who, when he attended the first SIL summer school in Australia in 1950, had received new impetus in his work among Aborigines in Western Australia through the emphasis SIL laid on the vernacular approach. My interest was clinched through an afternoon with Alan and Phyllis Healey of SIL. (Like me, Alan was a science graduate, and he and I spent much of the afternoon discussing Einstein's theory of relativity.) I became hooked on linguistics, applied for and was awarded a Research Fellowship in Linguistics by AIAS in 1965, in their initial offer of scholarships and fellowships for the salvage study of 'dying' Aboriginal languages. In 1967 I was at the inaugural meeting of the Australian Linguistic Society.

It was in the 1960s that the number of linguists working on Australian languages increased exponentially. Most of us, at that time, were funded by the AIAS. There was limited expertise in assessing prospective linguistic workers at that time, and in retrospect it is clear we collectively had a mixed bag of abilities and weaknesses and often had somewhat limited access to experienced linguists in the universities our fellowships and scholarships were awarded to. For example, at the University of Queensland where I was a postgraduate student, there was Elwyn Flint in the English Department, who did some ground-breaking research into different Englishes in Queensland (and Norfolk Island) and was interested in Aboriginal languages. However, my supervisor was the English professor, who knew nothing about linguistics and wisely kept out of the way. I was supposed to supervise the three linguistic Research Scholars appointed, who were initially Jan de Zwaan, Allen Hall, and Charles Osborne. If you can imagine me supervising them, you either have a very vivid

imagination or have never met them. But the generous scholarships and fellowships brought out of the woodwork in Australia many new researchers in this field and brought into Australia many would-be linguists and overseas-trained linguists, among them Bob Dixon, who later inspired so many younger recruits through his teaching.

While not denying that many who came from overseas had good groundings in phonetics and in analysing the grammars of unwritten languages, within Australia it could be argued that the best such practical training occurred at the summer schools of the SIL. What those of us who came into linguistics this way lacked in Australia was a broader theoretical background, although some of us were fortunate to gain some understanding of historical linguistics and linguistic reconstruction from Howard McKaughan when he headed the SIL school in 1960–61. Against this background, Ken Hale, with his excellent grounding in modern linguistic and anthropological theory and fieldwork practice provided by the best of the American university tradition, was destined to have an enormous impact on the field, reflected in the papers in this volume.

My life choices and career options led me out of the 'core' of research on Australian languages for about two decades following 1968, though I did not abandon linguistic work. This absence, together with my long-standing 'ability' to be unaware, meant that neither Hale nor O'Grady were known to me till much later. Though I did not know it then, working away in my own backwater, I was part of a wider movement, and in time found myself back in the main stream of Australian language research. Perhaps I'm on the edge still (or relegated there as an 'oldie'), but I am going with the flow.

Of course study of Aboriginal languages has been undertaken since the very first wordlists were compiled by Captain James Cook and Sir Joseph Banks in 1770. Capell (1971) and Walsh (1979) have chronicled this work. I single out three examples here.

The Hermannsburg mission was established in 1878, and two of the first three missionaries (A.H. Kempe and W.F. Schwarz) began language learning and started to document the language. Their descriptions were in German, as was that of their successor Carl Strehlow, and were only much later translated into English and made available here. According to A.P. Elkin, T.G.H. Strehlow's *Aranda phonetics and grammar* (1942–44) was the first complete phonetic and grammatical study of an Australian Aboriginal language. This tradition of using the language and refining the description of the language (Western Arrernte) has continued to the present at Hermannsburg.¹

In 1913, a grammar and vocabulary, jointly produced by Allen, a Wanggirbar man of Beaudesert Qld, and Lane, a white colleague, was published. In 1935, a list of words from the very closely related dialect of the Gold Coast was published by E.H. Hanlon. There were numerous lists from the Brisbane and Ipswich areas. There were certainly similar studies in other areas; I mention these as a sample known to me.

My last example concerns the place of traditional languages in schools. In 1937, the Presbyterians established the Ernabella mission in the extreme north of South Australia. Mission staff took an interest in customs and culture, and did not enforce the wearing of clothes (which Dr Charles Duguid, involved in the founding of the mission, recognised could be a source of disease to people unaccustomed to clothing) or pressure people to abandon traditional patterns of discipline. A school was started in 1940, and the teacher began learning and documenting the local Pitjantjatjara language, as well as teaching literacy and English, whereas in the 1840s the first school for Aborigines in South Australia had used the

¹ Western Arrernte was among the first languages recorded by Ken Hale on his first trip to Australia (see Green, ed., this volume).

Adelaide language for teaching (Simpson 1992). It took until 1965 for the South Australian Government to concede the value of using the vernacular in education. As at Hermannsburg, German Lutheran missionaries working among Diyari people in South Australia had adopted a similar approach in the nineteenth century, translating the Bible into the local language and establishing a regime of bilingual Diyari–English education at their mission at Kopperamanna (Austin 1981:12). With a few outstanding exceptions, most missions, even up to the 1960s (whether interested in the traditional languages or not), had a paternalistic attitude to Aborigines and on the whole did not encourage any study or learning of the language, or fraternising with Aborigines.

Arguably the major catalyst in the development of contemporary Australianist linguistics was Arthur Capell (1902–86), who has been described as the father of Australian linguistics. However it was Elkin, then a professor at Sydney University, who sent Capell to England in 1932 to do a doctorate and who steered him towards the languages of this part of the world (the Pacific and Australia). Capell had no formal linguistic training (Newton, pers. comm. 2000), but as Walsh (1987) notes, by 1937 Capell had published a general article on the structure of Australian languages, the first overview scholarly article that had been published for some twenty years. For the next twenty years Capell worked virtually single-handedly in the field of Australian languages. He was a member of the Church Missionary Society (CMS) Regional Committee for Aborigines in Sydney, and there is no doubt that his help and encouragement contributed to Judith Stokes' study of Anindilyakwa, Earl Hughes's (and later workers') work on Nunggubuyu, and Peter Carroll's (and later Meryl Rowe's) work on Kunwinjku. Lynette Oates and Mary Short (later Upton), who were not CMS members, did work on Kunwinjku and Anindilyakwa in the early 1950s respectively for their MAs at Sydney University under Capell, laying a foundation for others to build on. Under Capell's guidance, Harold Coate completed a grammar and dictionary of the Ngarinyin language spoken in the Western Kimberley region of Western Australia (Coate & Oates 1970). It has been somewhat fashionable to deprecate these early works, but we should not forget that later work built on, reconsidered, and took direction from what had been done before. In any scientific endeavour a foundation is a starting point from which later refinement and correction can develop.

Capell was an active clergyman in the Church of England and a Canon of St. Andrew's Cathedral in Sydney, and he also occasionally assisted in his home parish of Roseville (his signature is on my marriage certificate). Who knows, but had Elkin not persuaded Capell that he could best serve the church and humanity by his linguistic and anthropological work, rather than as a bishop, Capell's influence might not have been enough to kick-start the about-to-blossom field of Australian linguistics. Perhaps it would have fallen to someone else, as attitudes were beginning to change.

The trickle begins and grows.

Hale's first field trip to Australia was in 1959–60. He came to Australia with his wife and son, and made enquiries about places to work. Capell welcomed him and encouraged him to work on languages not yet documented at that time (Green ed., this volume). Ken went to Alice Springs and worked in and from there (see S. Hale, this volume). In 1966–67 he returned to Australia to undertake further fieldwork.

In 1965 the AIAS started awarding research scholarships and fellowships to budding or would-be linguists to study Australian languages. Among those who became active in Australian language research in the 1960s were Barry Alpher, Barry Blake, Luise Hercus (then a Sanskritist), and Gavan Breen among the contributors to this volume.

And so the trickle turned to the flood of linguists at work on these languages today.

The main push initially was to produce grammars and phonologies. While earlier work collecting wordlists was far from useless, the focus needed to change: from the 1970s it began to shift to include the production of dictionaries, (again an area where Hale has made an important contribution), and the growing field of sociolinguistic research began to impinge on work in Australia. Pidgins and creoles became worthy of study, and at first I (at the instigation of Alan Healey), and later with more effect John Sandefur, studied and published on Northern Territory and Roper Kriol (as it was later called).

Younger researchers are building on the earlier work and old hypotheses have been debated, sometimes discarded, sometimes modified. New hypotheses are being presented. Survey work by such as Hale and his associates vastly extended the database newer researchers have to work with. Hale's attempts to account for the syntax of Australian languages within the framework of contemporary theory have led to new ways of looking at these languages, setting in train an exciting new research agenda.

Sometimes the tendency to define one's territory (innate in all living things) caused disagreements and jealousies. Because there were so many languages awaiting study in Australia, linguists and others tended to regard a particular language as 'my language' and react strongly when another linguist was assigned to or began work on the same language. There was to some extent a gentlemanly (?) agreement not to intrude on another person's 'territory'.² This unproductive attitude, also encountered by Hale on his arrival in Australia in 1959, is happily much rarer now. Ken Hale's own practice has been the antithesis of this attitude: he has made his fieldnotes available to all through AIATSIS and been ever ready to support the research projects of others.

As I illustrated above through my own experience, a number of motivations got us all into linguistics and into work on Australian languages. Peter Austin and Jane Simpson, two of the editors of this volume, came in through Dixon's teaching at the Australian National University (as did many others). They each had chosen to do Asian Studies, and lacked one subject, and the Sub-Dean sent them to Dixon, who fired their enthusiasm for linguistics. In 1978 and 1980 respectively, Simpson and Austin went to MIT to work with Hale. David Nash, another editor, also came in through Dixon's promotion of linguistics at ANU, and went to MIT in 1975 and studied with Hale. Mary Laughren, another editor, did her doctorate in African linguistics at the University of Nice, France, and was in Côte d'Ivoire in 1974 when her mother sent her an advertisement for linguists to support the fledgling bilingual programs in the Northern Territory. So in 1975 she came back to Australia to a job in the program among the Warlpiri, benefiting greatly from Hale's prior brilliant study of that language. She worked alongside enthusiastic Warlpiri people, many of whom had previously worked with Ken Hale and some of whom had benefited from Hale's Warlpiri literacy course in the early days of the bilingual program (see Hoogenraad, this volume, and also Granites and Laughren). Again these illustrate the diverse points of entry of today's linguists.

I have omitted from this account large numbers of linguists whose work was as valuable as that of those I've mentioned, but the point is made. Is the flood abating somewhat? It is perhaps too soon to tell. As Lynette Oates points out (pers. comm. 1999), at the time she became involved in 1950-51, Australian languages were not the glamour ones of choice for so many linguists, in Australia and elsewhere. Despite there being still much ignorance about

² Some languages did have a succession of workers, often however after an earlier worker had discontinued work on that language. Anindilyakwa, a notoriously complex language, had such a succession: Mary Short (now Upton), Judith Stokes, Velma Leeding, Julie Waddy.

the variety and complexity of Australian languages among Australians, there is also a widespread and increasing awareness and appreciation of them among so many. Attitudes have changed since the time W.E. Hanlon named his property with a Yugambeh name that was mocked at (reported in Hanlon 1935). Many queries come my way for a name for a child or property (not all from white Australians) from the language of the person's area. More people are choosing names from the language of the area to name their property. What is certain now is that study of Australian languages is a river that will not quickly run dry. We can look back on the Hale visits of 1959–60 and 1966–67 and the Hale–O'Grady collaboration in 1960 as very significant tributaries to the flood of work on Australian languages. We owe them a debt of gratitude.

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17 *Karnic classification revisited*

CLAIRE BOWERN

1. Introduction

The languages of the Lake Eyre Basin have been the subject of a number of classificatory studies this century.¹ In Australia-wide surveys as early as Schmidt's (1919), the structural similarity of a number of these languages is noted and a name based on the word *karna* 'man' is used. O'Grady, Wurm, and Hale's (1966) map shows four Pama-Nyungan subgroups in the Lake Eyre Basin. Later studies such as Breen (1971) and Walsh and Wurm (1981) have added a layer in the family tree, grouping most of the languages spoken in the Lake Eyre Basin together as the 'Karnic' subgroup of Pama-Nyungan (and demoting O'Grady, Wurm, and Hale's Pama-Nyungan subgroups to subgroups within Karnic). Most recently, Peter Austin (1990a) published a classification of Karnic with approximately three hundred lexical reconstructions (and including some morphological reconstruction), and Hercus (1994) includes a family tree of the Karnic subgroup of Pama-Nyungan, based on, but not identical to, that of Breen (1971).

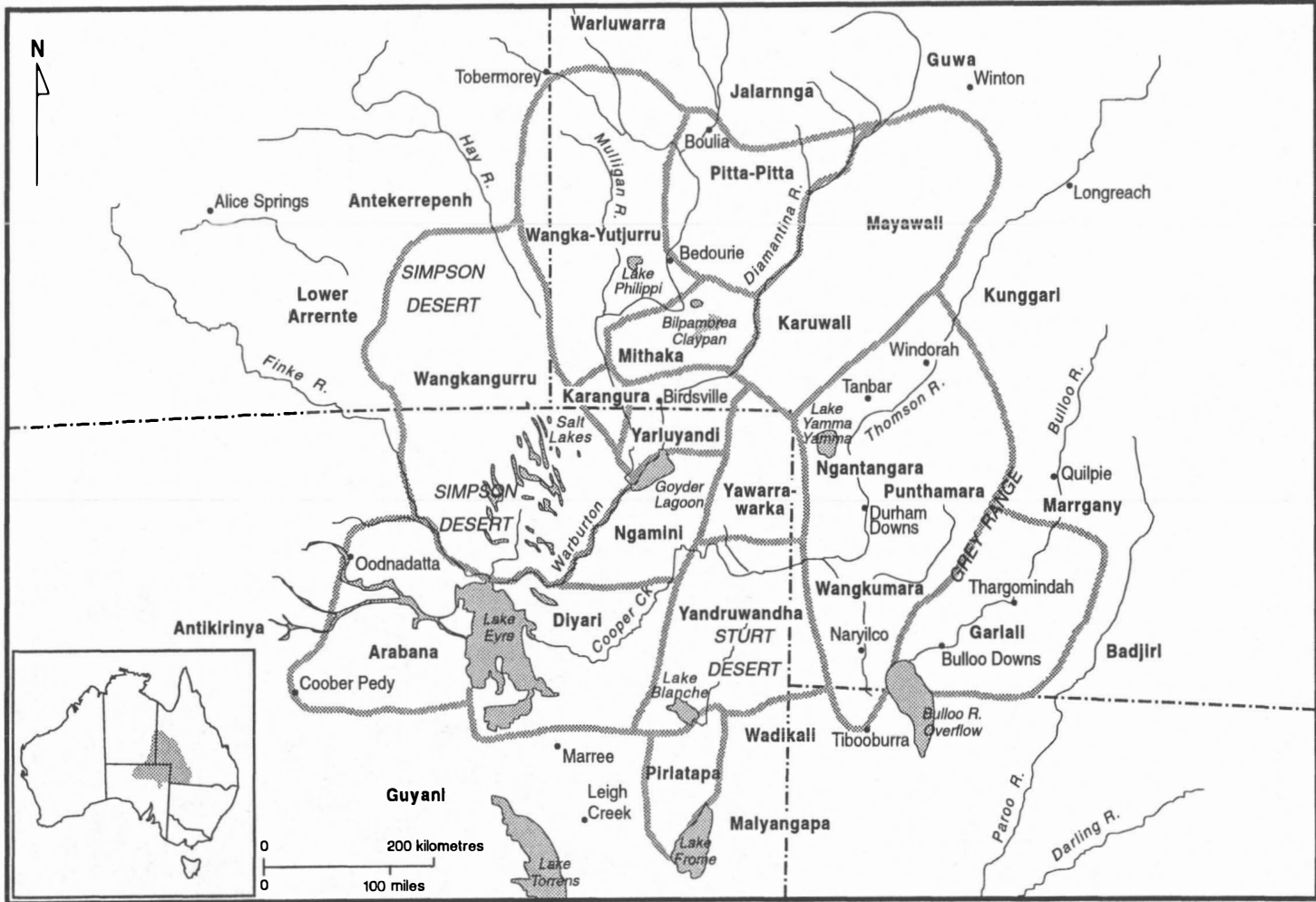
With this comparatively large body of classification already published, another article on the classification of Lake Eyre Basin languages may seem redundant. Yet while all the studies mentioned above recognise a subgroup 'Karnic', opinions differ greatly as to its composition. In earlier studies, the geographical area of the Lake Eyre Basin is usually described as containing three or four Pama-Nyungan subgroups, none apparently more closely related to another than to any other Pama-Nyungan subgroup. Breen (1971) is the first to recognise any strong genetic relations, but since his focus was on Western Queensland, his survey does not include the Western and Southern Karnic languages.² Austin (1990a) omits Arabana-Wangkangurru from Karnic and places the language as a subgroup-level isolate.

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- 1 See Map 1 for the approximate location of the relevant languages. Boundaries and placement of language names are approximate and indicative only. In some cases one language name has been used as a cover term for several mutually intelligible dialects (see Table 1).
 - 2 This should not at all be read as a criticism, more a comment as to why there is need for a study in genetic terms of the whole of Karnic as thorough as the one which Breen did of the geographical area of Western Queensland.

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Forty years on: Ken Hale and Australian languages, 245–261.
Canberra: Pacific Linguistics, 2001.

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245



Map 1: Languages of the Lake Eyre Basin

This paper³ contains a new classification of the languages of the Lake Eyre Basin, based on the results of my reconstructions of proto-Karnic nominal (and to a much lesser extent verbal) morphology (presented in detail in Bowers 1998). I aim here to present the evidence for Karnic as a genetic subgroup of Pama-Nyungan and delineate the languages which belong to such a subgroup. Because of limitations of space, I omit arguments for the internal structure of Karnic.⁴ These reconstructions follow in no small way from the pioneering work of Ken Hale and his classification and reconstruction of Cape York languages (for example, Hale 1964, 1966, and 1976). Australianists are profoundly indebted to Ken Hale for his early survey work and meticulous collection of language data, as well as his thorough and lucid work on comparative and historical linguistics within Pama-Nyungan.

2. Reconstruction, subgrouping and morphology

R.M.W. Dixon's (1997) *The rise and fall of languages* has done much to remind historical linguists that genetic relationships must not be assumed, but must rather be rigorously demonstrated in each case. In areas of prolonged contact between speakers of different languages, we must be careful that apparent similarities are not due to extensive borrowing between otherwise unrelated (or distantly related) languages. Dixon (1997:22) gives a number of well-known morphological characteristics that are unlikely to be borrowed. These are suppletive paradigms (such as *good, better*), morphological irregularity (for example, gaps in paradigms and irregular conjugation), and complete paradigms.

Such evidence is used here in the consideration of the genetic status of Karnic as a subgroup of Pama-Nyungan (§4 below) and in the evaluation of the affiliation of a number of the peripheral languages (§5.2). While lexicostatistical evidence will also be briefly discussed, the primary evidence for the genetic classifications presented here is morphological.

3. Data survey⁵

Almost all of the languages of the Lake Eyre Basin are now extinct, and some have been extinct for a considerable period of time. There are thus a number of gaps in this classification, due to lack of data. While Diyari has been the subject of detailed field studies by Reuther (1891), Hale (1959), and Austin (1981), some languages are known only through short wordlists from the nineteenth and early twentieth centuries, such as those in Curr (1886–87). Others are simply names on a map.⁶ The possibly Karnic languages not included here due to lack of materials are Birria (Pirriya);⁷ Pirlatapa;⁸ Kungkari and

³ I thank Harold Koch, David Nash, Mary Laughren, and Barry Alpher for many useful comments on earlier drafts of this paper.

⁴ The intermediate subgroups of Karnic are discussed in detail in Bowers (1998).

⁵ Much of the data on which the reconstructions are based are unpublished. I am very grateful to Luise Hercus and Gavan Breen for the data (unpublished field notes and personal communications) which they have so freely given me.

⁶ The situation with the languages in the eastern part of the Lake Eyre Basin is particularly messy. I hope to clear this up at some time in the future.

⁷ This language should not be confused with the much better known Maric language, Biri, spoken further east.

Kungatutyi;⁹ Karendala, Karuwali and Kulumali; Ngandangara;¹⁰ Tereila and Marulta; Bitjara;¹¹ Karangura;¹² and Wadikali and Karenggapa.¹³ Another name which appears frequently in the classifications is Ngurawola. Breen's (1975b) informants analyse this as the Yandruwandha word for uninhabited country (lit. '*camp*-privative'). Alternatively (Howitt 1904:685), the name could be Ngurrawarla ('always-humpy') and referred to a separate group which was absorbed into the Yawarrawarrka.

Table 1 gives the languages considered in this classification, abbreviations, and relevant sources. Dialect clusters for which only one dialect is known well, or whose members are sufficiently similar to one another to be treated together here, are listed under the main dialect.

Table 1: Languages and sources

Language and dialects	Major sources	Abbrev.
Pitta-Pitta (and Kunkalanya, Rakaya, Karanya, Ringuringu)	Blake and Breen 1971; Blake 1979; Roth 1897	PP
Wangka-Yutjuru (and Talimana, Lhanima)	Blake and Breen 1971; Blake 1979	
Arabana-Wangkangurru	Hercus 1994, n.d. b; Reuther 1891	Ara
Mithaka	Breen n.d. b	Mith
Ngamini (and Yarluyandi)	Breen n.d. c; Hercus n.d. e	Nga
Diyari (and Thirrari)	Austin 1978, 1981; Reuther 1891	Diy
Yandruwandha (and Yawarrawarrka, Nhirrpi)	Breen 1975a, 1995, n.d. e; Wurm 1958; Bovern 2000; Reuther	Yandr
Wangkumara (and Kungadutyi)	Breen 1967, n.d. d; Robertson 1984	Wang
Punthamara	Holmer 1988; McDonald and Wurm 1979; Breen 1967, n.d. d	Pun
Garlali	Breen 1967-78; Holmer 1988; Peter Hood pers. comm., March 1999	Garl
Badjiri	Mathews 1905 and n.d.; Breen n.d. a	Badj
Malyangapa	Hercus n.d. c; Austin n.d.	Maly

⁸ The few recorded sentences are thoroughly examined in Austin (1990b).

⁹ This is not the Southern Queensland Mari dialect (Breen 1971:31-3; Capell 1963) but a language spoken on the lower Barcoo and Thomson rivers. The small amount of recorded data are analysed in Breen (1990:22-64). Data for Kungatutyi are too uncertain at present to make any further comments.

¹⁰ This was said by George Dutton (to Luise Hercus, 1968) and confirmed by the last Garlali speaker, Peter Hood (pers. comm., March 1999), to be a dialect very close to Wangkumara.

¹¹ Again, this should not be confused with the much better known Maric language of the same name (described by Breen 1973).

¹² For a thorough analysis of the meagre recorded information, see Hercus (1991) and Austin (1991). From the very few surviving data it would appear to be a dialect of Ngamini.

¹³ Malyangapa is the only language of this group for which there are enough data suitable for comparative work.

4. Evidence for a Karnic subgroup

Some Lake Eyre languages are always classed as Karnic, while others are deemed Karnic by some authors and excluded from the subgroup by others. These languages and the evidence for inclusion or exclusion will be discussed in §5. More basically, however, it is worth considering the evidence for the existence of a single language ancestral to the modern Karnic languages. If the scenario postulated in Dixon (1997) is correct, then the similarities between the languages of the Lake Eyre Basin could be due to diffusion between languages in contact, and there might never have been a protolanguage. It is therefore necessary to consider the evidence for a genetic subgroup in some detail.

In this section I will present some of the evidence for considering Karnic a genetic subgroup of Pama-Nyungan, and some reasons against viewing the Lake Eyre Basin as a diffusion area with no genetic links. Evidence to be considered here involves features of the languages which they share and which other Pama-Nyungan languages do not share. I will thus present reconstructions which show there to be innovations between proto-Pama-Nyungan (hereafter PPN) and proto-Karnic (PK) (thus implying that there are lexical and morphological innovations which all Karnic languages share). In §4.1 there is also a brief survey of the lexicostatistical data.

4.1 Lexicostatistics¹⁴

According to Dixon (especially 1972, 1997), the typical percentage of common lexical material (under the assumption that loans are counted, together with common inheritances) for languages in a diffusion area is between 40 and 60 per cent (Dixon 1972:331–6). Figures higher or lower than this may indicate either that the period of contiguity has been quite short (something we can rule out if we are assuming large-scale grammatical borrowing) or that the relationship is perhaps a genetic one.

Now, we do not find a figure of around 50 per cent between many pairs of languages spoken in the Lake Eyre Basin, whether Karnic or not (see Table 2). Typically the cognate density (lexicostatistical percentage) is either considerably higher or considerably lower. Consider, for example, the cognate densities of 73 per cent between Diyari and Ngamini, 85 per cent between Yandruwandha and Yawarrawarrka, a mere 7 per cent between Mithaka and (non-Karnic) Warluwarra, and the 21 per cent between Ngamini and (non-Karnic) Malyangapa. Indeed, the great majority of cognate densities which approach the equilibrium level of 50 per cent in Karnic are those for which the data are very meagre, such as for Yandruwandha and Mithaka (50 per cent) and for Garlali and Badjiri (56 per cent). So, almost nowhere in the Lake Eyre Basin do we find lexicostatistical percentages which can be thought to imply a long history of mutual borrowing according to the hypothesis that Dixon (1972, 1997) proposes.

¹⁴ The sources for the lexicostatistical percentages presented here are the percentages given in Breen (1971, 1990), using a 100-word list, my own counts from Breen's wordlists, and, for the languages not included in Breen (1971), the additional sources mentioned in Table 1.

Table 2: Lexicostatistical percentages¹⁵

Warluwara	Warl											
PP	7	PP										
Arabana	13	35	Ara									
Mithaka	15	44	44	Mith								
Yarluyandi	8	48	40	75	Yarl							
Ngamini	12	35	41	52	74	Nga						
Diyari	11	20	22	42	65	73	Diy					
Yandruwandha	6	37	27	50	67	50	56	Yandr				
Wangkumara	13	20	29	30	38	36	22	38	Wang			
Malyangapa	8	16	29	30	21	21	33	22	35	Maly		
Badjiri	12	16	18	20	25	26	24	22	26	29	Badj	
Marrgany	9	13	14	13	14	17	16	19	14	14	26	Marrg

Furthermore, there are a number of well-documented areas where speakers of Karnic languages have had longstanding contact outside the Karnic area (see, for example, the archaeological survey reported in McBryde (1987)). If all similarities between Karnic languages are due to diffusion, we would expect to find a strong correlation between the amount of contact between the speakers of different languages and the number of shared features. Put simply, if Karnic is a linguistic area, the languages that make up Karnic should have a lot in common. The Lake Eyre Basin, however, does not show any significant correlation between contact and linguistic similarity. For example, Arabana-Wangkangurru shares many grammatical features with languages such as Wangkumara (and has a cognate figure of 25%), a language with which Arabana-Wangkangurru speakers would have had very little contact, and yet it shares little with Lower Arnhemte (10% cognates, very few grammatical features), where contact has been extensive (Hercus n.d. a and n.d. d).¹⁶

So, while the evidence from lexicostatistics is by no means conclusive, it should serve as a warning that the relationships in the Lake Eyre Basin might not be simply the result of extensive borrowing between languages, and that there may be some genetic basis for the similarities.

¹⁵ Languages names in bold are Karnic. All figures are percentages. Note that some of these figures may be revised when (and if) more accurate data become available. For example, because of gaps in the data, the list for Mithaka contains only 66 items, and these percentages are therefore obviously less accurate than those between well-attested languages.

¹⁶ Alpher and Nash (1999:7) propose an equilibrium figure of considerably less than Dixon's 50 per cent, and they note that "equilibrium figures are in general low enough that language classification can proceed using lexicostatistics as a pointer to a first approximation". If we take Alpher and Nash's figures, the lexicostatistics presented in this section are better evidence for a genetic subgroup than they are assumed to be.

4.2 Innovations from proto-Pama-Nyungan

4.2.1 The lexicon

Proto-Pama-Nyungan and proto-Karnic differ in the reconstruction of core vocabulary (see Table 3). This is good evidence that there have been innovations between PPN and PK.

Table 3: Comparison of PPN and PK lexical reconstructions¹⁷

PPN	PK	English	PPN	PK	English
* <i>kumpu</i>	* <i>purra</i>	urine	* <i>parŋV</i>	* <i>paku</i>	dig
* <i>kami</i>	* <i>kanyini</i>	mother's mother	* <i>parnta</i>	* <i>marda</i>	stone
* <i>kutharra</i>	* <i>parrkulu</i>	two	* <i>parmi</i>	* <i>parthama</i>	smell
* <i>muka</i>	* <i>pampu</i>	egg	* <i>patha</i>	* <i>matha</i>	bite
* <i>rga-</i>	* <i>thayi</i>	eat	* <i>purlka</i>	* <i>pirna</i>	big
* <i>rgalima</i>	no category	1d.excl.	* <i>tharrV</i>	* <i>tharrka</i>	stand
* <i>rgayɪ</i>	* <i>kami</i>	mother's father	* <i>thalany</i>	* <i>tharli</i>	tongue
* <i>rguna</i>	* <i>parri</i>	lie down	* <i>paka</i>	* <i>paku</i>	dig
* <i>rhu-</i>	* <i>rgurɪyɪ</i>	give	* <i>partu-</i>	* <i>karlathurra</i>	turkey
* <i>rhuonpVIV</i>	* <i>rhula</i>	2dl	* <i>kurka</i>	* <i>kimpa</i>	alive, raw
* <i>ryäna</i>	* <i>rgama</i>	sit	* <i>parŋkarra</i>	* <i>kaba</i>	blue-tongue

The differences in vocabulary include complete replacement of the PPN item (compare PPN **partu* 'turkey', PK **karlathurra*), semantic shift between PPN and PK (compare PPN **kami*, PK **kanyini* 'mother's mother')¹⁸ and minor differences between the two stages (e.g. PPN **paka*, PK **paku* 'dig'; PPN **patha*, PK **matha* 'bite').

4.2.2 Morphology

Better evidence for a strong genetic relationship, however, is innovation in morphology. The reconstructed pronominal paradigms for PK and PPN are an appropriate place to start. The forms are given in Table 4.

¹⁷ The sources for PPN lexical reconstructions are Koch (1996); O'Grady (1990); Dixon (1980), and Capell (1963). The source for PK is Austin (1990a). A number of doubtful items have been omitted from both lists. The orthography is that used in Hercus (1994), which is a practical orthography most suited to the phonemic contrasts in Karnic languages. The velar nasal is written *ng*, stops are written as voiceless (except, of course, in the Karnic languages with phonemic voicing contrasts) and there are three rhotics—the trill is written *rr*, the flap *r* and the glide *R*.

¹⁸ **kami* is preserved as another kin term, 'father's mother', also reconstructable to PK.

Table 4: Comparison of PPN and PK reconstructed pronouns

		1st person	2nd person	3 masc	3 fem	
Singular	Erg	PK	<i>*ngathu</i>	<i>*nyuntu</i>	<i>*nhulu</i>	<i>*nhantu</i>
		PPN	<i>*ngay-DHu</i> ¹⁹	<i>*ngin-tu</i>	<i>*NHulu</i>	<i>*NHantu</i>
PK	Nom		<i>*nganyi</i>	<i>*nyun</i>	<i>*nhV</i>	<i>*nhan</i>
		PPN	<i>*ngay</i>	<i>*ngin</i>	<i>*NHu</i> , ²⁰ <i>*ngu</i>	<i>*NHan</i> ²¹
PK	Acc		<i>*nganha</i>	<i>*nyuna</i>	<i>*nhinha</i>	<i>*nhana</i>
		PPN	<i>*nganha</i>	<i>*ngin-nha</i>	<i>*nhunha</i>	<i>*nhana</i>
PK	Dat		<i>*nganya</i>	<i>*nyunku</i>	<i>*nhuku</i>	<i>*nhanku</i>
		PPN	<i>*ngay + GEN/ *ngatyu</i> ²²	<i>*ngin + GEN</i>	<i>*nhu + GEN</i>	<i>*nhan + GEN</i>
Dual	Nom	PK	<i>*ngali</i>	<i>*nhula</i>	<i>*pula</i>	
		PPN	<i>*ngali</i>	<i>*NHuNpalV</i>	<i>*pula</i>	
Plural	Nom	PK	<i>*ngana</i>	<i>*nhura</i>	<i>*thana</i>	
		PPN	<i>*ngana-</i>	<i>*NHurra</i>	<i>*THana</i>	

Of the pronominal stems, the most divergent is the second-person dual; this form in PK is quite different from that reconstructed for PPN. The first-person singular paradigm also reveals a number of changes between PPN and PK, in particular the PK dative and the nominative cases. Internal reconstruction within PK leads to a reconstruction of the dative form as **ngany-nga*, which is the nominative stem and the proto-Karnic reflex of the proto-Pama-Nyungan locative **-ngga*. The PPN locative became the marker of dative in all pronouns within PK (Bower 1998:71ff.). This form also shows dissimilation of a nasal cluster, a change which is regular in Karnic (such clusters are not permitted in the phonotactics of almost all the daughter languages).²³ The stages are outlined below:

- (1) Stage I: **ngany-nga*
 Stage II: **ngany-ka* (dissimilation of nasal cluster)

¹⁹ Dixon (1980) reconstructs **ngay-DHu*; Dixon (1991) reconstructs **ngaDHu* and suggests that this reflects an earlier ***ngay-DHu*; obviously **ngaDHu* is almost identical to the form reconstructed for PK.

²⁰ *NH* denotes that the nasal is lamino-dental in the languages with both *nh* and *ny* (and lamino-palatal in the languages with a single laminal series). See Dixon (1970, 1980:153–5). Likewise *DH* denotes the lamino-dental series in the languages with a phonemic contrast between *th* and *ty*.

²¹ Dixon (1980) does not explicitly reconstruct a feminine stem. Blake (1991) gives **nyan* as the feminine in the Eastern part of the continent, but see Bower (1998:158–9) for cognates in Western languages and reasons for considering it of possible PPN antiquity.

²² The first is from Dixon (1980), the second from Koch (1997). *Ngatyu* or a similar reflex is found in many languages surrounding Karnic (see forms quoted in this paper).

²³ For the phonetics of this see Blevins and Marmion (1994).

Stage III: *nganytya (assimilation of the nasal+stop cluster)

No etymology of the PK nominative *nganyi is possible at this time, although the etymology for the dative relies on its existence in PK before the shift of the locative *-nga to dative meaning.

The stem of the second-person dual, PK *nhula, is probably related to PPN *NHuNpaIV by syncope of the unstressed syllable (stress at all stages of Karnic is on the initial syllable of the word); clearly it is more likely that this change happened once, in a language which was ancestral to all Karnic languages, than individually, in each daughter language.

This is the best evidence for the existence of a genetic subgroup 'Karnic', since firstly, pronouns are more resistant to diffusion than lexical items (see Austin 1990a:177; Breen 1990:2), and secondly, suppletive paradigms are unlikely to be borrowed (see, for example, Dixon 1997:22).

4.3 Irregularities and suppletion in paradigms

While the reconstruction of different paradigms provides evidence for the existence of a 'proto-Karnic', some comment should be made on the validity of such reconstructions. It is possible that the forms could have diffused through the Lake Eyre Basin, giving the appearance of common innovation. However, if such a scenario is assumed for Karnic, we must assume the diffusion of a number of linguistic features which are normally quite resistant to diffusion. This is thus very good evidence that the languages considered to be Karnic are a genetic group and not only a diffusion area. Two features are mentioned briefly here (see Bowerman 1998 for others).

The vowel of the third-person masculine singular paradigm shows the same irregularities in many Karnic languages (apart from some dialects which have undergone analogical levelling). The vowel of the stem of the pronoun is *u* in the ergative and *i* in the accusative. The nominative varies between *i*, *u*, and *a*; the original situation is unrecoverable because of analogical levelling in different directions in the daughter languages. Nonetheless, the alternation between the stems *nhu-* and *nhi-* is not found outside Karnic in neighbouring languages such as Malyangapa (ergative *nhundu*, nominative *nhunu*, accusative *nhunha*) and Marrgany (no ergative, nominative *nhula*, accusative *nhungunha*) (Breen 1981:303).

The paradigm of the PK first-person singular is built on a partially suppletive stem. The ergative, nominative and dative are unanalysable forms (*ngathu, *nganyi, *nganytya), whereas the accusative is built on a stem *nga- (*nganha). Oblique cases were added to the dative *nganytya. The forms under consideration are peculiar to the languages considered to be Karnic and do not occur in neighbouring languages (cf. Adnyamathanha ergative *ngathu, absolutive *ngai*, dative *ngatyu*; Gunya no ergative, nominative *ngaya*, accusative *nganha*, dative *ngatyu*; Kalkatungu ergative *ngathu*, absolutive *ngai*, dative *ngatyi*). The fact that not just single forms but whole paradigmatic relations can be reconstructed and attributed to a set of languages is good evidence for a genetic relationship.

4.4 Summary

I have discussed several different types of evidence which support the claim that Karnic is a genetic subgroup. These are inherited irregularities and suppletion in paradigms and lexical innovation. This is not to say that all similarities between Karnic languages are the result of shared genetic inheritance; quite the reverse, for borrowing and calquing have been extensive

in a number of areas, especially between Diyari and Yandruwandha, Yandruwandha and Wangkumara, and Pitta-Pitta and the Warluwarric languages (for evidence and discussion see Bower 1998). Despite this, however, it has been possible to provide good evidence that Karnic languages share a number of features that are normally resistant to borrowing. Thus the genetic status of Karnic should stand.

5. The composition of Karnic

While in the previous section the evidence for Karnic as a genetic subgroup was presented, the exact composition of the group still needs to be discussed. There are a number of languages which have doubtful affiliations to the Karnic group. Various studies have placed these languages in different families: either as subgroups of Karnic, as subgroups of other families, or as groups in their own right. In this section the evidence for each of the controversial languages will be discussed.

5.1 Definitely Karnic

There is no space to present the evidence for subgrouping within Karnic; however the family tree is given in Figure 1 (from Bower 1998). These languages are classed as Karnic in all previous classifications.

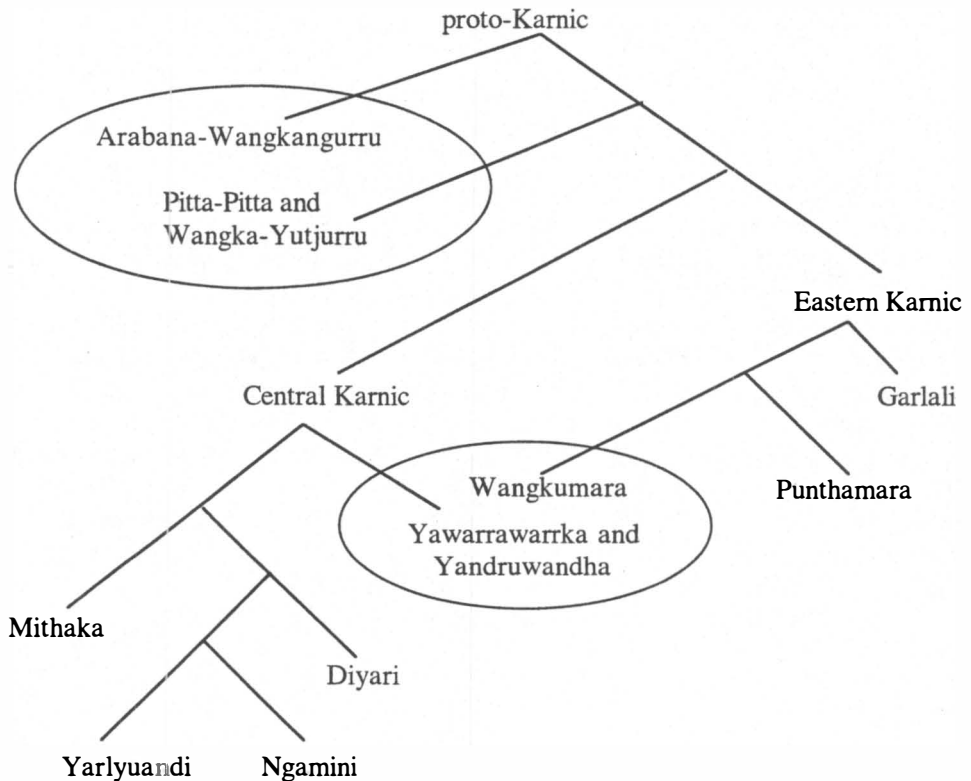


Figure 1: Family tree of Karnic

5.2 Doubtfully Karnic

5.2.1 The Yarli languages

The Yarli languages (Malyangapa, Wadikali, and Yardliyawara) were spoken immediately to the south-east of the main Karnic group, contiguous with Pirlatapa, Yandruwandha and Wangkumara. The main sources of grammatical information on them are Austin (n.d.) and Hercus (n.d. c). These languages are deemed part of the Karnic group by Walsh and Wurm (1981), following Wurm (1972) and O'Grady, Voegelin, and Voegelin (1966). A comparison of the morphology of these languages with that reconstructed for Karnic (as well as a comparison with modern Karnic languages) shows that while Yarli languages appear to share some features with Karnic languages, there are many fundamental points of difference (elaborated in Bower 1998:30ff.). Table 5 lists these.

Table 5: Comparison of Yarli languages and proto-Karnic

	Malyangapa	proto-Karnic
Nominal dative	<i>-dha</i>	*-ku
Pronominal dative	<i>-dha</i>	*-nga
Locative	<i>-nga</i>	*-la
Ablative	<i>-dyali</i>	*-ngu
3sg pronoun	<i>nhu-</i>	*nhan (fem), *nhu (masc)

Malyangapa does not share the shift of the locative case to the dative in pronouns, a change which occurs in all Karnic languages. In fact, Malyangapa's dative (which covers the function of the genitive) is different from the dative in Karnic languages. The ablative is not based on an allomorph of the ergative. This is a trait shared by all Karnic languages and results from a very early (common Karnic) sound change in which homorganic nasal+stop clusters were reduced to a nasal when preceded by an unstressed syllable. This resulted in the homophony of the ablative (PK *-ngu < PPN *-ngu) and the ergative (PK *-ngu < PPN *-ngku). Many languages conflated the ergative and ablative cases, but others preserve one allomorph of the ergative (although not necessarily a reflex of *-ngu, the source of the homophony) as an ablative (cf. Arabana-Wangkangurru ablative/ergative *-ru*). Yarli languages show no signs of any of these changes. They also show no trace of gender (other Karnic languages either have masculine and feminine third-person singular pronouns or can be shown to have lost them recently). Finally, Yarli languages do not share the irregularities in the paradigm of the third-person singular (cf. the forms quoted in §4.3 above).

Where these languages show similarities to Karnic languages, these similarities are also found in many other parts of the country. Some of these similarities include the interrogatives *minha* 'what' and *waRa* 'who'. There seems to be no immediate connection between Yarli languages and the languages of the rest of the Lake Eyre basin. One feature which Malyangapa does share with Karnic is the suppletive first-person singular paradigm *ngadhu*, *nganyi*, [*nganyinha*], [*nganu*] (compare the widespread PPN nominative **ngaya*). This may indicate the existence of an intermediate subgroup between PPN and PK which includes the Yarli languages. However, there are sufficiently many innovations shared by the rest of Karnic, which do not include Yarli languages, that there are good reasons for excluding Yarli from a Karnic subgroup.

5.2.2 *Garlali*

The name 'Garlali' (also known in the literature as Kalili or Kullila) has been used to refer to a number of different languages once spoken in the far south-western corner of Queensland. Part of the confusion lies in the doubt as to the placement of Wangkumara and Garlali country (see Breen 1971:12). No doubt there was frequent interaction between Garlali and Wangkumara speakers. For example, Charlie Phillips, the informant for McDonald and Wurm's (1979) grammar, was bilingual in Punthamara and Garlali (he was a Punthamara or Wangkumara man but grew up in the area of Thargomindah, in modern Garlali country). He had a preference for speaking Punthamara, and would do so even when asked for sentences in Garlali.²⁴ Confusion as to the language spoken in elicitation has led to a number of different descriptions of Wangkumara and Garlali being published under the wrong names.

McDonald and Wurm's (1979) *Basic materials in Wangkumara (Garlali)* is probably neither Wangkumara nor Garlali, but Punthamara. Holmer (1988) contains data on both Punthamara and Garlali; his Punthamara is very close to the language described by McDonald and Wurm (1979) while the Garlali accords with that recorded by Breen (1973/1974) and Bowern (1999). This is the correspondence of languages to data used in this study (for further justification and comparison of forms within the sources see Bowern 1998:33ff.).²⁵

Wangkumara and Garlali have a considerable amount of grammatical material in common, and show a number of common innovations. Garlali also differs from its nearest neighbour for which data are available, that is, Badjiri (data from Mathews (1905)). Compare the forms shown in Table 6.

Table 6: Comparison of assorted grammatical items in Badjiri, Garlali, proto-Karnic and proto-Eastern-Karnic²⁶

Form	Wangkumara	Garlali	proto-Eastern-Karnic	Badjiri
3dl nom	<i>pula</i>	<i>pula</i>	* <i>pula</i> (PK * <i>pula</i>)	<i>punipula</i>
Case split in 3dl	erg, nom, acc	erg, nom, acc	erg, nom, acc (PK erg, abs)	erg, abs
1sg nom	<i>nganyi</i>	<i>nganyi</i>	* <i>ngayi</i> (PK * <i>nganyi</i>)	<i>ngayi</i> (PPN * <i>ngay</i>)
3sg nom	<i>nhu-</i> (masc)	<i>nhu-</i> (masc)	<i>nhu-</i> (masc)	<i>kuninha</i>
nominal acc	<i>-nha</i>	<i>-nha</i>	<i>-nha</i> (PK * \emptyset)	\emptyset

²⁴ Hence the title of the book—*Basic materials in Wangkumara (Garlali)*. This has been confirmed by the last speaker of Garlali, Mr Peter Hood (pers. comm., March 1999).

²⁵ Gavan Breen has recently shown me data he recorded from a language which his informants called "Garlali" (part of Breen 1967–78). These data are quite different from other Garlali in Breen (1967–78), from what Holmer (1988) recorded, and from the 'Garlali' material Luise Hercus and I collected from Peter Hood in 1999. It seems that we face the same situation for Garlali that exists for several other languages in the region, including Wangkumara and Kunggarri—that is, there are two quite distinct languages, spoken in approximately the same area, with the same name. More work is required on the linguistic situation in this area and the classification of 'Garlali' may later need to be changed.

²⁶ This is the intermediate subgroup of Karnic which also includes Wangkumara and Punthamara.

Form	Wangkumara	Garlali	proto-Eastern-Karnic	Badjiri
locative	<i>-langa</i>	<i>-nga</i>	<i>-nga</i> (nom), <i>-la</i> (pronom)	<i>-la</i>
nominal erg	masc <i>-ngu</i> , fem <i>-ndru</i>	<i>-ngu</i>	masc <i>-ngu</i> , fem <i>ind(r)u</i>	<i>-lu</i>
nominal dat	<i>-nga</i>	<i>-nga</i>	<i>-nga</i> (PK <i>*-ku</i>)	<i>-ku</i>
nominal nom	marked for masculine and feminine	marked for masculine and feminine	juxtaposition of pronouns to mark definiteness (see Bowern 1998:48ff., 104ff.)	\emptyset

These items were selected because they are uncontroversial in both Garlali and Badjiri (both languages are very incompletely described and these were almost the only forms which were attested unequivocally in both languages).

Thus it appears that we can not only group Garlali within Karnic but we can also state the subgroup. Garlali appears quite closely related to Wangkumara and part of the Eastern Karnic subgroup. It is possible, of course, that very heavy borrowings from Wangkumara into Garlali, or vice versa, could have obscured original differences. Very detailed reconstruction (or further data) may reveal that Garlali has closer affinities to language groups other than Karnic; for the moment, however, that Garlali shares suppletion and morphological similarities with Wangkumara suggests that it is correctly included in the Karnic subgroup.

5.2.3 *Badjiri*

Badjiri was spoken immediately to the east of Garlali. Data on Badjiri are from Mathews (1905) and Breen (n.d. a). Badjiri is included as Karnic by Breen (1971) and by Walsh and Wurm (1981). The grammatical data in Mathews (1905) are ambiguous. His orthography is not phonemic and can be difficult to interpret. The sketch grammar cites few forms—full tables are not given, although on several occasions it is mentioned that other forms have been reported. Mathews' field notes are often illegible and also differ in places from the published material.

Badjiri's most revealing nominal comparative data have already been presented in Table 6, and the classification of Badjiri can be given little further comment. If Badjiri is a Karnic language, it is not an Eastern Karnic language. Badjiri also shares little (if any) verbal morphology with other Karnic languages. Compare, for example, the present *-na* (PK **-yi*). While it seems that Badjiri shares little morphology with its Karnic neighbours and should not be classed as Karnic, given the lack of available data this must be considered a highly tentative classification.

5.2.4 *Arabana-Wangkangurru*

Austin (1990a) is thus far the only author to propose that Arabana-Wangkangurru is not part of the Karnic subgroup. His reasons are based on the fact that Arabana-Wangkangurru shares none of the innovations from PPN that he reconstructs for PK. If Austin's reconstructions are correct, then there is indeed good reason to doubt the Karnic affiliation

of Arabana-Wangkangurru. The reconstructions in Bowern (1998), however, differ considerably from those in Austin (1990a). Table 7 lists some of the forms of major difference.²⁷

Table 7: Comparison of reconstructions given in Austin (1990a) and Bowern (1998)

Gloss	Austin	Bowern
3sg masc nom	*nhawu	*nhu
3sg masc dat	*nhungkarni	*nhuku
3sg fem nom	*nhani	*nhan
1pl inc nom	*ngandra ~ *nganta	*ngana
1sg dat	*ngaka-	*ngantya
loc	no reconstruction	la ~ nga
erg	li ~ ntu	lu ~ ngu
dat	-ngka	-nga

Austin's primary evidence for not including Arabana-Wangkangurru as Karnic is the resemblances of the pronouns. Arabana-Wangkangurru does not mark the first-person singular dative with reflex of a stem *ngaka-, a stem which Austin (1990a:183) reconstructs to PK. Also, there is no distinction in gender in the third-person singular in Arabana-Wangkangurru. However, the dative stem *ngaka-* is an innovation in the Central Karnic languages (Diy, Nga, Yarl, Mith, Yandr); it does not occur in Pitta-Pitta, Wangka-Yutjuru, Wangkumara, or Garlali. These languages (along with Arabana-Wangkangurru) reflect an earlier stem *ngantya, while *ngaka- has been shown in Bowern (1998:71ff.) to be result of phonological and analogical changes within the dative pronominal paradigms. Thus this is not convincing evidence on which to exclude Arabana-Wangkangurru from Karnic. While Arabana-Wangkangurru has no gender distinction in its third-person singular pronouns (along with the Karnic language Wangka-Yutjuru), this is not a convincing reason to exclude Arabana-Wangkangurru from Karnic either. The third-person singular in this language is based on an invariant stem *uka-*; this stands out within Arabana-Wangkangurru because most of the pronominal paradigms in this language involve some degree of stem suppletion or fusion. In Bowern (1998:160ff.) it is argued that this form is a recent innovation and that the old third-person pronouns, including remnants of a feminine stem *nha(n), are preserved in deictic demonstrative stems.

Moreover, Arabana-Wangkangurru appears to have participated in a number of changes which are reconstructed to proto-Karnic. Arabana-Wangkangurru shares the change of the PPN locative *-ngka (> PK *-nga) to mark dative in pronouns; this triggered a number of radical sound changes in the paradigms of pronouns with stems ending in nasals and is the cause of the first-person singular dative *ngantya (Arabana-Wangkangurru *anth-*; see example (1) above). Arabana-Wangkangurru has also undergone some grammatical restructuring as the result of PK sound changes (such as the reduction of nasal-stop clusters

²⁷ There is in Austin (1990a) no justification or explication of the relative chronology of the changes which are reconstructed, and no justification of these reconstructions. Austin does not show how any of the reflexes in the daughter languages provide support for his reconstructions, nor does he comment on the origin of the forms in the Karnic languages which deviate from his reconstructions.

mentioned in §5.2.1 above). Finally, Arabana-Wangkangurru has three rhotic phonemes [r], [r̥], and [ɻ], a remnant of a distinction in voicing between the apical stops [t] and [d] in PK (Austin 1990a; Bowern 1998:43–4).

Thus Austin's (1990a) arguments against the inclusion of Arabana-Wangkangurru in Karnic are not convincing: Arabana-Wangkangurru is a part of the Karnic subgroup.

6. Conclusions

The composition of the Karnic subgroup of Pama-Nyungan presented here is not precisely identical to any previous classifications. It differs from the studies of the 1960s such as O'Grady, Voegelin, and Voegelin (1966) in excluding the Yarli languages and Badjiri, but it is also more inclusive than Austin's (1990a) classification, which omits Arabana-Wangkangurru and Garlali.

Part of the difference in classification is a result of the type of material used; this study has relied heavily on morphology (especially nominal and pronominal), the sharing of suppletive and irregular paradigms and similarities between forms in whole paradigms, and the relative chronology of changes.

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18 *The tragedy of Nauo*

LUISE HERCUS AND JANE SIMPSON

1. Introduction¹

The single most important step forward in the study of Aboriginal languages of the southwest of South Australia was the fieldwork carried out by Geoffrey O'Grady and Ken Hale from 1957 to 1960. They recorded data in Barngarla, Wirangu, Kukata and Mirminy, and of course also made a massive contribution to knowledge of Western Australian languages. They did all this in days when transport, accommodation and the practical aspects of fieldwork were more difficult than today, but they had the great advantage that in many cases they were able to work with fluent speakers. Theirs was truly pioneering survey work.

They did not find speakers of Nauo, the language of Coffin Bay on the southern tip of Eyre Peninsula. Tindale (1974) considered that the language was extinct by the time he investigated its status in the 1930s. In this paper we summarise what is known of Nauo, and attempt to position it within the language ecology of the west coast of South Australia. We argue that the Nauo people were part of a chain of culturally related groups living on Eyre Peninsula and along the west coast, and that their language had elements in common with both Wirangu and Barngarla.

¹ We are deeply indebted to a number of people for their expert help and advice, particularly David Nash, Tom Gara, Sarah Martin, Barry Cundy, Kate Alport, Philip Jones, John McEntee, Barry Alpher and Phillip Manning. We thank Gavan Breen for comments which saved us from some bad errors. We thank the South Australian Museum, the Royal Society of South Australia and the National Library of Australia for permission to reproduce material. Conventions: *italics* for nineteenth-century spellings, **bold** for modern spellings; in tables this practice has not been followed, as it might interfere visually. Abbreviations: ADN – Adnyamathanha (major sources: used here: Schebeck 1974, McEntee and McKenzie 1992); BNG – Barngarla (major source: Schürmann 1844b; Schürmann spells the name *Parnkalla*, but we follow the spelling used by modern Barngarla people); KAU – Kaurna (major source: Teichelmann and Schürmann 1840; KUK – Kukata (major sources: O'Grady and Klokeid 1969; Platt 1972); KUY – Kuyani (major source: Hercus n.d.); NUK – Nukunu: (major source: Hercus 1992); WIR – Wirangu (major source: Hercus 1999); proto-Th-Y – proto-Thura-Yura.

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Forty years on: Ken Hale and Australian languages, 263–290.
Canberra: Pacific Linguistics, 2001.

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2. The language ecology

The picture of the language ecology of Eyre Peninsula is complicated by the history of the Nauo and the history of the recording of languages. By the time their name was first written down in the early 1840s, they had endured more than forty years of conflict with Europeans, starting with the removal of women by sealers (Clarke 1998; Amery 1998) and followed by savage conflict with the colonists (Brock and Kartinyeri 1989; Schürmann 1987).

The first records of the Nauo have them as inhabiting the southwest of Eyre Peninsula, in particular Coffin Bay. The information mostly comes from Clamor Schürmann, a missionary in Port Lincoln, and from people who visited or corresponded with him. On 18th May, 1842 he reported:

The natives of Port Lincoln are divided into two tribes called Nauo and Parnkalla. The former live on the coast to the south-west of the settlement and live chiefly on fish, are generally a strong race and often meet in large bodies, not unlike the natives of Encounter Bay. The males have a small ring or circle engraved on each shoulder.

The Parnkalla spread to the north beyond Franklin Harbour and the interior. It is divided into two small tribes, Wambiri Yurrarri² (Coast people) and Battarra Yurrarri³ (Gum tree people) from their living in the interior where gums are plentiful. The two tribes mix occasionally. (Schürmann 1987:152–3)

Headwords in Schürmann's dictionary of Barngarla (Schürmann 1844b) provide further names of groups on Eyre Peninsula and its neighbourhood:

<i>Nauo, Nawo</i>	the national name of the native tribe inhabiting the country about Coffin's Bay
<i>Kukata</i>	national name of a north western tribe of natives said to be very numerous and ferocious
<i>Parnkalla</i>	national name of the native tribes, inhabiting the western coast of Spencer's Gulf and the adjacent country
<i>Nukunnu</i>	national name of a native tribe inhabiting the country about the head of Spencer's Gulf
<i>Wambiri bidni yurarrri</i>	coast people, coast tribe
<i>Battara yurrarri</i>	the definition of a native tribe so called from their country abounding with the scrubby gum

² Compare BNG *wamba* 'side', *wambiri* 'seacoast', *bidni* 'belonging to, originating from', *yurarrri* plural of *yura* 'man', hence *Wambiri bidni yurarrri* 'men of the coast'. Tindale (1974) identifies 'Wanbirujurari' with a southern horde of Barngarla, but gives 'Wanbiri' as a Kukata name for the Wirangu. Compare WIR and KUK *warna* 'sea' found in the name 'Warnubinie' that Higgins (1899) gives for the people of Venus Bay, Streaky Bay and Fowlers' Bay.

³ Compare BNG *battara* 'scrubby gum' and Diyari and Ngamini *patharra* 'coolibah' (Gavan Breen, pers. comm. September 2000). Tindale (1974:214) identifies Battara with a Nauo subgroup, but notes that the Battara gum people 'were not remembered by any of my informants' (Tindale 1928:2). O'Halloran distinguishes the Coffin Bay people from the Battara (Bull 1884:271). Schürmann makes it clear that the Battara were a Barngarla subgroup.

In 1846 Schürmann (Schurmann 1987:251–2) wrote of the area:

The Aborigines inhabiting the Peninsula of Port Lincoln are divided into several tribes, with two of whom the European settlers are in daily contact, namely, the Nauo and Parnkalla tribes. . . . in assuming each tribe as containing 200 souls the real number would by no means be exceeded. The Parnkalla dialect, with which I have made myself principally acquainted, is spoken by the tribe of the same name, inhabiting the eastern coast of this Peninsula, from Port Lincoln northward, probably as far as the head of Spencer's Gulf. The Nauo is spoken in the southern and western parts of this district . . .

Thus the earliest records have a Nauo group distinct from the two Barngarla subgroups.

2.1 The last stronghold of Nauo people

The last stronghold of the Nauo people appears to have been in the beautiful and rugged Coffin Bay area. Tindale gives a good account of this:

The following information was obtained in 1927 from Mr Frank Kent, who first worked on Coffin Bay Station fifty years ago.

The Nauo or Coffin Bay people belonged to a different tribe from the people who visited Port Lincoln from the north. Their principal camping place was at the western extremity of Horse Peninsula. It was at the base of the big sandhills where water could be found by digging: few signs now exist there of the former presence of the natives.

There were camps on each side of the present day Coffin Bay Head Station, one situated half a mile north-east on the point and the others about a quarter of a mile to the south-west. There was another camp situated about three-quarters of a mile south of Crinoline Point, near the beginning of the 'Mile Beach'. The Nauo natives gave much trouble to the settlers in the early days; four troopers being at one time maintained at the Head Station to preserve order. The natives soon became quietened and proved useful in tracking and killing dingoes and kangaroos. They lived to the last near the station. So far as Mr Kent knows the last survivor died between thirty and forty years ago. (Tindale 1928:5)

Tindale also mentions Wirangu people travelling at some time in the 1870s to joint ceremonies with Barngarla people at Lake Wangary, which was obviously an important ceremonial site. Nauo people would probably have been involved too.

Most interesting confirmation of some of Tindale's data has come to light in Martin (1988). The general impression that arises from the local traditions recorded there, though of course it cannot be proved, is that Barngarla people — who had probably come in from the north — mainly speared fish, and Nauo people made extensive use of fishtraps. Especially important is the information on the Coffin Bay area. Mrs Griffith, daughter of Charles Mountford's main informant on fish in the Coffin Bay area, recalled what her parents had told her:

There had been a 'whole tribe of natives' on Coffin Bay, but they had 'just disappeared' and had mostly gone when their father was young. . . . Her mother had told her that when she was a small child in 1878 or 1879 a big lot of natives came down to Wangary—Horse Peninsula from Fowler's Bay. Morris Morgan (an uncle) also told her a similar story about coming across locals and Fowlers Bay people having a fight when he was still at school. (Martin 1988:45)

The records state over and over again that Nauo people 'are all gone now', 'died out', 'disappeared', and there can be no doubt that the language disappeared with the community at Coffin Bay. In the 1920s Tindale (1928:2) was told of a single Nauo speaker, Tommy Arbor,⁴ who was said to be still living at Iron Knob, and one other survivor was mentioned by Elkin (1976:216), 'There is evidence of a Nauo woman living outside original Nauo country at Wilgena in 1900'. More recently further evidence has come to light of the survival of Nauo people: there are still families who can proudly trace some of their ancestry back to Nauo.

2.2 Neighbours of the Nauo

Knowing who the neighbours of Nauo were, and what their relations with the Nauo were like, is important for attempting to establish the linguistic affiliation of Nauo. The earliest evidence of this again comes from Schürmann. In 1846 he wrote:

Besides these, three other tribes are mentioned by the natives as known to them: the Nukunnus in the north-east, the Kukatas in the north-west, and the Ngannityiddis in the north, . . . All these tribes seem in general to be on tolerably good terms with each other, at least it does not appear that there are any hereditary feuds between them, such as exist in other parts of the colony. It is true that the Kukatas are universally feared and abominated, but apparently more on account of their reputed skill in witchcraft and various other dangerous tricks than for their warlike qualities. (cited in Schurmann 1987:251)

The Kukata and the Nukunu are identifiable as modern groups with the same name. The Ngannityiddi are identified by Tindale (1974) as Kuyani, but since Schürmann says they lived northwest of Coffin Bay (Schurmann 1987:156), it is more likely to be another name for the Wirangu (western and northwestern neighbours of Nauo), especially as Schürmann does not use the name 'Wirangu'.

Schürmann's remarks on the good relations between the groups are strengthened by a comment about 'a large concourse of tribes' gathering each year for *nondo* beans (*Acacia longifolia*) 'among the sandhills, between Coffin and Sleaford Bays' (Schurmann 1987:224), presumably on Nauo country. However, he also mentions the Kukata threatening to burn the *nondo* bushes.⁵ This suggests poor relations with the Kukata, which is compatible with (but not proof of) the recent arrival of the Kukata in the area.

The cultural relatedness of the Nauo, Wirangu and Barngarla groups was observed by East (1888–89) and Howitt (1904:47), and is borne out by shared features (Hercus 1999; Provis in Taplin 1879) such as matrilineal moieties (Schürmann 1844b; Bates n.d.; Tindale 1928, 1939), birth-order names, *vardnapa* initiation rites (Schürmann 1846 [Schurmann 1987]) and the *Kuri* dance (Angas 1847:102).⁶ Similar statements from settlers in the area include Higgins (1899), who calls the whole group *Wiluroo* from the *wilyaru* initiation ceremony. He wrote, "Although the Wiluroo Tribe extend along the coast from Port Lincoln

⁴ He was also sometimes referred to as Tommy Harbour.

⁵ Such comments are borne out by illustrative sentences in the dictionary, e.g. 'The Kukata are possessed of witchcraft' (Schürmann 1844b, headword *mintapa*).

⁶ *Kuri* is a widespread word for 'circle, ring' in Thura-Yura languages, and the ceremony is recorded only for groups who spoke Thura-Yura languages (Hercus 1999).

to head of the Australian Bight they are known by other names in different districts. . . . The Wiluroo Tribe extend as far back as Yardea”.

Kukata people had a different cultural association; their original links were with the vast Western Desert group. They gradually came into the area from the northwest and penetrated further to the southeast, into the area that formed the block of people speaking Thura-Yura languages (Tindale 1974:219). This movement by Kukata people appears to have been part of a long-term southeasterly movement of Western Desert people, in this area and further north.

Barngarla people had also been moving southwards from the Lakes area, probably precipitated by European settlement north of Adelaide.⁷ The idea that the Barngarla were originally an inland group is supported by an illustrative sentence, ‘the Nauo people have an offensive breath, being fish eaters’ in Schürmann (1844, headword *ira buka*) (although of course it could be interpreted as a throwaway insult by a Barngarla speaker to the Nauo).

The Kukata penetration into the area proceeded rapidly. Berndt writes:

. . . , while the Gugada traditionally came as far south as the north-western end of the Gawler Ranges and to at least part of Lake Gairdner they were also spreading from the north-west into Eyre Peninsula (Berndt 1985:128)

The Kukata in their turn were being driven towards the south and southeast by waves of migration from other Western Desert groups, the Ngaliya and the Pitjantjatjara. It was indeed the last wave, because after this the whole situation was altered because of European influence (Berndt 1985:129). Berndt’s map (Map 1) and Tindale’s sketch (Map 2)⁸ give a brilliant summary of these movements during the last century, the movement of Barngarla people into Eyre Peninsula, the contraction of the Nauo, and the great influx of Kukata people.

As Berndt suggests:

It is tempting to speculate that the Wirangu and Nauo were proto-historically the original inhabitants of a large part of Eyre Peninsula. The Banggala belonged culturally to the Lakes Eyre and Torrens groups (that is the middle north and northeast Lakes people of South Australia). (Berndt 1985:128)

However, the Wirangu also participated in this movement to compress the Nauo (see Map 1), and we discuss this below. Wirangu people certainly appear to have occupied the area southeast of Venus Bay. We speculate that this was the end phase of earlier movements, that perhaps long ago people related to Mirniny might have occupied more of the far West Coast, then the Nauo came in, and the Wirangu followed them in further west.

7 James Hawker (1975:12), a participant in this settlement, wrote: “. . . no attempt at friendly overtures was considered necessary towards them in the earlier settlement of the northern districts; in fact, they were looked upon as equally detrimental with wild dogs on a run. All means short of extermination were used to drive them away from the runs, and this obliged them to occupy country further back, and trespass on that belonging to another tribe”.

8 Siebert (ca 1889) produced a map which shows the Nauo extending from just north of Port Lincoln along the coast to Streaky Bay, with Kukata to the north-west, the ‘Tidnie’ (a name applied to the Wirangu) further west, Nganityiddi to the north-east, and Parnkalla to the east. The source of his data is still unknown, but could be in part an interpretation of Schürmann’s remarks.

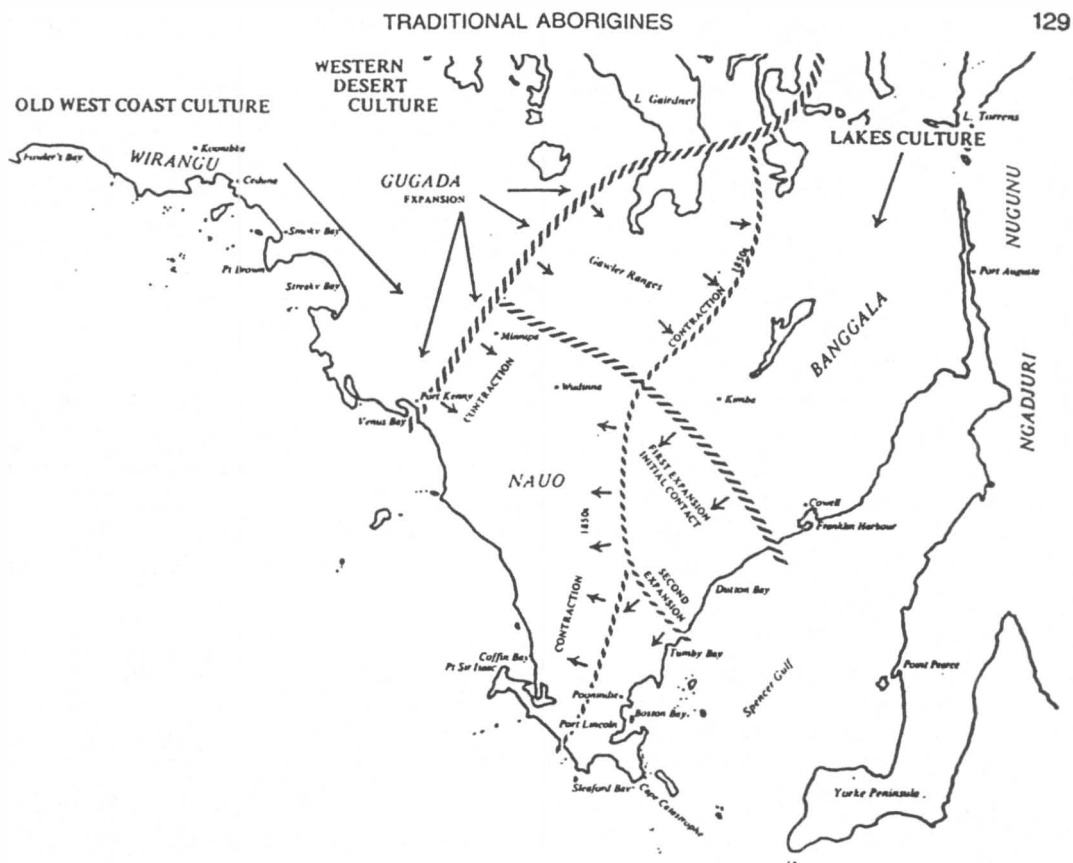


Fig.1. Expansion and contraction of Aboriginal groups on Eyre Peninsula at the time of early European settlement

Map 1: Sketch map of Eyre Peninsula from Berndt (1985:129)
 Reproduced by kind permission of the Royal Society of South Australia.



Map 2: Sketch map of Eyre Peninsula from Tindale (1938-39:1030)
Reproduced by kind permission of the South Australian Museum.

2.3 Western boundary of Nauo

The relationship of the Wirangu and the Nauo requires clarification, since there have been differing opinions about the western boundary of the Nauo. In the earliest records, those of Schürmann, the Nauo heartland is given as Coffin Bay, but no western boundary is given. In 1888 East gave the boundary as Denial Bay, the westernmost proposed Nauo boundary. However, the picture is complicated because he considers the Nauo as a type of Wirangu:

[the people] occupying Eyre's Peninsula and the shores of both Gulfs, is a large nation split up into three main divisions in language, but subdivided into many small tribes and dialects. The three divisions are:

1. The Wirrung, occupying Eyre's Peninsula.
2. The Parnkalla, or Pun-kirla, extending from Blinman to Port Pirie, and down the west side of Spencer's Gulf to Port Lincoln.
3. The Padnayndie, occupying all Yorke's Peninsula and the region between Crystal Brook and Noarlunga. [...]

The other sections, Wirrung and Parnkalla, observe the same rites as the Padnayndie, but many of their customs are assimilated to those of neighbouring tribes, which increase as the distance from the shore is increased. [...]

The Wirrung section is subdivided into Gnowoos along the west coast as far as Denial Bay; Nukunnus and Ngannityiddis from the Gawler Ranges southward; and the Kokit-ta, west and north of the ranges. These latter are much feared as being exceptionally clever in witchcraft. (East 1888–89:20–1)

Here we see Wirrung used as a cover term for some disparate groups: Kukata is a Western Desert language, while Nukunu is a Thura-Yura language. In any event, thirty years later 'Wirung' was given as the name for the language of the people of Murat Bay, close to Denial Bay (Black 1917:8), although Black observed considerable dialect difference among speakers.

Moreover, in 1879, a vocabulary had been recorded for Venus Bay, east of Denial Bay, by Clode (in Taplin 1879:102). The language of this vocabulary is basically Wirangu, but the name given for the language is *Kartawongulta*. The form *karta* probably represents Wirangu (and Nauo) *kardu* 'man' (see Table 1 below). Likewise Provis in Taplin (1879) recorded a vocabulary for a group living between Venus Bay on the east and Point Brown on the west, and inland to the Gawler Ranges, and which he observed had several dialects. The language is clearly Wirangu (Hercus 1999), but Provis called the group *Ku-ka-tha*.

Twenty years on from Clode's record, further evidence on group names comes from the writings of two of R.H. Mathews' correspondents, who had both been long term residents of the area. J.L. Higgins from Talia Station, about fifteen kilometres from Venus Bay, wrote:

The natives in Franklin Harbour locality are called Parn Kulla blacks
 Port Lincoln and Lake Hamilton: New O
 Mount Wedge Rarculta⁹
 Venus, Streaky and Fowlers Bays Wurnubinie ['belonging to the sea']
 Yes the Wilauroo Tribe extend as far back as Yarden [*sic*, for Yardeal].
 (Higgins 1899)

⁹ This is presumably a misreading for 'Parculta', as no words in this area begin with r.

Lake Hamilton is between Coffin Bay and Elliston, so Higgins was well aware of the presence of Nauo people in the Coffin Bay area. The Lake Hamilton boundary is considerably further east than Venus Bay. Moreover, Higgins obviously distinguished them from the *Parculta* of the Mount Wedge – Venus Bay area, who were the immediate northerly neighbours of the Nauo and whose language is called *Kartawongulta* by Clode.

Swiss (1899), writing from near Wynbring, gives the following, including the easternmost location for the Nauo: Port Lincoln.

Yardea	Wirrong
Port Augusta	Punculla
Franklin Harbour	Koodpudna
Venus Bay	Parnkulta
Port Lincoln	Neow or Now

In modern times the late Mrs Phyllis Croft¹⁰ used **Baa Garlda** of the Nauo.¹¹ The names **Baa Garlda** and *Parnkulta* relate to the name 'Barngarla' by a regular sound correspondence: *lt:l, rlt:rl*.¹² Compare BNG *kalla* 'voice, speech, dialect', *parnkalliti* 'to be Parnkalla, to speak the Parnkalla language'. At the very least this application of similar names to the Barngarla, Wirangu and Nauo suggests close connections between them.

Tindale (1928:2) gives important information on the Nauo boundary: "The Nauo tribe, according to Yaldildi¹³ were found at Port Lincoln and on the south westward to Venus Bay". However, elsewhere Tindale implies that Nauo territory originally, even before the 'contraction', did not extend as far as Venus Bay, but perhaps only as far north as Elliston, "The Njao were at Port Lincoln on the coast, they visited Cowell and Elliston. All are gone now" (Tindale 1938–39:1028), and again: "The Njao tribe of Port Lincoln and Coffin Bay: Arthur Davis¹⁴ knew one or two of them as a boy. 'Their boundary came as far up the gulf as Cowell'" (Tindale 1938–39:1045).

¹⁰ Mrs Phyllis Croft was the widow of Harry 'Crawford', the Barngarla speaker who worked with Hale and O'Grady. Mr Croft was "part Barngarla/Nauo" (Martin 1988:36).

¹¹ Tunbridge (n.d.) derives **Baa Garlda** from BNG *ba-ata* 'to scrape' and **garlda** 'speech'. A problem with extending this etymology to 'Barngarla' is that, while Barngarla has a few monosyllabic words, it does not allow consonant-final words like **parn**. Tunbridge contrasts it with a name Mrs Phyllis Croft gave for the Wirangu, **Garlda Dyurla** 'the soft voiced (people)' which was said to be a Barngarla name. But initial **dy** is rare in Barngarla. Cf. WIR and KUK **dyula** 'soft'.

¹² A form **karlta** or **garlda** would be expected in any dialect that had not undergone this change, e.g. northern Barngarla. It would also be the expected Nauo form. Higgins (1899) suggests that *Kardowongulta* "is no doubt meant for *Kardowanga*: *kardo* Native *wanga* speaking". We think that it is very close to that, **gardu+wangga+(ga)rlda** '(local) people+talk+speech', with elision of the first syllable of **garlda**. Other names for these people using *garlda* include *Wirkalta*, for people who may have lived near Kyancutta (Schurmann 1987:173), and *Coldado Wirriri* (Swiss 1899). Bernhard Schebeck (pers. comm.) notes ADN **arlda**, an archaic word for 'language', used in **Adnyarlda** and probably also in 'Nimbalda', names for Adnyamathanha people (Smith in Taplin 1879).

¹³ Yaldildi was a senior Wirangu man from the Gawler Ranges living mainly at Yardea in the 1920s.

¹⁴ Arthur Davis was a senior Barngarla man from Neuroodla, north of Port Augusta.

A boundary near Elliston is also suggested by Mrs Phyllis Croft, who “remembered her husband Harry Croft saying that there had been fish traps right round the coast as far as Elliston. This was roughly the western boundary of the Nauo tribe that he was related to”. (Martin 1988:45)

The cultural and historical evidence points to the view that there was a chain of related communities running along the coast and inland to the Gawler Ranges, with the people who lived around Venus Bay at least in the latter part of the nineteenth century forming a special subgroup. The linguistic evidence suggests that these communities probably spoke mutually intelligible dialects which constitute the language called ‘Wirangu’. As Hercus (1999) shows, the denotation of the name ‘Wirangu’ (or ‘Wirring’) has probably changed over the last century. Table 1 shows sample words in the sources mentioned and in some other early vocabularies from the area, to illustrate both the connections and the differences (correspondences with Nauo are underlined).

Table 1: Sample words in early vocabularies of Eyre Peninsula and the West Coast

Modern name	Barnjarla	Nauo	Wirangu					
			Willeuroo	Wirrong, Willeryoo	Wangan	Karta-wongulta	Ku-ka-tha	Wirrung
Group name	<i>Parnkalla</i>	<i>Nauo</i>						
Place	Port Lincoln	Coffin Bay	Yardea, Gawler Ranges	Yardea, Kumburta Downs	Gawler Ranges	Venus Bay	Venus Bay to Point Brown	Murat Bay
Source	Schürmann 1846	Schürmann 1846	Bryant in Taplin 1879	Beviss 1899	Bedford n.d.	Clode in Taplin 1879	Provis in Taplin 1879	Black 1917
foot	<i>idna</i>	<u><i>tyina</i></u>	<u><i>cheenia</i></u>	<u><i>cheena</i></u>	<u><i>china</i></u>	<u><i>chinna</i></u>	<u><i>tshí-na</i></u>	<u><i>tje-na</i></u>
sun	<i>yurno</i>	<u><i>tyendu</i></u>	<u><i>chinto</i></u>	<u><i>chindoo</i></u>	<u><i>chinta</i></u>	<u><i>chinto</i></u>	<u><i>tshin-ta</i></u>	<u><i>tjindo</i></u>
man	<i>miyerta, yura, mirrarri</i>	<u><i>gardo</i></u>	<i>nunka</i> ¹⁵	<i>nunga</i>	<i>koorda, niunge</i> ‘black-fellow’	<u><i>cardo</i></u>	<u><i>*kúr-da</i></u> ¹⁶	<i>nangga</i>
water	<u><i>kauo, kabi</i></u> ¹⁷	[<u><i>cowie owie</i></u>] ¹⁸	<u><i>appy</i></u>	<u><i>koppie</i></u>	<u><i>cubbie</i></u>	<u><i>cappy</i></u>	<u><i>kóp-pi</i></u>	<u><i>kabi</i></u>

In §4 we provide detailed discussion of the thirteen forms that are unquestionably Nauo to show where Nauo fits into this picture.

¹⁵ This form developed into the general southern South Australian term for ‘Aboriginal person’, Nunga.

¹⁶ Provis indicates with his asterisk that “u” stands for the ‘u’ sound in ‘cur, fur, mud, plum’, and that acute accent stands for stress; we presume that [kárda] or [káda] is what Provis heard.

¹⁷ However, Hale recorded BNG *kawi* from Harry Croft (O’Grady, ‘Two Southern Australian vocabularies’, this volume).

¹⁸ The form is in square brackets because East (1889) attributes this word to the Eyre Peninsula, rather than to Nauo in particular. See §5.2.3.

3. Sources of information about the Nauo language

When there is a solid 'block' of related languages which have been in contact for a long time it is likely that there will not be sharp linguistic boundaries between the languages, and that 'in between' languages and dialects will develop. The idea that the Nauo spoke an 'in-between language' fits with what George Grey proposed in 1845, in part on the basis of information from Clamor Schürmann and Edward Eyre. He provides a map of the 'dialects' of southern Australia (Map 3), in which, going from west to east, he posits his first dialect (Nyungar languages), then a second dialect linking the Coffin Bay people (i.e. Nauo) with the people to the west (i.e. Wirangu and Mirniny), and a third dialect linking the people of the west coast of Spencer Gulf (i.e. Barngarla) with the east, (i.e. Thura-Yura languages). But he notes that the 'second dialect' is strongly influenced by the first and third dialects.



Map 3: The southern dialects of Australia, from Grey (1845).
 The division between the 2nd Dialect and 3rd Dialect (colour shaded in the original)
 is at the dotted vertical line through Eyre Peninsula.
 Reproduced by kind permission of the National Library of Australia.

The linking of Nauo with the western languages (Wirangu), rather than with Barngarla, by Grey (1845) and East (1889) probably reflects the surface phonological changes that Barngarla has undergone, which we discuss below. Despite these surface linguistic differences, most authors mention the strong cultural and linguistic links between the Barngarla, Nauo and Wirangu. Thus Taplin stated (Woods 1879:104): "It is evident that all the tribes which roam over the Peninsula and the west coast are the same people". Hiem (1899) says something similar: "All the Port Lincoln and Gawler Range Blacks as far as Eucla speak the same language". These are no doubt overstatements, but the close similarities between these groups gave the impression of a continuum. Black (1917:3) echoed this when he proposed the 'Tindo' family for languages from Adelaide to the Western Australian border and north to the Everard Ranges.

Current understandings of the language families concerned have all the languages belonging to the Nyungic subgroup of the Pama-Nyungan family (O'Grady and Fitzgerald 1997). Barngarla is related to languages to the east, the Thura-Yura family. Kukata is a Western Desert language. Mirminy is related to languages in the west, such as Ngadjumaya. Wirangu is an outlier of the Thura-Yura family, with recent borrowing from Kukata (Hercus 1999).

We turn now to the linguistic affiliations of Nauo. Schürmann wrote:

The Nauo is spoken in the southern and western parts of this district and seems to deviate from the Parnkalla by a broader and harsher pronunciation, and different inflexions or terminations of the words, verbs as well as nouns; many words, however, are totally different. . . . Both dialects terminate every word with a vowel, . . . (Schürmann 1846 [Schurmann 1987:252])

The description of the languages suggests that Schürmann viewed Nauo and Barngarla as similar, and this is borne out by a comment in a letter to the Evangelical Lutheran Mission Society in Dresden. He writes about

. . . the west inhabiting Nauo tribe which speaks a dialect closely related to the Parnkalla so that each can understand the other, and finally the northern-western living Ngannityiddi. This last dialect is completely unknown to me, but it seems to be not very different from the Nauo language. (Schürmann, letter of 19/8/1844, Lutheran Archives)

That Nauo and Barngarla were not identical is shown by a derogatory comment, "The Nauo talk unintelligibly" in the dictionary (Schürmann 1844b, headword *kurrirurriri*).

Schürmann also provides a comparative table of seven lexemes and three inflected forms of those lexemes to show the differences between Nauo and Barngarla. This is the major source of Nauo vocabulary. The other major source is Tindale's list, three words collected from Frank Kent in 1927. As well, there are several potential sources of Nauo vocabulary: possible Nauo vocabulary in Schürmann's Barngarla dictionary, placenames in the Coffin Bay area, diaries and reports from protectors and mission stations, and accounts of mythology.

A problem with all the potential sources is that the authors rarely distinguish between Nauo and Barngarla people as sources of information, or mention the language in which the information was given. Thus in discussing a legend of the Nauo, Angas (1847) mentions several ancestral beings: *Willoo* 'eaglehawk' (cf. BNG *willu*, KAU *wilto*, WIR *waldya*), who chases *Karkantya* 'hawk species' (cf. BNG *karkantya*, KAU *karkanya*, WIR *girgin*), and *Poona* 'hawk species' (not identified). We do not know if these names were given in Nauo or Barngarla.

We will focus here on the two unambiguously Nauo sources, and on the dictionary and the placenames, because Schürmann’s diaries and reports, along with Matthew Hale’s papers from Poonindie, deserve more serious study, handwriting analysis, and cross-checking.

4. Words that are definitely Nauo

4.1 Schürmann’s Nauo words

Schürmann’s ten Nauo forms with Barngarla equivalents (Schürmann 1846 [Schurmann 1987:252]) are given in Table 2, with the modern Wirangu equivalents.

Table 2: Nauo forms with Barngarla equivalents

Ref. No.	Barngarla	Nauo	Wirangu	English
1	<i>nirna</i>	<i>niino</i>	nyurni	thou
2	<i>idna</i>	<i>tyina</i>	dyina	foot
3	<i>yurno</i>	<i>tyendu</i>	dyirndu	sun
4	<i>kubmanna, kuma</i>	<i>kuma</i>	guma	one
5	<i>kalbelli, kuttara</i>	<i>kutta</i>	gudhara	two
6	<i>karnko</i>	<i>wamo</i>	garn.gu	house
7	<i>karnkuru</i>	<i>wamuyu</i>	garn.gugu	to the house
8	<i>ngukata</i>	<i>ngukanna</i>	winarn	to go
9	<i>ngukayu</i>	<i>ngukalye</i>	winarn.gu, wirn.gu	in order to go
10	<i>ngukaka</i>	<i>nguka</i>	wirnaga	go

Below we provide a commentary on each of the words, comparing them with Wirangu and the Thura-Yura languages Barngarla, Kuyani, Adnyamathanha, Nukunu, and Kaurna.

4.1.1 Detailed commentary on each of Schürmann’s Nauo words

The discussion below is organised according to the reference numbers in Table 2.

1. This involves a comparison between second person singular pronouns, showing where there is a distinctly long vowel. In this case Nauo is most closely associated with Nukunu. The shading in the row indicates forms showing the feature(s) under discussion.

WIR	NAU	BNG	KUY	ADN	NUK	KAU
nyurni	niino	ninna	nhina	nhina	nhiina	ninna

WIR **nyurni** is used for both transitive and intransitive subject. The other Thura-Yura languages distinguish transitive from intransitive subjects, and the table gives the intransitive forms, corresponding to BNG *nirna*.¹⁹ While NAU *niino* presumably includes intransitive subjects, we cannot say whether, like Wirangu, the form also covers transitive subjects.

2. This shows the distribution of the following features of the word for 'foot':
- thi** corresponding to **tyi**, palatalisation of **th** before **i**
 - loss of initial **th** before **i**, possibly by **thi** -> **tyi** -> **yi** -> **i**
 - absence of pre-stopping of intervocalic **n** as **dn**

	WIR	NAU	BNG	KUY	ADN	NUK	KAU
a,c	dyina	tyina	idna	thidna	idna	thidna	tidna
b	dyina	tyina	idna	thidna	idna	thidna	tidna

In these features, Nauo agrees with Wirangu, not Barngarla.

3. This shows the distribution of the word for 'sun':
- the assimilation of **i—u** in consecutive syllables to **u—u**
 - thi/thu** corresponding to **tyi**, palatalisation of **th** before **i** (corroboration of 2b)

	WIR	NAU	BNG	KUY	ADN	NUK	KAU
a	dyirndu	tyendu	yurno	thurndu	yurndu	thurndu/ thirndu	tindo
b	dyirndu	tyendu	yurno	thurndu	yurndu	thirndu/ thurndu	tindo

With regard to both these features, Nauo and Wirangu go together. Neither undergoes the Barngarla change **i > u** when the next syllable has **u**; this change appears to be a more widespread phenomenon.²⁰ Nor do Nauo and Wirangu undergo the sound change involving simplification of coronal sonorant–stop clusters (e.g. **rnd** to **rn**, **rlt** to **rl**) found in Barngarla only among the Thura-Yura languages.

4. This shows the distribution of:
- absence of a final **na** which occurs with the word for 'one'
 - absence of pre-stopping of intervocalic **m**, i.e. **m > bm**

¹⁹ Cf. proto-Th-Y *nhintu, BNG *nunno*; KUY, ADN *nyuntu*, KAU *nindo* (second person singular transitive subject).

²⁰ It is perhaps due to the influence of Karnic languages, especially Arabana, on the northern Thura-Yura languages, Adnyamathanha, Kuyani and Barngarla. The sequence **i—u** is not permissible in Arabana-Wangkangurru.

	WIR	NAU	BNG	KUY	ADN	NUK	KAU
a	guma	kuma	kuma	kubmana	ubmanaka	kubmana	kuma
b	guma	kuma	kubmanna, kuma	kubmana	ubmanaka	kubmana	kuma

Kaurna, which underwent prestopping in all other nasals and laterals, did not have it for medial *m*. In Kuyani and Adnyamathanha prestopping appears to have become phonemic (cf. KUY *kuma*, ADN *umaka* ‘blind’ contrasting with the word for ‘one’). The Barngarla dictionary (Schürmann 1844b) has both *kuma* and *kubmanna* as synonyms (see below). O’Grady (1990:102) shows that *kuma* is found in widely separated areas of Pama-Nyungan. He posits an original form **kuman* (O’Grady and Fitzgerald 1997:349–50), so *kubmanna* may represent retention of an *n* rather than addition of a suffix *-na*. Again Wirangu and Nauo, and to some extent Barngarla, have the same features, in this case joined by Kaurna.

5. The following shows the distribution of words for ‘two’:
 - a. based on *kutha, kutya*
 - b. formed with the suffix *-pilha, -belli*
 - c. based on *pula* (which may be related to *-pila*)

	WIR	NAU	BNG	KUY	ADN	NUK	KAU
a	gudhara/ gudyara	kutta	kalbelli	kutyalypila	alypilhanha	pulanha	purlaitye
b	gudhara/ gudyara	kutta	kalbelli	kutyalypila	alypilhanha	pulanha	purlaitye
c	gudhara/ gudyara	kutta	kalbelli	kutyalypila	alypilhanha	pulanha	purlaitye

Again Nauo and Wirangu are seen to be closely associated, but with a widespread Australian word found in Barngarla and Kuyani but not the eastern Thura-Yura languages.

6. The distribution of words for ‘house’ is of lexical interest:
 - a. shows the distribution of words with the general meaning of ‘camp’, ‘dwelling’, and
 - b. the distribution of words referring only to a more substantial dwelling

	WIR	NAU	BNG	KUY	ADN	NUK	KAU
a	garn.gu	wamo	karnko	karnku	arnku	–	wodli
b	garba		karpa	wardli	wardli	–	

The distribution of *wamo* shows a geographical 'discontinuity'; it is found in Nao and Mirniny (Table 3 below), but not in the intervening Wirangu. WIR **garn.gu** is shared with the northern Thura-Yura languages and has cognates in Karnic languages immediately to the north: Arabana-Wangkangurru **yanku** 'windbreak', 'shelter'. The data in row (b) show Wirangu as close to Barnjarla. The word *karpa* is found as far west as Ngadjumaya (Table 3). The root is probably an original Thura-Yura form (cf. KAU *karpa* 'support, prop, pillar') extended to 'European house'.

7. The equivalents of 'to the house' show the distribution of dative-allative markers:

WIR	NAU	BNG	KUY	ADN	NUK	KAU
garn.gugu	wamuyu	karnkuru	karnkuRu	arnkuRu		wodli- anna

Wirangu and Nao do not share the dative-allative suffix **-Ru** with the northern Thura-Yura languages. WIR **-gu**, which also functions as a purposive in verbs, resembles the Western Desert form. NAU **-yu** Dative resembles BNG **-yu** Purposive on verbs. NAU and BNG *yu* forms may show lenition of **k** to **y** in the suffix, and thus may be originally the same as WIR **-gu**.²¹

8. The equivalents of 'to go' show

- a. the distribution of *nguka* as opposed to other words for 'go'
- b. the distribution of present tense/citation forms

	WIR	NAU	BNG	KUY	ADN	NUK	KAU
a	<u>winarn</u>	ngukanna	ngukata [†]	ngukanta ngukana	<u>widni</u>	ngukanta	manhatya padnendi murrendi <u>wenendi</u>
b	<u>winarn</u>	<u>ngukanna</u>	ngukata	ngukanta	<u>ngukana</u>	<u>ngukanta</u>	manhatya padnendi etc.

The data in row (a) show that **nguka-** 'to go' is confined to Nao and the northern Thura-Yura languages.²² The underlined forms show a verb **win-** 'to go' on the periphery of the Thura-Yura languages, in Kaurna and Wirangu, and in a cognate form KUY **widni-** 'to wander'. It could be an archaic word that has been replaced elsewhere.²³ As shown in row (b), the present and citation form in Nao, Wirangu, and a variant Kuyani form is made with only a nasal consonant. In Wirangu there is no apical contrast with final nasals, and **winarn** might just as readily be written as **winan** (Hercus 1999:31), bringing it closer to the Nao.

21 But **R > y** lenitions are also common, and so the source of NAU **-yu** could be northern Thura-Yura **-Ru**.

22 It is also found in Provis's vocabulary (Taplin 1879), which has for 'go' *ngü-ka-tha* and *ngóm-er-na*.

23 The antiquity of the form in Thura-Yura languages is suggested by the fact that in Kaurna the use of the word was limited to the extreme south of Kaurna territory, Rapid Bay.

9. This shows the different ways of marking the purposive or a closely associated verbal form:

WIR	NAU	BNG	KUY	ADN	KAU
winarn-gu, wirn-gu purposive wina-dyu preparatory future winar immediate fut.	<i>nguka-lye</i>	<i>nguka-yu</i>	nguka-ntyu purposive	nguka-ntyu hypothetical	ending <i>-itya</i>

In view of Schürmann's translation 'in order to go', one would be inclined to interpret Nauo *-lye* as a purposive suffix. There is no attestation of a comparable form with a similar meaning in neighbouring languages. In form, the closest are the unusual verb forms recorded by B. Hack (in Taplin 1879:140) for Nukunu: *nakkoilyo* 'seeing' and *tikkoilya* 'sitting',²⁴ and (row b) the WIR *-rl* 'immediate future' (although the latter affix does not contain a laminal lateral). In meaning the closest forms are the KUY purposive, the ADN 'hypothetical' (Schebeck 1974:23) form, and the WIR *-gu* purposive. From the above table it is evident that Wirangu, Kuyani and Adnyamthanha constitute an areal bloc using *-(n)tyu* forms.

10. This example from Schürmann gives some insight into the formation of the imperative.

- a. The shading shows the distribution of the *-ka* suffix for the imperative in Thura-Yura; it is found among the northern Thura-Yura languages as well as Wirangu.
- b. The shading shows the use of the bare stem as an imperative, in which Nauo agrees with Kaurna and an optional usage of Wirangu and Kuyani.

	WIR	NAU	BNG	KUY		ADN		NUK ²⁵	KAU
a	-ga stem	nguka	ngukaka	ngukaka	nguka	ngukaka	manhaka	manhani	padni etc.
b	-ga stem	nguka	ngukaka	ngukaka	nguka	ngukaka	manhaka	manhani	padni etc.

By citing just ten words of Nauo, Schürmann has made it possible to demonstrate that Nauo shares much with Barngarla, and also with Wirangu. Along with Wirangu and Kaurna it did not share certain special characteristics of the Northern Thura-Yura languages such as the use of a final *-na* with *kuma* 'one'. Phonotactically, it resembles Wirangu, rather than Barngarla, in allowing initial *ty(i)*, and *i-u* sequences. Three distinctive Nauo properties are the morphemes *-yu* and *-lye*, and the final vowel of the second person singular, *niino*. Finally, Schürmann's observation that Nauo was vowel-final is important; this links it with Barngarla and distinguishes it from Wirangu, Mirniny and Kukata.

²⁴ These forms were not found in other sources on Nukunu (Hercus 1992).

²⁵ Nharangka (Narangga) from Yorke Peninsula has been left out of all these tables: an imperative suffix *-ni* is found there, and the *-ni* form found in Nukunu is therefore not totally isolated.

4.2 Tindale's Nauo words

Tindale (1928:6) gives three more Nauo words, from Frank Kent, who worked at Coffin Bay fifty-five years earlier: *yanmura* 'white man', *kardo* 'blackfellow', *maldabi* 'bad man'.

The word *yanmura*, which was used by Nauo people to address Mr Kent, does not resemble the words for 'dead', 'ghost' or 'white', in neighbouring languages. Compare BNG *yanmurru* as the name of an actor conducting an initiate in the *pardnapa* ceremony (Schürmann 1846), and ADN *yarnmurra* 'first person of the **madlhi** actors in a ceremony' (thanks to John McEntee for pointing this out), but there is no obvious connection between this and 'white man' (unless perhaps as 'boss'). While this is apparently the one uniquely Nauo word (as opposed to morpheme) attested, the fact that it involves a new idea, 'white man', makes it less useful as a criterion of Nauo's uniqueness.

The most interesting of the words is *kardo*. There are no known cognates in the other Thura-Yura languages, except for WIR **gardu** 'initiated man' (Hercus 1999:14). But the word was distinctive enough to form part of the group name *Kartawongulta* (Clode in Taplin 1879:102). This word has links to the west, reaching via Nyungar to the eponymous Kartu languages of the southern Pilbara, but is also widespread (cf. Warumungu **kartti** 'man').

Tindale's third Nauo word, *Maldabi*, is the name of a malignant mythical being, a small humanoid creature who brings disease and death. It is known from Wirangu (Provis in Taplin 1879:99) and from as far east as Narrinyeri (*Melapi* in Meyer 1843). In a late recording of Nauo its presence shows cultural influence but no necessary linguistic connections.

4.3 Summary

The discussion above has shown the connections between Nauo and Thura-Yura languages. Table 3 puts the unquestioned Nauo words into a wider regional perspective, and Table 4 sums the patterning of the forms corresponding to the ten Nauo lexemes.

Table 3: Comparing Nauo to other languages of the region²⁶

	English	Nauo	proto-Th-Y	Wirangu	Mirniny ²⁷	Ngadjumaya ²⁸	Kukata ²⁹
1	you sg.	<i>niino</i>	*nhinha, *nhiina ABS	nyurni	ngurntu	ngundu, nyundu, ngurndu	nyurra (sg. ERG JMB)
2	foot	<i>tyina</i>	*thitna	dyina	tyina	jina	tyina
3	sun	<i>tyendu</i>	*thirntu	dyirndu	tyirntu	yagurdu, thirndu	tyirntu
4	one	<i>kuma</i>	*kuma	guma	kayunu	kaianu	kutyu (OK) <i>gujuda</i> (JMB)
5	two	<i>kutta</i>	*purtla	gudhara gudyara	kuthal	kudarra	kutyarra, <i>kutara</i> (JMB)
6	house	<i>wamo</i>	*wartli *karnku	ngura, mura 'camp' garba 'house', garn.gu 'shade hut'	wamu (O) <i>yango</i> 'camp' (Curr 34), <i>garba</i> (Curr 35)	wammu 'camp' karrba (European)	ngurra, <i>muura</i> (JMB) <i>kangku</i> (house, camp JMB)
7	to the house	<i>wamu-yu</i>	*-Nu, *-Ru 'to'	garn.gu-gu		wammu-rdi	ngurraatu [allomorph -kutu]
8	to go	<i>nguka-<i>nna</i></i>	*nguka- (northern Th-Y) *paDNV-	win-arn	nganha-	yankun	ya- (OK), yaniny
9	in order to go	<i>ngukalye</i>	?	winarn-gu, wim.gu		-kurdi	yanku- nytyaku
10	go!	<i>nguka</i> [bare stem]	?	wini! wini-ga		yana! (-ka normal imperative)	ya-rra

²⁶ Shading indicates correspondence sets; asterisk indicates reconstructed forms; ? indicates no form as yet reconstructed; DN indicates pre-stopping with non-peripheral place of articulation; ABS – absolutive; ERG – ergative; N – indicates nasal with non-peripheral place of articulation.

²⁷ Sources: unmarked, O'Grady and Klokeid (1969); O, O'Grady n.d.; Curr (1886 vol.1); Curr 34, W. Williams and W. Graham 'Vocabulary No.34, Eyre's Sand Patch: Wonunda Meening Tribe' (in Curr 1886 vol.1); Curr 35, W. Williams 'Vocabulary No.35, Eucla: The Yircla Meening Tribe' (in Curr 1886 vol.1).

²⁸ Source: von Brandenstein (1980). This treats Mirniny and Ngadjumaya as dialects of one language.

²⁹ Sources: unmarked, Platt (1972) (Platt's list has been respelled for comparability: *j* as *y*, *r* as *rr*, *nj* as *ny*, *dj* as *ty*, *g* as *k*, *d* as *t*, *b* as *p*); JMB, Black (1920); OK, O'Grady and Klokeid (1969).

	English	Nauo	proto-Th-Y	Wirangu	Mirniny	Ngadjumaya	Kukata
11	mythic being	<i>maldabi</i>	?	maldhabi			
12	black man	<i>gardo</i>	*miRu 'man', *thuRa 'person'	gardu, nhangga (initiated), madyidya	mirniny 'person' <i>majilpa</i> (Curt 35)	marlba, mirning nganda(k)a, pulku	patu
13	white man	<i>yanmura</i>		guba	<i>majilba moondoolo</i> ³⁰ (Curt 35)	ngaada	kupa

Table 4: Distribution of cognates of Nauo forms³¹

Languages attesting	Forms	No. of forms
All	tyina*, tyimtu*	2
Nauo, Wirangu, Mirniny, Ngadjumaya, Kukata (vs. Thura-Yura)	kuthara*	1
Nauo, Mirniny and Ngadjumaya	wamu	1
Nauo and Wirangu (vs. the others)	kartu	1
Nauo, Wirangu and Thura-Yura (vs. the others)	kuma* ?Maldhabi	2?
Nauo and Thura-Yura vs. Wirangu	nguka-, ?niino*	2?
Nauo only	yanmura 'white man'	1

The areal context (Table 4) reveals only one lexical item that appears to be uniquely Nauo (but as we have seen this is doubtful). One item, *kartu*, shows Nauo and Wirangu patterning together as opposed to some other group. Two other forms, *wamu* and *nguka-*, are interesting because they are not widespread Australian words; one shows a connection with Mirniny and the other with northern Thura-Yura languages. Thus Table 4 shows the in-between status of Nauo.

Table 5 summarises the phonotactic and phonological links between Nauo and the other languages, including the reconstructed ancestor of the Thura-Yura languages.

³⁰ Compare BNG *mundulta* 'white man'.

³¹ Asterisk indicates forms that are widespread in Pama-Nyungan or Australian; question mark indicates tentativeness.

Table 5: Phonotactic and phonological links between Nauo and the other languages

Phonotactic and phonological constraints in Nauo						
Language	C-final words occur?	Blocking of iC(C)u > uC(C)u	Absence of #th > #y	Presence of #ty	Absence of prestopping	Absence of sonorant cluster reduction
Nauo	NO	tyendu 'sun'	tyendu 'sun'	tyendu 'sun', tyina 'foot'	tyina 'foot', kuma 'one'	tyendu 'sun'
Relevant trait or form in other languages						
proto-TH-Y	?	*thirntu	*thirntu	*thirntu, *thidna	*thidna, *kuma	*thirntu
BNG	NO	yurno 'sun'	yurno 'sun'	yurno 'sun', idna 'foot'	idna 'foot', kubmanna 'one'	yurno 'sun'
WIR	YES	tyirntu 'sun'	tyirntu 'sun'	tyirntu 'sun', tyina 'foot'	tyina 'foot', kuma 'one'	tyirntu 'sun'
KUK	YES	jirntu 'sun'	jirntu 'sun'	jirntu 'sun', jina 'foot'	jina 'foot'	jirntu 'sun'

The lack of shared phonological and phonotactic patterning with Barngarla (Table 5) suggests that Nauo was not influenced in recent times by Barngarla. Hence other similarities between Nauo and Thura-Yura languages are less likely to stem from recent borrowing from Barngarla.

5 Potential sources of Nauo material

5.1 Schürmann's dictionary

Schürmann's dictionary contains over 3,000 head words (including his manuscript annotations). He notes about seventy-six synonyms or paraphrases (distinct from variant forms), but there are many more. The surprisingly high number indicates a conflation of dialects, perhaps of the coastal and the scrub-gum-people dialects of Barngarla, but perhaps also of Nauo. This is suggested by pairs such as *kuma*, *kubmanna* 'one' and *kuttara*, *kalbelli* 'two' in which one member of the pair is definitely Nauo, but also by pairs such as *kappa*, *kulbarri* 'three', *kapi*, *kauo* 'water', and *mialla*, *mena* 'eye' in which one member is shared with Wirangu.

The synonym pairs include a function word pair, *nauwe*, *nganna* 'what, who'. Both members of the pair are also found in Kaurna, but not as synonyms: KAU *nauwe* 'how many?' and *nganna* 'who? what?'. The latter form is common in the area (cf. ADN *nganha*, WIR and KUK *ngana*),³² but the former is not. Since Barngarla shows two forms in which proto-Thura-Yura *awi is realised as awu (BNG *kauo*, KAU *kawi* 'water'; BNG *wawutu*, KAU

³² In Kukata *ngana* means 'who', in contrast to *nhakurta* 'what'.

wauwendi~waiendi 'to move'), and since, as we show later, Nauo almost certainly had *kawi* for 'water', this is partial evidence for the claim that the synonym pair consists of a Nauo form *nauwe* and a Barngarla form *nganna*. Further evidence comes from the related pair *nauwindi, ngannaru* 'what for'. The proposed Barngarla form has the normal BNG possessive-allative-purposive *-ru*; while the proposed Nauo form ends in an affix *-ndi* not given in Schürmann's grammatical sketch.³³ If *nauwe* is indeed Nauo as well as Kaurna, it would support the Thura-Yura links of Nauo.

There are also pairs in which the forms are clearly related but one form has undergone the Barngarla sound changes mentioned above. These include alternation of initial laminals (Barngarla prefers *y*), as in *imbanna, tyimba* 'ashes', *tyitarta* 'close, fast, shut', and *yertata* 'to cover, shut'. The existence in the Barngarla dictionary of a very few forms with initial *ty* suggests Nauo, Kukata, or Wirangu influence on Barngarla. Other alternations include: presence vs. absence of prestopping (Barngarla prefers prestopping), as in *murdla, mulla* 'dry', *purkli, purli* 'star', *kullindi, kurdli bakka* 'stunted she-oak', *kallanbi, gadlabidni*, and *gadlanbi* 'embers', and correspondence of a nasal to a nasal-stop cluster (Barngarla prefers the simple nasal), as in *windi, winni* 'angle, fishing hook' and *murnnu munnunnu, mundiitya* 'at once'.

Whether the name 'Nauo' itself is a Nauo word is not known. The variant forms suggest an alternation *nhawu ~ nyawu*: *Nauo, Nawo* (Schürmann 1844b), *Gnowoo* (East 1888–89), *New O* (Higgins 1899), *Neow* or *Now* (Swiss 1899), *Njao* (Map 2) or *Nao* (Tindale 1939:29), *Nyaawa* (Mick McLean, Luise Hercus tape 592:1973). Presumably *nhawu* was the BNG form, since the dictionary (Schürmann 1844b) lacks word-initial *ny*. The *nyawu* form is what would be expected in Kukata. The evidence from Nauo is conflicting as to which of the two forms would be expected. Like Barngarla Nauo probably allowed initial *nh* (*niino* 'you'). But Nauo has other word-initial palatals; initial *ty* appears to have been seen as a marker of Nauo words by Schürmann, judging by his choice of two *ty*-initial words to illustrate the differences between Nauo and Barngarla. Finally, the etymology of the name is unknown. The nearest correspondences are WIR *nhawu* 'yes', and *nauwe* 'what, who' in Schürmann (1844).

5.2 Placenames

None of the indigenous placenames from southern Eyre Peninsula can be regarded as definitely Nauo, because of the early contraction of Nauo people and because placenames, even from the 'last stronghold' (§2.1) of the Nauo people, might have been recorded from Barngarla speakers. This was perhaps the case for *Katta-bidni* 'belonging to clubs', also known as 'Mr Brown's Sheep Station', near Coffin Bay, which is cited by Schürmann (1844:17) in his Barngarla vocabulary (see also 'Place of Clubbing' in the Tindale notes). Similar in formation is a name recorded by Tindale for Sleaford Mere, *Kuya-bidni* (literally 'belonging to fish'; Tindale has 'Fishing place'). The suffix *-bidni* 'belonging to, associated with' occurs frequently in Barngarla. It shows the prestopping of intervocalic *n*, a development which did not appear to belong to Nauo.

In Schürmann's diaries, he describes several trips to Coffin Bay and mentions placenames in the heart of Nauo country including these:

³³ Possibly it relates to a BNG Dative ending *-anni ~ -inni ~ -unni*; the ending *-ndi* could be the nasal-plus-stop cluster form of this (and thus more likely to be Nauo).

<i>Korlo</i>	narrow peninsula at the northwest end of Coffin Bay (p.137)
<i>Kulinyalla</i>	place on other side of sandhills near Coffin Bay where Aborigines were camped (p.137)
<i>Muthabakka</i>	Coffin Bay (p.136)
<i>Ngaralatta</i>	place on way between north and south side of Coffin Bay where Schürmann and his guides Kunnamunka and Ngulga camped (p.144)
<i>Punyunda</i>	place on south side of Coffin Bay where whaling ships were anchored (p.144)
<i>Turrudu</i>	place pointed to from Coffin Bay (p.37)

The absence of prestopping is consistent with their being Nauo placenames.

5.2.1 Names with initial *t* or *ty*

Placenames in southern and south-western Eyre Peninsula containing an initial *t* (*ti* in particular) are most likely to be not Barngarla but genuine Nauo placenames.³⁴ A few such names are listed by Schürmann himself in his dictionary: *Tavnanna* (Sleaford Bay), *Tallalla* (White's Station), and *Tolilye* (Biddle's Station).³⁵ The following further names with initial *t* figure on the normal 1:250 000 maps for the area:

<i>Tarlinga</i>	(south of Hincks Conservation Park)
<i>Tootenilla</i>	northwest of Port Lincoln
<i>Tulka</i>	near the centre of Port Lincoln Bay: possibly the Nauo equivalent of BNG <i>yulko</i> 'heart'
<i>Teewinga</i>	near Louth Bay
<i>Titjowie</i>	this is further north, about fifteen kilometres southeast of Lake Giles Conservation Park. The name is of special interest, as it contains a final <i>-owie</i> 'water' as well as an initial <i>t</i> . One might expect the initial to be the palatal <i>ty</i> (cf. Schürmann's Nauo words No.2 and 3 above), but because of the following <i>ty</i> dissimilation may have played a part.
<i>Sheringa</i>	near Lake Hamilton. This actually does have an initial <i>ty</i> . Tindale derives it from <i>tjeri</i> 'a kind of yam'.

5.2.2 Absence of prestopping

A negative but still potent argument for the prevalence of Nauo placenames in southern Eyre Peninsula is that, apart from the names formed with *-bidni* listed above and the one name Midnintie near Tumby Bay, there are no names with prestopping. This differs from northern Eyre Peninsula, where we find such names as Yabmana, Yadnarie and Budlu. Prestopping of nasals (*n* > *dn*, *ny* > *dny*, *m* > *bm*) and laterals (*l* > *dl*, *ly* > *dly*) is not

³⁴ Schürmann also records personal names with initial *t* and *ty*: *Timba* and *Tyilye*, which are thus candidates for being Nauo names (Schurmann 1987:135, 141).

³⁵ It is not clear whether this is the same place as Toolgie, west of Hincks Conservation Park.

universal in Barngarla because some intervocalic sonorants result from sonorant-stop cluster reduction.

Absence of prestopping is thus by no means a proof of Nauo origin. But, when there is a Barngarla prestopped equivalent, as in Wanna, and the placename is in the heart of Nauo country, a Nauo derivation is plausible. We list some candidates:

Wanna	on Sleaford Bay; could be the Nauo equivalent of BNG <i>wadna</i> 'a boomerang used for killing fish'
Wanilla	now a pine-forest area, west of Coomapoo
Coomonga, Coomapoo	between Port Lincoln and Coffin Bay; could be derivatives of Nauo <i>guma</i> 'one'
Poonindie	the name of the mission station, north of Port Lincoln
Gunnadoo	near Coffin Bay
Kananna	Emu Bottom (Schürmann 1844b), <i>Kananna pura</i> or <i>purre</i> Winter's Hill, north of Port Lincoln (in Tindale's notes)
Kallinyala	the site of Port Lincoln (Schürmann 1844b)
Kulli purru	'the name of a hill called Cobler's friend' (Schürmann 1844b); 'Kullipura Hill', 'Cobbler's Hill' near Port Lincoln
Uley	at the end of the Port Lincoln pipeline
Ulina Well	near Lake Malata
Lake Malata	northeast of Coffin Bay
Yulanda	north of Louth Bay
Allowa (Ngalawa?)	near Wepowie
Millapa	Mount Greenly, Coffin Bay, etc.

5.2.3 *-awi, -abi*

East (1889:21) claims of the word for 'water' that "among the Padnayndie, Parnkalla, and Wurrung, it is the same word all through, viz. Cowie or owie", i.e., the common Thura-Yura form *kawi*. Now the heartland of 'Wurrung', as East understood it, is Eyre Peninsula, but *kawi* was not used by two of the three groups of Eyre Peninsula dwellers; cf. present-day WIR *gabi*, early BNG *kauo* or *kapi*, (but more recently BNG *kawi*). Hence it is likely that the Nauo word for 'water' was *kawi*. It probably occurs in the placename Cowieninta, north of Tumby Bay. But more significantly, there are also a number of placenames ending in *-awi* 'water' (Hercus and Potezny 1999) in the area of the Nauo 'last stronghold' (§2.1):

Mungerowie	between Port Lincoln and Coffin Bay
Woolawae	some 15 km northeast of Coffin Bay
Wepowie	some 25 km north of Coffin Bay, 'Ant Water'; this is identical in formation to the Adnyamathanha <i>Wepowie</i> (<i>Wip'awi</i> 'Ant Water') northeast of Parachilna and to <i>Wepowie</i> northeast of Booleroo Centre in Nukunu country.
Titjowie Dam	see under initial <i>t</i> above (§5.2.1)

In Schürmann's dictionary, while he records more than forty placenames, none of them ends in *-awi* or *-awu* and only one in *-api*, *winnapi* (Mount Hawson). The existence of placenames in southern Eyre Peninsula with *-awi* is thus fairly strong evidence that these

placenames are Nauo placenames, not Barngarla placenames. Names with final *-abi* 'water' are common in Wirangu country and are occasionally found also in Barngarla country in northern Eyre Peninsula, but never in the south. There is a group of them close to Venus Bay (but not further south): *Warrapie*, *Courtobie*, *Moyapie*, *Thulinippie* and *Chintobie*. These names are in accord with the Wirangu affiliation of the people in this area.

Thus even the precarious evidence of placenames points towards Nauo being a separate language, but 'in between' Wirangu and Barngarla. Mick McLean, the brilliant Wangkangurru speaker, had talked with old Barngarla men about these matters around 1920 and he summarised this as follows:

Nyaawa; these people been down the coast Franklin harbour, I don't know how far—Different from Parnkalla, a little more like Wirangu, but they could talk both languages in those days, a very long time ago. (Hercus tape 592:1973)

6. Conclusion

In 1841 Schürmann went on a trip to Coffin Bay to try to find the murderers of a young boy, Frank Hawson. At Korlo, a narrow peninsula at the north-west end of Coffin Bay they found a group of about thirty Aborigines, 'naked and worn-out'.

But when they saw that we didn't attack, they dropped their spears and all cried in terrified voices, with arms outstretched: *Ngai malpu makka ai makka*. 'I am not the murderer, not me'—indicating they knew the purpose of our visit. (Schurmann 1987:136–7)

The sentence can be glossed as follows:

<i>ngai</i>	<i>malpu</i>	<i>makka ai</i>	<i>makka</i>
I.INTR.SUBJ	murderer not	I.INTR.SUBJ	not

The words *ngai* and *makka* are shared with both Wirangu³⁶ and Barngarla; *makka* is part of a synonym pair in Barngarla. The dropping of the initial *ng* of *ai* probably indicates pronoun encliticisation, which is common in Barngarla and Thura-Yura languages but not in Wirangu. The word *malpu* is found in Barngarla and is reconstructible for Thura-Yura. This is the only sentence we have that may be Nauo.

But the sentence has stronger resonances than a linguistic concern with labelling languages. While Schürmann's party gave the people biscuits and left them in peace, others did not. Reprisals for the Hawson killing were savage, as Major O'Halloran hinted in a description of a punitive expedition for later killings:

I do not consider myself justified in entering on the country of the Coffin Bay tribe, which is immediately to the south of us, which tribe has done the settlers no harm except in the case of the murder of young Hawson about two years ago. I am not sure that the tribe has not suffered at the hands of the white settlers. (O'Halloran, quoted in Bull 1884:271)

This is corroborated by later reminiscences, for example, in 1899 a 'special correspondent' wrote to the *Observer* referring to the Coffin Bay area:

³⁶ *Ngayi* was used occasionally in Wirangu (Hercus 1999; Provis in Taplin 1879).

From the number of blacks' bones lying about, it is said that this peninsula [Horse Peninsula] was a battleground for the native tribes. It was also pretty broadly hinted to me that many a tribe had been chased there by the early settlers, shot down, and their bones left to bleach in the sun. Mr Andrew Weatherstone, the manager [of Mortlock's Station] has been in the locality for a great many years, and has witnessed tribal fights that left hundreds dead on the field of battle.³⁷

Fights between Aborigines did occur, and were made worse by dispossession of groups from their lands. But since Schürmann comments on the generally good relations between the groups, 'tribal fights' were probably a convenient excuse for the presence of so many bones.

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³⁷ 'A trip to the West Coast' by a 'special correspondent', Article No.8 in a series, *Observer* 7/11/1899, page 5. We are indebted to Tom Gara for this reference.

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19 *Two southern Australian vocabularies: Parnkalla (Barngarla) and Karlamayi*

GEOFF O'GRADY

1. Introduction

After O'Grady and Hale met up at Port Augusta in late February 1960, they set to recording vocabularies and other data in as many languages as they could (see O'Grady, this volume, and Nash and O'Grady, this volume). The two vocabularies which are the subject of this paper are listed in Table 1.

Table 1: O'Grady and Hale 1960 records presented in this paper

O'Grady code	Language	Speaker	Place recorded	Date
PNK	Parnkalla	Harry Crawford [sc. Croft]	Iron Knob	6 March 1960
KAL	Karlamayi	Teddy Champion	Mukinbudin	10 March 1960

It is appropriate to bring together the Parnkalla and Karlamayi data presented here, because of the overlap in the meanings recorded and the similarity of the circumstances under which they were recorded. Both were recorded early in the joint field trip of O'Grady and Hale. Neither was tape-recorded; the notes were written by Hale onto cyclostyled vocabulary questionnaire sheets which had been prepared by O'Grady at the University of Sydney. The interviews were conducted in English by Hale and O'Grady together.

2. Vocabularies

Both vocabularies were written onto the cyclostyled questionnaire. Hale used a phonemic notation, which has been here transcribed according to a practical orthography, the main correspondences of which are given in Table 2.

Table 2: Orthographic equivalents

Hale	this paper	Hale	this paper	Hale	this paper
tʷ	j	t̥	rt	M	bm
nʷ	ny	ɲ	m	N	dn
t̥	th	N̥	rdn	ŋ	ng
ð	dh	l̥	rl		
ɳ	nh	λ	rdl	λ	dl
l̥	lh	R	r	r	rr

Stress is usually marked and is invariably on the first syllable.

Parnkalla (Barngarla)

Barngarla is the spelling adopted by the Barngarla people; O'Grady's spelling in the 1960 record was Pankarla, and Schürmann's was Parnkalla.

The 78 Parnkalla items were recorded by Ken Hale at Iron Knob (SA), 6 March 1960. The speaker was the late Harry Crawford (sc. Croft), and the interview was conducted through a doorway of a house.

O'Grady noted that the estimated number of speakers was 3, and has a note at the top of the questionnaire "Middleback Range. Harry Dare".

Karlamayi

The 91 Karlamayi items were recorded by Ken Hale over a forty-minute period on 10 March 1960, at Mukinbudin (WA). The speaker was the late Teddy Champion. O'Grady noted on the top of the questionnaire: "Karlamayi is [spoken at] Moorine Rock (15 m. W of S[outhern] Cross) — Charlie Shepherd".

Both vocabularies are in Table 3.¹ For identification each meaning has been assigned its ordinal number in the full semantic sequence of the questionnaire form; a number is skipped where no form was recorded for the meaning in either language. The final column Δ marks those 1960 Parnkalla words which differ from Schürmann 1844

— see Table 6.

¹ Jane Simpson keyboarded Schürmann's Parnkalla (Barngarla). Barry Alpher added the 1960 Parnkalla, and made the comparison with Schürmann's Parnkalla, which Simpson then amended. David Nash checked the list, and restored the order of O'Grady's original questionnaire. Simpson and Nash drafted the comparative comments. The Karlamayi was keyboarded by Linda Barwick, then Nash checked it against the manuscript and prepared the tables and indices.

Table 3: Hale–O'Grady southern vocabularies

§	English gloss	O'Grady order	Karlamayi (Mukinbudin 1960)	Parnkalla (Iron Knob 1960)	1960 differs from Schürmann
I	BODY PARTS				
	head	1	<i>kata</i>	<i>kakarti</i>	
	hair of head	2	<i>purlka</i>	<i>kaka (w)urru</i>	
	forehead	3	<i>ngaalha</i>		
	face	4	<i>mulha</i>		
	eye	5	<i>miil</i>	<i>mina</i>	
	nose	6	<i>mulha</i>	<i>mudlha</i>	
	ear	7	<i>kuyan</i>	<i>yuri</i>	
	throat	8	<i>wuyu</i>		
	chin	9	<i>ngarnkurn,</i> <i>ngarnngarn</i>		
	beard	10	<i>ngarnkurr</i>	<i>ngarnka</i>	
	mouth	11	<i>thaa</i>	<i>yirra</i>	Δ
	tooth	13	<i>yiri</i>	<i>kartiti</i>	Δ
	tongue	14	<i>midhany</i>	<i>jarliny</i>	
	neck	15	<i>kawa</i>		
	armpit	17	<i>ngirliny</i>		
	elbow	20	<i>kurrkurn</i>	<i>kurnarna</i>	
	hand	21	<i>mara</i>	<i>mara</i>	
	left hand	22	<i>yarrku</i>		
	right hand	23	<i>ngunarn</i>		
	finger nail	25	<i>pirri</i>		
	breast	28	<i>pipi mimi</i>	<i>ngama</i>	
	suck breast	29	<i>minya pipi</i> <i>ngala</i>		
	milk	30	<i>mimi</i>		
	back	31	<i>yurtu</i>		
	heart	32	<i>kurtu</i>		
	liver	33	<i>marirri</i>	<i>ngarli</i>	
	belly (exterior)	35	<i>wila</i>	<i>jarta</i>	
	viscera	37	<i>nhurniny</i>		
	urine	38	<i>kumpu</i>		
	excrement	40	<i>kuna</i>		
	thigh	48	<i>junta</i>		
	knee	49	<i>tarta</i>	<i>pura</i>	
	lower leg	50	<i>kurra</i>		
	ankle	51	<i>rtari</i>		
	foot	52	<i>jina</i>	<i>idna</i>	

§	English gloss	O'Grady order	Karlamayi (Mukinbudin 1960)	Parnkalla (Iron Knob 1960)	1960 differs from Schürmann
	skin	54	<i>kurlu(r)l</i>		
	skin swells up, as from insect bite	55	<i>putharra, pukupuku</i>		
	vein	56	<i>waaku</i>		
	blood	57	<i>yalku</i>	<i>karinyji</i>	
	fat (n.)	59	<i>karnu</i>	<i>marni</i>	
	bone	60	<i>taarrka</i>	<i>warlpu</i>	
	name	62	<i>yini</i>		
	vomit (v.)	63	<i>thuntaa</i>		
	vomit (n.)	64	<i>thuntaa parnaa</i>		
II BODILY FUNCTIONS, SENSES AND PERCEPTION, ETC.					
	see	65	<i>ngayi nyungu kapun²</i>	<i>nhakuka</i>	
	blind in one eye	66	<i>miil kuti</i>		
	blind in both eyes	67	<i>miil-pang</i>	<i>mina maka</i>	△
	hear	68	<i>kuwan, kwan</i>	<i>yuruwuthu</i>	
	deaf	69	<i>kuyan pang</i>		
	eat	70	<i>ngala</i>	<i>ngalkuthu</i>	
	hungry	71	<i>mayi pang kurtu warla</i>	<i>ngayi karnpa</i>	
	swallow (v.)	72			
	drink water	73	<i>ka(a)pi ngala</i>	<i>kawu yapatha</i>	
	thirsty	74	<i>kapi pang</i>	<i>mankara</i>	△
	died	75	<i>jawu</i>	<i>padlunu</i>	
	sick	76	<i>ngarntany</i>	<i>mingka</i>	
	saliva	78	<i>jaalypi</i>		
	spit (v.)	79	<i>jaalypi warni-</i>		
	cry (weep)	85	<i>ngula</i>	<i>nyirlinyin</i>	△
	I speak.... (language name)	87	<i>thaa wangka</i>	<i>wangkatha</i>	
	shame	88	<i>kurntany³</i>		
	I am cold	103	<i>kayin jatirtin</i>	<i>payarla</i>	

² 'I see/saw a person.'

³ Added after this word in the margin is "(Moorine Rock)".

§	English gloss	O'Grady order	Karlamayi (Mukinbudin 1960)	Parnkalla (Iron Knob 1960)	1960 differs from Schürmann
III	STANCE, MOTION				
	sit	111	<i>nyin</i>	<i>ikatha</i>	
	be standing	113	<i>yun</i>		
	to stand up		<i>pakarri</i> [<i>pukarri?</i>]		
	walk, go	117	<i>ngayi nti</i> [sic] <i>pakarri</i> <i>wamurtinti</i> ⁴	<i>ukatha</i>	
	run	119	<i>wirnti</i>	<i>ngarna walarin</i>	Δ
	climb (v.)	124	<i>yarntati</i> <i>karlpa</i>	<i>karrawarnikin</i>	
	child fell from tree	127	<i>kati-</i>	<i>nganhay warninhi ~ wardninhi</i>	
	return (intr.)	129	<i>marlangati</i>	<i>pardningukatha</i>	
	sleep (v.)	136	<i>kupalyu kuny</i>	<i>miya warnithi</i>	
IV	PHYSICAL TRANSFER AND HOLDING				
	give	138	<i>nganaa</i> <i>nyungun</i>	<i>nyungkuwu</i>	
V	IMPACT, CONCUSSION, ETC.				
	hit with hand	156	<i>marangu</i> <i>pungu</i>	<i>pirndanha</i>	Δ
	dead	157	<i>jawu</i>		
VI	HUMAN CLASSIFICATION				
	fully initiated Aboriginal man	172	<i>kapun</i>	<i>yura</i>	
	woman	174	<i>mirrka</i>	<i>parlarra</i>	
	baby just born	176	<i>minyaa</i>		
	child	177		<i>warlpu</i>	Δ
	old man	178	<i>pampul</i>	<i>pulyu, pulyuntiri</i>	Δ
	elder brother	180	<i>kurta jartiny</i>	<i>yunga</i>	
	elder sister	181	<i>jurtuny</i> <i>jartiny</i>	<i>nyarumpa</i>	Δ
	father	183	<i>mamany</i>	<i>papi</i>	
	mother	184	<i>yakuny</i>	<i>ngami</i>	
	wife	196	<i>muyi</i>	<i>yungara</i>	

4 'I am going to camp.'

§	English gloss	O'Grady order	Karlamayi (Mukinbudin 1960)	Parnkalla (Iron Knob 1960)	1960 differs from Schürmann
VII	VALUES, MENTATION, ETC.				
	good	203	<i>kuluny</i>	<i>yunga</i>	Δ
	bad	204	<i>jakarla</i>		
	yes	218	<i>yuwa</i>	<i>juku</i>	Δ
	no	219	<i>(purtaa)</i> <i>purtaa</i> <i>winyiny</i>	<i>ngami</i>	Δ
VIII	MATERIAL CULTURE				
	spear (n.)	220	<i>kaa<i>ji</i></i>	<i>kaya</i>	
	spearthrower	228		<i>midla</i>	
	stone axe	238		<i>jurla</i>	Δ
IX	FIRE				
	fire	255	<i>karla</i>	<i>kardla</i>	
	cold ashes	256	<i>jarnpiny</i>	<i>impa</i>	
	smoke	258	<i>puyu</i>	<i>puyu</i>	
X	WATER				
	water	269	<i>kapi</i>	<i>kawi</i>	
	cloud (generic)	272		<i>wira</i>	Δ
XI	TOPOGRAPHY				
	creek	287		<i>pari</i>	
	stone	292		<i>kadnya</i>	
	earth, ground	294		<i>manta</i>	Δ
	sandhill	306		<i>warlpa</i>	
XII	SKY AND HEAVENLY BODIES				
	sun	312		<i>yurnu</i>	
	star	313		<i>karlka</i>	Δ
	moon	316		<i>pira</i>	
XIII	TIME				
	night	317		<i>marlti</i>	
	by-and-by	324		<i>kari ngayi ngukatha</i>	
	tomorrow	326		<i>malhthurlu</i>	Δ
XIV	WIND				
	wind	333		<i>wari</i>	

§	English gloss	O'Grady order	Karlamayi (Mukinbudin 1960)	Parnkalla (Iron Knob 1960)	1960 differs from Schürmann
XV	DIRECTIONS				
XVI	DIMENSIONS				
	big	345		<i>marnanhthartu</i>	Δ
	small	346		<i>pulhyu kadnya</i> ⁵	
XVII	ANIMALS				
	meat	364		<i>partu</i>	
	tail	368		<i>kadla</i>	
	dog (domesticated dog)	369		<i>wirlka</i>	
	snake	374		<i>wabma</i>	
	opossum	380		<i>pirлта</i>	
	OTHER				
	vegetable food		<i>mayi</i>		
	person		<i>kapun</i>		

Table 4: Parnkalla alphabetical

Parnkalla (Iron Knob 1960)	English gloss	Parnkalla (Iron Knob 1960)	English gloss
<i>idna</i>	foot	<i>karinyji</i>	blood
<i>ikatha</i>	sit	<i>karlka</i>	star
<i>impa</i>	cold ashes	<i>karnpa</i>	hungry
<i>jarliny</i>	tongue	<i>karrawarnikin</i>	climb (v.)
<i>jarta</i>	belly (exterior)	<i>kartiti</i>	tooth
<i>juku</i>	yes	<i>kawi</i>	water
<i>jurla</i>	stone axe	<i>kawu yapatha</i>	drink water
<i>kadla</i>	tail	<i>kaya</i>	spear (n.)
<i>kadnya</i>	stone	<i>kurnarna</i>	elbow
<i>kaka (w)urru</i>	hair of head	<i>malhthurlu</i>	tomorrow
<i>kakarti</i>	head	<i>mankara</i>	thirsty
<i>kardla</i>	fire	<i>manta</i>	earth, ground
<i>kari ngayi</i>	by-and-by	<i>mara</i>	hand
<i>ngukatha</i>		<i>marlti</i>	night

⁵ 'small rock'

Parnkalla (Iron Knob 1960)	English gloss	Parnkalla (Iron Knob 1960)	English gloss
<i>marnanighthartu</i>	big	<i>pirdnanha</i>	hit with hand
<i>marni</i>	fat (n.)	<i>pirлта</i>	opossum
<i>midla</i>	spearthrower	<i>pulhyu kadnya</i>	small
<i>mina</i>	eye	<i>pulyu, pulyuntiri</i>	old man
<i>mina maka</i>	blind in both eyes	<i>pura</i>	knee
<i>mingka</i>	sick	<i>puyu</i>	smoke
<i>miya warnithi</i>	sleep (v.)	<i>ukatha</i>	walk, go
<i>mudlha</i>	nose	<i>wabma</i>	snake
<i>ngalkuthu</i>	eat	<i>walarin</i>	run
<i>ngama</i>	breast	<i>wangkatha</i>	speak
<i>ngami</i>	mother	<i>warnithi, in miya warnithi</i>	sleep (v.)
<i>ngami</i>	no	<i>warninhi ~ wardninhi</i>	fell
<i>nganhay</i>	? (see Table 3, item 127)	<i>wari</i>	wind
<i>ngarli</i>	liver	<i>warlpa</i>	sandhill
<i>ngarna</i>	? (see Table 3, item 119)	<i>warlpu</i>	bone
<i>ngarnka</i>	beard	<i>warlpu</i>	child
<i>ngayi</i>	I (see by-and-by, hungry)	<i>wira</i>	cloud (generic)
<i>nhakuka</i>	see	<i>wirlka</i>	dog (domesticated)
<i>nyarumpa</i>	elder sister	<i>yapatha</i>	drink
<i>nyirlinyin</i> (Pres)	cry (weep)	<i>yirra</i>	mouth
<i>nyungkuwu</i>	give	<i>yunga</i>	elder brother
<i>padlunu</i> (Past)	died	<i>yunga</i>	good
<i>papi</i>	father	<i>yungara</i>	wife
<i>pardningukatha</i>	return (intr.)	<i>yura</i>	fully initiated Aboriginal man
<i>pari</i>	creek	<i>yuri</i>	ear
<i>parlarrа</i>	woman	<i>yurnu</i>	sun
<i>partu</i>	meat	<i>yuruwuthu</i>	hear
<i>payarla</i>	I am cold		
<i>pira</i>	moon		

Table 5: Karlamayi alphabetical

Karlamayi (Mukinbudin 1960)	English gloss	Karlamayi (Mukinbudin 1960)	English gloss
<i>jaalypi warni-</i>	spit (v.)	<i>kuyan pang</i>	deaf
<i>jaalypi</i>	saliva	<i>kuyan</i>	ear
<i>jakarla</i>	bad	<i>mamany</i>	father
<i>jarnpiny</i>	cold ashes	<i>mara</i>	hand
<i>jawu</i>	dead	<i>marangu pungu</i>	hit with hand
<i>jawu</i>	died	<i>marirri</i>	liver
<i>jina</i>	foot	<i>marlangati</i>	return (intr.)
<i>junta</i>	thigh	<i>mayi pang kurtu</i>	hungry
<i>jurtuny jartiny</i>	elder sister	<i>warla</i>	
<i>ka(a)pi ngala</i>	drink water	<i>mayi</i>	vegetable food
<i>kaa ji</i>	spear (n.)	<i>midhany</i>	tongue
<i>kapi pang</i>	thirsty	<i>miil kuti</i>	blind in one eye
<i>kapi</i>	water	<i>miil</i>	eye
<i>kapun</i>	fully initiated Aboriginal man	<i>miil-pang</i>	blind in both eyes
<i>kapun</i>	person	<i>mimi</i>	(see breast)
<i>karla</i>	fire	<i>mimi</i>	milk
<i>karnu</i>	fat (n.)	<i>minya</i>	baby (see suck)
<i>kata</i>	head	<i>minyaa</i>	baby just born
<i>kati-</i>	fell	<i>mirrka</i>	woman
<i>kawa</i>	neck	<i>mulha</i>	face
<i>kayin jatirtin</i>	I am cold	<i>mulha</i>	nose
<i>kuluny</i>	good	<i>muyi</i>	wife
<i>kumpu</i>	urine	<i>ngaalha</i>	forehead
<i>kuna</i>	excrement	<i>ngala</i>	eat, suck
<i>kupalyu kuny</i>	sleep (v.)	<i>nganaa</i>	? (see Table 3, item 138)
<i>kurlu(r)l</i>	skin	<i>ngarnkurn</i>	chin
<i>kurntany</i>	shame	<i>ngarnkurr</i>	beard
<i>kurra</i>	lower leg	<i>ngarnngarn</i>	chin
<i>kurrkurn</i>	elbow	<i>ngarntany</i>	sick
<i>kurta jartiny</i>	elder brother	<i>ngayi nti</i>	I (see walk, go)
<i>kurtu</i>	heart	<i>ngirliny</i>	armpit
<i>kuti</i>	one ⁶	<i>ngula</i>	cry (weep)
<i>kuwan, kwan</i>	hear	<i>ngunarn</i>	right hand
		<i>nhurniny</i>	viscera
		<i>nyin</i>	sit
		<i>nyungu</i>	see
		<i>nyungun</i>	give

⁶ The gloss of *kuti* is inferred from *miil kuti* 'blind in one eye' and Tindale (1938-63) T89, "kuri" 'one'.

Karlamayi (Mukinbudin 1960)	English gloss	Karlamayi (Mukinbudin 1960)	English gloss
<i>pakarri</i> [<i>pukarri?</i>]	to stand up	<i>thuntaa parnaa</i>	vomit (n.)
<i>pakarri</i>	walk, go	<i>thuntaa</i>	vomit (v.)
<i>pampul</i>	old man	<i>waaku</i>	vein
<i>pipi mimi</i>	breast	<i>wamurtinti</i>	towards camp (see walk, go)
<i>pirri</i>	finger nail	<i>wila</i>	belly (exterior)
<i>purlka</i>	hair of head	<i>wirnti</i>	run
<i>purtaa, purtaa</i>	no	<i>wuyu</i>	throat
<i>winyiny</i>		<i>yakuny</i>	mother
<i>puiharra,</i> <i>pukupuku</i>	swells up	<i>yalku</i>	blood
<i>puyu</i>	smoke	<i>yarntati karlpa</i>	climb (v.)
<i>rtari</i>	ankle	<i>yarrku</i>	left hand
<i>taarrka</i>	bone	<i>yini</i>	name
<i>tarta</i>	knee	<i>yiri</i>	tooth
<i>thaa wangka</i>	speak	<i>yun</i>	be standing
<i>thaa</i>	mouth	<i>yurtu</i>	back
		<i>yuwa</i>	yes

3. Commentary

3.1 Parnkalla (Barngarla)

Schürmann (1844) recorded a sizeable vocabulary of Parnkalla (Barngarla), from which O'Grady and Klokeid (1969:303–7) excerpted their 100-word test list. Schürmann (1844) and the Hale–O'Grady 1960 list have 78 comparable words (i.e. both have words for the same or very similar meaning), of which 58 are recognisably the same, i.e. 74%. The 20 meanings which differ between Schürmann and 1960 are noted in Table 6. This includes one word of the 1960 Parnkalla without an exact equivalent in Schürmann's Parnkalla: 'elder sister'. The final column indicates likely sources of the 'new' words, often from the western neighbour Wirangu (Wir, Hercus 1999) or the northern neighbour Kukatha (Kuk, Platt 1972).

Table 6: 1844 to 1960 lexical differences

O'Grady order	English	Schürmann	1960	Comment
11	mouth	ya; ira 'tooth'	<i>yirra</i>	Wir <i>ira</i> 'mouth', 'teeth' in oldest published vocabularies
13	tooth	ira	<i>kartiti</i>	Kuk, Wir <i>gardirdi</i>
35	belly (exterior)	worna 'abdomen, belly'; ngangkalla 'stomach'	<i>tjarta</i>	Kuk, Wir <i>dyarda</i>

O'Grady order	English	Schürmann	1960	Comment
67	blind in both eyes	menamadlunniti 'to be blind, short-sighted', mina 'eye', madla 'nothing', madlanniti 'to be or become no more, to die'	<i>mina maka</i>	
74	thirsty	yernpiti 'to be thirsty', yurne itarta 'thirsty', pantapantarriti, panyaltiti	<i>mankara</i>	Wir <i>mangara</i> 'full, sated' (older word); <i>djigur-binj</i> (Platt 1972:29)
85	cry (weep)	tuttu ['song'] worniti, mena yulkata 'to weep, shed tears', mulka wityuru 'in tears, crying', ngattutu 'to weep, cry, howl'	<i>nyirlinyin</i>	<i>ny-</i> instead of usual <i>nh-</i>
119	run	waiingukata 'to run from fear, flee', waiyukannata 'to run away', ngammata 'to go, run, come', palkata 'to shine, to extend, to jump, run', yuwannuwanniti 'to fly, run away'	<i>ngarna walarin</i>	Wir <i>walirirn</i> 'to fly, to run this way, etc.' <i>walarn</i> 'to run (along)'; <i>wala, wala-wala, walangu</i> 'quickly, in a hurry'
156	hit with hand	kundata 'strike, beat, kill'	<i>pirdnanha</i>	cf. Arabana <i>pirta-</i>
177	child	kaitya 'infant, child', walbo 'strong, bone'	<i>warlpu</i>	cf. Wir <i>warlpu</i> 'bone'
178	old man	b/pulka (also 'old')	<i>pulyu, pulyuntiri</i>	
181	elder sister	yakka 'sister'	<i>nyarumpa</i>	< WD; <i>ny-</i> instead of usual <i>nh</i>
203	good	marniti, yuwa 'good, very well'	<i>yunga</i>	NB: Schürmann <i>yunga</i> 'elder brother'
218	yes	ya, yandi	<i>tjuku</i>	
219	no	madla	<i>ngami</i>	
238	stone axe	kandi	<i>tjurla</i>	< Kuk, Wir <i>dyurla</i> 'stone tool, stone knife'

O'Grady order	English	Schürmann	1960	Comment
272	cloud (generic)	mabinye, malko	<i>wira</i>	Wir <i>wira</i> 'sky'
294	earth, ground	yerta 'land, country'	<i>manta</i>	Wir <i>manda</i> 'ground, sand' (< Kuk)
313	star	pur(d)li	<i>karlka</i>	Wir <i>galga</i>
326	tomorrow	wiltyaparrari	<i>malhthurlu</i>	Wir <i>maldhulu</i> , Kaurna, and ? other Thura-Yura languages
345	big	mirru 'large, grown up'	<i>marnanhthartu</i>	cf. Wir <i>marnaardu</i> etc., lenited < ?Nukunu/Kuyani

The differences are generally that the 1960 record has more in common with the northern neighbours Wirangu and Kukatha. Note that Schürmann (1844) recorded Parnkalla at Port Lincoln, at the south of Parnkalla territory and some distance south of Iron Knob.

3.2 *Karlamayi*

O'Grady, Voegelin and Voegelin (1966:135) noted for "*Kalamai /kaɭamayi*" that "The sources are Curr 1886, and a short wordlist recorded by Hale and Douglas in 1960". The Curr 1886 wordlist is presumably Adam's (1886) 120 words, whose location corresponds to near Lake Barlee (the town name Newcastle was changed to Toodyay in 1910), some 200km north of Southern Cross. The wordlist recorded by Hale is the one in the above table. W.H. Douglas (1968:3) also recorded a few words from Teddy Champion and in 1999 deposited excerpts of his notes at AIATSIS. It seems that any 1960 *Karlamayi* notes made by Douglas are not extant.

See Thieberger's (1993) '*Kalaamaya*' for a bibliography of *Karlamayi*. In addition to those records mentioned by O'Grady et al (1966), the main records of *Karlamayi* are in Daisy Bates' vocabularies, and Tindale (1938–63) vocabulary 89. Tindale's vocabulary is equivalent to the 1960 record in 20 out of the 23 common meanings. The points of lexical difference are where Tindale has *thalanj* 'tongue', *marundi*[?] 'to walk', and *kuru* 'no'.

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20 *Word order in a free word order language: the case of Jiwari*

PETER K. AUSTIN

1. Configurationality

The central Australian Aboriginal language Warlpiri has been made famous in the linguistic literature as ‘non-configurational’ as a result of the analysis of its morphosyntax arising from research by Ken Hale.¹ Hale (1980) proposed that Warlpiri showed no evidence of phrase structure organisation (i.e. no evidence for syntactic categories beyond the word level) and no evidence of transformational operations (see also Nash 1985, Laughren 1989, and Simpson 1983 and 1991). Warlpiri has a number of morphosyntactic characteristics that make it radically different from the conception of syntax deriving from the study of European languages such as English:

1. Word order at the clause level is free—any arrangement or rearrangement of words in Warlpiri clauses results in no change in linguistic meaning.² There is no ‘syntactically neutral’ ordering of subjects, objects, and verbs.

¹ I take great pleasure in offering this paper in honour of Ken Hale, whom I first met in 1974 in Canberra. In 1978 he served as one of my PhD thesis examiners, clarifying for me points of Diyari grammar arising from brief fieldwork he had carried out in Alice Springs in 1959. He was my sponsor during my Harkness Fellowship at MIT in 1980 and has remained a friend and role model, especially in terms of the breadth of his interests and his lived example of truly collaborative relationships with native speakers of indigenous languages.

² The only exception in finite clauses is that non-null monosyllabic auxiliaries plus their associated bound pronominals must follow the first clause level constituent. Disyllabic auxiliaries (plus bound pronouns) can be clause-initial or follow the first constituent (see Hale 1982 and Swartz 1988:152). Word order is more strict in non-finite clauses.

2. Elements which can be thought of as a single semantic unit (say nominal heads and their associated demonstratives and modifiers) can be, and often are, represented discontinuously within the clause. Warlpiri has a rich system of nominal case marking, and it is generally true that discontinuous nominal expressions with the same morphological marking can be interpreted as semantic units (so-called 'split NP syntax').
3. Nominals are freely omissible from Warlpiri clauses—missing nominals are interpreted as third person definite reference. Additionally, there are sets of bound pronominal subject and object markers affixed to the verbal auxiliary complex; the overt expression of free pronominal arguments in the clause is optional.

These three characteristics challenge some of the basic conceptions of government-binding theory (see Chomsky 1981, 1982 and 1986), particularly the projection principle, which requires that there be no syntactic 'gaps' and sanctions abstract 'empty categories' (namely NP-trace, wh-trace, PRO, and pro). It also requires the existence of syntactic movement, because lexical argument structure is projected onto surface structure and hence 'missing' surface elements must be analysed as sanctioned empty categories.

Cross-linguistic variation is seen in terms of setting of parametric constraints on universal grammar. One such is 'the configurationality parameter', i.e. whether or not a language exhibits phrase structure and movement (and consequent anaphor-antecedent binding asymmetries). Hale (1983) argued that this parameter should be couched in terms of the level of syntactic structure at which the projection principle holds: in configurational languages it holds at lexical structure (i.e. the level which reflects the theta-marking properties of lexical items) and surface structure, while in non-configurational languages it holds at lexical structure only. From this it follows that abstract elements like PRO, pro, and trace are not required in languages like Warlpiri (nor are movement rules). Theta-marking properties of verbs are represented by argument arrays at lexical structure, but not necessarily at the surface syntactic level. Thus, 'missing' elements are not necessarily empty categories.

Jelinek (1984:73) argues against Hale's approach, stating that for Warlpiri (and other languages termed by her 'W-type non-configurational') the argument positions of a predicate are filled by the bound pronominal clitics (subject and object, which obligatorily attach to the auxiliary). Free nominals, where they occur overtly in the clause, are taken to be adjuncts to the verb complex with its (morphologically) bound arguments ('adstructural elements'). Omission and free ordering of adjuncts is possible because essential argument information is represented in the clause by the pronominal agreement markers.³ Speas (1990) and Baker (1991 and 1996) have developed variants of this approach, concurring with Jelinek in emphasising the role of the bound pronouns as licensing free word order and other non-configurational characteristics (see Austin and Bresnan 1996, and Bresnan 2000 for criticism of this view).

³ The claimed correlation is not without exceptions, even in languages with bound pronouns. Blake (1983:144) observes that in Kalkatungu, "[w]here an auxiliary particle is used, . . . the cross-referencing forms are obligatory. In other instances the use of cross-referencing forms instead of or as well as free nominals is optional and not too frequent". Similarly, Bresnan and Mchombo (1987:742, fn.2) point out that "Jelinek's analysis of Warlpiri is itself problematic", as it relates to the relationship between the so-called pronominal arguments and the nominal adjuncts. They quote Simpson's (1983) study, which shows that Jelinek's analysis is not applicable to non-finite clauses, which have no auxiliary element and no bound pronouns, yet show the same lexically determined case-marking patterns for nominals as finite clauses (which do have auxiliaries and bound pronouns).

Note in passing that these ideas are neither unique nor original to Jelinek, but have appeared in the literature on 'free word order' languages a number of times. For example, Steele (1978:611) proposes a (unidirectional) implicational relationship between person agreement marking and word order freedom. Earlier sources include Boas (1911) and von Humboldt (1836:130ff.), neither of whom is mentioned by Steele, or Jelinek (or by Mithun 1986).⁴ Similarly, Bresnan and Mchombo (1987) argue that in certain Bantu languages the bound pronominal markers are pronouns and function as arguments filling the verb's lexical requirements (Steele 1989:543 calls this the 'pronominal argument' view). Bresnan and Mchombo say this is always true for subjects and may be for objects.

Hale (1992:78) revised the analysis in Jelinek (1984) and Speas (1990), proposing that NP arguments are not directly governed by the verb, but by their (inflectional) case category, which serves to make the NP 'visible' for the assignment of thematic roles to it by the verb. He distinguishes between a lexical projection ("an unambiguous projection of the lexical category, say V, introducing its arguments in an asymmetrical arrangement of specifier and complement") and a functional projection ("the case-projection (or case-and-agreement projection), with parallel organisation of argument positions, each identified with the corresponding position in the [lexical] theta-projection"). The functional projection is not inherently asymmetrical and hence allows freedom of order, as well as exhibiting no evidence of subject/object binding asymmetries. For Hale, the difference between English and Warlpiri then is that English expresses arguments overtly within the lexical projection, while Warlpiri expresses them only in the functional projection. There would thus be no evidence for c-command or movement in a language like Warlpiri.

In summary, in all these accounts there are two types of typologically distinct languages: non-configurational which rely on person agreement morphology to express syntactic relations, and configurational, which rely on phrase structure.

2. Pragmatically determined order

Alongside this generative syntax research, there has been interest in 'free word order' languages by typologically oriented linguists, such as Blake (1979, 1983 and 1987), Payne (1987) and Mithun (1986 and 1987), who have challenged the Greenbergian conception of 'basic' word order, arguing that there are languages with no 'basic' syntactically determined word order, but whose word order is pragmatically determined (see also Heath 1986 and Kilham 1987).⁵ Mithun (1986 and 1987) has demonstrated clearly that pragmatic principles play a fundamental role in word-order determination in Coos, Cayuga, and Ngandi, the last from northern Australia. Summarising somewhat, her basic idea is the 'newsworthiness principle': the pragmatically most important items, those with the most immediate discourse impact because they are new or contrasting, come first in the clause, and the elements which follow are distributed in order of decreasing newsworthiness. Note here the apparent reversal of the traditional view (based largely on research on European languages such as Czech and Russian) that pragmatic principles favour a topic-comment or theme-rheme order where sentence constituents are ordered in increasing 'communicative dynamism', moving from the

⁴ I am grateful to William Foley for bringing the Boas and von Humboldt references to my attention.

⁵ A point with which Jelinek would seem to agree; cf. Jelinek (1984:73 item 72c), although she does not make it clear precisely what she intends by the term 'pragmatic'.

known (topic or theme) at the beginning of the sentence to the unknown or new (comment or rheme) at the end.

Mithun is not alone in proposing this reversal of pragmatic prominence, nor is she the first to do so. Stute (1986) and Burgess (1986) (both originally written in 1976–77, according to Grimes' introduction to the volume that contains them) argue that similar principles apply in Gaviao and Xavante (see also Payne 1990). Similar ideas are found in the ordering principles proposed independently by Blake (1979, 1983 and 1987), who suggests that for some Australian Aboriginal languages the usual sentence order is: (focus) — topic — (rest of) comment.

Here 'topic' refers to what is being talked about, and 'comment' is what is said about the topic. 'Focus' is to be understood as: "the most important part of the comment, the essential part, that most resistant to ellipsis" (Blake 1983:153). Blake distinguishes focus from new topics, whereas Mithun does not;⁶ however Mithun's test for 'most newsworthy constituent' is identical to Blake's for 'focus', namely that in question–answer pairs the "most important constituent of an answer will occur first" (Mithun 1987:304; Blake 1979:115, 1983:154 and 1987:156).

Swartz (1988 and 1991) has shown that Warlpiri too has pragmatically determined word order. He argues (1988:154) that initial position in the sentence in Warlpiri is pragmatically significant and that this is where prominent topical material is placed, and proposes that Warlpiri word order can be captured by the formula: (sentence topic) — [verb phrase — (remainder of comment)]. It seems that Swartz's concept of 'prominence' coincides with Mithun's 'most newsworthy' and Blake's 'focus'. Swartz (1991:42–43) concludes that "Warlpiri too is a pragmatically ordered language. By that is meant that there is no basic word order in Warlpiri from which all other orderings are variations". Hale (1992:76) has accepted Swartz's arguments here (along with Mithun's observations on the pragmatic ordering of Coos, Cayuga, and Ngandi).

Mithun (1986 and 1987) and Swartz (1991) stressed the apparent correlation between freedom of word order (i.e. pragmatic rather than syntactic determination of word order) and the presence of bound pronominal affixes on the verb or associated auxiliary element (see discussion above of the 'pronominal argument' approach of Jelinek 1984, Speas 1990, Baker 1991, and Baker 1996). Mithun (1986:15) (see also Mithun 1987:324) states this correlation explicitly: "[i]t appears that all languages with purely pragmatically determined rheme–theme order, establish core grammatical relations within their verbs, between verb stems and overt bound pronouns". If this view is correct, there cannot be languages with pragmatically determined word order (following the principles proposed by Mithun) which lack bound pronouns. In the following sections I show that such languages do exist and that Jiwari, spoken in Western Australia, is one such. I will then address the issue of how grammatical and semantic functions in Jiwari are expressed.

⁶ Blake bases his account entirely on sentences where argument nominals are fully represented in the clause. Swartz (1988:154) criticises Blake for not considering non-elliptical sentences in his account. He states that "[b]y defining topic and focus as he has, Blake has excluded the possibility that this tendency to 'push to the front' is a unitary phenomenon. Would it not be preferable to be able to state that whatever motivates such fronting does so without necessitating the somewhat arbitrary labelling of topic and focus?".

3. Jiwarli

Jiwarli is an Aboriginal language traditionally spoken in the north-west of Western Australia, inland from the town of Carnarvon (see maps in Austin 1981a, 1988b and 1992b).⁷ It is closely related to three neighbouring languages: Thiin, Warriangka and Tharrkari (constituting the Mantharta subgroup—see Austin 1981a and 1988a), and less closely related to its western neighbours Payungu, Purduna, Pinikura, and Thalanyji (the Kanyara subgroup). The languages appear syntactically to be identical to Jiwarli in all major respects. Among Jiwarli's more distant relatives is Warlpiri, which, as noted above, has been claimed to be non-configurational.

Morphologically, Jiwarli shows a rich system of case marking of the split-ergative type (see Dixon 1979 and Silverstein 1976); formal marking shows syncretism according to inherent lexical content (animacy) of the marked nominal. The first-person singular pronoun *ngatha* (and optionally the second-person pronoun *nhurra*) syncretise on a nominative/accusative pattern, i.e. the forms for intransitive and transitive subject functions (abbreviated following Dixon 1979 as S and A respectively) fall together, while there is a different form (accusative) for transitive object (P) function.⁸ Inanimate nominals and demonstratives syncretise ergative and absolutive, i.e. there is one form (ergative) for A function, but S and P functions are marked by a single form. All other nominals have three distinct forms for A, S, and P functions (see also Austin 1995).

Nominals in the examples below exemplify these various types of case syncretism.⁹ Notice also that in Jiwarli all nominals bear case regardless of whether they are adjacent or separated (forming discontinuous expressions—see discussion of examples (11) to (13) below).¹⁰ Case is formally marked locally depending on the animacy of the nominal referent.

In addition to these core cases, there are cases with semantic functions: dative, locative, allative, ablative, and causal (see Austin 1992a and 1992b for details). For all cases, morphological marking is assigned to each nominal of a single semantic constituent (corresponding to a notional noun phrase), not simply the last in a sequence of adjacent nominals, as in Warlpiri. Additionally, certain adnominal modifiers, especially possessives, are marked twice for case, taking both their own case (such as dative marking possession) and the case of the modified head nominal (see Austin 1995 for details).

Jiwarli and its neighbours have sets of first-, second-, and third-person pronouns and make great use of demonstratives for establishing third-person nominal reference. However, these languages have no bound pronouns or agreement markers, unlike the Western Desert

⁷ Until 1978 the language was unrecorded; between 1981 and 1985 I worked intensively on it with the last fluent speaker, Jack Butler, who died in 1986. The corpus consists of some seventy texts (see Austin 1997) plus a large amount of elicited data, all of which is available for study at AIATSIS, Canberra. In the examples below, a source for each is given: T prefaces the text number, and s precedes the sentence number.

⁸ In Tharrkari both the first-person singular pronoun *ngadha* and the second-person singular pronoun *nhurra* obligatorily inflect according to a nominative/accusative pattern.

⁹ The case-marking pattern described here is that which applies in main clauses; different patterns apply in certain dependent clause types; see Austin (1988a) and (1995), and the discussion in §5 below for details.

¹⁰ Contrast this with languages such as Warlpiri (see Hale 1982) and Diyari (see Austin 1981b:94) where adjacent nominals forming a semantic unit typically bear case on the last element only. All can bear case when emphasised.

language and Warlpiri spoken to their east (see the maps in Blake 1987 and Dixon 1980:364 for the geographical distribution of bound pronominals in Australia). Like them, however, nominals are freely omissible in texts and it is relatively rare to find, for example, a transitive verb and its associated argument nominals all overtly expressed (see Table 1 below). There is thus widespread zero anaphora in discourse (so 'gaps' can be any person or number, as noted in Austin and Bresnan 1996). It is evident then that, at least as far as omissibility is concerned, the correlation with the presence of bound pronouns observed by Mithun and Jelinek does not hold for Jiwari and its neighbours. In the following sections we will examine the word-order component of configurationality.

3.1 Word order

Even a cursory study of Jiwari texts shows that word order appears to be free. Taking simple transitive clauses, we find examples in the text corpus of all possible orderings of subjects, objects, and verbs. Thus, in (1) we have A V P order:¹¹

- (1) *Pulhapayara-lu kanya-nyja pirru ngunha.*
 [name]-erg carry-past meat.acc that.acc
 'Pulhapayara carried that meat.' [T45s3]

Note that the ergative case is assigned to A while the P, being inanimate, is unmarked. The same ordering is seen in (2), but here A is unmarked and P takes an accusative suffix:¹²

- (2) *Ngatha tharla-laartu ngurru-martu-nha pirru-ngku.*
 1sg.erg feed-usit old.man-group-acc meat-erg
 'I used to feed the old men with meat.' [T47s99]

In (3) we have A P V order:¹³

- (3) *Ngatha nhurra-nha murrurrpa mana-ra.*
 1sg.erg 2sg-acc cicatrice.acc get-fut
 'I will get you cicatrices.' [T50s7]

¹¹ The Jiwari transcription adopted here follows general Australianist principles: *th*, *nh* and *lh* represent lamino-dental stop, nasal and lateral, *j*, *ny*, and *ly* represent lamino-palatals, *rl*, *rn*, and *rl* represent apico-domals (retroflexes). The velar nasal is *ng*. The symbol *r* stands for a postalveolar continuant, and *rr* stands for a tap. In homorganic nasal-stop clusters, the digraph for point of articulation is written once only, thus *nh* plus *th* is *nth* (not *nhth*) and *rn* plus *rt* is *rnt* (not *rnrt*). Abbreviations used in the morpheme-by-morpheme glosses are: acc – accusative; allat – allative; caus – causative; comit – comitative; dat – dative; def – definite; erg – ergative; fut – future; imper – imperative; imperfDS – imperfective different-subject; imperfSS – imperfective same-subject; inchoat – inchoative; intent – intensive; loc – locative; perfDS – perfective different-subject; perfSS – perfective same-subject; pl – plural; pres – present tense; purpDS – purposive different-subject; purpSS – purposive same-subject; spec – specific; tr – transitiviser; usit – usitative. A dot separates non-segmentable morpheme glosses.

¹² Notice in this example the ergative case-marked nominal *pirru*, which has instrumental function.

¹³ In this example we have inalienable possession, which is coded in Jiwari by placing the possessor and the possessed nominal in the same grammatical function and marking each accordingly. The possessed body part is inflected as an inanimate nominal (and hence bears no case suffix in this example), while the animate possessor bears an accusative case suffix.

Initial P is seen in the next three examples. In (4) we have P A V order (additionally P is 'split' so that the demonstrative is initial and the head nominal and the possessive are final in the clause—see below for further discussion):

- (4) *Yinha nhurra parlura-rni-nma payipa nganaju.*
 this.acc 2sg.erg full-caus-imper pipe.acc 1sg.dat.acc
 'You fill up this pipe of mine!' [T61s11]

Example (5) shows P V A, as does (6); notice the difference in case marking in these two examples due to animacy differences:

- (5) *Yawarnu wantha-rrartu ngatha.*
 windbreak.acc put-usit 1sg.erg
 'I used to put down a windbreak.' [T61s40]
- (6) *Piji-nha manhartana-nha wanka-rla-rninyja ngulu-pa martaru-lu.*
 many-acc man-acc live-make-past that.erg-spec gum-erg
 'That gum has cured many people.' [T52s16]

Verb-initial transitive clauses also appear in the texts, as in (7), which is V A P:

- (7) *Jimpingka-rninyja ngatha-thu wirta-nyjarri-nha.*
 carry-past 1sg.erg-def boy-pl-acc
 'I carried the boys on my back.' [T47s121]

and (8), which is V P A:

- (8) *Warri nhanya-ra ngatha-nha ngunhi-pa kajalpu-lu.*
 not see-fut 1sg-acc there-spec emu-erg
 'The emu will not see me there.' [T51s11]

For clauses with intransitive verbs, both S V and V S orders occur. Example (9) is S V, and (10) is V S:

- (9) *Wuru ngunha panyji-nyja martura-rru.*
 stick.nom that.nom break-past middle-now
 'The stick broke in the middle.' [T45s13]
- (10) *Ngurmta-ja ngunha-pa kurlkanyurri-ngu-rru.*
 lie-past that.nom-spec think-imperfss-now
 'He lay down thinking.' [T45s15]

These examples are quite typical and illustrate common word orders. I have chosen them in order to show that constituent order is not sensitive to the grammatical status of subjects and objects, nor to agent/patient semantic roles, nor to the morphological patterns of case marking. In elicitation, speakers allow free reordering of sentence constituents without any change in linguistic meaning.

In addition to this, Jiwarli demonstrates other characteristics typically associated with non-configurational languages. Thus it allows quite freely so-called 'split-NP' constructions (see Hale 1982; Nash 1985; Dahlstrom 1987; and Blake, this volume); it is possible and not uncommon to find nominal constituents which are semantically related (say as head-modifier or possessor–possessed) separated by other sentence constituents. Consider the following example (in contrast to example (3) above), where a possessor and its possessed body part are separated by the verb (for further discussion see Austin 1995):

- (11) *Juru-ngku ngatha-nha kulypa-jipa-rninyja parna.*
 sun-erg 1sg-acc be.sore-tr-past head.acc
 'The sun made my head sore.' [T21s3]

Also, it is possible for demonstratives, head nouns, and modifiers to be separated (see also (4) above), as in:

- (12) *Kutharra-rru ngunha ngurnta-inha jiluru.*
 two.nom-now that.nom lie-pres egg.nom
 'Now those two eggs are lying (there).' [T51s9]
- (13) *Karla wantha-nma-rni jarnpa juma.*
 fire.acc give-imper-hence light.acc small.acc
 'Give me a small fire light.' [T61s15]

These examples are quite typical of Jiwarli, and, it seems, many other Australian languages (see Blake, this volume). Thus, Dixon (1977:269), commenting on split NPs in Yidiny (north Queensland) observes that "one word will occur before the verb . . . and the remainder after the verb", with the early word being a generic or deictic and the later being a specific noun or adjective. See also McGregor (1989) for further relevant discussion of splitting in Gooniyandi.

The final non-configurational characteristic of Jiwarli is frequent omission of argument nominals. In texts, it is relatively common to find clauses consisting of just verbs (both transitive and intransitive) or of transitive verbs with just one (but not both) of their arguments. Examples of such 'incomplete' clauses are the following. Firstly, we have a transitive clause with a P nominal (*karla* 'fire') but no A:

- (14) *Papa-ngka tharrpa-rninyja karla.*
 water-loc insert-past fire.acc
 '(He) put the fire in the water.' [T43s73]

and secondly a transitive clause with an A but no P:

- (15) *Yalha-ngka wantha-rrka nganthurra-lu marrungku-lu.*
 ground-loc put-fut we.pl-erg for.ever-erg
 'We will put (them) in the ground for ever.' [T44s21]

Sentences consisting of a verb without any overtly expressed arguments also occur, as in this transitive clause:

- (16) *Wirntupinya-nyja-rru.*
 kill-past-now
 '(They) killed (him).' [T42s25]

An intransitive example is:

- (17) *Nyajurri-nyja parliirri-rarringu-rru.*
 turn-past come.back-intent-now
 '(He) turned (and) came back.' [T43s77]

Clearly, Jiwarli shows the full range of typical non-configurational characteristics. It is also clear that word order is not syntactically determined, either by categorial status, grammatical functions, or thematic roles. What it is that influences the relative ordering of constituents is the focus of the next section.

3.2 A text study

An examination of Jiwarli texts reveals interesting patterns in the distribution of the alternative word order patterns. A study of one long traditional text (Text 43 in Austin 1997) gives the figures in Table 1 (similar figures obtain for other narrative texts in the corpus).

Table 1: Text count — Willy Wagtail text

Clause type			
Intransitive			
	number	%	% (discounting V alone)
S V	25	61	71
V S	10	24	29
V	<u>6</u>	<u>15</u>	—
	41	100	100
Transitive			
Complete		Incomplete	
A V P	5	V P	10
P A V	3	P V	6
A P V	2 ¹⁴	V A	1
P V A	<u>1</u>	A V	1
	11	V	<u>4</u>
			22

These figures are comparable to those given in Swartz’s (1988) study of word order in ten written and five spoken Warlpiri texts (Swartz’s data, reorganised and with per cent frequencies calculated by the present author, are in Appendix 1). As Swartz (1988:159) remarks, “I would be reluctant on the basis of this data to posit any order as basic for Warlpiri”.

We may ask then what occasions the patterns of S V vs. V S for intransitive clauses and (A) V P vs. P (A) V for transitive clauses in Jiwarli? In order to answer this question we will examine extracts from two traditional mythological narratives (Texts 45 and 43) in some detail.

It will be evident in examining the text extracts that positions early in the clause, and especially initial position, are pragmatically important in Jiwarli. Initial position is particularly prominent since it serves a number of functions—it is where we find:

1. Temporal adverbs such as *kuwarti* ‘now, today’ occur, serving as scene setters.
2. Connectives such as *parru* ‘and then’ and *ngurnuparni* ‘after that’.
3. Exclamations and vocatives.

¹⁴ Both instances occur in the question ‘Who fire will get?’.

4. New topics of a piece of text are introduced initially. Typically, Jiwari text episodes are bounded by the introduction of new topics in sentence-initial position; these topics continue as agents or actors in subsequent sentences but are left unexpressed in these sentences. This accounts for the majority of incomplete sentences which contain just intransitive verbs or contain transitive verbs with a P (but no A).
5. Significant new information is introduced, including new or important actions or events contributing to the main story line, new locations where events take place, and new non-topics (typically new transitive object nominals). The placing of new information in initial position accounts for the high number of V S intransitive clauses and for the numbers of P V and V P transitive clauses (non-expression of A in such clauses relating to topic continuity).
6. Topics are re-established (or reintroduced) after a period of retirement or being placed in the background. This is especially clear where a text involves interchange between two or more participants (see the extract from Text 43 discussed below). Note that where a topic is being re-established (typically as an A in a transitive clause) and at the same time a new action or event occurs, then the new participant or event outranks the old topic. This accounts for most P V A and P A V sentence types.
7. Contrast is made. To contrast location, action or event, or agents, the relevant verb or nominal participant is placed sentence initially.

To illustrate this consider first the following extract from Text 45, which is a traditional myth explaining the origins of the Emu constellation. In line 3 the main protagonist, the mythical being Pulhapayara, is introduced, and a series of actions involving him begin. The new topic appears in initial position, followed by the action he carries out—the resulting sentence has A V P word order. Line 4 introduces a new event, the stealing of the emu carried by Pulhapayara from the fire where he had intended to cook it. The agent in this sentence is unspecified and a V P order results.¹⁵ Notice that the unspecified agent cannot be Pulhapayara (i.e. it is not the case that the A is unexpressed for reasons of topic continuity) because it does not make sense that he would steal his own emu after cooking it.

In line 5 Pulhapayara is reintroduced by means of the initial demonstrative *ngunha*, and then what follows is the new action in the story line (giving an S V clause). In the following sequence of five lines, all have a missing subject (S or A) who must be interpreted as the topic, Pulhapayara.¹⁶ In line 8 an important location and participant (the ashes) is introduced, as is the stick which is significant later. Notice that the order within the P nominals in this clause is 'top' (modifier), 'that' (demonstrative), and 'ashes' (head), with 'stick' intervening between the last two. Sentences like this illustrate the P V clause type.

In line 9 the stick (introduced in the previous line as an instrument) becomes a topic and is placed in initial position. The A continues to be unexpressed (and hence can be interpreted as the continuing agent Pulhapayara) and the sentence has P V order. Notice the string of locative expressions at the end of the sentence. Lines 10 and 11 continue with the unexpressed agent, but in 12 the stick is revived as a topic (in S function) in initial position and the sentence is S V. Line 13 repeats line 12 for emphasis, adding the modifier 'middle' at the end. In line 14 the topic shifts back to Pulhapayara, who is reintroduced by the initial

¹⁵ Jack Butler could not remember the name of the protagonist who stole the emu and so he is left unexpressed throughout the text.

¹⁶ Notice that the person who steals the emu is the same as the one who cooks it—this is coded through the same-subject switch-reference marker attached to the perfective dependent verb (see also below).

demonstrative; the new action by him in 15 is placed initially and the demonstrative follows, giving V S order.¹⁷

Extract from Text 45 — Emu

- 3 *Pulhapayara-lu kanya-nyja pirru ngunha.*
 [name]-erg carry-past meat.acc that.acc
 'Pulhapayara carried that meat.'
- 4 *Mujiya-rninyja kajalpu ngarri-ngka kampa-rninyjalu.*
 steal-past emu.acc ash-loc cook-perfss
 '(Someone) stole the emu after cooking (it) in the ashes.'
- 5 *Ngunha yana-nyja ngurnta-nhu-rru kumpa-yi.*
 that.nom go-past lie-imperfss-now sit-purpss
 'He went to lie down.'
- 6 *Kururri-rarringu.*
 wake-intent
 '(He) woke up.'
- 7 *Yana-rarringu ngurlu-pa ngarri-rla.*
 go-intent that.allat-spec ash-allat
 '(He) went to those ashes.'
- 8 *Yirrara-thu ngunha wuru-ngku ngarri kala-rni-rninyja.*
 top.acc-def that.acc stick-erg ash.acc like.this-caus-past
 '(He) made the ashes on top go like this with a stick.'
- 9 *Wuru ngunha tharrpa-rninyja ngarti-ngka kajalpu-la*
 stick.acc that.acc insert-past inside-loc emu-loc
ngarri-ngka ngurnta-iniya-la.
 ash-loc lie-imperfds-loc
 '(He) inserted the stick inside the emu lying in the ashes.'
- 10 *Jikalpa-lkarringu-rru.*
 lift-intent-now
 '(He) lifted (it).'
- 11 *Pampa-rru kumpa-ja jikalpa-rnu.*
 cannot sit-past lift-imperfss
 '(He) couldn't lift it.'
- 12 *Wuru-thu ngunha panyji-nyja-rru.*
 stick.nom-def that.nom break-past-now
 'The stick broke.'
- 13 *Wuru ngunha panyji-nyja martura-rru.*
 stick.nom that.nom break-past middle.nom-now
 'The stick broke in the middle.'

¹⁷ One of the functions of the verb suffix glossed as 'intent' in lines 6 and 7 (and 10) is to indicate a series of actions in sequence by a single agent. Verbs marked by this suffix typically do not have an overt subject (see also Austin 1992b; the construction is also discussed in Austin 1992a).

- 14 *Ngunha-pa-thu warni-nyja yarnara-rru.*
that.nom-spec-def fall-past on.back-now
'He fell on his back.'
- 15 *Ngurnta-ja ngunha-pa kurlkanyurri-ngu-rru.*
lie-past that.nom-spec think-imperfss-now
'He lay down thinking.'

This example illustrates a common discourse organisation in Jiwarli with a single main protagonist. In texts where there are two main participants, the topical interchange between them is signalled by their placement in initial position; new actions by the same agent involve the non-expression of the subject (S or A) as we have seen. Here is an instance from a text on the stealing of fire by Willy Wagtail (this section tells of when the people send Peregrine Falcon to the place where Willy Wagtail is camped in order that he might get the fire back):

- 69 *Kaji nhurra yana-ma mana-ngku ngurlu karla-rla.*
try 2sg.nom go-imper get-purpss that.allat fire-allat
'You try to go and get the fire.'
- 70 *Nganthurra-ju wirntu-rrri-rarringu nyirnta kamu-nyjarri.*
we.pl-excl.nom dead-inchoat-intent here hungry-pl.nom
'We hungry ones could die here.'
- 71 *Kurukurura ngunha ngarlpurri-nyja.*
peregrine.falcon.nom that run-past
'Peregrine Falcon ran.'
- 72 *Jintijinti-lu nhanya-nyja-rni ngunha nhuku-rru.*
willy.wagtail-erg see-past-hence that.acc near-now
'Willy Wagtail saw him close by.'
- 73 *Papa-ngka tharrpa-rninyja karla.*
water-loc insert-past fire.acc
'(He) put the fire in the water.'
- 74 *Kurukurura ngunha yana-nyja thanarti-la ngula.*
peregrine.falcon.nom that go-past sea-loc that.loc
'Peregrine Falcon went out to sea.'
- 75 *Jintijinti-lu parru-nthu-rru jikalpa-rninyja.*
willy.wagtail-erg and.then-again-now hold.up-past
'Willy Wagtail held (it) up again.'
- 76 *Kurukurura yijarra yana-nyja.*
peregrine falcon.nom past go-past
'Peregrine Falcon went past.'
- 77 *Nyajurri-nyja parlirri-rarringu-rru.*
turn-past come.back-intent-now
'(He) turned (and) came back.'
- 78 *Ngarlu-ngka yana-nyja-rni papa-ngka-thu nhukuwila-rrri-ngu-rru*
stomach-loc come-past-hence water-loc-def close-inchoat-imperfss-now
'(He) came on the surface of the water, getting closer.'

- 79 *Jinijinti-lu jikalpa-rninyja karla.*
 willy.wagtail-erg hold.up-past fire
 'Willy Wagtail held up the fire.'
- 80 *Kurukurura-lu jarnpi-rninyja-rru karla.*
 peregrine.falcon-erg snatch-past-now fire.acc
 'Peregrine Falcon snatched the fire.'
- 81 *Parlirri-rarringu kurukurura ngurlu wirripuka-rla-rru*
 come.back-intent peregrine.falcon.nom that.allat many-allat-now
karla-wu thintirni-rnu-rru
 fire-dat knock.together-imperfss-now
 'Peregrine Falcon came back to the mob, knocking the fire together.'
- 82 *Wirripuka mangkapurtu-rri-nyja-rru.*
 many.nom glad-inchoat-past-now
 'The mob were glad.'
- 83 *Tharla-rninyja-rru kurukurura-nha thurnti-ngku.*
 feed-past-now peregrine.falcon-acc vegetable.food-erg
 '(They) fed Peregrine Falcon with food.'

In line 69 Peregrine Falcon is implored by the people to try to go and get the fire. The particle *kaji* 'try' is initial, followed by the second-person address pronoun *nhurra* and the imperative verb *yanama*. In line 70 the people explain that 'we' (topic) might die here—notice that the modifier 'hungry' is placed at the end of the sentence: it is old information and relates to the topic 'we'. Line 71 has Peregrine Falcon as topic (and S V order), while line 72 introduces Willy Wagtail (and has A V P order). Line 73 relates to continuing action by this same topic and introduces the new location, the water, into which he inserts the firestick. In line 74 focus switches back to Peregrine Falcon (S V again), and in 75 back to Willy Wagtail (A V, but no P—the firestick having been established in line 73). Attention switches back to Peregrine Falcon in 76, who continues as topic in 77 and 78 (neither of which has an overt subject). In line 79 the other protagonist is in initial position, and in 80 Peregrine Falcon is contrasted with him through an exactly parallel sentence construction (A V P). In 81 the new action of returning is placed in the position of prominence (V S order results), while the locational goal and subsidiary information follow. In 82 the 'mob' becomes topic and is continued (unexpressed) in 83, which is a V P (incomplete) sentence. This completes this particular section of the narrative.

It is clear then that Jiwarli demonstrates a set of properties that show it both to be non-configurational and to have pragmatically determined word order. It does not however have the bound pronominals that it is typologically predicted to have in order for verb argument structure to be unambiguously expressed and interpreted. In the next section we examine what the significance of this is.

4. Jiwarli from a typological perspective

As we have seen, Jiwarli seems to have the required characteristics of syntactically free word order that is requisite for non-configurationality, but does not have bound pronominals. I believe that the discussion to date in the syntactic literature has overlooked languages like Jiwarli because it has focused exclusively on languages of the head-marking type (Nichols

1986). Jiwarli, however, is a thoroughgoing dependent-marking language and this, together with a number of other morphosyntactic characteristics that it demonstrates, enables the pragmatic use of word order. We examine these characteristics in turn.

4.1 Dependent-marking

As we noted above, Jiwarli has a split-ergative case marking system which clearly distinguishes between nominals bearing various grammatical relations (S, A, P and so on). All elements which form a 'semantic constituent' carry case. Such 'affix congruity' is a feature of all Jiwarli morphology—non-case affixes (such as number marking, comitative ('having'), privative ('lacking') etc.) also appear on all semantically linked nominals. An example from Tharrkari showing agreement for the comitative is:

- (18) *Ngunha yana-ca yurnu-warri kutharra-arri mura-arri.*
 that.nom go-past this.dat-comit.nom two-comit.nom son-comit.nom
 'The one with those two sons went.'

Additionally, dependents agree in case with the semantic head that they modify—comitatives and genitive adnominal modifiers carry the case of the modified head; adverbs and adjuncts take ergative case in transitive clauses also (see Austin 1992a and 1995).¹⁸ The following is an example of genitive double case marking (see Austin 1995 for further details):

- (19) *Parru-nthu-rru ngunha yanga-rninyja ngulu-pa*
 and.then-again-now that.nom chase-past that.erg-spec
jarntira-wu-lu thuthu-ngku.
 old.woman-dat-erg dog-erg
 'That old woman's dog chased him again.' [T18s1]

Case marking also varies for clause type. The case-marking system described above applies in main clauses; however, in nominalisations and various sorts of dependent clauses transitive object marking involves suspension of the main clause split-ergative system and its replacement with dative or allative case (see Austin 1992a). Because of this, objects of dependent clauses can be separated from their verb and even 'mixed' with main clause nominals. Consider the following example, where dative case marks the object of an imperfective-same-subject verb:

- (20) *Minga-nyjarri-yi-rru nhurra thika-rnu kumpa-ma.*
 ant-pl-dat-now 2sg.nom eat-imperfss sit-imper
 'You sit down eating ants!' [T40s29]

Notice the word order in this example: the first word *minganyjarriyirru* is in the dative case because it is the transitive object of the dependent imperfect-same-subject verb *thikarnu*. The second word *nhurra* is the subject of the last word, the verb *kumpama*, since it is inflected for intransitive subject function, not ergative as would be required if it were the

¹⁸ Head-marking is found only with a set of four bound personal possessive suffixes added to kinship terms, e.g. *kurta-ju* 'elder.brother-my'. All other affixation is added to the dependent rather than the head.

subject of the dependent transitive verb. The dependencies between verbs and their arguments cross; however the dependencies are recoverable because of the case marking.

4.2 Transitivity

Jiwarli verbs are strictly subclassified into one of four lexical classes: intransitive (taking just an S nominal subject), extended intransitive (taking S and dative case-marked complement), transitive (taking A and P), and ditransitive (taking A and two P nominals). Verbs also fall into four morphologically determined conjugations (which do not correlate exactly with transitivity). There are only a handful of homophonous transitive and intransitive roots, but even for these the difference in transitivity relates to a difference in verb conjugation. For example, *tharrpa-* 'to enter' is an intransitive root of the *yi* conjugation, whereas *tharrpa-* 'to insert' is a transitive root in the *ru* conjugation. It is thus possible to tell from the inflected verb form whether the verb is transitive or intransitive. This also means that although the split-ergative case marking formally underdetermines syntactic function for most nominals (collapsing S and P for all non-animates etc.), the function is disambiguated in combination with the lexical class of the verb in the clause (thus a transitive verb will rule out S, for example).

4.3 Switch-reference

Jiwarli has a system of switch-reference: dependent verb affixes that signal (non-) coreference of subjects across clauses. In switch-reference clauses, subject argument functions are unfilled—such 'missing subjects' are understood to be coreferential with arguments in the controlling clause. Case is marked on the dependent verbs following the switch-reference morphology, and it is possible to calculate how the argument positions of the dependent clause are saturated and what interclausal semantic (anaphoric) relations hold. Consider the following example of an imperfective-different-subject clause (marking relative present tense). The presence of the accusative case suffix on the dependent verb means that its missing subject must be understood as coreferential with ('controlled by') the transitive object in the main clause:

- (21) *Tharla-nma yinha julyu-nha kamu-rri-ya-nha.*
 feed-imper this.acc old.man-acc hunger-inchoat-imperfds-acc
 'Feed this old man who is becoming hungry!' [T15s1]

The interactions between the switch-reference morphology and case marking are discussed in more detail in Austin (1992a); however, it will be clear even from this example that the inflectional morphology of Jiwarli plays an important role in signalling grammatical functions.

5. Conclusions

Jiwarli is a language which has all the prototypical non-configurational features, with freedom of word order serving pragmatic functions. However it is different from other non-configurational languages discussed in the literature to date in being thoroughly dependent marking. Published claims that there is a correlation between syntactically free word order

and bound pronominal marking (a characteristic of head-marking languages) are proven false by the Jiwari data.

It is important to see that freedom of word order to serve pragmatic functions is orthogonal to head- vs. dependent-marking. It is necessary to take a wider syntactic perspective on the issue and to recognise that in thoroughgoing dependent-marking languages such as Jiwari and its relatives a central role in signalling grammatical functions is played by the system of inflectional morphology (including case-marking and switch-reference; see Nordlinger (1998) for an approach that constructs functional representations from case morphology). This, together with strict lexical transitivity, means that predicate-argument relations, thematic roles, and interclausal anaphoric relations can be determined from the shapes of words, leaving their order to serve pragmatic purposes in organising discourse.

Appendix: Warlpiri word order (from Swartz (1988:158), reorganised and with percents calculated by Peter Austin on the basis of five oral texts (344 clauses)

Clause type

Intransitive	number	%
SV	73	35
VS	39	19
V	91	44
SVS	<u>5</u>	2
	208	

Transitive

Complete	number	% of complete	% of total transitive
AVP	16	56	41
PVA	7	21	5
APV	3	9	2
VPA	3	9	2
VAP	2	5	1
PAV	<u>0</u>		
	34		

Incomplete	number	% of incomplete	% of total transitive
V	32	31	24
PV	16	16	12
VP	38	37	28
PVP	5	5	4
VA	5	5	4
AV	3	3	2
AVA	<u>3</u>	3	2
	102		

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21 *Wangka Maya, the Pilbara Aboriginal Language Centre*

JANET SHARP AND NICK THIEBERGER

Aboriginal Language Centres occupy an exciting and innovative space in the fringe between academia and the people used by academia as its source of data. Now with funding that has lasted over a decade, language centres have the potential to train local people, to record and store information about local languages, and to promote the use of the languages in schools and other venues. In this paper we discuss the establishment and ongoing function of Wangka Maya, the Pilbara Aboriginal Language Centre in Port Hedland, Western Australia (WA).¹

1. Language Centres

Language centres are very practical examples of what could be termed ‘advocacy linguistics’ (following ‘advocacy anthropology’ (Gardner and Lewis 1996:47)). In the same tradition as the Aboriginal Languages Association (ALA),² they are a cooperative approach to supporting Australian indigenous languages between (usually) nonindigenous linguists and local communities (see Marmion (1994) on the Yamaji Language Centre). It should be noted that the political pressure exerted by the ALA is one of the most important inputs resulting in

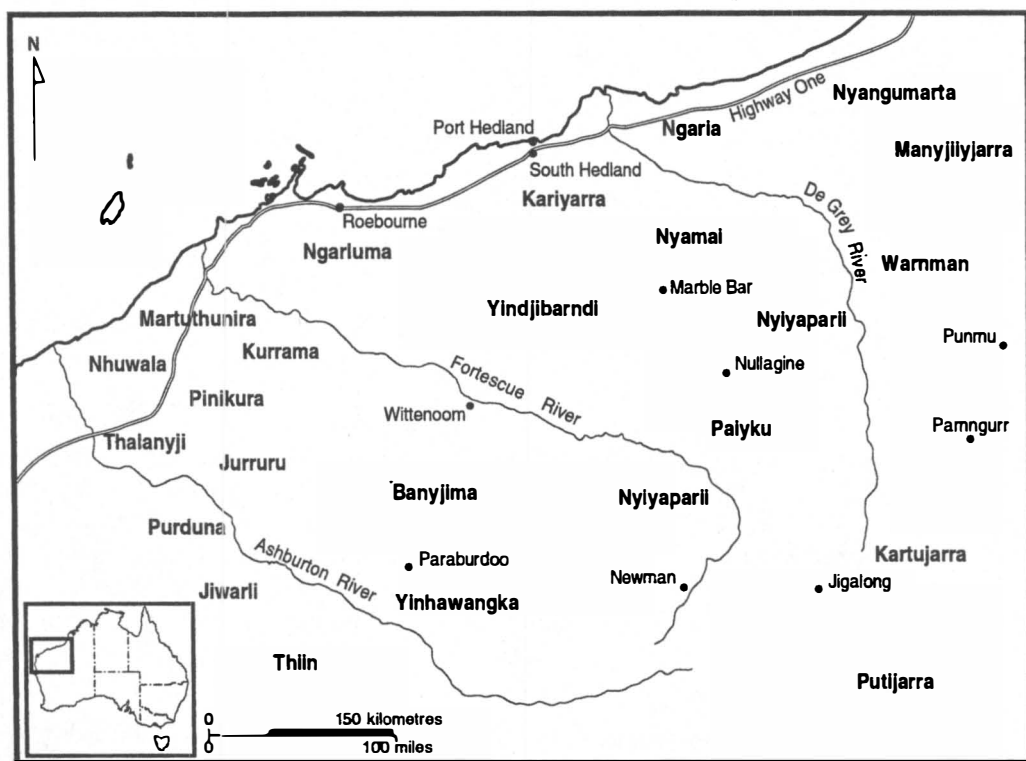
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- ¹ Thanks to Margaret Florey, David Nash, and Jane Simpson for comments on an earlier draft of this paper. We take this opportunity to acknowledge the support of the following people in the establishment and running of Wangka Maya (some of whom have sadly passed on): Mitchell Biljaba, Joshua Booth, Alexander Brown, Milton Chapman, Tootsie Daniel, Edward Dhu, William Gardiner, Brian and Helen Geytenbeek, Charmaine Green, Edna Hopigar, Trudy Hayes, Maureen Kelly, Manny Lockyer, Jim Marsh, Rosie Munroe, Rose Murray, Allery Sandy, Gary Sherman, Anne Sibosado, Debbie Sibosado, Mervyn Smith, Marnmu Susan Smythe, Roger Solomon, Desmond Taylor, Bruce Thomas, Maureen Yanawana, and Gordon Yuline.
- ² The ALA was a pressure group of indigenous and nonindigenous linguists that began in 1981 (Fesl 1993:163). Following the establishment of the Federation of Aboriginal and Torres Strait Islander Languages (FATSIL), the ALA ceased to function.

Jane Simpson, David Nash, Mary Laughren, Peter Austin, Barry Alpher, eds,
Forty years on: Ken Hale and Australian languages, 325–335.
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federal government funding for Aboriginal language work around the country, including language centres.

The language centre model works well when it has grown from a base of community support. As is typical with a centralised public service approach, however, the funding bodies encouraged (if not demanded) the establishment of language centres around the country. What had been a good idea in the places where it had been developed may not have been such a good idea in the places in which it was imposed. Problems arise when institutions become their own reason for being, even if they were initially established to perform particular functions which have since become redundant or were never carried out in the first place. It is not enough for a language centre to simply be; it must be a locus for language work, ideally of many kinds.



Map 1: Approximate location of indigenous languages of the Pilbara region (Wangka Maya)

Clearly, all organisations are only as good as their staff. In most parts of Australia Aboriginal people have had little training in language work. It is not surprising that some centres, with untrained staff and with funding given regardless of performance, are much less productive than others. Furthermore, hiatuses in funding have proven very difficult for low-budget centres to bridge. The two published reviews of language centres (Riley-Mundine and Roberts 1990; Baldauf 1995) have acknowledged the importance of ongoing funding for language centres. In neither study has there been any attempt to show what linguistic

outcomes there have been from the operation of the funded activities. This may seem unusual, since the funding is for language-oriented projects, but is most likely due to the political difficulties of identifying what the expected outcomes of these projects should be in the first place. Each centre may cover a range of situations, from fluency in a local language through to recovery of information about the language from historical sources. Given this diversity, the reviews understandably look at the physical outputs of the funded projects (books, language-focused activities, school work, and so on) rather than linguistic outcomes.

2. Political engagement

The politics of Western Australian Aboriginal affairs inevitably involve mining. For those from the 'east' who are not used to the prevailing characterisation of mining as the backbone of Western Australia's economy, it can come as something of a shock to see the extent to which the needs of local people (especially the original owners of the land) are ignored or suppressed for the benefit of employment and that most sacred of icons, development. In towns like Port Hedland there are fringe camps of wrecked vehicles, tin sheets and no facilities, typically with a floating population from out of town. Among the white locals intolerance and lack of understanding are common. As in all colonial societies, there is a division between domains occupied by indigenous and other Australians. These domains had blurred edges at times, and there are some spaces that are becoming more of a shared territory (educational institutions and Aboriginal-run community agencies, for example). The contrast between the mining town's resources and the pre-existing welfare-based camps is captured elegantly in the film *Exile and the Kingdom* (Rijavec et al. 1992), made with Ngarluma and Yindjibarndi people from Roebourne.

As linguists and anthropologists we cannot avoid our own role in 'development'. In Western Australia it was the case that site clearance had to be undertaken before mining work could proceed. This clearance work was done by consultants from varying disciplinary backgrounds, and with varying political affiliations. Some practitioners were known to do the companies' bidding,³ resulting in the need for careful handling of one's own research and adherence to professional standards appropriate to one's discipline. It also meant that material stored at the language centre needed to be housed securely.

The language centre inevitably became part of the network of support for Aboriginal people, at the level of providing employment for a community activist as the administrator of the centre and at the broader level of writing documents in support of our constituents, typically in opposition to 'development' (e.g. Thieberger 1989). Support for indigenous languages cannot be separated from a more general support for the speakers of those languages and the issues that face them in their attempts to control their lives. In 1998 Wangka Maya worked in conjunction with the Karijini Aboriginal Corporation to formulate some guidelines for the Aboriginal Heritage of Karijini National Park (Injie 1998). The project was initiated by the Heritage Commission of WA.

The approach to data at a language centre is potentially quite different to that of university academics. Because there is ongoing local contact between language speakers and the centre, it is possible to provide resources appropriate to the speaker's current needs. For

³ See for example the Four Corners programme 'Secret white men's business', ABC TV, 20 March 2000. www.abc.net.au/4corners/

example, a handwritten wordlist found in a Benedictine archive by a linguist whose project was a comparison of all Australian languages would not have found its way back to descendants of speakers of the language of the list were it not for the local language centre. For the purposes of the academic linguist the list was comparative data. For the speakers of the language it was a source of information about their heritage. One speaker of the language has taken the list and incorporated it into his dictionary of the language (assisted by the local SIL linguist), rediscovering words he had forgotten and learning words he had not known before.

3. Establishment of Wangka Maya

In 1985 Thieberger was employed by the Institute of Applied Aboriginal Studies, then a section of Mount Lawley College in Perth, to run a project funded by the Commonwealth Schools Commission. The project had been proposed by a committee attempting to establish a bilingual education programme for speakers of Aboriginal languages in Western Australia (WA). As part of their strategy they saw a need for a survey and database of material related to WA Aboriginal languages. Once established, this collection was indexed in the *Handbook of WA Aboriginal languages* (Thieberger 1993). This collection of some 200 documents (ranging from articles to theses) related to languages of WA was to have been located at a publicly accessible location, but it was lost by Edith Cowan University sometime around 1990. While most of these documents were replaceable (and the rest ranged from unique to rare or difficult to obtain), the effort required to accumulate them was considerable, and their loss illustrates the need for safe long-term archiving of linguistic material.

In the course of travelling for the IAAS survey it became clear that it would be necessary to focus on one geographical area if there were to be any ongoing activity after the survey was completed. The Pilbara region was chosen, mainly because of the community support that was apparent for recording and supporting local languages, together with the fact that recording of some of the languages of the area had been undertaken to an extent not reflected in other parts of Western Australia (by Ken Hale, Geoff O'Grady, Carl-Georg von Brandenstein, Peter Austin, Alan Dench, Brian and Helen Geytenbeek, Jim Marsh, and others).

On one of the consultation trips at Yandeejarra, an Aboriginal camp to the south-west of Hedland, Thieberger talked about the language centre with the appropriate community leaders and was directed to talk to Maori Tom, an old white-bearded man, who it turned out was one of Ken Hale's language teachers. They sat and talked and he tried to teach some Nyangumarta, expecting that Thieberger would record the language in the way that his earlier visitor had done. This response was not uncommon in other places visited. When the issue of a language centre was raised one was often then given lists of words in a local language. This enthusiasm was also often followed with requests to work on recording a particular language and made clear the need for a local language centre which could answer these requests.

During 1985 and 1986 there were a number of literacy workshops and consultative discussions with Aboriginal people in the Pilbara, which came to be defined as from Onslow in the west to Lake Dora (*Ngayarta Kujarra*) in the east, and as far south as the Tropic of Capricorn. In this region there are still some twenty indigenous languages spoken. These discussions guided the kind of resources the language centre would provide. They also identified which Aboriginal people were actively interested in the issues and would

subsequently take a role in managing the language centre. It was at this stage that there was a meshing of the agenda of the whitefella linguist proposing what could be seen as an employment creation scheme for himself with the desires of the local Aboriginal people for greater recognition of their cultures.

Pilbara Aboriginal Education Workers and the Aboriginal Education Consultative Groups supported the idea of a language centre. Their focus was on the resources that could be made available locally, in the form of materials and training. With this sort of support it was less daunting to speak about the proposal in front of a bush meeting. Bush meetings in the Pilbara were a way of making the bureaucrats get out of their offices to answer to their Aboriginal constituents en masse. A riverbed was the usual setting, and for a weekend the discussion would cover all sorts of issues. After facing a number of bush meetings with a sprinkling of supporters in the audience, Thieberger wrote submissions for funding to the Bicentennial Authority, the Commonwealth Education Department, the State Aboriginal Affairs Planning Authority, and the Department of Aboriginal Affairs (as they were all then known), none of which bore fruit. Nevertheless, in June 1988 we received our first grant when the National Aboriginal Languages Programme began.

The Pilbara Aboriginal Language Centre followed the model established by the Kimberley Language Resource Centre (Hudson and McConvell 1984) and by keeping-houses in other parts of the country. It is a model which blends the dominant culture's paradigm of academic linguistics with the needs of local speakers of Aboriginal languages and their descendants, and straddles the political intricacies of working between these two agendas. Even Eve Fesl (1993:165), in an otherwise largely negative view of nonindigenous linguists' involvement with Aboriginal languages, notes the "very important development of community-controlled language centres".

We ran a conference in October 1988 to set directions for the language centre and to decide on its name, *Wangka Maya* ('language house'). This conference elected the management committee, agreed on a draft constitution, and recommended the establishment of a language workers' training course at Pundulmurra College, an Aboriginal secondary school in South Hedland. Janet Sharp, a teacher and a linguist with a long involvement with languages of the region, took on the development of the course at Pundulmurra. She has continued to work with the language centre, and her recently completed doctoral thesis was a grammar of Nyangumarta.

During the early years, *Wangka Maya* had the local support of the Western Desert Land Council (later made to change its name to Western Desert Puntukurnuparna Aboriginal Corporation by government pressure, and now known by the acronym WDPAC), which provided the first office space and other facilities for the language centre (including being the incorporated body sponsoring the centre's first funding). This was one of the key reasons for establishing the centre in Hedland rather than one of the other Pilbara towns. This office, in the light-industrial area of Hedland (and later on a freehold piece of land twenty kilometres west of South Hedland known as Decca), was the town base for the WDPAC constituents, desert people from mainly Manyjilyjarra and Warnman language groups. With this beginning, the language centre also developed a focus on the desert languages and conducted a number of trips to the Rudall River region, recording stories and running literacy workshops. WDPAC also had staff from a Kariyarra group in Hedland who were to play a role in directing the activity of the centre to record that language with an old man who has since passed away.

In October 1989, after sharing premises with WDPAC and when funding was secured for at least twelve months, the centre moved into its own building in Port Hedland. This fibro cement three-bedroom house stood in the old town centre with views over the sea and across to Finucane island. It had been an Aboriginal hostel and then had been left empty for a year before we moved in. It was elevated about a metre above the ground, enough to make for a comfortable shady area underneath it, one that was occupied more or less continually by a rolling population of Aboriginal people. Occasional fights and abandoned children broadened the centre's day-to-day work to include welfare and policing. The language centre later moved to a converted house on the Pundulmurra College Campus and then, in 1999, to office space in the newly constructed Lotteries House, South Hedland, where they currently operate.

Wangka Maya is run by a Management Committee made up of a small number of dedicated people who have been struggling to keep languages in the Pilbara strong. They respond to project requests from the community. Submission writing is a direct result of this type of orientation, and many of the projects which are requested by community people are completed in one form or other depending on availability of funding. The committee is constantly reviewing its operational plan according to community demands for language work.

When funding for staff initially became available in 1988, Lorraine Injie, a trained teacher and speaker of languages of the region, got the job. She undertook training with the linguist and was instrumental in developing support for the language centre in the West Pilbara. After a few years working there she went on to work at and then run the language workers' training course at Pundulmurra College, an Aboriginal secondary school in South Hedland. This course had been established following a recommendation of the inaugural Pilbara Aboriginal languages conference. Janet Sharp developed the curriculum and delivered the course.

Much of the training of language workers depends on Wangka Maya's established collection of language data organised on file as well as on computer. This is a resource which can be used creatively within the normal training regime of language workers to develop language research skills, to discuss matters of orthographic preferences, to assist in the development of literacy in language worker's languages, and to assist in their own development of language skills.

4. 1990–2000 at Wangka Maya

From time to time contract linguists have been employed at Wangka Maya to work on some of the southern languages, including Thalanyji and Yinhawangka. Much of the work was conducted from Onslow, and so this became an annexe for the centre. There has also been work conducted near Newman in the Putjarra language (a largely unrecorded language). This work was carried out by a Putjarra man, Joshua Booth, and the late Jim Marsh (an SIL linguist who worked at Jigalong). Joshua Booth is still carrying out the work even though the funding for that project has run out.

Funding for the core functions of the language centre came via the Federal government's Aboriginal language funding programme (known as NALP or ATSILIP). Other grants, focusing on particular languages or on recording oral histories, were sought.

Wangka Maya was also lucky to have employed Marnmu (Sue Smythe) on a full-time basis. A supporter of the language centre when she worked for the Commonwealth Education

Department, Marnmu began working for Wangka Maya in 1991. She is a speaker of Yindjibarndi and other languages of the region and has also contributed greatly to the cross-cultural workshops that Wangka Maya conducts whenever organisations request them. Marnmu was responsible for work and research associated with Women's Cultural Heritage (called the Women's Project), and she has collected stories and experiences of many Pilbara women. Projects like these are very important and contribute much to overall cultural knowledge for Aboriginal people. It also helps Aboriginal women understand the medicines that are distributed through modern medical agencies. The meetings which are conducted as part of the Women's Project have evolved to become a forum for Aboriginal women to learn and understand more about the different types of medicines that are used or could be used, both traditional and modern.

Other types of forums facilitated by Wangka Maya are cross-cultural workshops. These are designed to give people working with or for Aboriginal organisations the opportunity to access information about cultural and language differences. Cross-cultural workshops are usually a response to requests from organisations such as the hospital, employment agencies, and educational agencies. They range from workshops which are conducted in a two-hour time slot to those conducted over two days. Wangka Maya has designed a cross-cultural package, which it delivers to the various target groups, with emphasis on areas of cross-cultural relationships that affect them directly in their own area of work. Elders from the community volunteer to form a panel and are willing to respond to questions from the participants in the workshop. Many of the panel members add to the sessions by spontaneously singing traditional songs and clapping boomerangs. In order to cover costs such as payment for the Aboriginal members of the panel, materials, and catering, Wangka Maya charges a registration fee which includes an amount for an informative file of information for participants to refer to at a later date. There is usually a large component of the workshop dealing with the languages of the Pilbara.

The language centre has also been running its own bush meetings. Groups from all over the Pilbara are invited to participate in a language and cultural festival which allows people to hear information on current issues concerning, for example, native title, medical services, museums, ATSIC, land councils and schools. As part of their function in the community, the Wangka Maya staff try to keep up with national developments in key issues like copyright law, Native Title law, and other complexities which impact on the ability of the staff to participate in community life and to record and distribute information about language and culture. Guest speakers include doctors from Aboriginal medical centres, lawyers from land councils and the Aboriginal Legal Service, and workers involved in communication services, museums, ATSIC, and other Aboriginal organisations.

During such meetings, which usually last for two days and are held 'out bush' (in an area like the Yule River, which is a significant Kariyarra place), the elders engage in traditional activities such as storytelling and songs. These bush meetings are excellent promotional tools for Aboriginal languages and it gives many different groups a good excuse to get together to communicate with each other about language and language maintenance as well as learn more about the current political issues which affect their lives. A lot of learning goes on in this forum.

Wangka Maya has aimed over the years to support all Aboriginal people in the Pilbara area and particularly those traditional people from the outlying communities. It has, through its language work and promotion of language, attempted to lift the profile of indigenous

languages and to enhance the self-esteem of indigenous people. Wangka Maya includes in their overall aims and objectives to

- a. provide forums for language policy formulations (assisting local people to formulate their own language-related goals);
- b. produce literature about language and culture;
- c. provide training and opportunities for language work by language speakers;
- d. provide guidelines for language teaching;
- e. inform communities and wider society about the nature of languages;
- f. coordinate and promote research into languages;
- g. allow access to interpreter and translator services;
- h. promote the collection of traditional stories and oral histories;
- i. maintain and expand resources pertaining to languages and culture;
- j. plan and negotiate the expenditure of funds for language purposes.

Table 1: Linguists, language workers, and contract linguists

1988–1990	Nick Thieberger, Lorraine Injie
1990–1991	Margaret Florey, Lorraine Injie
1991–1992	Diana McCallum, Brigitte Agnew, Marnmu
1992	Brigitte Agnew, Marnmu
1994	Penny Lee, Leah Stackpole, Kirsten Elliott, Eva Schultze-Berndt, Marnmu
1994–1995	James Olajejo, Marnmu
1996	Alison Kohn
1996–1997	Morgan Morris
1997–1999	Ian Alexander, Marnmu, Diana Robinson, Larissa Brown, Joshua Booth, Bruce Thomas
1999–2000	Janet Sharp, Marnmu, James Wally, Eugenia Gray, Colletta Cooke

5. Working in a language centre requires much more than a knowledge of linguistics

In the initial stages, the linguistic role at Wangka Maya was marginal compared to the networking and administrative role. The linguistic apparatus learned at university concentrates on analysis, with the documentary role of the linguist subsumed under the need to have data. This has changed more recently with the interest in the fate of so-called endangered languages (see Himmelmann 1998). Nevertheless, it is still the case that many of the skills required in running a language centre are not taught at university. Thieberger had a background in community and activist organisations that included bookkeeping, newspaper

layout, and writing submissions, as well as political lobbying,⁴ all of which were to be used in the establishment of Wangka Maya. Lobbying (by a number of people) was to prove an important factor in getting the funding for the centre and later in securing funding for a language workers' course at Pundulmurra College. Contacts in the ALP government also helped, but not as much as we would have liked. When Pundulmurra College looked like it was getting lukewarm on the language workers' course, a fax to the Minister of Education (in 1989) brought a swift response from the Principal of the college, including assurances that there had never been any hesitation on his part and so on. The importance of lobbying for government funding cannot be overestimated.

The politics of the region meant that the alignment with WDPAC excluded Wangka Maya from working with the Strelley mob, also known as the Nomads Charitable and Educational Foundation, or the Pindan mob. Advised by the late Don McLeod (a man Ken Hale met and was impressed by in 1960),⁵ this group are famous for their independence and the pastoral strike they have maintained since 1946. Gwen and John Bucknall and Janet Sharp, who taught at the Strelley schools and have a long association with the organisation, were nevertheless very supportive of the establishment of the language centre. The Strelley schools were (and are) community-run and bilingual, with good support from linguists and teachers. They would have been a logical ally for the language centre. This was not to be, owing to the split that had developed at that time between Strelley and what they called the 'Panaka' mob, who were a group of mainly Manyjilyjarra speakers based around Punmu on Lake Dora and at the Jigalong community to the south.

The teachers at Punmu at the time (mid 1980s), Ray and Diana Vallance, were keenly aware of the need for linguistic input into the school and also supported the language centre being established in Hedland. Through the school and the Land Council we conducted several trips and assisted in the collection, transcription and translation of stories that were to become the book *Yintakaja-lampajuya* ('These are our waterholes') (Davenport 1988). These trips were also part of the broader consultative process leading to the establishment of Wangka Maya.

6. Ongoing functions of the language centre

The language centre stores what is otherwise geographically and temporally dispersed material. Researchers come and go and leave copies of their work for community needs. Often this material is lost or is not available to all members of the community or to other communities in the region. Research conducted by Geoff O'Grady and Ken Hale in the 1950s and 1960s in the Pilbara region had no local home. Copies were stored safely at the AIAS (later AIATSIS) in Canberra and occasionally were sent back to the Pilbara as requested. Copies of their material were housed at the language centre as part of the resource collection established there. Ken Hale's computer-based Ngarluma dictionary was edited and printed (Wangka Maya, Pilbara Aboriginal Language Centre 1990), and his notes were

⁴ The language centre in Port Hedland was also the base for the Port Hedland antinuclear group (PHANG), focused on the uranium prospect in Manyjilyjarra and Warnman country (called Kintyre by the miners) in the Karlamilyi or Rudall River region of the Great Sandy Desert.

⁵ See Geoff O'Grady's memoir (this volume).

made available to descendants of those he recorded. His work provided the basis for the first of the 'Aboriginal languages of the Pilbara' series produced by the language centre.

One of the more successful applications of the existing resources on Pilbara languages is the development of small-topic picture books which can be turned into a teaching and learning package with the addition of sound charts, topic charts, sentence books, and finally topical dictionaries. Many skills can then be taught as a result of these projects, including data management, desktop publishing, and general literacy skills.

The language centre produces a newsletter twice a year. This is currently called *Jakul kanganyakata*, a Nyangumarta expression meaning 'a messenger'. The newsletter is multilingual and hopes to promote language and discussion in the community. It often acts as a report to communities about the activities of the centre, and it includes many photos which people love to see.

Between 1989 and 1991 Wangka Maya produced booklets in a series, 'Aboriginal languages of the Pilbara', for the following languages: Manyjilyjarra, Ngarla, Nyangumarta, Yindjibarndi, Nyamal, Kariyarra, Banjima, Ngarluma, and Yinhawangka (see Map 1). Each contains brief information about the language, a map showing its rough location, a short wordlist, a short story, and a guide to further reading. These were photocopied and produced with a card cover for sale to tourists. The map in these booklets was reproduced on a tea-towel, following the success of the Kimberley Language Resource Centre's tea-towel language map, and it too was sold to tourists. These products aimed to popularise information about local languages, as did a guide to languages of the region (Sharp and Thieberger 1992). The Centre aims to let non-Aboriginal people know which languages are and were spoken in the region and have some understanding of the types of languages they are. In addition to supporting language work, this kind of advocacy was a core aspect of the language centre's activities.

Language centres clearly have a vital role in supporting Australian indigenous languages, both in setting research agendas and conducting practical language maintenance activities, and in raising the profile of the languages. They provide employment and training in a number of areas for speakers of indigenous languages as well as employment for newly graduated linguists, often in areas that are not normally part of a university degree.

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22 *Non-verbal predicative possession in Nyulnyulan languages*

WILLIAM MCGREGOR

I think you have to have theory. You have to be operating within some kind of theoretical framework to ask any meaningful questions about language. Languages make sense, but only in terms of theories. But I am convinced that theoretical work makes us learn more and more about language. I think of it as programmatic. We learn to ask questions about individual languages on the basis of a theoretical framework, the two go side by side. The language is always influencing what the theory is going to say because they confront us with problems, that's how the field works. You have a theory, here are the facts. As soon as you look at the next language, you see something that is either going to force you to change the theory or, if you work hard enough, you'll see that not only does it turn out not to be an exception or something like that, but actually proves the theory. They work together like that. And we are not at the end of that process yet. (From an interview with Ken Hale, *Glott International* 2 (1996), 9/10:28.)

1. Introduction¹

One of the things I have always found impressive about Ken Hale's linguistics is the juxtaposition of, and interplay between, theory and description remarked on in the epigraph. The particular descriptive issues he has raised over the years I have found to be consistently

¹ This paper is a revision of parts of a presentation given at the International Workshop on 'Possession', Copenhagen Business School, 28–30 May 1998. I am grateful to the audience for useful comments and to Maria Koptjevskaja-Tamm, Jane Simpson, Anne-Marie Spanoghe, and especially Kari Fraurud, for enlightening discussion of a number of issues raised, and/or comments on an earlier draft. The usual disclaimers apply. My fieldwork was supported by grants from the Australian Research Council (Grants A58930745 and A59332055), the Australian Institute of Aboriginal and Torres Strait Islander Studies, the National Aboriginal Languages Program, and the Max-Planck-Institut für Psycholinguistik, Nijmegen. My greatest debts are, of course, to my language teachers, Maudie Lennard and †Freddy Marker (Warrwa), and †Carmel Charles (Nyulnyul).

challenging theoretically and to be stimuli to theory-revision. Among these are: ergativity, part-whole syntax, complex sentences, free word order and phrasal discontinuity, the number concept, and the nexus between grammar and culture, to mention but a few. Because we are representatives of very different theoretical paradigms, it is only to be expected that our approaches to the problems these phenomena raise would be different and the type of theory revision they yield incommensurate. So also are our methodologies and the type of data that our respective approaches encourage us to seek in the field. Inasmuch as this should result in more comprehensive corpora, not only is theory a 'good thing' for descriptive linguists, but so also is theoretical diversity—provided it is accompanied by a commitment to revise and develop rather than merely to cobble together what is ad hoc convenient.

In this paper I explore some theoretical problems raised by a relatively small aspect of the grammars of a small family of Australian Aboriginal languages, the Nyulnyulan family (non-Pama-Nyungan, Kimberley, Western Australia).² The theory within which it is situated is Semiotic Grammar (SG) (McGregor 1997); the facts the theory is confronted with are non-verbal means of expressing predicative possession (Heine 1997:26)—clauses expressing possessive relations as their primary predicate, as in *The policeman has a ball*.

The paper is organised as follows. Section 2 outlines the range of structures deployed in the representation of predicative possession in Nyulnyulan languages and proposes that the primary formal bifurcation between verbal and non-verbal modes of expression is semantically motivated. Section 3 presents a data-oriented discussion of the syntax and (etic) semantics of the non-verbal expressions employed in representing predicative possession in Nyulnyulan languages. Following this, §4 attempts to put the facts into a coherent account and grapple with some theoretical issues they raise. One issue concerns the status of these modes of expression as distinct SIGNS (McGregor 1997) or CONSTRUCTIONS (Goldberg 1995:4). In the meantime, the neutral term *predicative possession expression* (PPX) is employed to avoid presumptions of emic significance. Section 5 winds up the paper with a brief summary.

2. Range of PPXS in Nyulnyulan languages

Scattered comments in the literature tend to suggest that the normal mode of expressing predicative possession in Australian languages is by means of non-verbal PPX constructions in which, prototypically, (i) the possessum (PM) is marked in the comitative, or (ii) the possessor (PR) occurs in the dative or genitive (e.g. Blake 1977:38–9; Dixon 1976:306). It is generally presumed that possession of a 'have' verb is unusual for an Australian language.

Both PPXs are attested in most Nyulnyulan languages. However, most languages show in addition one or two other non-verbal PPXs, as well as two or three verbal PPXs. Indeed, verbal PPXs with 'have' verbs are quite frequent in usage (McGregor, in press), perhaps

² The ten Nyulnyulan languages fall into two groups: Western (Nyulnyul, Nimanburru, Ngumbarl, Jabirjabirr, Bardi, and Jawi), spoken on the Dampier Land peninsula, and Eastern (Warrwa, Nyikina, Yawuru, and Jukun), spoken on the nearby Kimberley mainland (Stokes and McGregor forthcoming). Only three have viable speech communities: Bardi and Yawuru with about thirty each and Nyikina with maybe fifty. Except for Warrwa with one fluent speaker, for the other languages people are unable to form sentences or texts in the language (but can remember words for certain things and would have a receptive competence). The main sources of data are my own field notes (Nyulnyul and Warrwa), Stokes 1982 (Nyikina), Hosokawa 1991 and 1995 (Yawuru), Metcalfe 1975, 1979, and Aklif 1991, 1999 (Bardi), and Nekes and Worms 1953 (Bardi, Nyulnyul, Jabirjabirr, Nimanburru, Yawuru, and Nyikina).

APPLICATIVE

- (2) *ibal-en* *i-nen-aŋ* *bugiyan* *bogedjamaneman*
Ibal-in *i-n-in-ang* *bukiyan* *bukijamaniman.*
 father-ERG 3.sg.NOM-be-PRES-APP things all:kinds
 'Father has many things of all kinds.' (Nekes and Worms 1953:398) (Jabirrabirr)

COMITATIVE

- (3) *Kulurr wamba, i-nga-na* *kujarra-warri yiri nyin-kardiny.*
 hawk man 3.min.NOM-be-IMP two-COMIT woman this-side
 'The hawk man had two wives on this side of the river.' (Warrwa)

Non-verbal PPXs

COMITATIVE

- (4) *Yila yidaj-barri magada.* (Warrwa)
 dog long-COMIT tail
 'The dog has a long tail.'

GENITIVE

- (5) *Marra kurljiwarn-jina.* (Yawuru)
 nest bowerbird-GEN
 '(The) nest is a bowerbird's.' OR:
 '(The) nest belongs to a bowerbird.' (Hosokawa 1991:248)

OBLIQUE

- (6) *Ina bur jirr kujarr wamb.* (Nyulnyul)
 this camp 3.aug.OBL two man
 'This camp belongs to the two men.'

TOPIC

- (7) *budidj nimadj ambaden* (Bardi)
Budij nimaj ambadin.
 big gill rock.cod
 'Big gills has the rock-cod.' (Nekes and Worms 1953:394)

These expressions, I maintain, contrast in meaning, though sometimes in quite subtle ways. It is abundantly clear, however, that there is a semantic contrast between verbal and non-verbal PPXs. Verbal clauses represent the possessive relation as obtaining within situations that unfold in some spatio-temporal setting; the verb is not a possessive copula, but designates a stative event in which activity extends from the PR to the PM. By contrast, non-verbal clauses do not—that is to say, the possessive relation is asserted as holding independent of any ongoing situation located in time or space; the PR is not represented as being engaged in an event extending to the PM. The possessive relation is *imputed* by the speaker, rather than described as an aspect of a referent world event (McGregor 1990:291, 1996a).

Evidence in favour of this claim can be summarised as follows (see McGregor in press). Possessive relations expressed by verbal clauses usually involve PMs that are rather 'distant'

The genitive and comitative PPXs contrast not only in terms of their favourite NP order but also, as a consequence, in other more important respects. In keeping with the thematic status of the PM in the genitive PPX, it is usually high in individuation and is generally in an alienable relation to the PR, as shown by the examples above (see also Blake 1977:38–9).

3.3 Oblique PPX

As for the genitive PPX just discussed, the oblique PPX involves an NP designating the PM (usually) followed by an NP designating the PR. The difference is that in this case both NPs go unmarked. An oblique pronominal cross-referencing the PR, however, intervenes between the two NPs, serving as a type of possessive copula, and suggesting the presence of a predicate nexus. This construction is attested in Nyulnyul, Bardi and Warrwa, though I strongly suspect it was available in most, if not all, Western Nyulnyulan languages; however, that it is not attested in the fairly substantial Eastern Nyulnyulan corpora suggests that Warrwa may be the odd man out. Unfortunately, tokens are few. Examples are (6) above and (14), which again exhibit the ‘belongs to’ sense, the PM being topical and individuated.

- (14) *Bin jin bin woriny arriyangk-amb wamb.* (Nyulnyul)
 this 3.min.OBL this woman nothing-COMIT man
 ‘This belongs to the woman without a husband.’

The range of relations covered by the oblique construction is not extensive, at least in the available corpora, and seems to primarily cover prototypical alienable possessions. No examples involve inalienable possessions, or even entities held on a person’s body.

3.4 Topic PPX

Characteristic of this PPX is that it involves three nominal expressions: an NP designating the PR, a nominal designating a quality (QUAL), and an NP designating the PM. The PR is usually a human or higher-order animate; the QUAL is some salient attribute, such as a physical characteristic or quantity; and the PM is generally a part of PR’s body. These usually occur in the order PR QUAL PM, occasionally QUAL PM PR. The PR NP is sometimes ellipsed (if given), though neither of the other two items ever are. Examples (15) and (16) are illustrative.

- (15) *Wamba wanyjarri balnganjina.* (Warrwa)
 man one thigh
 ‘The man has one leg.’
- (16) *Nyoongool ambooriny jalboolyoo jirra moowarn.* (Bardi)
 old people grey.hair 3.aug.OBL hair
 ‘Old people have grey hair.’ (Aklif 1991)

Examples such as (15) might be interpreted as involving just two NPs, an initial PR followed by a PM; and indeed the two words that make up the latter putative NP occur in the normal order for Nyulnyulan languages. However, the following observations count against this analysis. First, the QUAL nominal *must* occur in the construction; there is no other environment in which an NP must show a QUAL alongside the head. Second, as (16) shows, the QUAL can be separated from the nominal designating the PM by an oblique pronominal.

As far as I can determine, an oblique pronominal can always occur in this position, without affecting the meaning expressed. This argues against treating the QUAL and following nominal as sisters in a single NP unit, since oblique pronominals in NPs may not intervene between the head nominal of an NP and a modifying nominal. Furthermore, the oblique pronominal occurs precisely in those circumstances where the possessive relation is not obvious. In most cases it is absent only when the PM takes pronominal affix cross-referencing the PR, and hence is an emic inalienable (McGregor 1995); in the few exceptions, the PM still represents what is clearly an inalienable possession semantically. In either case, the possessive relation is retrievable. By contrast, the oblique pronominal is generally employed when the nominal designating the PM is not affix-taking and is neither emically nor etically inalienable, and the possessive relation is not immediately apparent.

The range of possessive relations expressed in PPXs is not, however, restricted to parts of human or animate wholes. Example (17) shows the manifestation–entity relation, also for an inanimate PR. (Note that the PM is prefixing, in line with a remark in the previous paragraph.)

- (17) *Ginyinggi may loogal ni-yarra.* (Bardi)
 this food bad 3.sg-taste
 ‘This fruit has a bitter taste.’ (Aklif 1999:92)

In a couple of examples the PM is a more alienable possession, a kin of the PR, as for *malirr* ‘wife’ in (18); the only attribute attested is a quantity, the number of spouses maintained by the person.

- (18) *gudjar alerborindjon djen yer maler* (Nimanburru,
Kujarr (y)alirrbur-inyjun jin-yirr malirr. Nyulnyul)
 two first-ABL 3.min.OBL-3.aug.NOM wife
 ‘First he had two wives [later he got a third one].’
 (Nekes and Worms 1953:317–18)

The QUAL nominal clearly indicates a property of the PM. This property also, I submit, characterises the PR. For inalienable parts, manifestations, and bodily ‘attachments’, as in examples (15) and (16), this is obvious. Likewise in the case of the inanimate PRs in (17): the quality of bitterness attributed of the taste of the food characterises the food. An equally plausible case can be made in regard to (18): it is reasonable to suppose that the number of wives a man had might have constituted a part of his definition as a person.

3.6 Summary

The four main types of non-verbal PPXs attested in Nyulnyulan languages cover somewhat different ranges of possessive relation, in particular in terms of the ‘distance’ involved in the associative relation between the PR and the PM. Figure 1 provides graphic representation of the gross etic associative distances covered by each construction. Inter-language differences are ignored; included are not only the non-verbal predicative possession expressions but, for comparative purposes, also the two most widespread verbal ones, ‘have’ and comitative ‘be’ (see also McGregor, in press). Needless to say, there is no claim to completeness.

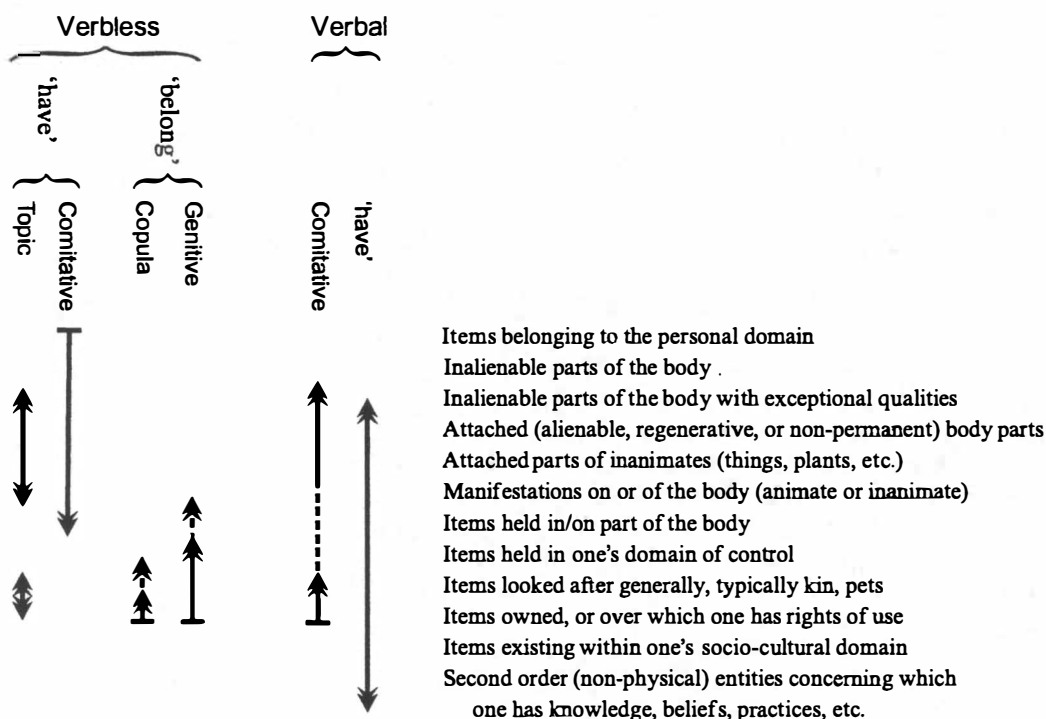


Figure 1: Types of associative relation in PPXs in Nyulnyulan languages

4. Grammar of non-verbal PPXS in Nyulnyulan languages

Three main questions are raised in this section. First, how do the various PPXs in Nyulnyulan languages relate to one another paradigmatically? Second, how should PPXs be analysed syntagmatically: what are the crucial syntagmatic relations involved? Third, are the PPXs also PPCs? Section 4.1 deals with the first question, while §4.2 addresses the second and third.

4.1 Paradigmatic relations among the PPXS

As an initial step in understanding the relations among the various PPXs in Nyulnyulan languages, I propose the syntactic paradigm shown in Table 2; PPXs in brackets are attested in only a few languages and are unlikely to be pan-Nyulnyulan. The PPXs are organised into three major groups, between which exist systematic contrasts, along two formal-functional dimensions. One is the contrast between verbal and non-verbal clauses, the formal side of the contrast between representation as situation versus relation. The other is the contrast in the 'orientation' of the possessive relation. Its formal side concerns which NP usually comes first, corresponding to which is a semantic contrast between 'have' and 'belong'.

Table 2: Initial paradigmaticisation of the Nyulnyulan PPXs

Orientation	Non-verbal; relational	Verbal; situation
'have'; PR initial	Comitative (Topic)	transitive: 'have', applicative (intransitive: Comitative)
'belong'; PM initial	Genitive (Oblique)	

Table 2 is a first pass at characterising the different PPXs. Refining it further, it is clear that comitative and topic PPXs share the feature that they are ATTRIBUTIVE: they ascribe a property to something. The genitive and oblique PPXs are IDENTIFYING: that is to say, the PM is identified as a possession of the PR (we return to this point again below). Three further features contrasts are relevant: (i) INDIVIDUATION of the PM—its status as a distinct or individuated entity, (ii) SEPARABILITY of PM from PR—the extent to which the PM and PR are represented as serving different roles in the referent world (McGregor 1985:225–6), and (iii) PR vs. PM UNMARKED THEME—that is, the usual choice of theme. As to (iii), there is evidence in Nyulnyulan languages that under certain conditions clause-initial NPs represent themes in the 'anchor point' sense suggested in McGregor (1997:291).

These features can be assigned to the various PPXs, including verbal as well as non-verbal, as shown in Table 3. The values given to the features for non-verbal PPXs should be fairly self-evident, given the discussion of the previous section, with the possible exception of the feature of separability, which is given a 'no' value for the topic PPX only—the reasons for this will become apparent in the following subsection. For the other PPXs, suffice it to remark that the PR and PM clearly serve in quite different roles grammatically and semantically, and hence are separable. The features assigned to verbal clauses are presented without argument.

Table 3: Feature specification for Nyulnyulan PPXs

	Non-verbal; relational			Verbal; situation	
	identifying	attributive		intransitive	transitive
	Genitive, oblique	Comitative	Topic	Comitative	'have', Applicative
PM individuated	Yes	No	Unmarked	No	Yes
PM and PR separable	Yes	Yes	No	Yes	Yes
Unmarked theme	PM	PR	PR	PR	PR

The expanded set of features still fail to distinguish amongst all PPXs. This is partly because there is insufficient information to permit any reasonable guess as to the contrast between genitive and oblique non-verbal PPXs in the two languages—Warrwa and Nyulnyul—in which both are attested. On the other hand, the contrast between the comitative and topic EPCs appears not to be made in either Nyikina or Yawuru, in which only the former is attested. Presumably in these two languages the comitative PPX is unmarked in terms of the individuation and separability features.

4.2 Syntagmatic relations in non-verbal PPXS

I have proposed elsewhere (McGregor 1997:140ff.) that relational clauses—formally non-verbal in Nyulnyulan languages—are characterised by an inherent, essential, grammatical relation of the dependency type; no constituency relation exists at the level of the clause. If this is correct, then the four types of non-verbal PPXs involve a dependency link between the two NPs, which are *not* sister constituents of the clause. The PPXs have no constituency structure (at clause level): neither NP realises a grammatical relation within the clause structure to which it belongs. Rather, they are interrelated, representing the fact that the two referents are in an imputed relation rather than in a situation involving each as an actant.

Furthermore, granted the discussion of §4.1, non-verbal PPXs would involve a dependency relation of elaboration between the PR and PM: identification for the genitive and oblique, attribution for comitative and topic PPXs. The question then arises: where does possession fit into the picture? Is it also signified by a dependency relation between PR and PM, as suggested in McGregor (1997:151ff.)? Or is it a (possibly pragmatic) interpretation admitted in certain contexts by certain types of attributive and identifying relational clauses?

The answer to this question is not obvious and differs for different PPXs. Thus, genitive PPXs may not require identification of any additional dependency relation between the PR and PM NPs beyond identification, since the PR NP can always be expanded by a nominal designating the PM, usually using the same referential nominal as the PM NP; these two NPs are simply related by identification (McGregor 1997:152–3; Davidse 2000). Thus, example (12) is an elliptical version of ‘That dog is the woman’s dog’, and the ‘belongs’ sense arises as a contextual interpretation, not as a part of the inherent meaning signified by the PPX. I suspect that the comitative PPX may likewise involve only the attributive dependency relation at clause level. If so, genitive and comitative PPXs cannot be PPCs: they represent etically constituted subsets of ordinary identifying and attributing relational clauses.

Additional clause-level dependency relations may be involved in the other two PPXs. The oblique PPX might involve two simultaneous dependency relations, one of identification, one of possession. This possessive dependency relation might perhaps be of the extension type—roughly, the PM is an extension of the PR (McGregor 1997:152). The topic PPX, I will argue, is an external possession construction (EPC) in the sense of Payne and Barshi (1999:3):

We take core instances of *external possession* . . . to be constructions in which a semantic possessor–possessum relation is expressed by coding the possessor . . . as a core grammatical relation of the verb and in a constituent separate from that which contains the possessum . . . The PR may be expressed as subject, direct object, indirect object or dative, or as ergative or absolutive depending on the language type—but not, for example, as an oblique. That is, the PR is expressed like a direct, governed, argument of one of the three universally attested basic predicate types (intransitive, transitive, or ditransitive). In addition to being expressed as a core grammatical relation, in some languages the PR can simultaneously be expressed by a pronoun or pronominal affix internal to the NP containing the PM; but this Genitive-NP-internal coding cannot be the only expression of the PR. Furthermore, the possessor–possessum relationship cannot reside in a possessive lexical predicate such as *have*, *own* or *be located at* and the lexical verb root does not in any other way have a PR within its core argument frame. Thus, despite being coded as a core argument, the PR is not licensed by the argument frame of the verb root itself. . .

In those languages that show it, the topic PPX fares reasonably according to these criteria: PR and PM are in distinct NPs and the possessive relation is not expressed by a lexical verb. In addition, it seems not implausible to consider the PR (and not the PM) as filling a ‘core’ grammatical relation—not of a verb, but in a clause—perhaps as ‘subject’. The fact that the PM NP usually has a pronominal item (an oblique free form or a bound affix) referring to the PR does not count against the EPC analysis, as the antepenultimate sentence of the quote indicates.

In regard to the conditions presuming the presence of a verb, the topic PPX runs into difficulties: non-verbal clauses in Nyulnyulan languages lie outside of transitivity considerations, which apply exclusively to verbal clauses. There seems, however, to be no strong motivation for excluding the topic PPX simply on these grounds.

It is widely presumed that EPCs are most likely to involve the PR in an indirect (or dative) object, direct object, or intransitive subject role; it is rare for the PR to serve as a transitive subject (Payne and Earshi 1999:9). In Australian languages such as Warlpiri and Gooniyandi showing Hale’s (1981) “favourite construction” EPC, this generalisation does not hold strongly. Unusually, Nyulnyulan languages, which also have this EPC, rarely use it when the PR is a transitive subject (McGregor 1999). On the other hand, the Nyulnyulan non-verbal EPC does not exist in Gooniyandi. Perhaps this is consistent with the notion that the unmarked or prototypical EPC involves the PR as a direct object or intransitive subject, and that whereas Gooniyandi has extended it to more active grammatical relations, Nyulnyulan languages have extended it the opposite direction, to less active ones, to logical relations.

Aside from the largely formal characteristics picked out in the above definition, there are important semantic correlations with standard Australian language verbal EPCs that I would like to highlight, adding to my case. There is a clear semantic commonality between the topic PPXs and the standard verbal EPC of (19), an instance of Hale’s “favourite construction”.

- (19) *Kinya-na kirwa ø-namana-ngayu, kanyjingana-na, (Warrwa)*
 this-ERG bad 3.min.NOM-put-1.min.ACC lightning-ERG
nimidi ngajanu.
 leg my
 ‘I got a shock from the lightning, in my leg.’ (lit. ‘Lightning made me bad my leg.’)

McGregor (1985, 1999) proposes that the major characteristic of “favourite construction” EPCs in Gooniyandi and Nyulnyulan languages (perhaps Australian languages generally) is the semantic inseparability of PM and PR. That is, the PM is particularly tightly associated with the PR in regard to the situation designated by the clause. This means that the respective roles of the PR and PM in the situation are identical on one level—what might be called the ‘case’ relation level, those relations indexed by the case markers. They bear, however, quite different roles in terms of participant (or argument) structure: only the PR bears a participant role and takes part in the direction of the activity of the clause. To put things informally:

- What is done to, by, for, (or whatever) the PR is done to, by, for the PM. As a consequence, the PM represents as it were a locus of activity for the situation.⁵

⁵ It is important to note two features of this formulation. First, the directionality is from action involving the PR to action involving the PM, not the other way around. The time-honoured approach to EPCs—beginning with ‘possessor ascension’—has it that EPCs relate to clauses in which a possessive phrase with the PM as head serves in an argument relation. This is misleading in that it implies a

Correspondingly, the following informal characterisation explicates the topic EPC:

- What is attributed of the PR is attributed of the PM; as a consequence, the PM represents a locus for the attribution of the characteristic.

Assuming that the topic PPX is indeed an EPC, I tentatively propose the (admittedly partial) analysis of its grammatical structure shown in Figure 2, which uses example (17) for illustration. In this representation the arcs represent dependency relations, labelled according to their type. The PR is linked to the QUAL by a relation of attribution, which according to McGregor (1997:143) is a dependency relation of the elaborating type; the PM is also linked to the QUAL by the same relation.

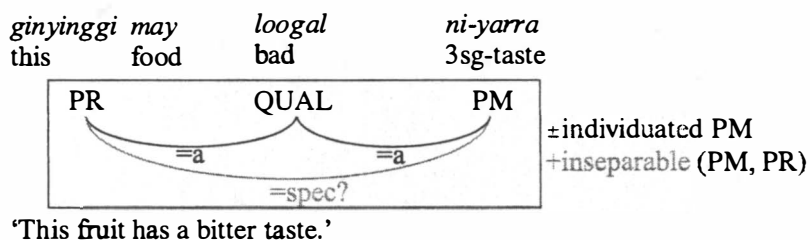


Figure 2: Grammatical relations in a topic PPX (example (17))

These two dependency relations alone clearly do not provide a complete semantic specification of the topic PPX. There is no indication of the fact that the second attributive relation is secondary to, or dependent on, the first (as per the above characterisation); nor is there indication of the possessive relation that obtains between the PR and PM. (Recall that these are not labels for anything with grammatical significance, but just for the respective etic roles of the two entities in the possessive relation.) How should these features be accounted for? This is a difficult question, without an easy answer. In Figure 2 I have tentatively added (in grey) some possibilities. One is that there is a dependency relation between the PR and PM, which may be of the elaboration type, like (but not identical with) attribution, whereby the PM specifies more precisely the locus for the attributive relation—see Chappell and McGregor (1989), McGregor (1997:182), and Heine (1997:167ff.).⁶ (Alternatively, it may be that the two attributive dependency relations are related by another dependency relation.) Another, not necessarily mutually exclusive, possibility is that at least two semantic features are simply attached to the construction itself—[±individuated PM] and [+inseparable (PM, PR)]—that are not indicated by any grammatical relation within it.

conceptualisation in which action done to or by the part is also action to or by the whole: that action extends from the PM to the PR. Rather, the significant point is that action on the PR has as its locus of application the PM. Second, it is framed in terms of situations, not truth values of propositions, as per Hale (1981)—see McGregor (1985) on some difficulties in the truth value approach.

⁶ Making allowances for differences in theoretical frameworks, Hale (1981) makes the similar suggestion that there is a predicative relation between the PR and PM in the Warlpiri EPC (see also Laughren 1992). Predicative relations as construed in formal grammar generally boil down to dependency relations in SG—both focus on inter-unit relations, rather than on the two mother–daughter relations. Such relations (though construed as evaluative and interpretative rules rather than as grammatical relations per se) play a major role indeed in Hale’s analysis of the Warlpiri EPC.

Summing up, it seems that of the four PPXs identifiable in some Nyulnyulan languages, at most two are likely to represent distinct grammatical signs or emic constructions. Possibly just one, the oblique, is a construction dedicated to the expression of predicative possession.

5. Conclusions

In this paper I have attempted to give some idea of the range of means deployed in Nyulnyulan languages to express predicative possession. These languages show a high degree of elaboration in this domain of grammar in the sense that many modes of expression are possible, indeed more than reported for other Australian languages. This elaboration, I have insisted, is not just for the sake of it. The various PPXs differ semantically from one another in ways that I have attempted to specify.

One of the most interesting features of Nyulnyulan non-verbal PPXs is the status of one of them as an EPC—a construction type that has previously been considered to be purely verbal, indeed prototypically associated with active events (Baron and Herslund in press). I have argued that the topic PPX shares at least one crucial semantic feature with ordinary verbal EPCs, namely the inseparability of the PM from the PR—the notion that both serve in a certain well-defined sense the same role or relation in the conceptual world designated. How precisely this semantic feature should be accounted for in the grammar remains a problem both for ordinary verbal EPCs and for non-verbal ones.

Puzzles remain. Important among them is the question as to whether PR serves as 'subject' of the topic PPX (cf. Li & Thompson 1981:92–5; Chappell 1995:466): whether this notion is required at all in Nyulnyulan grammar—or whether the notion of theme is adequate to account for the semantic features of the PPX. Another significant question concerns how the various other semantic features should be accounted for, whether in terms of grammatical relations (equivalently, grammatical signs) or simply as attached to the construction, as part of its constructional meaning. Finally, what range of possessive relations is possible for the topic PPX? How and why do these ranges differ from the ranges of possessive relations found in verbal EPCs (which, for instance, exclude all kin relatives)?

I hope, finally, that this paper has shown in some small way the truth of Ken Hale's contention that theory and description belong together.

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23 *On the syntax and semantics of trying*

ALAN RUMSEY

1. Introduction

One of the many things worth celebrating about Ken Hale's brilliant research on Australian Aboriginal languages is the way in which it has revealed what Benjamin Whorf (1956:158) called "fashions of speaking": global complexes of features that "cut across the typical grammatical classifications, so that such a 'fashion' may include lexical, morphological, syntactic, and otherwise diverse means coordinated in a certain framework of consistency".¹ It may seem odd to open a Festschrift paper for Ken by identifying him with Whorf in this way, given his longstanding commitment to Chomskian linguistics. Many, perhaps most Chomskians regard Whorf's work as antithetical to their own, because of Whorf's emphasis on differences among languages rather than any underlying commonalities, and his treatment of grammar as intimately bound up with other aspects of culture rather than 'autonomous'. But Ken has always kept an open mind about such matters. For example, after pointing out what seems to be a significant correlation between aspects of Navajo grammar and a Navajo 'view of the universe', he says "It is not necessary, however, to imagine that pervasive principles of the grammar will reflect the ideas which make up a philosophy. It seems to me to be a matter of luck, a chance happening [when such a correlation is found]" (Hale 1986:237). He adds immediately that 'This could, however, be wrong and the search for such correlations should never be abandoned'. And in the same

¹ A previous incarnation of this paper was presented at the 1978 annual meeting of the Australian Linguistic Society. I would like to thank those who offered me comments on that paper, including Bob Dixon, Sue Kesteven, Bruce Rigsby and Anna Wierzbicka. For their feedback on the present version I would like to thank Barry Alpher, Francesca Merlan and David Nash. Linguistic abbreviations and symbols used in this paper are: 1, 2, 3 – first, second, third person; ABS – absolutive; B.CLASS – one of the Ungarinyin noun classes; CONT – continuative; D.B. – dative/benefactive; FEM – feminine; FUT – future; IMP – imperative; INC – inclusive; IRR – irrealis; LOC – locative; MASC – masculine; NOM – nominative; OB – object; OPT – optative; PL – plural; PRES – present; PURP – purposive; SG – singular; SUB – subject; :- morpheme boundary in underlying form where not shown by a hyphen in the top line of text.

paper he goes on to develop what is to my mind one of the most penetrating studies anywhere in the literature of the way in which aspects of the grammar of a given language are 'coordinated in a certain framework of consistency', showing how six different areas of Warlpiri grammar are organised in terms of a single semantic opposition between 'central coincidence' and 'non-central coincidence'.

Having had the good fortune to hear Ken present a preliminary version of that paper at the annual meeting of the Australian Linguistic Society in Canberra in 1981, I took it as a model for my own attempts to analyse apparently disparate aspects of the grammar of Ungarinyin that seemed to be similarly consonant with each other. Some results of that research were reported in Rumsey (1990), where I compared Ungarinyin and English with respect to the grammar of textual cohesion and of reported speech, and argued that in both languages there was a close relationship between these two areas of grammar, which could in turn be related to aspects of Ngarinyin and English 'linguistic ideology', namely, the presence or absence of a strong distinction between 'wording' and 'meaning'.

In this paper, drawing on Rumsey (1982), I develop a third area of comparison between English and Ungarinyin, namely, the way in which predications of 'trying' are constructed in each. Bringing in some interestingly convergent data from Yidiny, I argue the grammar of 'trying' in both of these Australian languages fits with the grammar of reported speech in them, as an aspect of the same 'fashion of speaking'.

2. The grammar of 'trying' in Ungarinyin and English²

In Ungarinyin as in many Aboriginal languages there is a verb meaning 'try out', 'test' or 'taste' which takes an NP object (try out the spear, taste the honey, etc.), but there is no verb of 'trying' which can take a clausal complement, that is no verb 'try to ___'. How then does one express the notion of trying to do something in Ungarinyin? In order to show how, I will first introduce some necessary background details concerning Ungarinyin grammar. I will show that, rather than being expounded by a monolexemic verb of 'trying', a more or less equivalent meaning is conveyed in Ungarinyin by the use of certain modal categories which are grammaticalised in the verb, in combination with a clause-level particle that further qualifies the modality in a certain way. This raises the question: what could modality have to do with the notion of trying? To address this question I turn to a consideration of 'try' in English, and show that its meaning also implicates notions of intentionality and uncertainty, which, while distributed differently across the clause, are quite similar to the ones which are entailed in the grammar of trying in Ungarinyin. But since modality is inherently speaker-centred, in order to attribute an act of trying to second and third persons, Ungarinyin, unlike English, makes use of a kind of quasi-reported-speech construction so as to be able to transpose them into the first person.

As in many northern Australian languages, verbal expressions in Ungarinyin are of two kinds: simple and compound. A simple verb consists of a single finite verbal word, which in turn consists of a root and its inflectional morphemes, including pronominal elements which cross-reference the subject of an intransitive verb or the subject and object of a transitive verb (for details see Rumsey 1982:74–122). For example:

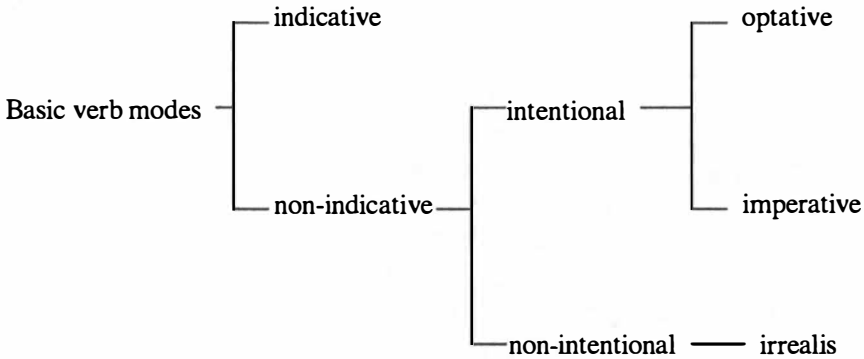
² Portions of this section draw closely on Rumsey (1982).

- (1) *Ngiya.*
 1SG:FUT:go
 'I will go.'/'I intend to go.'

Other examples are *iya* in (3) and *ngarriya* in (8).

A compound verb consists of one such finite verbal word, immediately preceded by a nonfinite verbal word of the kind known in Ken Hale's and subsequent work on Warlpiri as a 'preverb'. Examples are *bandug bi* in (5) and *balya ide* in (7).

As can be seen from these examples, the finite verbal word, whether occurring by itself or in combination with a preverb, carries almost all the grammatical (as opposed to lexically specific) meaning of the verb. Among other things, it is obligatorily inflected for one of four mode categories, that is categories concerned with speaker's commitment as to the desirability or necessity of the event or state of affairs being predicated by the verb (commonly known as *deontic* modality) and its degree of certainty (*epistemic* modality). The four alternative mode categories for which the Ungarinyin verb is inflected are: indicative, irrealis, optative, and imperative. These may be logically ordered as follows:



In addition to these four, purely modal categories, there is another category expressed in the Ungarinyin verb which acts now like a tense, now like a mode. This is the so called 'future' category, which, as in many languages, is used not just to predicate an event or state of affairs of a time posterior to the time of speaking but also to express an intention on the part of the speaker to bring it about. This is illustrated in example (1) above. As far as I have been able to determine, this intentional meaning is limited to cases where the subject of the future-marked verb is a first-person one. To predicate intentionality of someone else, the Ngarinyin speaker uses a future verb with a first person subject, framed by an appropriately prefixed form of the following verb *-ma*, which means 'say' or 'do'. For example:³

- (2) *Ngiya amerri.*
 1SG:FUT:go 3SG.MASC:say/do:PRES:CONT
 'He wants to go.' (lit. 'He is doing "I will go".')

The same sort of framing construction is also used to express an intention on the speaker's part that someone else do something. For example:⁴

³ Here and also in (3) the verb root *-ma* is followed by the continuative aspect suffix *-yirri*, yielding *-merri*. For discussion of the morphophonemic process involved, see Rumsey (1982:28–9, 109–10).

⁴ For further details and examples of this construction, see Rumsey (1982:157–66).

- (3) *Iya ngamerri.*
 3SG.MASC:FUT:go 1SG.MASC:say/do:PRES:CONT
 'I want him to go.'

In addition to the mode categories I have discussed so far, which are marked in the finite verb, there are others which are expressed by what I call mode particles. These comprise a distinct word class which may be defined on purely distributional grounds: they are never affixed with inflectional or derivational morphemes, they always occur before the verb (most often clause-initially) and each of them occurs only in combination with a specific subset of the basic modes discussed above. For instance, *biyarra*, meaning 'can' or 'possible', occurs only with irrealis verbs. For example:⁵

- (4) *Biyarra beja jari nyanggingi.*
 possible already leave 3SG.FEM:go:IRR.PAST
 'She may already have left.'

These mode particles subcategorise the more basic modal categories expressed in the verb, adding greater specificity to the modality of the clause. For example, by itself the irrealis mode means something like 'I do not assert the event or state of affairs predicated in this clause to be an actually occurring one'. The inclusion of *biyarra* (as in 4) adds the proviso 'but it is a *possible* state of affairs'.

The reason why this discussion of mode particles is relevant to the question of 'trying' is that, although the language has no verb 'try to', there is a word *yagu* which Ungarinyin speakers gloss as 'try', the syntactic behaviour of which seems to characterise it as a mode particle. It never takes inflectional or derivational affixes, it precedes the verb, and it occurs only with verbs in certain modes: optative or imperative. It also occurs with future verbs, but only if the subject of the verb is a first person one—which, recall, is one of the conditions under which the 'future' category expresses a modal meaning of intentionality. Examples (with *yagu* left un glossed for now) are:

- (5) *Yagu bandug bi.*
 settled.down IMP:be
 'Try to settle down.'
- (6) *Yagu bar.dumindara ngala.*
 IMP:B.CLASS.OB:bring:1SG.DB meat
 'Try to bring me some meat.'
- (7) *Yagu balya ide wongay.*
 go 3SG.MASC.OB:3PL.SUB:go.to:OPT women
 'Let's try letting women go to him.'
- (8) *Yagu ngarriya bigja-gu.*
 1 PL.INC:FUT:go movies-DAT
 'We'll try to go to the movies.'/'Let's try to go to the movies.'

⁵ Other particles which occur with irrealis verbs are *wa* 'not', *gajin.ga* 'can't', and *biya* 'ought to'. The particle *menya* 'too bad that' occurs with indicative and future verbs. For details and examples, see Rumsey (1982:166–72).

- (9) *Me* *yagu* *bungumara*.
 (vegetable)food B.CLASS.OB:1SG.SUB:FUT:get
 'I'll try to get some food.'
- (10) *Yali* *yagu* *anguwilya*.
 kangaroo MASC.OB:1SG.SUB:FUT:spear
 'I'll try to spear a kangaroo.'

Given the mode-particle-like syntax of *yagu* as illustrated by these examples (5)–(10) and the fact that Ungarinyin speakers consistently gloss such sentences in English with 'try to__', we must ask: what could the notion of 'trying' have to do with modality, that is with the speaker's commitments concerning the desirability and/or certainty of the event or state of affairs being predicated in a given clause?

There has been a long debate among philosophers about the ordinary meaning and uses of English 'try' that can provide a good starting point for this discussion, given that Ungarinyin-speaking informants who gloss *yagu* with 'try (to)' are presumably looking for the closest English equivalent they can find on the basis of their considerable experience with colloquial Australian English. One point of agreement among the philosophers seems to be the assumption that, for an action to count as a 'try', there must be an intention on the part of the agent that a certain result, namely that described in the complement of the verb *try*, be effected by means of that action (Wittgenstein 1963:161; Grice 1989). Hence the strangeness of a sentence such as:

- (11) *I did not intend to step on your foot, but I tried to do so.*

But although intention seems to be a necessary condition of 'trying', it is not a sufficient one. Wittgenstein argued this by pointing out that "when I raise my arm I do not usually *try* to raise it" (Wittgenstein 1963:161). He claimed that, in order for an action to count as a try, there must be some difficulty about it. Those who have agreed with him on the first of these two points (about the insufficiency of intention) have generally adopted some version of the second one as well (that a 'try' presupposes difficulty of accomplishment). Other philosophers have phrased the condition differently and claimed that the outcome of the try must be *uncertain*. This I would argue is really the right way of putting the matter. Consider in this respect an example adduced by Grice (1989:7):

A doctor may tell a patient, whose leg has been damaged, to try to move his toes tomorrow, and the patient may agree to try; but neither is committed to holding that the patient will fail to move his toe, or that it will be difficult for him to do so.

But although the use of 'try' in this context does not presuppose difficulty in moving the toes on the next day, it does presuppose *uncertainty* as to whether they will move. As Grice realises,⁶ uncertainty of outcome is in fact a general condition on the use of *try*. Hence the strangeness of (12) and (13):

- (12) *I'm certain my toes are going to move; I'll try to move them.*
 (13) *I was certain that I was going to get some food; I tried to get some.*

Note that these examples differ slightly from Grice's in that the speaker is the same person who will be doing the trying, whereas in Grice's example it is someone else. In

⁶ Grice (1989:18) observes that "what makes 'A tried to do X' appropriate is the real or supposed possibility ... that A might not have *succeeded* in doing X".

examples of that kind, the question arises: who is it that must be uncertain of the outcome, the speaker or the person performing the action? In many such cases it seems that the locus of relevant uncertainty is not the former, but the latter. Thus, in contrast to (13), (14) seems less anomalous:

(14) *I was certain that she was going to get some food; she tried to get some.*

But when *try* is used in the imperative, the locus of relevant uncertainty seems to lie with the speaker rather than the person who is to do the trying. Hence the strangeness of (15) as opposed to (16) and (17):

(15) *I'm certain that you'll get some food; try to do so.*

(16) *I'm not certain you'll get any food; try to get some.*

(17) *I'm not certain you'll get any food even if you are, so please try to get some.*

This difference in the locus of relevant uncertainty for imperative *try* is probably tied up with a more basic difference—in the locus of intentionality. In examples such as (11)–(14), *try* presupposes an intention only on the part of the trier. Examples such as (15)–(17) may also involve an intention on the trier's part (perhaps an 'induced' intention), but they definitely also presuppose an intention on the speaker's part. Hence the strangeness of

(18) *I don't intend for you to get any food; try to get some.*

Now let us return to the question of what an Ungarinyin particle glossed as 'try' could have to do with modality. Both of the conditions on English *try* developed above—the intentionality condition and the uncertainty condition—intersect with the semantics of modality—i.e. the speaker's commitment with respect to the deontic and epistemic status of what is being predicated—whenever (a) *try* has a first person subject or (b) *try* occurs as an imperative verb. Only when the subject of indicative *try* is a non-first-person one do its lexical semantics no longer involve a mode-like component, since in those cases the *speaker's* attitude is irrelevant. Another thing to notice about this English verb is that its meaning involves two components—intentionality and uncertainty—which are logically independent of each other, and could just as well be expressed separately, the combination of them conveying much the same meaning.

Now suppose that there is a language which lacks a verb of trying that can take a clausal complement, but does include among its grammatical modes one which means something like 'I evaluate any yet-unrealised state of affairs which is projected by this sentence as one which is not certain to come about'. Suppose further that this language includes (tense/mode) categories which express speaker intentionality. Given the analysis of *try* developed above, it would be possible for speakers of this *try*-less language to construct the functional equivalent of a *try* sentence solely by means of the grammatical mode categories available in this language.

Ungarinyin seems to be just such a language. What English does with a complement-taking verb, Ungarinyin does by pairing imperative or other intentional forms of the verb with the particle *yagu*, which I have left untranslated in the above examples (5)–(10), but which I would now claim means just what I have said it does in the previous paragraph. In each of examples (5)–(10) there is a presumption on the part of the speaker that the projected state of affairs—settling down, getting some food, etc.—is one which is not certain to come about, either because of the actor's inability to bring it about or due to circumstances beyond

his control. And there is an intention by the speaker to bring it about, expressed by an imperative or optative verb, or a future verb with first-person subject.

It will be apparent that the Ungarinyin constructions I have been discussing so far cover only a part of the ground covered by English *try*, since they are available only for cases where the speaker is the locus of intentionality and uncertainty, whereas the latter can also be used to attribute these to someone else. How does one do this in Ungarinyin?

As I have already discussed in connection with examples (2) and (3), the standard way of attributing intention in Ungarinyin is to frame it with a verb *-ma* 'say, do' in a kind of construction which is used for reported speech. The same construction is used in combination with *yagu* to attribute an act of trying to someone else. Thus alongside (2) above, one can say:

- (19) *Yagu ngiya amerri.*
 1SG:FUT:go 3SG.MASC:say/do:PRES:CONT
 'He is trying to go.'

And alongside 10:

- (20) *Yali yagu anguwilya amara.*
 kangaroo MASC.OB:1SG.SUB:FUT:spear 3SG.MASC:say/do:PAST
 'He tried to spear a kangaroo.'

The same construction is used even for first-person subjects, when the act of trying took place in the past. This is illustrated in (21).

- (21) *Yali yagu anguwilya ngamara.*
 kangaroo MASC.OB:1SG.SUB:FUT:spear 1SG.MASC:say/do:PAST
 'I tried to spear a kangaroo.'

To summarise this comparison between Ungarinyin and English, it can be seen that these languages differ greatly in how the notion of 'trying to__' is expressed. Whereas in English a complex of logically distinct components is packed into the semantics of a single lexical item, in Ungarinyin a similar complex meaning is expressed through the interaction of a semantically less complex lexical item with a range of grammatical devices that also serve other functions, including not only the mode categories, but also the entire range of person-number categories and the grammar of reported speech that allows for 'transposition' among the person categories (in the sense developed in Bühler 1991 and Hanks 1990).

What are we to make of these differences? Might they be related to other aspects of the languages in question? In order to address this question it is useful to introduce some further comparative data from another Aboriginal language, spoken on the other side of Australia, one of the many on which Ken Hale did ground-breaking fieldwork in 1960 on his journey around north Australia.

3. A parallel case from Yidiny

Yidiny is a Pama-Nyungan (more specifically a Paman) language, formerly spoken in what is now the Cairns area of northern Queensland. Following Hale's pioneering work, it was intensively studied by R.M.W. Dixon during 1971–74. Dixon published a detailed grammar of the language (Dixon 1977) and sizeable text collection (Dixon 1991), from which I have gleaned most of the data to be reported below.

In most respects, the grammar of Yidiny is very different from that of Ungarinyin. It makes no use of cross-referencing pronominal elements on the verb like those which figure so centrally in Ungarinyin; and far more use of grammatical case-marking on nominals to mark the major syntactic case relations, and of syntactic transformations to provide alternative grammatical case frames. It is in general terms a strongly 'dependent-marking' language, while Ungarinyin is a strongly 'head-marking' one. Yet in at least one respect there is a striking similarity.

Yidiny has a small set of 'Particles' which Dixon defines as a distinct word class, on the basis of the fact that they do not inflect for case or tense. They "provide logical- or modal-type qualification of a complete sentence" (Dixon 1977:372). They usually occur immediately before the verb, but may occur earlier in the sentence.

One of these particles, *gana*, acts very much like Ungarinyin *yagu*. Dixon says that "its semantic content is slight and elusive, and is probably best summed up in the informants' gloss 'try'" (Dixon 1977:374). Examples (1977:513–30, text 2, cited by line number) are

- (22) *Gana ngali gali:na.*
 TRY we.two:NOM go:PURP
 'We two should try to go.' (line 3)
- (23) *Gana nyundu:ba mayi yingu bana: budi.*
 TRY you.all:NOM fruit:ABS this:ABS water:LOC put:IMP
 'You all try to put this food in the water.' (line 46)
- (24) *Ngayu gana gamba:na gali:na.*
 I:NOM TRY crawl:PURP go:PURP
 'I must try to go on by crawling.' (line 122)

Dixon notes that *gana* occurs especially frequently with imperative and purposive forms of the verb (purposive being a kind of intentional form which combines semantic characteristics of the Ungarinyin future and optative categories), as in (22)–(24). Indeed, of the thirty-five sentences in which *gana* is used in Dixon (1977) (including both the example sentences and the texts at the end), only four have verbs in the other Yidiny mode, the indicative. Another point to note is that, except in clauses where *gana* appears with an imperative verb, it almost always occurs with a first-person subject. Of the 123 instances of *gana* in the texts in Dixon (1991) and the example sentences in Dixon (1977), there are only six which occur with nonimperative verbs having a subject other than first person. Eighty occur with first-person singular subject, and sixteen with first-person dual or plural ones.

In all of these respects, the resemblance between the behaviour of Ungarinyin *yagu* and Dyirbal *gana* is striking. Might this be related to other points of convergence between the two languages, or Yidiny and Ungarinyin speakers' typical ways of using them? As I have said, the two languages are structurally very different in most respects. But there is one particular pattern of language *use* pointed out by Dixon—an aspect of 'narrative style' (Dixon 1977:118) that is similar to what one finds in Ungarinyin. That is what Dixon calls its "first person orientation", whereby Yidiny speakers typically represent the utterances, intentions and actions of others from an assumed first-person point of view. He points out that Yidiny, like Dyirbal, "has no grammatical technique of indirect speech" (1977:119) whereby the utterances of someone other than the narrator could be represented in the third person. Rather (1977:119):

Yidiny stories typically involve the principal character serving as narrator, with the whole tale being given a 'first person' slant. There may be a few sentences at the beginning told in the first person—those that set the scene and introduce the main character, who thereafter takes over the narration. If the central character changes, the narrator will shift (still remaining in the first person); the first narrator will introduce the arrival of the second character and then silently relinquish his meta-role to him.

As a look through the many texts in Dixon (1991) will make clear, when Dixon talks of a character in the story 'serving as narrator' he does not mean that the character tells it *as* a story, or 'narrates' at all in the usual sense. Rather, the character is represented as speaking within the here-and-now frame of the narrated event in such a way as to advance the action of the story with only minimal explicit framing by the story-teller from within the here-and-now of the narrating event. This is a discourse style that is very frequently used among speakers of Aboriginal languages, including Ungarinyin, as can be seen by even a cursory look through the text in, for example Coate (1966), or any of the now sizeable body of text collections which have been published in Aboriginal languages. The main difference between Yidiny speakers and Ungarinyin ones in this respect seems to be that the latter make rather more use of framing verbs of saying to explicitly anchor the narrated acts of speaking within the context of the narrating event.⁷ Notwithstanding this difference, there is a fundamental similarity in that all reported speech is represented as direct discourse,⁸ and this is the main means by which a speaker represents the thoughts and intentions of others (see Rumsey 1982:157–66; 1990:346–9).

4. Conclusions

Given the similarity I have just pointed out between the discourse patterns of Ungarinyin and Yidiny, the similarity between the behaviour of Ungarinyin *yagu* and Yidiny *gana*, and the fact that the two languages are quite different in other respects, one is led to ask: are these matters of random variation between languages or might there be some motivated relationship between the two points of similarity? My discussion of the grammar of 'trying' in Ungarinyin will already have suggested that I do see a systematic relationship between the syntax and semantics of *yagu* and the grammar of reported speech. As the comparison with English revealed, the notion of 'trying' inherently involves intentionality and judgements of uncertainty. Since the standard way of attributing such mental states to others in Ungarinyin is to 'dramatise' them in first-person reported speech rather than 'objectifying' them with mental process verbs (Rumsey 1990:354–5), it is not surprising that the language should

⁷ See for example the analysis of a text fragment in Rumsey (1990:347–8) and the full text from which it is taken, published by Coate (1966). Dixon (1977:119) notes a similar difference between Yidiny and Dyirbal in this respect and treats it as a fundamental one, but for my purposes it is less significant than what Dixon says is "the main factor distinguishing Dyirbal story-telling", namely "the precise and lengthy reportage of direct speech" Dixon (1977:119).

⁸ More precisely, it is framed in a form that resembles direct discourse in languages which have both direct and indirect. Elsewhere (Rumsey 1990:346–8) I have argued that the kind of reported speech used in Ungarinyin (as in Yidiny) cannot be equated with direct discourse in a language that distinguishes it from indirect: where no such distinction is grammaticalised, the use of reported speech does not presuppose that the *form* of some presumed original utterance is being reproduced, or at least not to the same extent as assumed in the idea of 'quotation'.

have a way of predicating acts of trying by also placing them in the first person and using speaker-centred, modal categories to express the meaning compositionally.

There seems to be a similarly close interrelationship between the grammar of *gana* and the 'first person orientation' of Yidiny narrative.⁹ The account I have developed above of the link between two areas of Ungarinyin grammar can make sense of some features of *gana* that would otherwise seem quite odd: (a) the fact that this word, which Dixon's informants glossed as 'try', is assigned by him on distributional grounds to a class of words which generally function as sentence-level 'modal' or 'logical' qualifiers; and (b) the fact that almost all attested examples of it occur with first-person subjects or imperative verbs.

Elsewhere (Rumsey 1990), I have argued that:

- 1) the grammar of reported speech in Ungarinyin is closely related to particular forms of anaphora, ellipsis and other devices through which textual cohesion is achieved, the combination of these grammatical features comprising a 'fashion of speaking' in Whorf's (1956:158) sense
- 2) the complex of grammatical features referred to in 1 can be related to aspects of a particular 'linguistic ideology', or shared body of common-sense notions about the nature of language in the world.

I am not sure whether Ken Hale would be convinced by my argument on either of these points, but I think he would agree that they can and should be investigated as separate matters, the second of which depends on the first, but not vice versa. Indeed Hale (1986) provides a compelling practical demonstration of this more general methodological point, as well as a powerful confirmation that coordinated complexes of features *like* those discussed in this paper can be found in natural-language data. Inspired by his success in that regard, I have in this paper tried to build upon the analysis in Rumsey (1990), and in doing so I hope to have shown how aspects of the same 'fashion of speaking' fit together with another aspect of Ungarinyin that I did not take up there: the syntax and semantics of 'trying'.

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⁹ One difference between Ungarinyin and Yidiny is that in Yidiny the verb meaning 'taste', *banjal*, can apparently also be used to mean 'try to do' (Dixon 1977:252–3, 374). But in the only examples I have been able to find (Dixon 1977, example sentences 326 and 839), it occurs in combination with *gana* and a first-person subject.

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24 “Ken Hale would just love this”: finding the 31st Ngan'gityemerri finite verb

NICHOLAS REID

This is a story about solving puzzles, of developing a sense of the shared experience of your forebears, and of the peculiar pleasure that comes from finding what you predicted you'd find. I've never met Ken Hale. There was a conference talk of his I caught once, but all the vivid impressions were absorbed through stories told by my teachers over a postseminar jug of beer: the number of languages he learned, the speed at which he develops conversational skills in a new language, the charming ease with which he interacts with people. In a world where real linguists do fieldwork in remote locations—Ken Hale is a 'ledge'.

A regular theme running through these stories was Ken's ability to predict forms—a hunch about what 'should be there' that directed his elicitation and language learning. I'd heard about his delight in predicting Arrernte words using his knowledge of Warlpiri and a few regular sound changes. And I'd seen his hunches in action, looking over his shoulder, as I'd sifted through his original Jingulu fieldnotes.

I set off on my first fieldtrip to the Northern Territory to work on Ngan'gityemerri with an offhand remark from Tim Shopen rattling round my head. “Of course Ken Hale was quite fluent in Miskitu by the end of our week-long field trip” he said; “In fact, by the Wednesday he was eliciting sentences in it.” Now Ngan'gityemerri is one of those head-marking languages that junked its syntax in favour of morphology and decided that anything worth keeping could go on the verb, and then some more stuff as well. It's easy enough to learn a few greetings and nonverbal clauses—but the jump from there to handling verbs is a huge leap, demanding knowledge of some 2500-odd finite verb forms which inflect for subject/object/goal marking and a range of tense-aspect-mood categories. Throw in applicatives, incorporated nouns, and a bagful of other suffixes, and the verb is a bit of a monster. By the end of my first week inroads into this morass were pretty limited, and Ken Hale was starting to get on my nerves.

Jane Simpson, David Nash, Mary Laughren, Peter Austin, Barry Alpher, eds,
Forty years on: Ken Hale and Australian languages, 365–366.
Canberra: Pacific Linguistics, 2001.

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365

Ngan'gityemerri's verbs are structured through the collocation of two verbal roots, one from a large class of COVERBS and the other from a small closed class of FINITE VERBS. I got on top of these finite verbs pretty quickly, finding a couple of posture and motion ones (SIT, LIE, STAND, GO), a couple involving instrumental body parts (HANDS, FEET, MOUTH), and a set of transitive ones concerned with how objects are manipulated (POKE, SLASH, SHOVE, BASH, etc.). And corresponding to each of the major transitive finite verbs, I turned up a related one that was its detransitivised equivalent—usually giving a reflexive reading.

POKE	POKE REFL	SHOVE	SHOVE REFL
HANDS	HANDS REFL	BASH	
FEET	FEET REFL	MOUTH	MOUTH REFL
SLASH	SLASH REFL	SEE	SEE REFL

BASH REFL, however, refused to be found. Everything about the system screamed its existence, and all my intuitions about this language demanded that its absence had to be some oversight. But rigorous attempts to elicit it all came to nought. Still, the official number of finite verbs climbed quickly to thirty, and sat there for the next five years. But while thirty was a nice round number, that paradigmatic gap just niggled like a bad conscience.

The day 31 turned up had all the apocryphal elements you'd want to make up if they weren't true—the last day of a field trip, standing at the airstrip with the packed bags, when the parting words of farewell from my friend and language teacher, Robert Ilyere Daly, inadvertently gave me BASH REFL. He shook me by the hand and said “*Yebi titidi pefi*”: *titidi* is a reduplicated form of a coverb meaning ‘push’, and *pefi* is a directional ‘away’. The meaning of this expression ‘Bash/push yourself away’ is perhaps best translated as something like ‘Take care of yourself’. The BASH form of the finite verb would have been *yebe*, not *yebi*. Turns out that BASH REFL happens not to be distinct from BASH in all environments except one—where the following element has a high front vowel, which few coverbs do. Vowel harmony does not spread into the finite verb, but the weight of the following high front vowels does block the neutralisation. I had the full paradigm figured out before the plane's drone had died away. I don't think Robert ever really figured out what the fuss was about, though both the pilot and town clerk swore I was mad to junk my ticket for ‘a new word’.

For me the world had just shifted slightly on its axis, but like Archimedes in the privacy of his bathroom, I had no-one to share this moment with. So I bought a sixpack of green cans and sat on the bank of the Daly and wondered about all the other linguists who'd been in my shoes: who, all on their lonesome, had savoured that sweet joy of finding what they knew should be there. I knocked off the last can, a grin splitting my face ear-to-ear, and I said out loud “Ken Hale would just love this!”

25 *Form and context in Jawoyn placenames*

FRANCESCA MERLAN

1. Introduction

In this paper I want to honour Ken Hale, our contemporary but nonetheless a modern pioneer of Australianist language studies, by exploring the forms of placenames and practices of their interpretation and reproduction by speakers of Jawoyn, a language of the Katherine River in the north-central Northern Territory.¹

By examining a number of types of placenames, I show that a general presupposition informs all of them: that there be a non-arbitrary relationship between the name and the place it designates. Non-arbitrariness is mostly ensured through practices that support a general understanding of the name as an aspect of a place's storied significance. There are, however, varying degrees to which this non-arbitrary relationship is explicitly motivated and supported in terms of linguistic structure. Most fully, it is motivated by systematic connections between aspects of the linguistic structure of names and encoded significances, which I call 'expansions', to which the names are understood to be structurally and meaningfully related. It is in the relative structural linguistic motivation of connections among placenames and storied contexts that some of the particularities of Jawoyn placenaming come to light.

¹ Abbreviations: ABL – ablative; ANA – anaphor; APP – applicative prefix; AUX – auxiliary; CAUS – causative; CON – continuative; EXCL – exclusive; IN – inclusive; LOC – locative; NA – *na*-class; NG – *ngan*-class; NSG – nonsingular; PCON – past continuous; PPUN – past punctual; PRES – present; PRIV – privative; PURP – purposive; TOP – toponymic suffix; RR – reflexive-reciprocal; SG – singular; SPEC – specifier, 'precisely'; SUB – (weak) subordinator; 1,2,3 – first, second, third person. The material in this paper was presented to the 1982 meeting of the Australian Linguistics Society at the University of Sydney.

2. Language and background of the study

Jawoyn belongs to a large Arnhem-area grouping of languages called Gunwinyguan (O'Grady et al. 1966). Like the other Gunwinyguan languages, Jawoyn is richly polysynthetic. Prefix slots on the verb encode in first position (in the non-past) a realis–irrealis mood contrast which is fusionaly linked with a third/nonthird person contrast; subject and object pronominal information; adverbial and quantificational information; applicative or benefactive valency; and sometimes also, incorporated body part, generic or other nominal stem. These slots are followed by the verb root (or stem, composed of preverb and conjugation class verbal root), reflexive–reciprocal marking where present, and fusional tense/mood/aspect suffixal categories. This can yield long verbal constructions which may stand alone as complete utterances, or be textually sequential with conjunctive and other possible logical relations between them, such as:

- (1) *Nyanbu-bi-born-a-ya-l-wu-m* *nyanbu-born-a-wo-y.*
 3NSG/1NSG-APP-liquid-cook-AUX-PPUN 3NSG/1NSG-liquid-give-PPUN
 'They brewed tea for us and gave it to us.'
- (2) *Nyirri-lu-warn-budiyangiyn.*
 1EXCLNSG-ANA-still-sit.PPUN
 'We still remained right there.'

As in a number of other Gunwinyguan languages, there is no obligatory case marking on core NPs, grammatical relations being marked in the pronominal prefix complex, and also (where it occurs) indicated by reflexive–reciprocal marking, and sometimes one or both in combination with noun incorporation. A semantically middle-distance demonstrative marker (together with forms of the 'still', 'same one' anaphor *-warn-*) does a great deal of the work of projecting the identifiability and recoverability of nominals in core clausal functions. There are three overt nominal gender/class markers, *na-* (Masculine), *ngal-* (Feminine), and *ngan-* (which marks body parts, topographic and geographic, and other part–whole terms), as well as a *0-* class. Both *na-* and *ngan-* as agreement markers extend well beyond their semantic range as noun class markers. This situation leads (as in Warray; Harvey 1997) to many instances of formally non-congruent agreement. Only the Feminine category remains equally semantically specialised as noun class and agreement marker.

Speakers of Jawoyn traditionally occupied much of the Katherine River system, well into present-day Arnhem Land, where they appear to have been in regular contact with speakers of lects they commonly refer to as 'Mayali', 'Gundjeihmi', and 'Kunwinjku'. Most Jawoyn from this area are at least bilingual in Jawoyn and one of these other languages. These speakers of northern languages were people with whom Jawoyn travelled, visited, traded and carried out regional ceremonies; they were also people with whom, at least from early in the twentieth century, they lived and worked on a number of cattle stations (e.g. Goodparla, Gimbat), which have now been incorporated into the 'Stage III' of Kakadu National Park, and around the numerous mining camps which operated in the Katherine River catchment from the end of the nineteenth century. The range of Jawoyn speakers also extended east to the Mainoru River, where they were in regular contact with speakers of Ngalkbon/Dalabon. How far to the west of the Katherine catchment the Jawoyn may have ranged has been very much obscured with the development of the mining town of Pine Creek from the 1870s. The town drew Aborigines from a wide region, and the reconstruction of anything approaching long-term territoriality around it is very uncertain. The close association of Jawoyn people with the town of Katherine developed in the pre–World War II period in various ways:

through their employment on peri-urban farms, and in their coresidence and extended interaction around the town with Aboriginal people of the Katherine township area. Post-War, the numerical strength and cultural impact of the Jawoyn in Katherine town and the nearby Aboriginal community of Bamyili (now Barunga), was such that other indigenous residents of the township, to varying degrees, re-identified as Jawoyn over decades (see Merlan 1998).

The earlier breadth of Jawoyn speakership is reflected in what was clearly a degree of dialect diversity, similar to that found in Mayali/Kunwinjku to the north. The degree of differentiation has been obscured as well as reduced through the reduction in active speakership, and the formation of communalects around larger residential concentrations at Katherine, Barunga and Pine Creek. Nevertheless, my work over some years (Merlan n.d.) revealed noticeable dialect differentiation among the last cohorts of adult and senior Jawoyn speakers, in the following areas among others: the form of the most common inflecting thematic verb, which together with several hundred preverbs forms the most common type of verb stem (e.g. among some northern Jawoyn speakers *got-me-* 'to put', like the thematic verb in Mayali, Kunwinjku etc., but among other northern Jawoyn from the immediate Gimbat area, *got-mar-*, and among speakers from the Mainoru River/Barunga area, *got-mang-*); in the specific forms of certain pronominal prefix combinations; in the tendency among speakers from the eastern area to use a proprietive and comitative *-muna*, while others used *-muyuk*; in differences between the occurrence of *e* versus *i* as stem-vowel in certain lexical forms; minor differences in the free pronoun series; and in other ways.

Most of the information on which this paper is based came from my long-term and intensive associations with older Jawoyn speakers (all bi- or trilingual in other Arnhem languages), who lived in the encampment near the entrance to the Katherine Gorge National Park (now Nitmiluk National Park) when I got to know them (from 1976). Most had lived in various camps on the Katherine River around the township for decades before that. The composition and size of the Gorge camp was variable over time, but when I got to know it, the core Jawoyn speakership included at the most some ten persons from the eastern Jawoyn catchment area (including Barunga, Beswick, Mainoru and up to Bulman and Weemol), as well as from Gimbat and Pine Creek. (Others in the camp were 'Mayali' first-language speakers, from further north, and there was a sprinkling of other people, mostly from other parts of Arnhem Land). The camp (in terms of the Jawoyn isogloss mentioned above) was composed of *-mar* and *-mang* speakers, but not *-me* speakers, who, although closely related to many residents of the Katherine Gorge camp, lived to the north, around Nourlangie, Jabiru, and also Pine Creek, but did not tend to treat Katherine as a regular port of call. Though originating from different areas of Jawoyn country, and having had somewhat varying life experiences, all these campers had known each other, or known of each other, most or all their lives. After the closing of Army internment camps in the region after World War II, most of these people had fifteen to twenty years' continuous, or semi-continuous, coresidence behind them. The practices of place-naming described here were shared. Though after 1980 our energies were strongly focused at times upon the question of the preparation of land claims on their behalf, my experience with the Gorge campers up to then showed the strength of the formulaic kinds of expansions and explanations of placenames that they tended to give. The Katherine Land Claim (which was heard over a number of years, with a final report from the Land Commissioner in 1988) was able to draw on the robustness of these practices.

3. Placenames: general principles

The most general principle underlying these practices is the generalisation that placenames have a non-arbitrary relation to the places that they designate, via an understanding that these names signal something about the significant characteristics of the place. In a minority of instances, the significant characteristic signalled is understood as an aspect of the physical character of the place. By contrast, in the vast majority of cases, the significant characteristic signalled is understood to have to do with the creation of the place by a creator figure, and the resulting inherence of 'dreaming' (*ngan-jarang-ngayu*) in the place. The name, in short, generally presupposes a storied context in terms of which the name is understood as self-evident, an aspect of the creative identity, movements or acts which imbue the place with meaning. There may or may not be a notion that some specific physical aspect of the place is of particular significance.

Concepts of the landscape as storied have been widely explored for Aboriginal Australia (see for example, Strehlow 1947; Stanner 1965; Munn 1973; Myers 1986; Rose 1992; Povinelli 1993; among many other sources), so it comes as no surprise that placenames are an aspect of this cultural complex. But a great deal more can be said for each set of local circumstances about the linguistic practices through which this relationship of non-arbitrariness is instantiated and reproduced. The Jawoyn material offers some particular opportunities for consideration of the relation between the linguistic structure of placenames, and what is understood to be more and less explicitly encoded in the form of the name, versus implicitly presupposed, about the storied context of which the placename is an aspect. Also, both because Jawoyn speakership has rapidly declined over the past two decades, and because the practices of moving through country and of association with places have also changed quite dramatically, ultimately something can also be said about the forms of placenaming which emerge on occasion today when attempts are made to revive placenames, or designate places anew.

The creative acts of place-creating beings are usually rendered by the verbal construction *bolk-mak-wo-*, where *-bolk-* is a generic incorporating nominal stem meaning 'place, country, land', and *mak-wo-* is the preverb plus thematic stem complex 'make' (which can also be used in the everyday sense 'make something, an object' etc.). As with other Australian peoples, in Jawoyn conceptualisation of the landscape a certain salience is attributed to the creation of waters and watered locales; and like other Arnhem peoples, Jawoyn attribute special significance to the spectacular, often steep-sided rock holes and plunge-pools that are common in the Arnhem uplands. Spirits of those who emanated from these water sources are said to return to them after death, emitting a light (*na-morrorto* 'comet') as they shoot through the air, and making a booming noise as they plunge back in. To refer to the creation of waters, Jawoyn use the verbal construction *borna-ya-ma-*, literally 'spear water', where *-borna-* is the generic incorporating form 'liquid, water', and *ya-ma-* 'spear'. (Compare the north-east Arnhem creator Djang'kawu sisters, who are usually described as moving through the landscape piercing the ground with their yamsticks as they walk along, and causing waters to spring forth; see Warner 1958). The most general term for the manifestation of dreaming activity as landform, or manifestation in the landscape, is *ngan-jarang-ngayu*. The ending *-ngayu* is the third person singular possessive pronominal which here, as in many other instances, is the sign of the part-whole relationship. Note its usage in an ordinary narrative about the creation of the places Wetji Namurrgaymi and Gorowarr on the Mainoru River by *durrk* 'emu', the major creator there:

- (3) *Niyarnbay yutyut-may nyirranggurlung-luk dordor-may gun'-ba*
 there scuttled-PCON 1EXCLNSG-LOC ran-PCON there-ABL

*Garri-wa jarang got juy.*²
 east-ABL dreaming put do.PPUN

'It scuttled to us, it ran from there in the east, and left a dreaming.'

Just as commonly, narratives of creation are constructed with a reflexive-reciprocal form of 'put', e.g. *guk-got-mi-yi-yn* 'it put its body' (as landscape), where *guk-* is a generic incorporating nominal stem 'body',³ followed by *got-ma-* 'put' in which, when followed by reflexive-reciprocal marker *-yi-*, the *a*-vowel becomes *i*, and PPUN verbal suffix. The term *buwurr* means 'dream' (as in *ngan-bi-dirn'-may buwurr* 'it came to me in a dream'), and also 'Dreaming', in the sense of patrilineally or otherwise relevant dreaming figure, or 'totem'. Since patrilineally recruited land-holding groupings, *mowurrwurr*, were (and to some extent, still are) salient, the creation of places may also be encoded in terms of a creator figure's having made a place, or landform, as that of a particular grouping of this kind, e.g. *bolk-bagala'-ma-yn* 'it "Bagala-ed" the place', or, 'made a Bagala place', where Bagala is the name of a *mowurrwurr*.

4. Placenames: types and examples

4.1 Physical descriptor placenames

Some placenames are taken to be purely descriptive of some feature or aspect of the designated place, of some activity or function associated with human use of the place, or some product available there. The linguistic structure of such names may be quite variable. One has to be told, or learn, that this is the character of the relationship between name and the designated place; names of similar linguistic structure may elsewhere be understood to relate to a dreaming manifestation. Examples are:

- (4) *ga-wutjwutj-mar* ('it boils, bubbles')
 3-bubble-AUXPRES

This designates the Low Level Crossing of the Katherine River just south of the township. There is a bridge crossing and weir at this point, and the water can be quite turbulent, especially in flood; but older people say the water always 'boiled' there, even before the weir installation, as the river rushes through a narrowing of its banks and over stones. An interesting feature of this name is the fact that, for most speakers most of the time, it is rendered with the (Gimbat-area) *-mar* ending. Speakers of the *-mang* dialect form to whom I commented on this did not seem to see the observation as significant, and often merely rendered the name in their own dialect form: *ga-wutjwutj-mang*.

² The verb 'to put' in this dialect is *got-ma-*, but here the speaker uses a thematised form, created by stripping the preverb of its normal thematiser, and constructing the verbal phrase with the independent verb, *ju-* 'do, say'. For 'thematised' or stripped-down forms of verbs in consecutive narrative, see Merlan (1989).

³ There is an important contrast in Jawoyn between the incorporating form *-guk-*, which may often be translated 'body', and sometimes refers explicitly to 'dead body' or 'corpse', and the incorporating form *-yuk-* which signals generically a 'live' body, especially of adult humans and other higher animate beings. Thus, the contrast: *ga-guk* 'there is a corpse' (or other body); *ga-yuk* 'he/she/it is alive'; *nga-guk-nanay* 'I saw a body/corpse'; *nga-yuk-nanay* 'I saw him/her'.

I explain the standard *-mar* form of the name to myself in terms of local history as I have come to understand it. After the Second World War, the CSIRO (Commonwealth Scientific and Industrial Research Organisation) established a crop experimentation station just upstream of this place. The person who quickly came to be its chief Aboriginal spokesman and headman was not a person from near Katherine, but a man who originated from Gimbat (and many of whose close relatives also, then or subsequently, came to settle around Katherine). People who resided in the camp describe how, on weekends, he would often lead a two-day hunting and foraging outing from the camp, and they would usually take off downstream on foot, through the Low Level. If he were prominent in leading the group and directing its movements, as all stories about the period indicate, then it is understandable that the form by which he designated this locale would come to be accepted by others, and made standard. This presupposes that the designation is relatively recent in origin, at least in this form. The objectively obvious difference between the *-mang* and *-mar* speech forms was not commented upon, in my experience, by any speakers: it was not picked out as a signal difference, although speakers were otherwise aware of general differences, and would often comment upon some other usages, mainly lexical ones, where these differed from their own.⁴

- (5) *ni-wak-barrarn* ('at the rockhole')
LOC-water-cavity

This name designates a place where water could always be accessed in limestone tors.

- (6) *ni-borna-marr* ('at the poison water')
LOC-liquid-poison

This name designates a small, almost isolated or billabong-like place on a river, where leaves of appropriate small trees in the vicinity were used to stun fish, making it possible to collect them easily. Note that while no dreaming activity is overtly associated with the above two places, at another location designated by a name of formally similar structure, there is a mythic association:

- (7) *ni-wak-betja*
LOC-water-tea.tree [*Melaleuca dealbata*]

This designates a place where water could be obtained from tea-tree root, and Crocodile is said to have placed the *betj* trees here on his travels. (The name of the tree is *betj*; the final vowel is unexplained).

- (8) *gumbitj-bay*
lancewood-TOP

This name designates a place where there is a thick stand of lancewood, making the area difficult to penetrate. The toponymic suffix *-bay* is recognised by Jawoyn speakers as being

⁴ I first learned what seemed to be the *-mang* dialect, in terms of this isogloss, from living at Barunga with a man who originated from Gimbat and his family. As I came to know the wider family (who lived around Katherine and Pine Creek), I observed with interest that his brother and his father (FB) used *-mar* forms, and furthermore had a number of other distinctively northern speech features characteristic of people from the upper Katherine River and Gimbat Station. I gradually realised that my host had adapted to speech of the eastern area, having lived around and in Barunga much of the time since its founding in the early 1950s, where most other Jawoyn speakers originated from the Mainoru River and other parts of this eastern area. None of these men ever commented on this particular isogloss, although they did have ideas about regional speech characteristics.

especially common in and around the Katherine township area. (Other names of this sort around the township are Bartjanyjanybay, Ngarratjbay (*ngarratj* 'white cockatoo'); further east, towards Maranboy, one encounters Marnangbay (see further this paper for interpretation), Gorrnggorngbay.

4.2 Dreaming placenames

By far the majority of placenames are understood to relate through some aspect of linguistic structure to creative acts or creator beings integrally associated with places. The linguistically most complete expressions of this kind are equivalent to full clauses, with or without free nominals in core functions in relation to the verbal expression.

One common type of complete clausal placename is formally intransitive; in terms of semantic content, it is quite common for such clauses to designate the motion or kind of movement attributed to the creator being in its association with the place. Such placenames also, without any exception that I know of, do not consist only of the verbal construction, but have the creator being in association with it represented by a free nominal in intransitive subject function. Examples are:

- (9) *bemang yarl'yarl-may* ('Blanket Lizard scurried')
 blanket.lizard scurry-AUXPCON

This name designates a place near the Katherine Gorge, where the jagged top of a portion of a range of hills is associated with the creator Blanket Lizard, which is associated with another place in the vicinity, and with distant places to the north-west, near Pine Creek. Thus the name is an aspect of the presupposed storied context in terms of which Blanket Lizard is understood as having moved quite widely over this landscape. The directionality and sequence of his movements among places are not firmly fixed, and are open to quite wide-ranging interpretation, in a manner quite compatible with the open-ended designation of his movement in the placename.

There are some complete clausal constructions of existential or locational type, where what is predicated is the being or location in place of a creator being. As with movement clauses, the creator being is overtly designated by a free nominal:

- (10) *gundurk ga-bolk-jap-jiyi*
 female.kangaroo 3-country-stand-AUX.PRES
 'Female Kangaroo stands as country'

This name is used to designate striking twin peaks which can be seen in the distance to the west of Katherine. It may be that the formation is thought to resemble a kangaroo, but this was not strongly averred by informants. Rather, a plurality of kangaroos was understood to have moved towards Katherine from the west, and this placename was understood in relation to this background.

Other complete clauses predicate a mythic event which is neither simply motion nor location in place, but a story element or episode:

- (11) *burrirt mangal nga-wu-yiyn*
 flying.fox woomera lose-AUX-RR.PPUN
 'Flying Fox's woomera was lost'

This grammatically quite complex placename is understood to designate a mythic episode associated with a large waterhole in the King River, but details of the presupposed

background were not elaborated by the two informants with whom I visited this place. The first two apposed words are in possessive relationship: 'the woomera of Flying Fox'; but there is a possibility here, suggested by my informants, that 'woomera', as often is the case, is to be taken to mean the 'birthplace' of Flying Fox. (A male's birthplace is commonly referred to as his 'woomera'.)

There are clausal placenames intended to be understood in relation to features of place whose character is explained through the background story, i.e. these names are icons in which the linguistic sign recapitulates and provides an account of salient elements of the locale as produced through the mythic event. It is noticeable that where these clausal constructions are understood to be transitive, or even of middle voice (where the creator is both agent and medium of the creative outcome), the agent is characteristically NOT designated by a free nominal in construction with the verb form, but its identity is implicit, part of what is presupposed in people's understanding of the name. Some examples will clarify these points.

- (12) *dak-birle-got-mi-yi-nay*
 anus-crack-put-AUX-RR-PCON
 'it put itself arse-crack'

This name designates a place on the Katherine River, where the form of the locale is understood in relation to a story that the creator placed itself in country in such a way that its arse-crack is the cleft between two hills. Everyone who knows this place and the name understands the agent of this event, and the medium of the creative outcome, to be *goymarr* 'crocodile'. Though the free nominal does not occur in ordinary uses of the placename, it will be supplied in expanded versions such as resulted from my requests for elucidation: *goymarr dak-birle-gotmiyinay* (or opposite word order). The concept of 'expansion' seems to me important with respect to placenames like this one that are understood, in their compact structure, to presuppose a good deal of information. I came to understand certain kinds of 'expansion' as common Aboriginal practice, involving quasi-formulaic encodings of significance and further explanation, as I describe further below.

- (13) *bat wirrinay* ('rock turned')
 rock ?turn.PCON

This name is used to designate a prominent and important hill formation in Gimbat Station. Its structure as given above is somewhat puzzling. It appears to be an intransitive clause structure, but I cannot identify it confidently with any verb. When, however, on various occasions I asked for further information about this place, the following expansion was often produced:

- (14) *matj bat wirriny-bu-nay*
 wind rock turn-AUX-PCON
 'the wind turned the rock'

The request, in other words, produced another similar clause, but one in which 'rock' emerges as the object of action by wind, the latter not occurring as a free nominal in ordinary uses of the name. These and other similar examples lead me to conclude that in most cases free nominals in clausal placenames are functionally intransitive subjects, or transitive objects; and that there is a tendency for transitive agents to be not overtly represented. I suggest this is probably best understood as deriving from the intersection of linguistic coding with a construction of presupposition graduated according to predictability, or the closeness

of connection between free nominals and the verbs with which they occur in construction. In general, of all core grammatical relations, transitive subject function will tend to involve the least predictable and least widely presupposable nominal, an agent. This, however, leaves uncertain the grammatical interpretation of some placenames such as the following:

- (15) *jambala warl'-may* ('Long-Necked Turtle dug')
 long.necked.turtle dig-AUXPCON

This name is that of a large, wind-swept open billabong ('Leech Lagoon'), where in fact turtles are plentiful and were regularly hunted by foraging women with yamsticks out of the lairs into which the turtles had dug themselves in the mud. This place was the focal one of a patrilineally recruited group whose name, Jambalawa, also signals its association with this place. But how should the grammatical relations in this name be understood? Was Turtle digging? Or was it dug by something else? The verb *warl'-ma-*, which in the placenames has grammatically singular (zero) subject, was glossed for me as follows:

- (16) *Ni-garatj nginy-gan-way na-wak-miyn nginy-welang-warl'-mang*
 LOC-sand 2SG-go.PRES-SUB NA-water-PRIV 2SG-CON-dig-AUX.PRES
nginy-le'-mang wak-u.
 2SG-search.for.PRES water-PURP
 'When you go in a dry place, without water, you dig, you search for water.'

With reference to the placename, this person went on:

- (17) *Nawarnbay jambala narnbay buwurr,*
 that longnecked.turtle that dreaming
buwurr gok mak-wo-nay narnbay warl'-mangay,
 dreaming SPEC make-AUX-PCON that dig-AUX.PCON
jambala warl'-mangay, bu-warl'-may na-bolo-waywo.
 I-n.turtle dig-AUX.PCON 3NSG-dig-AUX.PCON NA-old.person-all
 'That turtle, that's a dreaming, what it made was a dreaming, that one dug,
 the turtle dug, they dug (it), all the old people.'

This explanation contains the notion of Turtle digging, and making the dreaming (place), but also moves on to explain that old people dug turtle there. Formally, then, the placename may be an exception to the generalisation that the (transitive) agent of an action tends not to occur. Note that the activity attributed to turtle is precisely the activity known to be undertaken by people at this locality, in order to obtain turtles.

There are other examples of grammatically complete clause structures as placenames, where the interpretation of the name relates to a mythic episode, but the typically produced explanatory 'expansion' relates to another aspect of the presupposed story, and not to that encoded in the placename. For instance, a billabong on Gimbat Station is known as

- (18) *jey-wu-nay* ('he refused it')
 refuse-AUX-PCON

When I asked various informants what this meant, they produced the following expansion, which after a number of occasions, I realised was formulaic, a standard way of conveying further information about this place:

- (19) *bon-guk-jeyn*
 3/3NSG-body-eat.PPUN
 '(it) ate them'

Requests for further elucidation would sometimes produce the free nominal *bolung* 'Rainbow Serpent' in construction with the verb form: 'Rainbow Serpent ate them'. What relates the name and the expansion is the content of a fuller story, which was eventually told to me on various occasions and, with some variations, may be paraphrased approximately as follows:

He was crying. People killed and cooked goanna and offered him the tail, but he kept refusing it (*jeywunay*): 'Something else, something else'. A little boy, he was crying for a woman. He kept on, the rain was drizzling down. A small turtle with stripes on his head looked, 'Yes, he's still crying here'. He went back and got Rainbow Serpent, and brought two diver ducks along. He listened, 'It's still a long way'. He brought in the diver ducks from the east. Rainbow Serpent encircled the people, ate them up (*bon-guk-jeyn*), and carried them along in his stomach. He vomited them up at Jeywunay. That's all. There where the billabong is, he put himself forever, there where the white rock is, this side of the billabong, that's where he vomited them. We call that place 'Jeywunay'. That's all.

It becomes apparent from this story that it was the boy who 'refused it' (even food delicacies like goanna's tail), because he was crying for something else. A further insight is sometimes offered by narrators who refer to the boy as *na-gomdutj*, a youth prior to initiation, to whom women are not allowed: he was crying for something illicit. And further, it becomes clear that the one who 'ate them up' was Rainbow Serpent, who had become angry. Rainbow swallowed people in his anger, and vomited them out, creating a white rock landform which, together with the nearby billabong, are the main physical features of this place that are always mentioned from afar, and visited on site. As it happened, a few of the senior men I knew well had been sequestered here as initiates, and had learned this story during their seclusion (perhaps with other elements that were not for general repetition).

The above story nicely illustrates the general character of exegetical 'expansions', which sometimes (as here) are not very different in character from the original, condensed clausal sort of placename itself. To 'he refused it', the expansion 'he ate them' adds another key episode in (what one eventually learns to be) a presupposed story context. Neither placename nor its expansion tends to occur with the appropriate free nominal forms; the first one that is produced upon questioning, in my experience, is 'rainbow serpent'.

This example might be taken as illustrative of a typical relationship between widely known and frequently repeated cultural texts and contexts. The placename is widely known, its significance understood as part of a non-arbitrary relation to a place, with its particular physical features. It is the coming to see and know these physical features that often appears to mediate the further unfolding of any discourse, and is one of the signals that produces the expansion 'he ate them'. In general Jawoyn, like other Aboriginal people, show a disposition to think that one cannot really understand places unless one goes there. The expansion is nevertheless formulaic and fairly readily available even at distance from the location, but is mediated by its relationship to the placename, and to a story which underlies it. For anyone who has learned enough to be able to relate them, the set of linked elements—placename, expansion, story, place—stantiate and realise culturally particular expectations: that a placename be meaningful via its non-arbitrary relation to physical place, and possibly also via conventional narrative and other forms. We might call these connections 'intertextual' except that they transcend speech, and bind knowledge of place, speech and other elements

together in a systematic constellation of place-related practices. This supports the sense of places and placenames as vehicles for encoding wider orders of knowledge understood to exist but not to be readily accessible, and reinforces an understanding of linguistic encoding as cryptic and multidimensional, a disposition which extends beyond placenaming, to song (Merlan 1987), and other multiply integrated Aboriginal dimensions of experience and knowledge (see e.g. Keen 1977). It is partly because each dimension of understanding is bound up with and condenses others that Aboriginal people often point to particular places as the 'truth' of their understanding, which 'prove' what they have been saying about the creation of places, and provide the basis for others to 'believe' as well. (All these terms are Kriol or English-based; the connotations of approximately comparable Aboriginal language terms would require further discussion). For the enculturated Aboriginal subject, the 'truth' seems to inhere in the place itself. But sociologically, it is formed by this nexus of interrelationships and its constitutive practices of understanding, reception and transmission.

Several other distinguishable types of placenames remain to be discussed. Though different from each other in some ways, two of these have in common that they tend to be associated with quite conventional and regular expansions, and in both there is a phonologically non-arbitrary relationship between the linguistic form of the name, and the form and content of the expansion. The relation between the placename and the expansion in each case has therefore something of the character of linguistic play, involving sound similarity.

The first set of placenames include 'delocutive' and onomatopoeic ones. I use the term 'delocutives' (following Benveniste 1971), for placenames understood to replicate the sound or utterance made by a creator figure. (However, the placename is usually more complex, or is like a cranberry compound in that it has 'left over' elements). Onomatopoeic placenames are imitative, not of speech or utterance, but some other kind of sound made by the figure. One learns that these names have this character only by asking, for example, who 'made' the place, and being answered by an explanatory expansion. Some of these are suffixed with the locative ending *-luk*, while others are not.]

(20) *derlerrmi-luk*

Expansion: *Lay got-may ngan-mo-ngayu, derlerr jungay.*
Kang. put-AUX.PCON NG-bone-its *derlerr* said.PCON
'Kangaroo put its bones (there), *derlerr*, it said.'

The form *derlerr* does not have an independent lexical meaning, but in this context it is intoned like a groan, or a sound of fatigue.

(21) *gurngurnbam*

Expansion: *Ngan-jorr-ngayu bolk-nekayn-wayn gurngurn jungay.*
NG-foot-its place-tread.PPUN-SUB *thudthud* did.PCON
'When it trod the ground with its foot, it went "thud thud".'

This placename designates a place associated with a mythic travelling kangaroo, and the name is taken to recapitulate the thudding sound made by the animal as it travelled. In this context, *-bam* is taken not to be independently meaningful; it is the leftover 'cran-' element. (There is a *ngan*-class noun *-bam* 'head').

(22) *womayn*

Expansion: *Garndalpurru guk-jap-garlanay wooo juy.*
 Female.kang. body-stand-CAUS.PCON *wooo* said.PPUN
 'Female Kangaroo stood her body up, *Woooo!* she said.'

Here too, *Wooo!* is a sound made by kangaroo, suggestive of the effort of her travel and/or transfiguration into country.

The above kinds of placenames grade into another large subset. These are 'cranberry' type names, but where some syllable or longer element is understood to be related to some ordinary language lexeme on the basis of strong sound resemblance, but usually not complete identity, between the two; and this element is understood to be an aspect of the significance of place. I could usually elicit these underlying non-arbitrary relations by asking what made the place. The answer usually amounted to an expansion which made apparent the relationship between the cran- element and a lexeme which, as part of the explanation, revealed the element of word play. Examples are:

(23) *barraway*

The name designates part of the second gorge in the Katherine River, and is explained as related to the word *barraya* 'Kookaburra', who is understood to have made this part of the river channel.

(24) *burkba*

Expansion: *dak-murk-murk-may gupu* ('Kangaroo constricted his anus')
 anus-constrict-PCON kangaroo

This name designates a place in Eva Valley Station on a small river channel, and is understood in terms of the expansion given, on the basis of similarity of the (not independently meaningful) syllable *burk* with the syllable *murk*. No elaborate story could be elicited.

(25) *gunbokmo*

Expansion: *bok-got-mi-yi-na gupu* ('Kangaroo put his backside')
 rump-put-AUX-RR-PCON kangaroo

The name is understood to relate to the *ngan*-class nominal *bok* 'backside, rump', which invariably occurs in the explanatory expansion, as above. The *ngan*-class nominal *mo* means 'bone', but this is not explicitly recapitulated in the usual expansion.

(26) *gornjatjirriyn*

Expansion: *ngan-gorn-ngayu got-mi-yi-nay garndalpurru*
 NG-crotch-its put-AUX-RR-PCON female.kangaroo
 'Female kangaroo put her crotch/vagina'

There are three potentially meaningful lexemes which make up this placename, which refers to a hill near upstream of Katherine town. The *ngan*-class nominal *gorn* 'crotch', however, is the only one which regularly figured in the usual expansion, above. The *ngan*-class nominal *jarr* 'leg' has the preconsonantal compounding form *jat* (as in *ngan-jat-bok* 'waist, upper part of pelvis below waist'); and *jirriyn* is the nominal 'one'. Yet neither of these elements typically received expanded explanation.

(27) *jenbirri*Expansion: *ngan-jen-ngayu* *got-mi-yi-nay* *gupu* ('Kangaroo put its tongue')
NG-tongue-its put-AUX-RR-PCON kangaroo

This name designates a place in an area north of Katherine, near the Edith River, where there is understood to be a profusion of creator kangaroo trails. The syllable *jen-* is understood as the word 'tongue' (*ngan-jen-ngayu*), and this is the trace of Kangaroo understood as the core of transmissible significance concerning this place. To my knowledge, however, no particular landform is said to be the tongue.

(28) *lirrkworlk*Expansion: *mirrk-got-mi-yinay* *lay* ('Kangaroo put its chest')
chest-put-AUX-RR.PCON kangaroo

The syllable *lirrk* of the name is understood through its expansion by the *ngan*-class nominal *mirrk* 'chest'. At least two senior speakers commonly varied in their designations of this place between *Mirrkworlk* and *Lirrkworlk*, illustrating that the framework of relationship between name and expansion is a source of creativity and potential change. The second syllable is potentially relatable to a *ngan*-class noun *worlk* 'fat, grease', but this was not the subject of explicit expansion. There did not appear to be an elaborated story connected with this place, beyond the notion of Kangaroo having travelled through it.

(29) *marnangbay*Expansion: *barna* *marnak* *got-mi-yi-nay*
spotted.nightjar arm put-AUX-RR-PCON
'Spotted Nightjar put its arm/wing.

There appears to be layered sound play here: the element *marnang-* is understood to be associated with *barna* 'spotted nightjar', and with the *ngan*-class nominal *marnak* 'arm', understood as the body part of the bird, and the whole as that which was transfigured as landscape.

(30) *mayawar*Expansion: *ngan-meya-ngayu* *got-may* *gupu* ('Kangaroo put his firestick')
NG-firestick-its put-AUX.PCON kangaroo

Designating a place with a rockhole in the Katherine escarpment upland, the bisyllable *maya* is understood in relation to the nominal *meya* 'firestick' (a *Banksia dentata*, used to make a firestick, or a kind of candle).

(31) *nimondurrngdurrng*Expansion: *mon* *got-mi-yi-nay* *gupu* ('Kangaroo put his penis')
penis put-AUX-RR-PCON kangaroo

This name designates a place understood to have been the site of a mythic kangaroo's circumcision, and also a place where boys were circumcised. Following *ni-*, the (*ngan*-class) locative prefix *mon* is understood as the *ngan*-class noun *ngan-mon-ngayu* 'penis'; the reduplicative final bisyllabic is not the subject of explicit expansion.

(32) *welwurrng*Expansion: *gupu* *ganay*, *welkmo* *garungay*
kangaroo go-PCON firedrill twirl-PCON
'Kangaroo went (travelled), he worked his firedrill (*welkmo*)'

The sound similarity here is that between (otherwise meaningless) *wele* and the noun *welkmo* 'firedrill' (made from *Premna acuminata*).

(33) *wer'miyam*

Expansion: *bemangwer'-may* ('Blanket Lizard vomited')
blanket.lizard vomit-PCON

The name designates a place in the Katherine Gorge area where a stream rushes over rocks, producing a boiling whitewater. The name is understood as containing a nominalised element related to the verb *wer'-ma-* 'to vomit'.

(34) *galkjongoy*

Expansion: *gupu galk got-may* ('Kangaroo put wax')
kangaroo wax put-PCON

This name designates Mount Shepherd, a striking hill with small tabletop near the entrance to Nitmiluk National Park. The name is understood to contain the element *galk* 'wax', the last bisyllable not explicitly explained.

(35) *gemoya*

Expansion: *gemo got-mi-yi-nay durrk ngan-gemo-ngayu*
nose put-AUX-RR-PCON emu NG-nose-its
'Emu (*durrk*) put its nose'

The name is understood as the noun stem *gemo* 'nose', the possessor of the body part always expanded as *durrk* 'emu'. The final meaningless syllable *-ya* is not explained or expanded.

In general, there is great variation as to whether or not placenames are understood to be structurally non-arbitrary, that is composed of a particular stem or lexeme explicitly relatable to other words by which it is expanded. There are some for which there is no linguistic expansion given which clearly relates the name to its understood mythic significance. Illustrating this contrast are (36) and (37):

(36) *jarukmele*

Expansion: *jaruk got-mi-yi-nay*
red.apple put-AUX-RR-PCON
'Red Apple (*Syzygium suborbiculare*) put itself'

Here *jaruk* in the name corresponds exactly to the word for 'red apple', and identity is assumed between the two (while *mele* is not related to any word, though there is a *ngan*-class nominal, *mele* 'bed, bedroll'). The linguistic relation of identity supports the continuing link of name and expansion (however the identity may have originated).

(37) *leliyn*

This name designates Edith Falls, where the creator figure is understood to be *bemang* 'Blanket Lizard'. I have never heard an expansion which supports, or relates the form of the placename to this understood story context. There is a considerable number of other placenames of this sort, e.g. *Jiberm*, *Gatjam*, *Jatjbarl*, *Bambort(luk)*, and others (most, like these, apparently monomorphemic). All of these places were standardly understood to have particular significances, but were not characterised by systematically related placenames and formulaic expansions as illustrated above.

We come finally to one of the most common, and seemingly simplest, type of Jawoyn placename, which nevertheless may be seen as being realised by several slightly variant structures. This type is realised by name of the creator being or that which is understood to inhere in place, with some kind of clearly identifiable toponymic prefixal and/or suffixal structure. The most common variant is composed of the name of that which is understood to inhere in the place, followed by the locative suffix *-luk*. Other variants are creator followed by the suffix *-la* (also locative, but probably to be most closely identified with other languages of the region)⁵; and suffixed with *-gorrang/-worrang*, or *-jarang/-yarang*. The former seems to designate 'general location of, surrounds'; while the latter is undoubtedly the lexeme 'dreaming'. Examples follow:

- | | | | |
|------|--------------------------|----------------|--|
| (38) | <i>balatj-luk</i> | <i>balatj</i> | 'leech', 'leech place' |
| (39) | <i>jokbarl-luk</i> | <i>jokbarl</i> | 'hornet', 'hornet place' etc. |
| (40) | <i>jawarl-luk</i> | <i>jawarl</i> | 'tawny frogmouth' |
| (41) | <i>ngan-jutja-yarang</i> | <i>jutja</i> | 'water goanna' |
| (42) | <i>nguk-jarang</i> | <i>nguk</i> | 'excrement' (place where a devil is said to emerge and defecate on one's bedding at night) |
| (43) | <i>bukbuk-gorrang</i> | <i>bukbuk</i> | 'pheasant coucal' |
| (44) | <i>jarlapo-worrang</i> | <i>jarlapo</i> | 'gecko' |

Compared to the others we have considered, this general type of placename is relatively explicit rather than presupposing, in that the character or entity explicitly signalled is understood to be the significant feature of place.

The recent two decades of land claims, site recording, and many other sorts of visits to country, have resulted in many occasions upon which Jawoyn people have been placed in the position of designating places where a name was not widely known, or known at all. (For an extended account of one such place, see Merlan 1998, Chapter 7). On a number of such occasions I have seen places designated by senior Jawoyn people with a name of the general type under consideration here, e.g. *Lorr-luk* 'Catfish place' (in the case referred to in Merlan 1998), where a salient feature in the landscape was a fish-shaped rock, and this rock was assumed to be a dreaming. I have also seen places designated in this way where the nominal chosen designates some noticeable physical attribute of place or a resource to be found there, and does not connote a mythic association. For example, on one occasion I was visiting a portion of the Katherine River downstream from the township with a woman who had lived there and worked on a peanut farm in the vicinity. When I asked her what the area was called, she said she could not remember a name. After a time she recalled that men had come to get wood for spears there, and wound up designating the place *Winja-luk* (*winja* 'spear'), using this as a name on several subsequent occasions in following days. It is undoubtedly through minor acts of creativity and repetition of this and similar kinds that some of the placenames of the more elaborate sorts described above also came to be routinised. But undoubtedly in the past when people were regularly on the move through country, such acts

⁵ The *-la* ending may be characteristic of placenames to be attributed to Dagoman and/or its congeners, which was probably the time-of-contact language of the immediate township area, and the area directly to the east. The word for 'camp' in Dagoman is *lan*. Dagoman, no longer spoken, was closely related to Wardaman and Yangman, not at all closely related to Jawoyn.

of creativity would have been frequent, and more densely interlinked with already widely known storied frameworks, and thus often less transparent in linguistic structure and associated meaning.

5. Conclusions

This paper has explored aspects of practices which sustained a general cultural structure: non-arbitrariness of the relationship between placenames and the places they designated. It has provided insight into differences between formal placename structures which range from those which were, in my experience, normally matched with particular kinds of expansions, and others which were maximally transparent. Some routine 'expansions', like that illustrated for Jeywunay, contribute new elements of a presupposed story context, and thus are additive rather than directly explanatory of the placename. The most common kind of expansion I encountered was illustrated through a number of examples. This involves a play on formal linguistic similarity between elements in the placename and other words which figure in the formulaic expansion, the relationship achieving and projecting the meaning normally associated with the place (usually, its dreaming identity or some motif of the dreaming story).

Elements of iconicity can be seen in various aspects of these practices: we have touched on the pervasive, even if somewhat abstract iconicity of placenames in general, in their conjuring up and recapitulating the dreaming content of place; and the more specific iconic modalities of delocutionary and onomatopoeic placenames. Another level at which the relationships within dreaming stories recapitulate other relationships is illustrated by at least two cases in which a dreaming story is a model for and of human relationships to these places. This can be seen in the understanding of the placename *Nimondurrngdurrng*: this place was created as a circumcision place by Kangaroo, and was a place for the circumcision of young boys in terms of the 'law' laid down by Kangaroo. It can also be seen in the understanding of *Jambala Warl'may*: as dreaming, Longnecked Turtle dug here, providing a model of and for the human exploitation of turtles in this place.

Finally, the simplest form of the motivated relationship between placename and its object is that in which the placename directly and transparently designates the being or thing understood as the entity inherent in place. I have indicated that this is used by speakers as the productive structure for the contemporary designation of unnamed places. It seems likely that this kind of designation will persist after the more highly textually related and linguistically least transparent types may have fallen out of general use.

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26 *On the typological and genetic affiliation of Jingulu*

ROB PENSALFINI

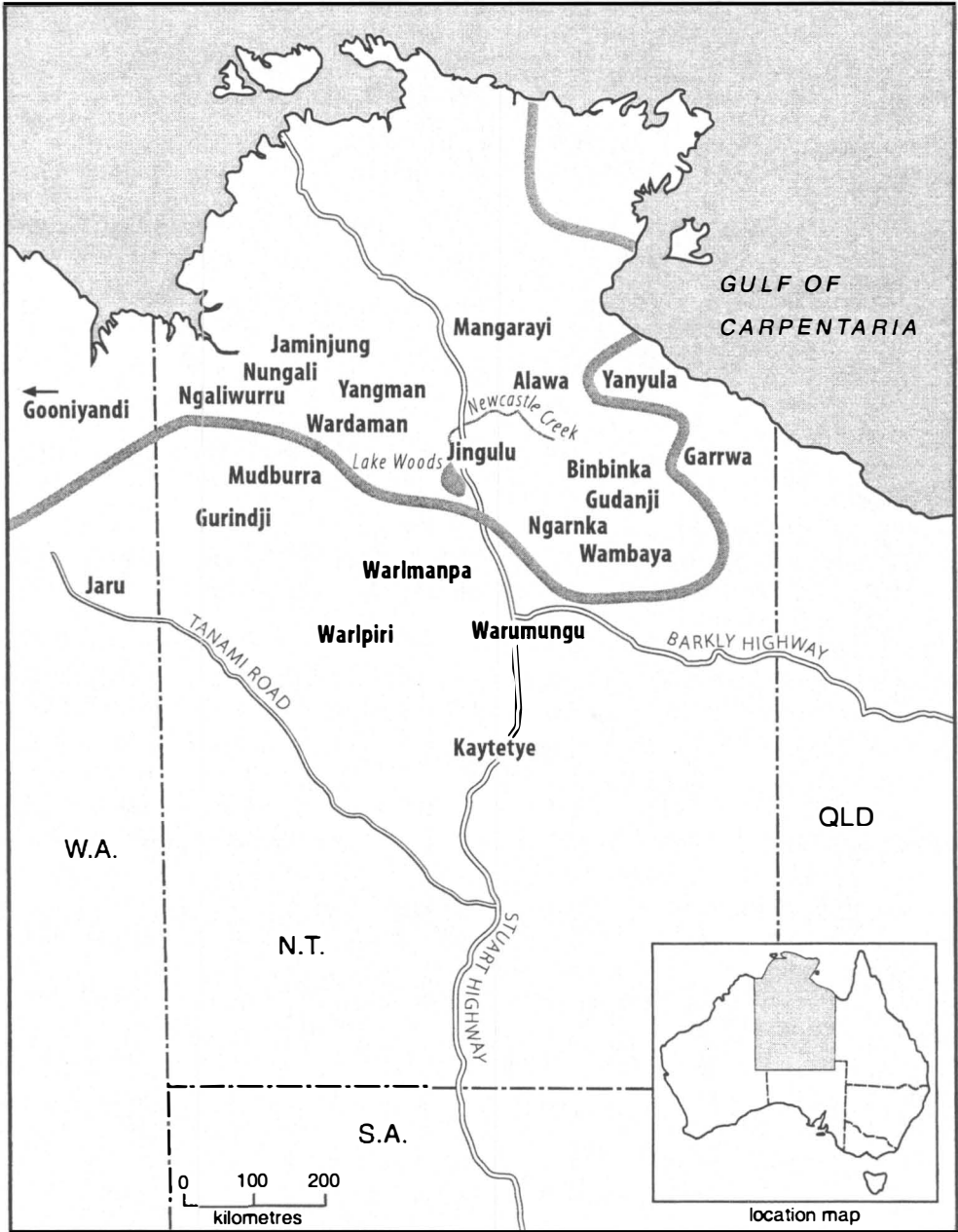
1. Introduction¹

Jingulu is the language of the Jingili people, who live in the area immediately east of Lake Woods and along Newcastle Creek, and now at the town of Elliott, in the western Barkly Tablelands of the Northern Territory. The first sound recording of Jingulu was made in 1960 by Ken Hale, who considered it to be a non-prefixing non-Pama-Nyungan language (O'Grady, Wurm, and Hale 1966).² Hale's (1960) fieldnotes consist of 46 handwritten and two typed pages of words and sentences, and reveal most of the morphological and syntactic properties of Jingulu. The existence of these notes has made it possible to document some of the changes that the language has undergone over the last forty years, such as the increasing use of case markers to mark discourse prominence (Pensalfini 1999a; see also §4.2 of this paper) and the weakening of the gender concord system (Pensalfini 1999b). The first thorough investigation of Jingulu was carried out by Neil Chadwick in the late 1960s and published in Chadwick (1975). Until the 1980s, the genetic affiliation of Jingulu remained uncertain, and Dixon (1980) even stated that there was no evidence to suggest that Jingulu is related to any other language at all, much like Tiwi and the Tasmanian languages. Chadwick, however, showed that Jingulu is related to the MacArthur River language (Wambaya, Gudanji, and Binbinka) and to Ngarnka (also known as Ngarnji), with which it forms the Barkly language grouping, and to the Yirram languages Jaminjung, Nungali, and Ngaliwurru (Chadwick 1978, 1984). These languages are known collectively as the Mindi languages, named for the characteristic form of the first person dual inclusive pronominal marker, and there is strong morphosyntactic evidence to support this grouping.

Map 1 shows the approximate modern location of Jingulu and its neighbours.

¹ For discussions of the data and ideas contained herein, and for crucial information and advice, I would like to thank Paul Black, Ken Hale, Mark Harvey, Mary Laughren, David Nash, Jane Simpson, and Rebecca Green. The latter three deserve special thanks for editing and advice in the latter stages of the preparation of this article. Thanks also to Jenny Green, who devised the map in Map 1.

² Earlier collectors of Jingulu data include Mathews (1901) and Arthur Capell in the early 1950s.



Map 1: Jingulu and its neighbours.
The broad line is the boundary of the Pama-Nyungan languages (south and east).

None of the work cited above questioned the typological classification of Jingulu as non-prefixing, however. In §2 of this paper, an argument is presented for considering Jingulu to be a prefixing language like other Mindi languages, based on a reanalysis of the structure of its verbal words. I will also argue that one of the the patterns of adverb-like coverbal elements is borrowed from Jingulu's Pama-Nyungan neighbours.

As one of the southernmost non-Pama-Nyungan languages, Jingulu displays a number of characteristics of Pama-Nyungan languages and shares a large proportion of its vocabulary with the Pama-Nyungan Mudburra. Jingili and Eastern Mudburra people have lived in close proximity in the same area for a long time, so a high degree of borrowing between languages is to be expected. In §3, I discuss the results and ramifications of a lexicostatistical comparison of a number of languages in the West Barkly area and conclude that Jingili and Mudburra people may have been living together for longer than has previously been suspected.

Some further non-Mindi influences on Jingulu phonology and morphology are discussed in §4. In §5, I conclude by addressing a question which I have been asked on many occasions since I began working on Jingulu in 1995: is Jingulu a Creole? Jingulu does not appear to be a Creole in the classic sense, though it certainly might be considered a mixed language.

2. Morphosyntax

Jingulu has been described as non-prefixing (e.g. Chadwick 1975) because of the structure of many of its verbal words. As indicated in example (1), the verb can consist of an uninflecting root (here termed a preverb), followed by agreement markers, followed by a final element which appears to inflect for tense, aspect, and mood as well as encoding elements of direction.

- (1)a. *Ngirriki-nya-jiyimi?*
 hunt-2SG-come
 'Are you coming hunting?'
- b. *Ngangarra ngaja-nga-ju.*
 wild.rice see-1SG-do
 'I can see wild rice.'
- c. *Maya-nya-ana-nu.*
 hit-2SG-1OBJ-did
 'You hit us.'
- d. *Ngirribiji-ji!*
 tell-NEG.IMPV
 'Don't tell anyone!'

The final element is glossed with a form of the English verb 'come', 'go', or 'do', depending on whether the element encodes motion towards or away or is motion-neutral, or with an abbreviation for mood (motion-neutral).³

³ The abbreviations used in the glosses in this paper are: 1,2,3 – first, second, third person; SG – singular, PL – plural number; INC – inclusive, EXC – exclusive; LOC – locative case; DEM – demonstrative; OBJ – object; DIST – distant past, PRES – present, FUT – future tenses; NEG – negative; IMPV – imperative.

However, the word-initial root is not obligatory, and some notions (e.g. 'come' and 'go', demonstrated in (2a) and (2b)) can only be expressed without a root:

- (2)a. *Ya-ardu kardarda ya-jiyimi.*
 3SG-go always 3SG-come
 'He's always coming and going.'
- b. *Ya-angku.*
 3SG-will.come
 'He will come.'
- c. *Kara-mbili nga-ju.*
 fog-LOC 1SG-do
 'I'm in the fog.'
- d. *Jangu wurru-ju.*
 nothing 3PL-do
 'They're doing nothing.'
- e. *Nam wunyu-ju.*
 stuck 3DL-do
 'They're stuck together.'
- f. *Ajuwara manyan nya-nu?* *Ngindi-mbili nga-nu.*
 where sleep 2SG-did DEM-LOC 1SG-did
 'Where did you sleep?' 'I did it there.'
- g. *Marlarluka ya-marriyimi.*
 old.men 3SG-did(DIST)
 'They did (it) in the old days.'
- h. *Ngini-mbili mankiya-nga-yi, ngawu nga-yi.*
 DEM-LOC sit-1SG-FUT home 1SG-FUT
 'I'll stay here, I will (stay) home.'

Sentence (2e) demonstrates the use of a rootless verb with a coverbal element (in this example, as is usual, preverbal). More will be said about these elements later. The phenomenon of root dropping is illustrated in (2f)–(2h), where the verb appears without a root even though a root might be used to disambiguate the verb. This differs from the familiar pattern of VP ellipsis in languages such as English in several important ways. First of all, VP ellipsis requires a linguistic antecedent, while the omission of a root in Jingulu does not. Sentence (2g), for example, was uttered on seeing a picture (in a book) of women grinding grass seeds, where no previous discussion of the topic had taken place. English requires the use of the demonstrative *that* with focus (*They did that in the old days*, but *#They did it in the old days*) under such circumstances, while Jingulu does not (though a focused demonstrative is possible). Furthermore, while VP ellipsis requires the omission of internal complements as well as the verb, omission of a root in Jingulu does not, as (2h) shows.

Rather than viewing the verb word as consisting of a stem (which can be dropped in some cases) with a series of suffixes, I have argued elsewhere (Pensalfini 1997 and 2000) that the final tense-aspect-mood-direction marker is best viewed as the syntactic verb, with agreement prefixes. Thus Jingulu is a prefixing language like its western Mindi relatives. However, the initial root, which can be considered a preverb, is phonologically prefixed to

the agreement+verb complex, making it unlike verbs in the other (eastern, Macarthur River) Mindi languages.

In the Yirram languages, the root and the complex containing the agreement markers (which I shall call the AUXILIARY, following Green 1995) are phonologically separate words, though the root (or PREVERB) normally immediately precedes the auxiliary. The Jingulu preverb+verb sequence, however, constitutes a phonological word, as evidenced by the regressive vowel harmony illustrated in (3). This phenomenon involves a high vowel in an agreement marker triggering raising of adjacent low vowels in the root.⁴

- | | | | |
|-------|---|-----|--|
| (3)a. | <i>nga</i> <i>ja-nga-nu</i>
see-1SG-did
'I saw (him/her/it/them)' | vs. | <i>ngiji-ngirru-nu</i>
see-1PL.EXC
'we saw (him/her/it/them)' |
| b. | <i>maja-nya-yi</i>
get-2SG-FUT
'you will get (it)' | vs. | <i>miji-wurri-yi</i>
get-3PL-FUT
'they will get (it)' |
| c. | <i>lakarr maja-nya-yi</i>
break get-2SG-FUT
'you will break (it)' | vs. | <i>lakarr miji-wurri-yi</i>
break get-3PL-FUT
'they will break (it)' |

As (3c) shows, the domain of harmony is the phonological word and not the semantic lexeme. None of the other Mindi languages displays such a close phonological bond between the preverb and the syntactic verb complex (see, for example, Nordlinger, this volume, for discussion of Wambaya), and it is this bond which has led Jingulu to be classed as suffixing in its verbal morphology. However, as the evidence in (2) shows, the initial root is not morphosyntactically a verb, and it is therefore inaccurate to say that Jingulu agreement markers are suffixes to the verb. Rather, the final tense-bearing element is more properly considered the core verb of the clause, akin to a light verb in English, which means that agreement markers in Jingulu are verbal prefixes.

The Yirram auxiliary differs from the Barkly languages' agreement+verb sequence in two further important respects. Firstly, the final element in the West Barkly languages encodes mood, tense, aspect, and other verbal information in a single morpheme, whereas Yirram languages separate mood from the other categories into a separate morpheme. Secondly, the Yirram languages have more tense-bearing final elements than do the Barkly languages. The Yirram languages have about twenty morphemes in this function, encoding action type as well as tense and direction, while the Barkly languages encode only direction (associated motion) in addition to tense, mood, and aspect. Nordlinger (this volume) observes that the category of associated motion in Wambaya is more like that found in central Australian Pama-Nyungan languages, though diachronic evidence indicates that the forms came from verbal classifiers like those found in Jaminjung. The same can be said of Jingulu, except that there appears to be no evidence that the forms of the final verbs in Jingulu are cognate with other Mindi forms.

⁴ The situation is somewhat more complex than I have presented it here. While harmony is generally only triggered by subject-agreement markers and not by (syntactic) verbs (and certainly never by object-agreement markers), there are two syntactic verbs which are capable of triggering harmony. These are imperative verbs; the only verbs which can never co-occur with agreement. See Pensalfini (1997) or Pensalfini (2000) for details.

In both the Barkly and Yirram cases, however, these final elements are properly considered light verbs, with the roots which may accompany them of a different category.⁵ My use of the term 'light verb' for these constructions has drawn some criticism, mainly on the grounds that the accompanying elements in Jingulu and the Yirram languages are not syntactically nouns, as they are alleged to be in English light verb constructions such as 'give (it) a look/listen/taste/feel/burl', 'have a go', or 'go the boot'. However, the nounlike elements in these English constructions do not behave like other nouns either, as demonstrated in (4).⁶ Unlike other objects, it cannot passivise, nor can it semantically agree in number.

- (4)a. *The Tigers gave three senior players the sack.*
 b. **The Tigers gave three players sacks.*
 c. **The sack was given (to) three players (by the Tigers).*

Wambaya differs from both Jingulu and the Yirram languages in that the root is not optional and it can be inflected (with the future/imperative *-ba*), and therefore could be considered a syntactic verb in its own right. The agreement+tense-mood-aspect-direction complex, also obligatory in verbal clauses, is a separate phonological word (Nordlinger 1998 and this volume).

Mudburra, Jingulu's western and socially closest neighbour is a Pama-Nyungan language closely related to Gurindji (both Mudburra and Gurindji are classed as Ngumpin languages by O'Grady, Voegelin and Voegelin 1966) and thence to the Yapa languages (which include Warlpiri and Warlmanpa). It also has an auxiliary complex which includes agreement morphology. Unlike the Jingulu agreement+verb complex, but like the Wambaya auxiliary complex (and auxiliaries in other Ngumpin-Yapa languages), the Mudburra complex is phonologically distinct from (and can be separated from) the verb root (Green, n.d.). Unlike the Barkly languages, however, the Ngumpin-Yapa languages suffix agreement markers to the auxiliary element. The Ngumpin languages, and to a lesser extent the Yapa languages, make extensive use of coverbs, uninflecting elements which co-occur with the inflected lexical verb and provide more specific information about the predicate. Consider the following Mudburra verbs (from Green n.d.). Coverbs are shown in roman (non-italic) type:

- (5)a. dak *kayini*
 sit be-PRES
 '(someone) is sitting down'
- b. dak *wandi*
 sit fall
 'sit down'
- c. darndam *wandi*
 enter fall
 'go inside'
- d. yurrub *wandi*
 hide fall
 'hide (oneself)'

⁵ Pensalfini (2000) argues that these roots are category-less.

⁶ Thanks to Mary Laughren for pointing this out.

- e. yurrub *kuya*
hide cause
'hide (something)'

Jingulu employs a similar strategy, such that a complex verb consists of two parts, the first being a coverb (shown in roman type in (6)). There is usually also a preverb, but this may be lacking (6d):

- (6)a. Yurrub *wardka-nga-yi*.
hide fall-1SG-do.FUT
'I'm going to hide.'
- b. Dang *maya-nga-nu*.
dead hit-1SG-did
'I killed it.'
- c. Dang *wardka-nu*.
dead fall-did
'It dropped dead.'
- d. Lurdba *nga-rriyi*.
close 1SG-will.go
'I'll go up close.'
- e. Lurdba *ngaja-nga-ju*.
close see-1SG-do
'I'm inspecting (it).'

I use the term 'coverb' to refer to elements such as *yurrub*, *dang*, and *lurdba* which are not phonologically bound to the verb and which either precede or follow the inflected verb and can be separated from it. I use the term 'preverb' to refer to the elements which are phonologically bound to the front of the inflected verb and cannot stand alone. The term VERB or TRUE VERB (also 'syntactic verb', above) is used for the final element of verbal words, which carries tense and aspectual information and is inflected with agreement prefixes. In both Jingulu and Mudburra, coverbs are phonologically marked, often ending in a consonant. Closer examination of these elements in both languages shows that they are almost entirely cognate across these two languages, but coverbs cognate with these are absent from the other Mindi languages.⁷ It appears that Jingulu has borrowed the strategy and vocabulary of these adverbial elements entirely from the Ngumpin languages. In Ngumpin, these elements directly modify the inflecting verb, while in Jingulu they modify the preverb.

It appears, then, that the verbal system of Jingulu is largely inherited from proto-Mindi, as Green (1995) argued. The apparent suffixing nature of Jingulu verbs is not a result of contact with its Pama-Nyungan neighbours, as Blake (1990) suggested, but is due to the phonological fusion of a preverb with the true verb and its agreement prefixes. However, the use and form of a set of coverbs preceding a fully inflected verb (with or without preverbs) appear to be the result of diffusion from Ngumpin into Jingulu. Of course, it is also possible that these

⁷ Many of these forms also have cognates in other Pama-Nyungan languages. The form *manyān* ('lie down'), for example, is found in Jingulu (see (2f)) and Mudburra, and in distant Pama-Nyungan neighbours Jaru and Walmajarra, but not in Yirram languages. The form *lurdba* (6d)–(6e) could conceivably be related to Warlmanpa *lurt* ('hidden from view'), and *yurrub* (6a) to Warlpiri *lurru* ('hidden from view').

elements were borrowed into Ngumpin languages from other non-Pama-Nyungan neighbours at an earlier stage, given that these forms do not appear in Warlpiri (with the possible exception of a cognate for *yurrub*—see (5d), (5e), and (6a). It seems unlikely, however, that the Mindi languages were the source for this, given that the forms do not appear in any Mindi language other than Jingulu.

3. Lexicon

Chadwick (1979) puts shared vocabulary between Jingulu and Wambaya at 29 per cent and that between Jingulu and Ngarnka at 28 per cent. No figures are given for shared vocabulary between Jingulu and Mudburra. These results are based on a 100-item list, and the counts were conducted before anybody had done extensive study of Wambaya, Ngarnka, or Mudburra. Among Jingulu speakers, many words are recognised as borrowings from Mudburra. It could not be otherwise, with Mudburra and Jingili people having lived together for generations and with the Mudburra so outnumbering the Jingili in recent times. These borrowings, for the most part, are recognisable as such to the linguist as well because they lack the regular noun-class suffixes that Jingulu words, by and large, have. But there are also many borrowed words, not recognised as such by speakers, which do have regular noun-class morphology and which are probably borrowings from an earlier period. As one example, Jingulu has two words for 'dog', *warlaku* and *kunyarrba*. While *warlaku* is recognised as a Mudburra borrowing, the 'real proper Jingulu word' for 'dog' is given as *kunyarrba*. This word does, admittedly, have the regular masculine suffix *-a* and forms its feminine in the usual manner, but both Jaru and Walmarri have *kunyarr* for 'dog', and the suffix *-pa* is a regular way of making phonological words from roots which are unpronounceable in isolation in several Pama-Nyungan languages, including Warlpiri. (None of the other Mindi languages appears to have *kunyarr*). Another instance involves the Mudburra *barlungbarlung* (a wattle species known locally as 'weeping willow'), appearing in Jingulu in the semantically appropriate vegetable gender and bearing the phonologically appropriate suffix as *barlungbarlungmi*. This form also occurs in Eastern Mudburra alongside *barlungbarlung*, so it is possible that Mudburra has borrowed the form from Jingulu. However, the disappearance of the Jingulu vegetable gender suffix *-mi* in Western Mudburra then remains unexplained.

This section discusses a new lexicostatistical comparison of Jingulu, Wambaya, Yirram, and Mudburra based on the Swadesh 200-item list (Dyen, Kruskal, and Black 1997) and incorporating recent collections of vocabulary from these languages.⁸ The Jingulu words come from the vocabulary which I have maintained since 1995 and which contains data from previous work done by Hale, Chadwick and others. The Wambaya data come from the dictionary section of the grammar by Rachel Nordlinger (1998), the Yirram data come from Schultze-Berndt (1997), and the Mudburra data come from the database being maintained by Rebecca Green.

⁸ The list was effectively reduced to 194 items, as six of the items (*and, to count, to freeze, ice, snow, and year*) did not occur in any of the available wordlists. In addition, for any given pair of languages, there were a further 20–45 items which could not be compared because the item was not listed in one or other of the wordlists. The actual number of items compared for each pair of languages is as follows: Jingulu-Mudburra 170, Jingulu-Wambaya 161, Jingulu-Yirram 172, Wambaya-Yirram 148, Wambaya-Mudburra 152, Yirram-Mudburra 166. For Yirram, a combined Jaminjung-Nungali-Ngaliwurru list was used.

Cognates were counted in three different ways. This was necessary because of the situation in the Barkly, typical of many parts of Australia, where a single item in the Swadesh list corresponds to a variety of synonymous words in any given language. This is due in large part to borrowing from neighbouring languages. Count 1 (results in Table 1) follows the standard lexicostatistical procedure in which an item is counted as cognate between two languages if there are any cognate words for the item between the two languages (Paul Black, pers. comm.). The scoring procedure was therefore: score 1 cognate if any cognate pair exists for the item, and score 1 non-cognate if both languages have entries for the item but there are no cognates. Because of the high degree of borrowing among neighbouring languages, a high degree of cognacy can not be taken as a sign of genetic relatedness, particularly for this count, in which an item is counted as cognate even if each of a pair of languages has five words for an item and only one is shared.

Count 2 (results in Table 2) attempts to weight the items for degree of shared vocabulary between languages. Under this system, each item is broken into fractions corresponding to the number of words present for that item. The scoring procedure was: each pair of cognates for an item contributes a fraction to the total cognate count equal to 1 divided by the number of pairs that exist for that item, and each pair of non-cognates for an item contributes a fraction to the total non-cognate count equal to 1 divided by the number of pairs that exist for that item. This system will actually give an indication of percentage of cognate vocabulary between two languages.

Count 3 (results in Table 3) attempted to minimise the effects of borrowing on the count by counting as cognates only those items in which all words from one language are shared by the other language. The scoring system was: score 1 cognate only if all pairs for the item are cognate; score 1 non-cognate if any non-cognate pairs exist for the item. My assumption here (quite possibly false) was that, where a language has more than one word for an item, it is unlikely to have borrowed all of those words from the same language.

In each of the counts, if there was no word available in the data for a given item in a given language, that item did not count towards the denominator for calculating percentage of cognate vocabulary with regard to that language.

On the assumption that Jingili and Mudburra people have coexisted in the Elliott region for a long time (although Tindale (1974:236) reports an alternative tradition), I expected to find a very high degree of cognacy between Mudburra and Jingulu items for count 1, higher in fact than the degree of cognacy between Jingulu and Wambaya or between Jingulu and the Yirram languages. However, I expected that the percentage of cognates between Jingulu and Mudburra would drop more sharply than the Jingulu-Wambaya or Jingulu-Yirram scores for Counts 2 and 3. This expectation was based on the assumption that languages would retain many of their ancestral word forms in addition to borrowing from genetically unrelated languages, and that entire vocabularies would not be borrowed in a period of a mere few centuries of relatively stable coexistence (following the ideas expressed in Dixon 1997). The results, in Tables 1–3, were somewhat surprising:

Table 1: Percentage of items with cognate vocabulary (Count 1)

	Jingulu	Wambaya	Yirram	Mudburra
Wambaya	34			
Yirram	26	19		
Mudburra	71	24	36	

As expected, Jingulu and Mudburra show a very high percentage of shared vocabulary under this count. The score for Mudburra and Yirram is also considerably higher than that for Jingulu and Yirram, despite the putative genetic relationship between Jingulu and Yirram. I would suspect that a comparison between Wambaya and Garrwa would also provide quite high results under this scoring system, due to the effects of lexical borrowing between these two neighbours.⁹

Table 2: Percentage cognate vocabulary (Count 2)

	Jingulu	Wambaya	Yirram	Mudburra
Wambaya	27			
Yirram	18	16		
Mudburra	56	19	26	

This count did not show markedly different results from Count 1 (except for the fact that the results are all lower, which is an artifact of the different scoring systems). One result which may be significant is that the score for Wambaya-Yirram fell (compared with Count 1) by a lesser degree than the other scores, suggesting that borrowing between these two languages has not been as extensive as between the others. This is to be expected, as the languages are not neighbours and have not had the sort of extensive direct contact that other groups have. This result is further accentuated in Count 3.

Table 3: Percentage cognate items (Count 3)

	Jingulu	Wambaya	Yirram	Mudburra
Wambaya	21			
Yirram	11	14		
Mudburra	40	16	17	

What is extremely surprising about this count is that the score for Jingulu-Mudburra is still about twice that for Jingulu-Wambaya, which can mean one of two things: Jingulu and Mudburra are closely related (which seems unlikely given the morphosyntax of these two languages), or Jingulu and Mudburra have been in contact so intensely and for so long that vocabulary borrowing has obscured traces of genetic relationships in the vocabulary. The other notable result is the significant drop in the scores comparing Yirram with both Jingulu and Mudburra, which suggests that the higher scores in Count 1 might well be a result of recent borrowings from Mudburra or Gurindji.

Note that the Mudburra-Yirram score was higher on all three counts than the Mudburra-Wambaya score. This might indicate extensive contact and borrowing between proto-Ngumpin and proto-Yirram.

⁹ It is interesting to note, for instance, that the name 'Wambaya' could conceivably be related to the Jingulu root *wambay-* 'to speak', while the Wambaya word for 'speak' is similar to the Garrwa word (Rachel Nordlinger, pers. comm.). On the other hand, the name might derive from *wamba*, meaning 'snappy gum' (a species of eucalypt) in the Barkly languages (Nash 1997:188).

A number of other published lexicostatistical techniques, such as those of Guy (1980), Breen (1990), and Black (1997), remain to be tested in future work. It would also be instructive to compare the counts for verbs alone.

The results in this section underline the dangers of taking lexicostatistical information alone as an indicator of genetic relatedness, a danger which O'Grady, Wurm and Hale (1966) were well aware of. For many parts of southern Australia, however, the only data available are word lists, so any claims regarding genetic affiliations among these languages must be viewed with some skepticism.

4. Other non-Mindi influences on Jingulu

4.1 Phonology

At first sight, Jingulu phonology is quite unremarkable. It has a regular phoneme inventory for languages of the area and CV(C) syllables. However, there are at least three properties of Jingulu that are worthy of note with regard to influences on the language. First of all, Jingulu has an element in its phonetic inventory that is at least phonetically (Pensalfini 1997) but possibly phonologically (Chadwick 1975) a doubly articulated stop.¹⁰ Derived historically from a palatal+velar consonant cluster, the phone appears to involve both dorso-velar and lamino-palatal closure. It is worth noting that Hale (1960) did not list this element separately in his Jingulu phoneme inventory, but his transcription does include [kʷ] in several places where Chadwick (1975) has the phoneme /ky/ and Pensalfini (1997) has the cluster /jk/. No other Mindi language, nor any of the neighbouring Pama-Nyungan languages, is said to have such a single segment, but just such a stop (along with a corresponding nasal) has been proposed for Yanyula and Garrwa (Kirton 1971 and Furby 1972, respectively). The Jingili do have direct ties with the people of the Gulf coast. Some Jingulu texts I have collected speak of travelling to Yanyula country to fish in the sea, and Yanyula people still travel to the Lake Woods area for ceremonial purposes.

Jingulu also has a pattern of internal reduplication found in a number of neighbouring languages, including some (but not all) other Mindi, Ngumpin, and Yapa languages, as well as Alawa, Mangarayi, and Wardaman (Nash and Simpson 1996). This therefore appears to be an areal rather than a genetic distribution, with Jingulu practically at its geographical centre. As the examples in (7) show, the reduplicant appears to be an infix (in bold type) composed of the coda of the first syllable plus the onset of the second.¹¹

- (7)a. *marluka* → *mar**lar**luka*
 'old man' 'old men'
- b. *nankuna* → *nank**ank**una*
 'cave' 'cave country'

¹⁰ The use here of the term 'doubly articulated' might be questioned. While there is no part of the tongue between the blade and the dorsum that is not in contact with the roof of the mouth, nevertheless insofar as the tongue blade and the dorsum are independent articulators (following Halle's (1992) feature geometry), the articulation involves two articulators and is therefore 'doubly articulated'.

¹¹ The parse I have proposed, with the 'copy' preceding the 'original', is not the only possible one. It could be argued, for instance, that the 'original' precedes the 'copy', as in *marlarluka*. I prefer the parse in (7) for reasons which are set out in Pensalfini (1998).

- c. *jangkiyi* → *jangkangkiyi*
 'high' 'summit'

The process applies only to a semantically restricted set of words in Jingulu, words for properties of people or for features of landscape. However, it does appear to be quite productive within that realm and so the appearance of these forms can not be put down to lexical borrowing (see Pensalfini 1998 for further discussion).

Jingulu stress shows properties of neighbouring Pama-Nyungan languages within a non-Pama-Nyungan framework. Like the prefixing languages further to the north, the main stress in a Jingulu word is the final one. This means that main stress often falls on suffixes. However, with regard to suffix coherence (the degree to which suffixes resist being footed with material from other morphemes—see Pensalfini 1999c for discussion), Jingulu behaves more like Warlpiri than other languages.

4.2 Case and discourse-marking morphology

The decaying case system on Jingulu nominals is of further interest. The other Mindi languages, and Jingulu's Pama-Nyungan neighbours like Mudburra and Warlpiri, have obligatory and intact case systems in addition to extensive agreement systems. Jingulu's case system appears to be less grammaticalised. While case marking is normally obligatory in simple clauses (an Ergative/Absolutive distinction on free nominals, a three-way Ergative/Nominative/Accusative distinction on pronouns), in discourse and in texts regular case marking is often absent. Nominals which are clause-peripheral, and set off by a very slight intonation break, regularly lack any case marking (pronouns appearing in their Nominative form). The regular case markers are now also used to mark discourse prominence, rather than case alone, and disambiguation is achieved chiefly through verbal agreement or context.

I argued (Pensalfini 1999a) that the decline of case marking and concomitant rise of discourse marking may be the result of language attrition and the influence of English. However, the innovation of case morphology used as discourse-marking morphology is not noted elsewhere in Australia under similar sociolinguistic conditions. It is conceivable that Jingulu's weak or weakened case-marking system is the result of influence from Jingulu's northern non-Pama-Nyungan neighbours. Merlan (1982:57) reports that there are instances of transitive subjects lacking the expected Ergative case in Mangarayi, one of Jingulu's nearby northern neighbours. Optional Ergative marking has also been reported in some Kimberley languages, for example Gooniyandi (McGregor 1992), but there is little likelihood of these languages having affected Jingulu and not intervening languages. It is more likely that language attrition in both areas has led to an erosion of morphological complexity. It is not uncommon, when the case-marking system of a language weakens, for the morphology associated with that system to be adopted for a new purpose. A comparison of Aleut (Bergsland 1997) with Eskimo languages demonstrates this (the historical Eskimo Ergative suffix is no longer used to mark transitive subjecthood in Aleut, but instead appears on the subject to indicate the presence of elided material within the verb phrase). On the other hand, there is a possibility that the discourse markers in Jingulu are forms borrowed from neighbouring Mudburra and nearby Gurindji, rather than being new uses of the Ergative suffixes (see the discussion in Pensalfini 1999a).

5. Conclusion: is Jingulu a creole?

Given its placement by a series of waterholes and seasonal lakes, and containing the only year-round lakes for a great distance in any direction, traditional Jingili country might be considered an ideal location for a creole to arise by way of a pidgin lingua franca developed for use among the variety of linguistic groups that might access those areas. The typological data discussed in the previous sections strongly suggests that Jingulu is a Mindi language, but one which has been influenced enormously by a variety of genetically diverse languages around it. Chadwick's (1975) mapping of Jingili country corresponds to the catchment areas of Lake Woods and Newcastle Creek, and while most of these areas are no longer inhabited by Jingili, older Jingili people with whom I worked continue to identify these areas as traditional Jingili country. Jingili country therefore appears to be an oasis of sorts, separated by arid stretches from a variety of peoples (Wambaya to the east and south-east; Yangman and Mangarrayi to the north; Mudburra and Gurindji to the west; and Warlpiri, Warlmanpa, and Warumungu to the south and west), all of whom have some ceremonial ties to the area and many of whom, until very recently, would come to large ceremonies around Newcastle Creek and Lake Woods.¹² According to stories I have collected, these relationships have been at various times more or less peaceful.

According to this scenario, the 'original' Jingili inhabitants would have spoken a language probably quite similar to Wambaya, which subsequent waves of friends and invaders would have left a stamp on, altering not only its vocabulary but its syntactic structure as well, not unlike what has happened to English.

Modern Jingili people affiliate themselves most closely with the Mudburra, among whom they live and with whom they share a daily and ritual life. There is no modern Jingili culture separate from Mudburra culture. Linguistically, Jingulu and Mudburra share a great deal of vocabulary but not much else. Wambaya is probably syntactically closer to Jingulu, and there are morphological similarities, but the relationship between Jingili and Wambaya people does not appear to be particularly close. The Wambaya are often blamed for violent incidents in the area's history by the Jingili (but not directed against Jingili people, with whom the Wambaya mostly seem to have been on good terms). It is conceivable that, despite the common ethnic (and linguistic) origin of the Jingil and the Wambaya, extended cohabitation of Jingili with Mudburra altered both culture and language so that the Jingili now see themselves as more closely affiliated with speakers of Pama-Nyungan languages of the area than with the Wambaya. Phonological influences from languages spoken to the north could have come into Jingulu at any time, as contact with these peoples would have been extensive and frequent. Some older Jingili people told stories of going to Yanyula country (on the coast of the Gulf of Carpentaria) to fish on a fairly regular basis, as late as the first half of the twentieth century, and Yanyula people still occasionally come to Jingili country for ceremonial purposes.

Still, under this scenario Jingulu could only be called a creole if English too is to be considered a creole. To many, 'creole' has a very specific meaning that would not suit the English situation. However, I think that both Jingulu and English could be considered 'mixed

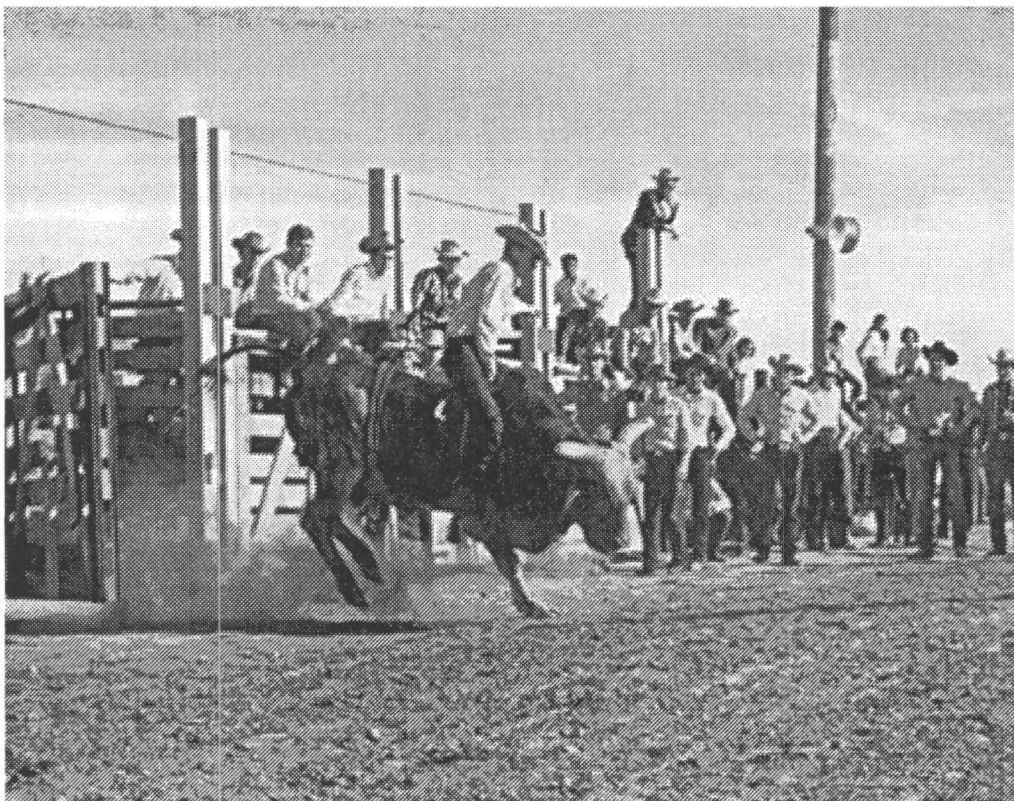
¹² Most language maps and scholars also put Alawa as an immediate neighbour of Jingulu to the north-east, but the Jingili people with whom I worked denied any direct contact between the Jingili and the Alawa, claiming that Ngarnka country lay between them.

languages' (following Hudson 2000:444, for whom creoles are exceptional cases of mixed languages, or Bakker and Mous 1994, who distinguish mixed languages from creoles entirely), showing very strong influences from a variety of linguistic sources.

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*Ken riding in an Arizona rodeo.
Photo provided by Sara Hale.*

27 *Wambaya in motion*

RACHEL NORDLINGER

1. Introduction¹

As with many Australian languages, the first significant information we have about the non-Pama-Nyungan language Wambaya is from field notes collected by Ken Hale (1959). These notes are remarkably comprehensive—in only 57 widely spaced, handwritten pages, Hale managed to capture the core of Wambaya grammar; from verbless sentences, to possessive phrases, to verbal paradigms, to complex clauses—and, along with his 1960 field notes on the related dialect Gudanji, provided a valuable boost to the beginnings of my own fieldwork on the language in 1991. In this short paper I discuss the phenomenon of associated motion (e.g. Koch 1984; Tunbridge 1988; Koch and Simpson 1995; Simpson 2001; Wilkins 1991, 1998) as it is realised in Wambaya. I will show that, while the Wambaya system is similar in some respects to those of the Pama-Nyungan languages of the region, it shows some interesting differences that highlight its different diachronic source and make it worthy of inclusion in discussions of associated motion more generally.²

¹ First and foremost I would like to thank my Wambaya and Gudanji friends who so patiently taught me their language: Molly Grueman, Minnie Nimara, Mavis Hogan, Judy Holt, and Powder O'Keefe. Thanks also to Peter Austin, Ian Green, Harold Koch, David Nash, and Jane Simpson for comments and discussion on various aspects of this paper, and to Jane Simpson and Harold Koch for providing unpublished material. This work was begun while I was a research fellow at the Max Planck Institute for Psycholinguistics, Nijmegen, and an earlier version was presented at the Third International Workshop on Australian Aboriginal languages held there in April 1998. I would like to thank members of the Language and Cognition Group, especially Steve Levinson, David Wilkins and Felix Ameka, for creating such an enjoyable and stimulating intellectual environment which enabled this and other research to develop while I was there.

² Interestingly, Hale's Wambaya notes contain no examples of the affixes that I am concerned with here, even in contexts in which their occurrence would be expected in present-day Wambaya (see §3.1 for examples). There are two possible explanations for this: (i) the use of the directional affixes may have developed in Wambaya since Hale's fieldwork (although Chadwick (1978, 1979) also reports the presence of these suffixes in Wambaya to encode both "direction and motion" (1979:685), meaning that they must have already developed by the time Chadwick did his fieldwork in the early-mid 1970s); (ii) more probably, the speaker from whom Hale collected his Wambaya data may have

2. Grammatical overview of Wambaya

Wambaya is a non-Pama-Nyungan language originally spoken in the Barkly Tablelands region of the Northern Territory. It belongs to the Barkly subgroup of the discontinuous Mirndi (also Mindi) language family, which also includes the Yirram (or West Mirndi (I. Green 1995)) languages spoken further to the west (see Chadwick (1979, 1984) for discussion). The Barkly group consists of Jingulu (Chadwick 1975, Pensalfini 1997 and this volume), Ngarnga (Chadwick 1978), and a chain of three dialects, Binbinka, Gudanji and Wambaya (Chadwick 1978; Nordlinger 1998). Wambaya is no longer spoken on a daily basis, and there are now no more than half a dozen fluent speakers, all elderly and living in the towns of Borroloola, Tennant Creek and Elliott.³

Wambaya is typologically different from most other non-Pama-Nyungan languages.⁴ It is primarily dependent-marking, makes extensive use of case morphology, and marks noun classes by suffix rather than by prefix.⁵ In addition Wambaya, like Warlpiri (Hale 1982, Simpson 1991), has a second-position auxiliary containing subject and object bound pronouns and markers of tense, aspect, mood (TAM) and direction. The structure of this auxiliary is given in (1):

- (1) SUBJ – (OBJ) – TAM (+ assoc. motion/direction)

As is clear from (1), the Wambaya auxiliary is simply a bundle of grammatical affixes; it contains no synchronic verbal root at all. All of the lexical verbal content in the clause is provided by a (largely) uninflected main verb which (given that basic word order is free) can appear before (2, 4), after (5), or separated from (3, 6) the auxiliary. Examples of typical Wambaya clauses include the following. In these examples, auxiliaries and verbs are given in bold.⁶

mixed in features of the closely related Gudanji dialect, which does not have any directional affixes (see §4 for further discussion). Such dialect mixing is extremely common among Wambaya and Gudanji speakers, making it quite difficult at times to separate characteristics of the two. Hale's Wambaya notes contain many other common Gudanji features, such as the use of *gabi* 'NEG' rather than *yangula* or *gywala*, *-ma* instead of *-a* for the past tense affix, the use of the auxiliary *nya* in singular imperatives where Wambaya would have no auxiliary, and the absence of the *-(j)ba* verbal inflection in future and imperative clauses.

- ³ All of the Barkly languages are in such dire straits: the situation for both Gudanji and Jingulu appears similar to that for Wambaya, while there are only two known speakers of Ngarnga still alive and none of Binbinka at all.
- ⁴ I am following common Australianist practice in assuming a genetic basis for Pama-Nyungan (O'Grady, Wurm and Hale 1966; Blake 1988; Evans 1988) and using 'non-Pama-Nyungan' to refer to the collection of language families from the northern region of Australia which do not belong to this group. Although they do not necessarily form a single language family, non-Pama-Nyungan languages generally share many typological properties not found in Pama-Nyungan languages, such as the use of prefixing as well as suffixing (Capell 1962; Blake 1990) and a predominance of head-marking rather than dependent-marking morphology.
- ⁵ Except for some vestigial prefixes found on demonstratives, for discussion of which see Nordlinger (1998:107ff.).
- ⁶ References after examples are to Nordlinger (1998). Other examples are taken from my fieldnotes. Abbreviations include: A – transitive subject; COMIT – comitative; F – feminine; HYP – hypothetical; I/II/III/IV – masculine/feminine/vegetable/neuter noun classes, respectively; INF – infinitive; LOC – ergative/locative case; M – masculine; NF – nonfuture; NP – nonpast; PR – present; RDP – reduplicand; RR – reflexive/reciprocal; S – intransitive subject.

- (2) *Ngajbi-ngajbi gin-a.*
RDP-see 3.SG.M.A-PST
'He looked around (the ground).' (p.235, ex.32)
- (3) *Jabiru-nu gin-a wurla dudyarri*
jabiru-LOC 3.SG.M.A-PST 3.DU.ACC spear
alag-ulu ngarri-yulu.
child-DU.ACC 1.SG.POSS-DU.ACC
'The Jabiru speared my two kids.' (p.235, ex.33)
- (4) *Larlagbi g-a galyurringini-nmanji.*
enter 3.SG.S-PST water.I-ALL
'He got into the water.' (p.236, ex.34)
- (5) *Wara-nmanji gini-ngg-a yardi bulinja.*
face.IV-ALL 3.SG.M.A-RR-NF put algae.IV.ACC
'He put algae on his face.' (p.236, ex.35)
- (6) *Injannga ini julaji gi-n*
where.from this.I.SG.NOM bird.I.NOM 3.SG.S.PR-PROG
ngarra bardbi?"
1.SG.OBL run
'Where did this bird come to me from?' (p.237, ex.48)

The synchronic combination of an uninflected main verb together with a nonlexical auxiliary appears to have developed out of an original verb-classifying construction containing an uninflected coverb and inflected main verb, similar to that found in Jaminjung (Schultze-Berndt 1998, 2000) and other languages of the northern region, for example Wagiman (Wilson 1999), Marrithiyel (Green 1989), Ngan'gityemerri (Reid 1990), Gooniyandi (McGregor 1990), and Ungarinyin (Rumsey 1982). This is exemplified for Jaminjung in:

- (7) *Mooloorroo-ni gagawooli yoorrg gan-garra-ny Gilwi-ni*
old.woman-ERG long.yam show 3SG.ISG-PUT-PST Gilwi-LOC
'The old woman showed me yam in Gilwi.' (Schultze-Berndt 1998:20, ex.31).

In this construction an uninflected coverb (here *yoorrg*) co-occurs with one (here, *gan-garra-ny*) of a closed class of main verbs (usually ranging in membership from 20 to 40 verbs depending on the language), which has subject and object pronominal prefixes and TAM, as well as some lexical semantics (translated here as 'PUT'). The Wambaya auxiliary appears to have developed from a reduction of this original main verb into a sequence of person-number prefixes and TAM suffixes, with the original coverb class being reanalysed as the synchronic main verb (see I. Green 1995 for some further discussion). This history is reflected in the prefixing of the subject and object bound pronouns to the TAM markers (in Pama-Nyungan languages such as Warlpiri, these person markers are suffixed rather than prefixed).

There are a few correspondences that can be found between Wambaya auxiliaries and Jaminjung main verbs which support this diachronic picture.⁷ Compare for example

⁷ Although there are admittedly not as many of these as one might like, and surprisingly few correspondences between Wambaya main verbs and Jaminjung coverbs.

Jaminjung *ga-rooma-ny* '3SG-COME-PST' with Wambaya auxiliary *g-amany* '3SG-PST.TWD', and Jaminjung *ga-jga-ny* '3SG-GO-PST' with Wambaya *g-any* '3SG-PST.AWY'. The claim that their original status was as main verbs is also supported by Chadwick's (1978, 1979) report that an auxiliary could function alone as the main predicate of the clause in Wambaya. By the time of my work on Wambaya this had become very unusual, although there are a very small number of examples, all containing the directional affix *-uba* 'NP.AWY', in which this is the case:

- (8) *Injani ny-uba?*
 where 2.SG.S-NP.AWY
 'Where are you going?'

In present-day Wambaya 'Where are you going?' would more usually also contain the motion verb *yarru* 'come, go':

- (9) *Injani ny-uba yarru?*
 where 2.SG.S-NP.AWY go
 'Where are you going?'

The dearth of inflection on (synchronic) verbs in modern-day Wambaya is consistent with their source as uninflected coverbs. Verbs in Wambaya have only two (finite) forms: the *-ba* form, which occurs in positive future-tense clauses and in imperative clauses,⁸ and the unmarked form (also the citation form) which occurs in all other contexts.⁹ Nonfinite (subordinate) verbs take one of a small set of suffixes which mark tense relative to the main clause and in some instances switch-reference (Austin 1981a). These suffixes and their functions are discussed in detail in Nordlinger (1998); examples include (30) and (31) below.

3. The category of associated motion

As indicated in (1), the Wambaya auxiliary contains prefixed subject and object bound pronominals and suffixes marking TAM, some of which also mark associated motion and direction. The category of associated motion, whereby a single complex predicate expresses both a main event and another event involving motion (or direction) of one of the participants, has been discussed for a number of Australian languages and appears to be particularly prevalent in the central Australian region. Koch and Simpson (1995), for example, discuss associated motion systems in Kaytetye (see also Koch 1984), Wakaya, Warumungu and Warlpiri (see also Simpson 2001); and Wilkins (1991, 1998) describes the system for Mparntwe Arrernte.¹⁰ Given its prevalence in the region, and especially in

⁸ See Nordlinger (1996) and Nordlinger and Bresnan (1996) for more detailed discussion of the function of this verbal suffix.

⁹ Regular verbs belong to one of two phonologically determined verb classes, which differ slightly in the forms of their unmarked inflections and in the nature of the stem to which the *-ba* suffix attaches. Vowel-final verb roots (e.g. *daguma-* 'hit') add a thematic consonant *-j-* before the *-ba* inflection (*dagumaj-ba* 'hit-FUT/IMP') and remain uninflected in the unmarked form (*daguma* 'hit'). Consonant-final verb roots, on other hand (e.g. *ngaj-* 'see'), have no thematic consonant in the future/imperative (e.g. *ngaj-ba* 'see-FUT/IMP') and take the unmarked inflection *-bi* (*ngajbi* 'see').

¹⁰ Other Australian languages for which related phenomena have been reported (although not always referred to as such) include Adnyamathanha (Tunbridge 1988), Yidiny (Dixon 1977), Diyari (Austin 1981b), Margany (Breen 1981:322), Pitta Pitta (Blake 1979a:204) and Kalkatungu (Blake 1979b:92).

languages such as Warumungu and Wakaya which border Wambaya's traditional territory, it is hardly surprising that we find the category of associated motion in Wambaya also. However, Wambaya is a non-Pama-Nyungan language and, as such, is an interesting addition to this collection of otherwise Pama-Nyungan languages (see §4).

Wambaya has two series of associated motion/direction affixes: AWAY and TOWARDS (abbreviated AWY and TWD). These are portmanteau inflections, also encoding tense (past and nonpast) and imperative mood:¹¹

(10) Tense and motion/direction portmanteaux:

	PAST	NON-PAST
TOWARDS	- <i>amany</i>	- <i>ulama</i>
AWAY	- <i>any</i>	- <i>uba</i>

(11) Imperative and motion/direction portmanteaux:

	SG	DU	PL
TOWARDS	<i>ga</i>	<i>gurlama</i>	<i>girrama</i>
AWAY	<i>gama</i>	<i>gurli</i>	<i>girri</i>

In Nordlinger (1998) and below I refer to these as directional affixes although they have in fact two functions, (i) as markers of direction (e.g. 'away') and (ii) as markers of associated motion (e.g. 'go and do'). The function of the affix in any given clause depends on the main verb that it combines with, as we will now see.

3.1 As markers of direction

Basic motion verbs in Wambaya such as *yarru* 'go/come', *gangga* 'go back/come back', *bardbi* 'run', *baba* 'fly', and *junku* 'crawl' are direction-neutral; they are unspecified as to the direction of the motion they encode. These verbs readily occur with no further specification, in which case the direction is usually recoverable from context.¹²

(12) *Ngaj-ba gurl garrunyma baba-wuli-jangka.*
see-FUT DU.IMP road.ACC brother-DU-DAT

Yarru wurl-agba.
go 3.DU.S-HYP

'You two watch the road for your two brothers. They might come.' (p.226, ex.12)

(13) *Injani gurlu-n yarru?*
where 2.DU.SNP-PROG go?
'Where are you going?' (p.227, ex.18)

¹¹ Chadwick (1978:67) mentions the existence of directional markers in Wambaya and provides a few examples of their use with motion verbs and with *yabu* 'have'. The forms that he gives for these suffixes are identical to those given here (with the exception that *-ulama* 'nonpast, towards' is given as *-ulamany*). Chadwick (1979:685) calls them markers of "direction and motion" and provides one example of their use with the non-motion verb *ngajbi* 'see' to mean 'go and see' (1979:681). He provides no further examples or discussion of their use or of their possible diachronic source.

¹² In these examples, the English translations are those that are appropriate for the context in which the utterance was given. Outside of context, however, the other interpretation (i.e. with the opposite direction) would be equally plausible.

- (14) *Gangga g-a ngurarramba-ni.*
 return 3.SG.S-PST night-LOC
 'He came back last night.' (p.153, ex.5–81)

More usually, however, these verbs co-occur with one of the directional affixes in the auxiliary establishing the direction of the motion event. The affixes in this function, therefore, are equivalent to those which are usually glossed 'hither' or 'thither' in other languages.

- (15) *Iligirri-nmanji ngurr-uba yarru.*
 river.IV-ALL 1.PL.INC.S-NP.AWY go.FUT
 'We're all going down to the river.' (p.152, ex.5–74)
- (16) *Igima g-amany yarru nanga langga-ngani*
 that.one.SG.NOM 3.SG.S-PST.TWD go 3.SG.M.OBL north-ABL
 'He came to him from the north.' (p.250, ex.3)
- (17) *Gangga murnd-ulama ngarli-nka.*
 return.FUT 1.DU.INC.S-NP.TWD talk-DAT
 'We will come back to talk.' (p.153, ex.5–77)

These directional affixes usually take the speaker as their deictic centre. However, as is clear from examples such as (16), when the discourse is told from another's perspective these affixes can take the location of this discourse participant as their reference point.

Imperative constructions with motion verbs always require the presence of a directional marker:

- (18) *Yarru gama dawurdawurra-ni!*
 go SG.IMP.AWY hill.country-LOC
 'Go away to the hill country!' (p.252, ex.24)

Interestingly, Hale's Wambaya notes do not contain directional markers even in this context; having directional adverbials instead (19a). The presence of the Gudanji imperative (singular) auxiliary *nya* in these examples suggests that Hale's Wambaya speaker may have spoken a variety mixing Wambaya and Gudanji features (see fn.2). Example (19a) is taken from Hale (1959:30); (19b) shows the translation into modern Wambaya:¹³

- (19)a. *Yarru nya bangarni . . .*
 go SG.IMP this.way
 'Come here . . .'
- b. *Yarru ga.*
 go SG.IMP.TWD
 'Come here.'

The use of these affixes in their directional function is extremely common with the verb *yabu* 'have' to express induced motion such as 'take' and 'bring'. The combination of *yabu* with a direction marker is the only way to express these meanings in Wambaya, and this is the only example of a non-motion verb combining with a directional affix in its direction-marking function (see §3.2). Examples include:

¹³ I have adapted Hale's examples to the practical orthography used throughout the rest of this paper.

- (20) *Yabu ng-aji lagurra juruma.*
 have 1.SG.S-HAB.PST hole.IV.ACC stomach.IV.ACC
 'I used to have a deep stomach (i.e. I was very thin).' (p.134, ex.4-318)
- (21) *Yabu gun-uba gujinganjanga-nmanji.*
 have 3.SG.M.A-NP.AWY mother.II-ALL
 'He will take (her) to (her) mother.' (p.163, ex.6-16)
- (22) *Yabu ga!*
 have SG.IMP.TWD
 'Bring it here!' (p.153, ex.5-79)

In (20), in the absence of any directional affix, the verb *yabu* is interpreted as meaning 'have'. The addition of the 'AWAY' affix in (21), however, results in the meaning 'take', while the 'TOWARDS' affix in (22) leads to the interpretation 'bring'. Since the absence of a directional affix changes the meaning of *yabu* to 'have', directional affixes are usually obligatory with this verb if it is to have either of the meanings 'take' or 'bring'. However, in some textual examples it appears that the directional affix is omitted when the intended meaning of the verb is considered by the speaker to be clear from context:

- (23) *Yarru ngaya nyanyalu ngirr-aji wugbardi gambardarda-nima.*
 go 3.SG.F.OBL tea.I.ACC 1.PLE.XC.A-HAB.PST cook early-JUST
Yabu ngirr-aji marndanga-nka.
 have 1.PLE.XC.A-HAB.PST white.woman.II-DAT
 'We'd go to her (and) we'd make tea early in the morning. (Then) we'd take (it) to the white woman.' (p.254, ex.26-7)

Once again, Hale's Wambaya notes do not contain directional markers even in non-textual examples with *yabu*, where their presence would be expected in present-day Wambaya:

- (24) *Guyiga nya yabu.*
 fire(wood) SG.IMP have
 'Fetch firewood.' (Hale 1959:4)

3.2 As markers of associated motion

When these suffixes co-occur with non-motion verbs they do not mark direction, but mark associated motion of the kind 'go and do' or 'come and do'.

- (25) *Bungmanyi-ni gin-amany yanybi.*
 old.man.I-LOC 3.SG.M.A-PST.TWD get
 'The old man came and got her.'
- (26) *Ngajbi wurlu-ng-amany ngurra ngarl-warda.*
 see 3.DU.A-1.O-PST.TWD 1.PL.INC.ACC talk-INF
 'They came to watch us talking.'
- (27) *Mawula girri!*
 play PL.IMP.AWY
 'Go and play!'

- (28) *Nayirrundurna irri-n gajurru.*
 women.NOM 3.PLSNP-PROG dance
Gajurru ng-uba irraga-yili.
 dance 1.SG-NP.AWY 3.PLOBL-COMIT
 ‘All the women are dancing. I’m going to go and dance with them.’
- (29) *Ngajbi ng-uba irra gayina irri*
 see 1.SG.A-NP.AWY 3.PL.ACC what.ACC 3.PLSNP
ngarra ngarlwi magi-nka.
 1.SG.OBL say country.IV-DAT
 ‘I’m going to go and see them (to find out) what they will tell me about my country.’

Koch and Simpson (1995) discuss three different temporal relationships that can hold between the motion event and the main event in associated motion systems:

- concurrent** (overlapping, ‘do on the way, do while going along’);
- prior** (‘do after movement’, ‘go and do’);
- subsequent** (‘do before going’, ‘do and go’).

They discuss also a range of paths of motion (e.g. ‘go’, ‘come’, ‘return’, ‘arrive’, ‘upward’, ‘downward’, etc.) and manners of motion (e.g. quickly, steady, slow) that can be encoded. The combination of these various possibilities in some languages leads to complex systems of associated motion, such as that of Kaytetye represented in Table 1.¹⁴

Table 1: Associated motion in Kaytetye (after Koch and Simpson 1995)¹⁵

		Path				
Relative time	Gloss	Come	Go	Go away	Go back	Approach
1. Prior	move and do, do after moving	-yene-	-yene- ~ -nyeyene-		-y.alpe	-y.ayte-
2. Concurrent	do once on the way		-lp.VCV-			
	do repeatedly on the way	-yernalpe	-rr.ape- -rr.ap.eyne-			
	do all the way		-rrVCVrr.eyne -IVCVI.arre-			
3. Subsequent	do and move, do before moving			-rr.ayte -L.ayte	-rr.alpe -L.alpe	
4. Lexical			alpe-yene- ‘go along’	artnpe- rrayte- ‘run away’	artnpe- rralpe- ‘run back’	ape-yayte- ‘arrive’

¹⁴ This table is reproduced from Table C2 on page 3 of the handout from Koch and Simpson (1995).

¹⁵ The Kaytetye verb has the structure VerbStem (Assoc. Motion) (Aspect) Tense/Mood.

In contrast to the more elaborate systems of Kaytetye, Mparntwe Arrernte (Wilkins 1991), and Warumungu (Simpson 2001), the associated motion system in Wambaya is quite basic, consisting only of the binary opposition between 'away, go' and 'towards, come' and the single temporal relationship of 'prior'.¹⁶ Concurrent meanings such as 'go while doing' and subsequent meanings such as 'go after doing' are expressed through the use of a complex clause, with the motion verb in the matrix and the activity verb in the subordinate clause.¹⁷

- (30) *Yarru gi-n niŋi-ni.*
 go 3.SG.S.PR-PROG sing-LOC
 'He's walking (along) singing.'
- (31) *Gangga g-a alalangmiji-nnga Jabiru.*
 return 3.SG.S.PST hunt-ABL jabiru.NOM
 'Jabiru returned from hunting.' (p. 236, ex.36)

In (30), the use of the locative case on the subordinate verb 'sing' marks the singing event as being simultaneous with the motion (main clause) event. In (31), the fact that the motion event follows the subordinate event is shown with the use of the ablative case affix on the non-finite verb.

In associated motion constructions, the motion event is subordinate to that expressed by the main verb. This is shown in Wambaya in (at least) two ways: (i) it is the main verb which determines the transitivity of the clause, as is obvious from transitive clauses such as (25) and (29); (ii) the goal of the motion in an associated motion construction is not marked with the allative case—the regular case for goals of motion verbs, as in (32)—but with the locative case, since it is the location of the non-motion main clause event (33):

- (32) *Yarru murnd-uba magi-nmanji ngarli-nka.*
 go 1.DU.S.NP.AWY camp.IV-ALL talk-DAT
 'We'll go to camp to talk.'
- (33) *Ngarlwi murnd-uba magi-ni.*
 talk 1.DU.INCS.NP.AWY camp.IV-LOC
 'We'll go and talk at camp.'

Examples (32) and (33) demonstrate the two main options for encoding a motion event followed by a non-motion event. In (32), the motion verb is the main verb with the non-motion ('talking') event expressed in a purposive subordinate clause. In this example the goal of the motion ('the camp') is encoded with the allative case, the regular case for goals of motion verbs. In (33) on the other hand, the motion event is expressed with an associated motion affix, while the non-motion verb is the main verb of the clause. In this case, the focus

¹⁶ This raises the question of whether a single binary opposition between 'come' and 'go' can constitute a system of associated motion, rather than simply marking direction. In this function with non-motion verbs, these affixes quite clearly encode a secondary event: *ngajbi ng-uba* means 'I will go and see' and cannot mean 'I will see/look (in a direction) away' (this meaning would have to be expressed with the use of directional adverbials such as *yunumarrga* '(over) that way'), making a simple directional analysis of these affixes untenable.

¹⁷ There may or may not be a directional affix on the main clause auxiliary in such clauses, as discussed for simple clauses in §3.1. Subordinate clauses never contain an auxiliary in Wambaya, and so there is no possibility for the presence of a directional affix in these clause types.

is on the talking (non-motion) event and the goal of the motion, also the location of the talking, appears instead in the locative case.

These two alternative constructions differ primarily with respect to the part of the complex event which is in focus. In the purposive complex clause in (32), the focus is on the motion event; in the associated motion clause in (33) it is on the non-motion event. This contrast in focus is made obvious in the following two lines which begin a short text describing a trip to check on someone's house in the bush.

(34) *Yarru ngurr-any gurdi-nmanji ngaj-barda.*
 go 1.PL.INC.S-PST.AWY bush.IV-ALL see-INF
 'We went out bush to have a look.'

Ngarrga barrawu ngurr-any ngajbi.
 1.SG.POSS.ACC house.IV.ACC 1.PL.INC.S-PST.AWY see
 'We went to have a look at my house.'

These two clauses contain very similar information but are quite different in their syntactic construction. The first clause is a regular complex clause with the motion verb in the main clause (accompanied by a directional affix in its direction function) and the 'seeing' event as subordinate. This construction is used here since at the beginning of the story the most important information is the fact that there was a motion event. In the second clause, once such a motion event has been established, the speaker uses an associated motion construction, subordinating the motion event and focussing instead on the reason for the motion: to have a look at her (newly built) house.

4. Conclusion

The languages of Australia with inflectional associated motion systems are predominantly Pama-Nyungan (Warumungu, Kaytetye, Arrernte, Adnyamathanha, among others). Associated motion in non-Pama-Nyungan languages, on the other hand, is more commonly achieved through verb serialisation constructions, as for example in Gurr-goni (R. Green 1995), Kayardild (Evans 1995; Koch and Simpson 1995), and Marrithiyel (Green 1989). The Wambaya system however is clearly inflectional, as shown for example by the fact that the direction/associated motion affixes are portmanteau inflections also encoding tense and mood.¹⁸ Associated motion in Wambaya, therefore, is much closer to the Pama-Nyungan style of associated motion found in other languages of the region, with a few notable differences:

- (i) The Wambaya system is significantly simpler than the systems of languages such as Warumungu, Kaytetye and Arrernte;
- (ii) The same affixes in Wambaya are used to mark both direction with motion verbs and associated motion with non-motion verbs. In Mparntwe Arrernte, for example,

¹⁸ Although, interestingly, there are a small number of examples in which a serialised construction appears to substitute for an associated motion construction, but this is very rare: *Yarru ngurl-aji lingbalingba* (lit. 'go 1.DU.EXC.S-HAB.PST bogey') 'We used to go and bogey'.

associated motion affixes have only this function and are never found with motion verbs (Wilkins 1998);¹⁹

- (iii) While the associated motion affixes in Wambaya are clearly inflectional, they are separate from the finite verb, being marked instead on the auxiliary.

Associated motion in Wambaya is clearly a result of the more general typological change from an uninflected coverb + inflected main verb structure to an uninflected main verb + auxiliary structure, rather than a separate development involving the grammaticalisation of motion verbs out of an original verbal compound, as has been argued for many Pama-Nyungan languages (Simpson 2001; Tunbridge 1988; Wilkins 1991). Determining the exact source of this system, however, will require some further detailed historical research. The other two dialects closely related to Wambaya—Gudanji and Binbinka—do not have any directional affixes at all,²⁰ having gone further than Wambaya in losing *all* lexical content, including motion, from the synchronic auxiliary.²¹ The other two languages of the Barkly group—Ngarnga and Jingulu—do encode some direction in their verbal/auxiliary system, but there is no obvious correspondence in form between the markers of direction in these languages and the directional affixes in Wambaya.²² The retention of some lexical content in the form of associated motion in Wambaya, then, may be a result of language contact with the surrounding Pama-Nyungan languages as speakers attempted to adapt their system in parallel with the associated motion systems encountered from the south (see I. Green 1995).

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¹⁹ The existence of a set of affixes with these two different functions has been reported for Yidiny (Dixon 1977:219), although in Yidiny these affixes can also not co-occur with the motion verbs *gali-n* 'go' and *gada-n* 'come'.

²⁰ These dialects use directional adverbials to encode direction (Chadwick (1978:91), see also (19a) above). There are no data available to determine how they encode associated motion.

²¹ For the most part, the TAM affixes in Gudanji and Binbinka correspond with the basic (nondirectional) affixes in Wambaya. However, interestingly, *-uba*, the 'nonpast away' directional affix in Wambaya, corresponds to *-uba*, the regular future tense affix in Binbinka (Chadwick 1978:64). This, and the two correspondences with Jaminjung main verbs discussed in §2, are the only clear cognates for the Wambaya directional affixes that I have been able to find in any of the Mirndi languages. More detailed research in this area is needed.

²² Jingulu, also of the Barkly language family although a little more distantly related, has a three-way contrast between 'GO', 'COME' and 'DO' in the auxiliary. The Jingulu auxiliary, however, retains more main verb characteristics, frequently serving as the sole clausal predicate for example (Pensalfini 1997 and this volume), and may represent an intermediate stage between the original verb classifying construction (as in Jaminjung) and the associated motion system of Wambaya.

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28 *The noun phrase in Australian languages*

BARRY J. BLAKE

1. Introduction

The present paper takes as its starting point Ken Hale's (1973) 'Person marking in Walbiri', in which he explored the relationship between the representation of arguments as noun phrases and their representation by clitics in the auxiliary. Hale points out that, where there is a determiner and another nominal in a noun phrase, it is the determiner that determines the person and number of a noun phrase and it is the determiner that corresponds to the clitic. He suggests that the noun phrase might be of the form NP → (N) Det, where Det(erminer) includes what are traditionally called pronouns (1973:317).

The idea of taking determiners to include pronouns goes back at least to Postal (1966). In English and in many languages certain words function as determiners (with a noun) and as pronouns (on their own). These include third-person forms, such as *this* and *that*, and first- and second-person plural forms, which, although occurring mainly on their own, can co-occur with nouns as in *We linguists are always being asked how many languages we speak*, and *You developers are ruining a beautiful suburb*. There are some exceptions. Singular pronouns such as *I* and *she* occur only on their own, and the definite article occurs only with a noun. In many Australian languages it seems that even exceptions like these are lacking. In Pitta-Pitta, for instance, there are feminine and non-feminine third-person forms corresponding to *she* and to *he* and *it* respectively. They can occur on their own as pronouns (1a) or with nouns in an apparent determiner usage (1b) where they have the effect of rendering a noun phrase definite.¹

¹ See Blake (1979b) for further examples. See Austin (1981) for parallel examples in Diyari.

- (1)a. *Nhu-wa-ka yurta-ka.*
 he-NOM-HERE swim-PAST
 'He swam.'
- b. *Nhu-wa-ka karna yurta-ka.*
 he-NOM-HERE man swim-PAST
 'The man swam.'

Even in early amateur studies of Australian languages demonstratives were taken to belong to the pronoun paradigm, since there is often no third-person pronoun in Australian languages and demonstratives fill the gap. Pitta-Pitta is in the minority in having third-person singular pronouns, but note that these are obligatorily suffixed with deictic markers. Demonstratives can co-occur with nouns but not with the traditional pronouns, not only in Pitta-Pitta but in most other languages, I would imagine. If we take demonstratives to be in the same class as the traditional pronouns even when in determiner function, this distribution makes sense.²

Where words of this pronoun-determiner class occur on their own they will presumably be taken to be heads of their phrases, but what is their relation to nouns they co-occur with? In proposing the rule NP → (N) Det, Hale effectively took the determiner to be the head of the traditional noun phrase and the noun to be an optional dependent. In fact the rule should be an expansion of DP, determiner phrase, if the determiner is the obligatory constituent: DP → (N) Det. Hale in fact foreshadowed the reinterpretation of the NP as DP proposed in Abney (1987), supported in works such as Longobardi (1994), and generally accepted in the Chomskian tradition.³

In the literature on Australian languages there are some references to the fact that the traditional notion of a noun head and a dependent determiner might not be correct. Alpher (1976:271) took the noun phrase in Yir Yoront to have a flat structure. Blake (1979b:214) describes the relationship between two nominals in phrases like the one in (1b) as appositional, and considers that the determiner 'could possibly' be the head in similar phrases in Diyari (1987:85, 92). Heath, describing various languages which are like Pitta-Pitta in that case marking appears on each nominal in a noun phrase, also suggests an appositional analysis. Heath casts doubt on whether some sequences of nominals are true phrases in light of the fact that they may be separated by pauses and separated by other constituents of the clause including the verb (Heath 1978:52 on Ngandi; see also Heath 1984:497ff. on Nunggubuyu).⁴

Hale (1981a, 1983) is also responsible for introducing a typological distinction between configurational and non-configurational languages. A configurational language has a hierarchical structure, whereas a non-configurational language has a flat structure (see Austin, this volume). Hale proposed Warlpiri as a non-configurational language. In the extreme case all branches stem from a single clause node, and not only is there no verb

² The Yir-Yoront NP can contain a noun, a pronoun, and a demonstrative together (see examples in Alpher 1991:379, 384, 387); Yir-Yoront is unlike Pitta-Pitta in this regard. Alpher (1976:271) classed Yir-Yoront pronouns and demonstratives together as determiners, without strong motivation in view of their free occurrence together in the same NP.

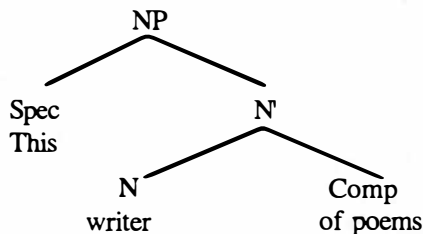
³ The notion that the determiner is the head of the traditional noun phrase is also found in certain other frameworks, such as Hudson's dependency-based Word Grammar (Hudson 1984:88ff.).

⁴ See also Austin and Bresnan (1996) on Warlpiri and Jiwarli.

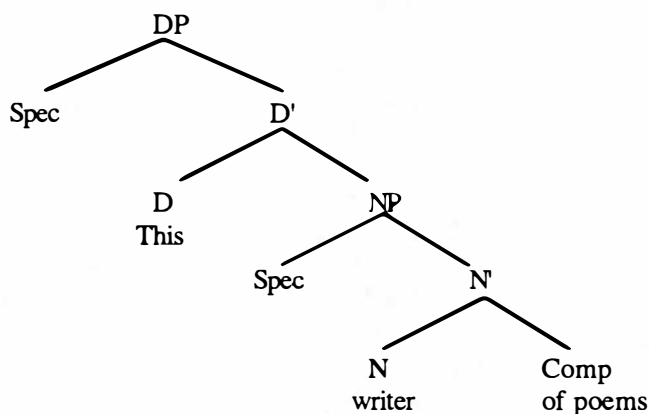
phrase but there are no noun phrases either. Such a view of Kalkatungu was proposed by Blake (1983), and Heath's appositional analyses of apparent noun phrases would appear to imply such a view of clause structure.

In the mainstream literature we can distinguish two configurational treatments of the traditional noun phrase. In the first the noun is the head of the noun phrase and the determiner is a modifier. In early X-bar theory the determiner is in the specifier position, i.e. it is the highest (outermost) modifier (2a). In the more recent DP proposal referred to above, the traditional noun phrase has a determiner as head. In terms of X-bar theory this determiner has its own spec(ifier) and it has a noun phrase as its compl(ement) (2b).⁵

(2)a.



b.



However, there is the recognition that in a non-configurational language the DP might be absent (Lyons 1999:155). We also need to consider whether the hierarchical structure shown in (2a) might also be absent, i.e. that there might be flat noun phrases (as envisaged in Austin and Bresnan 1996:230). Finally, we need to consider the possibility mentioned above of whether there might be no noun phrases at all, the apparent constituents of a noun phrase being direct dependents of a higher predicate, typically the verb.

In this paper I would like to show, using mainly Kalkatungu data, that the pronoun-determiner class is the most general word in the noun phrase and the repository of general grammatical features such as number. It is the constituent that has direct access to the head that governs the phrase, typically a verb, and on this basis is to be considered the head of the phrase. I will assume that juxtaposed nominals in Kalkatungu that represent an argument

⁵ For a comprehensive discussion of approaches to the NP/DP see Chapter six of Lyons (1999) and the references therein.

constitute a phrase, though this is by no means certain. Certainly such sequences can be readily dismembered.⁶ The following is a representative sample of the types of phrase that occur.⁷

- | | | |
|-------|--|-------------------------|
| (3)a. | <i>marapayi yawun</i> (lit. 'woman big') | 'big woman' |
| b. | <i>tjaa-watikaya marapayi</i> (lit. 'this-DU woman') | 'these women' |
| c. | <i>ngalhi kungi</i> (lit. 'we.DU wife') | 'my wife and I' |
| d. | <i>tjaa maa wartatji</i> (lit. 'this vegetable.food orange') | 'the/this orange' |
| e. | <i>tjaa marapayi thapantu</i> (lit. 'this woman foot') | 'the/this woman's foot' |

In English one can make a distinction between determiner phrases and noun phrases, the latter occurring without determiners only in restricted contexts such as predicates: *He is president*. In many Australian languages including Kalkatungu a noun can occur without a determiner in any function and can be interpreted as definite or indefinite according to context. So a phrase such as *marapayi yawun* in (3a) can occur as subject, object, oblique, or predicate (with appropriate case marking). The order is not necessarily as in the examples in (3); other orders are possible and discontinuous representation is very common.⁸ The words have been arranged in order of generality, the more general words preceding more specific ones. This is true in (3a) if we take *yawun* 'big' to be restricting the range of *marapayi* 'woman'. This is the likely interpretation, but theoretically *yawun* could be a head and *marapayi* a modifier, with the phrase having a meaning something like 'female big one'.⁹ As in most Australian languages there is no class of adjectives morphologically distinct from common nouns; however, the translational equivalents of English adjectives characteristically have a modifying function when used in conjunction with other nominals. I take the demonstrative, as in (3b, d and e), to be the more general term in that if one says 'this' or 'that' the reference can be to anything animate or inanimate. The reference is limited by the common noun. With the whole-part construction illustrated in (3e) the whole is obviously more general than the part, and in (3c) we have a non-singular pronoun followed by another nominal. *Ngalhi* refers to the speaker and one other person. The accompanying nominal identifies this person. In (3d) we have the most general term, the demonstrative *tjaa*, followed by the generic *maa* 'vegetable food', followed in turn by the specific type of food, *wartatji* 'wild orange'.

⁶ In Kalkatungu, Pitta-Pitta and many other Australian languages case marking occurs on every nominal, but in many other Australian languages case marking occurs at the end of phrases. In these languages the case marking may appear on every word of a sequence that appears to translate into an English noun phrase, but the presence of case marking on each word can be interpreted as marking separate, though contiguous, phrases. See, for example, the discussion of 'phrase fracturing' in Gooniyandi in McGregor (1989), who points out that different phrasings have different discourse-pragmatic effects.

⁷ Kalkatungu examples are from my own data, and references to field tapes are given where appropriate. See also Blake (1979a). Abbreviations used are: ABL – ablative; ACC – accusative; ALL – allative; APPLIC – applicative; CONTEMP – contemporaneous; DAT – dative; DU – dual; ERG – ergative; FUT – future; IMPERF – imperfect; NOM – nominative; PART – participle; PRES – present; RECIP – reciprocal; VEG – vegetable.

⁸ See (Hale 1981a:6) for similar observations on Warlpiri.

⁹ See Austin and Brasnan (1996:230) on Warlpiri. See also Simpson (1991).

Where the constituents of a notional noun phrase are represented discontinuously, it is typically the more general word that comes earlier in the clause and it is the more general word that corresponds to any pronominal representation in the form of a clitic or person-number inflection (see also Austin, this volume). The pronoun-determiner is the most general word in the noun phrase and it bears the marking for spatial deixis and number marking, as in (3b). Words of the pronoun-determiner class are obligatorily marked for number, whereas common nouns are not normally so marked. These properties are illustrated in the following sections.

2. Discontinuity

Kalkatungu exhibits a marked tendency to represent noun phrases discontinuously and it is common to find the more general word, particularly the demonstrative, earlier in the clause. This is illustrated in the following set of examples. In (4) the demonstrative *nhaa* 'this', which is to be construed with *ngatji nhawurr* 'my child', is presented first. In (5) there is another example of the discontinuous use of this same demonstrative, this time occurring as the second word in the clause.

- (4) *Nhaa nga-thu urnpiyi nga-tji nhawurr mangarnaan-kunha.*
 this I-ERG take me-DAT child doctor-ALL
 'This one I took, my daughter, to the hospital.' (232/5)
- (5) *Nyin-ti nhaa nanya anthakurlayangu ngu-wa ntuwi ntuwu-kangu.*
 you-ERG that saw python which-I pluck hole-ABL
 'You saw the python I pulled out of the hole.' (229/3)

In (6) there are two examples interleaved, one involving the ergative subject *tjipayi* . . . *kunkaku* . . . *nguyinyintu* and the other the nominative object *tjaa pukutjurr*.

- (6) *Tjipa-yi tjaa kunka-(ng)ku pukutjurr-ka lhayi nguyi-nyin-tu.*
 this-ERG this branch-ERG mouse-Ø¹⁰ kill fall-PART-ERG
 'The falling branch hit the mouse.' (228/4)

The next two examples illustrate the use of a generic with a specific. In (7) the generic *maa* 'vegetable food' and the specific *wartatji* 'orange' are adjacent, but in (8) the generic *ati* 'meat' precedes the verb and the specific *thuwarr* 'snake' follows.

- (7) *Thungunpirri nhaa-ka maa-ka wartatji-ka.*
 bad that-Ø food-Ø orange-Ø
 'That orange is bad.' (136/2)
- (8) *Ngayi-ka ati-ntji ari-li thuwarr-ku.*
 I-Ø meat-DAT eat-AP snake-DAT
 'I'm eating snake.' (39/1)

The tendency to discontinuous representation with more general words appearing earlier in the clause is not confined to Kalkatungu. It is reported from a number of languages

¹⁰ The form *-ka* is a word-final suffix, which can appear on any part of speech. It has no obvious function and is glossed as *-Ø*.

including Yidiny (Dixon 1977), Nyangumarda (Geytenbeek 1980:32), and Guugu-Yimidhirr (Haviland 1979:104f.). Dixon (1977:270), noting this tendency in Yidiny, writes, "The part of an NP which precedes the verb is normally a generic noun or a deictic, with specific noun, adjective etc. coming later in the sentence. It seems as if an event is first outlined through a general description of the participants, and then the action; once this is completed, referential details can be filled in".

3. Clitics

A majority of Australian languages have some form of pronominal representation of arguments apart from noun phrases. Typically this pronominal representation is found on the verb or auxiliary verb where it could be analysed in terms of clitics or as person-number inflection, or, in some languages, it is attached to the first constituent in the clause and is clearly a system of enclitics. Jelinek (1984), in an attempt to find configurationality in Warlpiri, proposes that clitics in this language represent arguments and that free noun phrases are adjuncts. This would account for their free ordering. Austin and Bresnan (1996) argue against this, pointing out, *inter alia*, that the relevant noun phrases exhibit a number of different case frames, not a characteristic of adjuncts, and they also point out that free word order is found in languages like Jiwarli that have no bound pronouns.

The tendency to discontinuous representation and the tendency to present a more inclusive word earlier than a more specific one doubtless gives rise to clitics. The general words tend to represent given information and are hence not stressed, and they tend to occur adjacent to the verb or to any constituent that appears in the initial, discourse-salient position. Certainly the clitics correspond to pronoun-determiners whether these occur in pronoun function or determiner function. For instance, in the purposive in Kalkatungu the enclitics are attached to the host *a=*. If a phrase such as *ngalhi kungi* 'we.DU wife' in (3c) occurs as subject, it is the pronoun-determiner that is represented on the verb.

- (9) *Ngalhi kungi a=lhi ingka tawun-kunha.*
 we.DU wife purp=1DU go town-ALLATIVE
 'My wife and I are going to town.'

Normally the pronoun *ngalhi* would not be expressed, leaving an apparent mismatch between the clitic and the noun phrase with which it is to be construed. This is common in Australian languages and is a feature highlighted by Hale in the paper referred to above (Hale 1973).

Another example appears in (10), where the subject is second person dual with one participant being specified as a woman. The agent (and patient!) could have been expressed with a noun phrase of the type illustrated in (3c), namely as *mpaya marapayi* (you.DU woman), but in fact is represented by a second person enclitic on the verb plus a noun phrase. The point is that the clitic corresponds to the potential pronoun-determiner of the noun phrase, a pronoun-determiner which could occur but which is likely to be suppressed in favour of the clitic representation.¹¹

¹¹ The verbal suffix *-ti* marks reflexive and reciprocal and renders the verb intransitive, hence the subject is nominative.

- (10) *Aka-ti-minha-nhu tjaa marapayi.*
 kiss-RECIP-IMPERF-you.DU this woman
 'You and that woman are kissing one another.' (The original translation in
 Aboriginal English 'Yountwofella kissing one another that woman.')

In some Australian languages, mainly in the north of the continent, there are systems of noun classification. Most of these involve prefixes to nouns, and proclitics or prefixes to verbs. Many of these forms appear to derive from generic nouns (including pronoun-determiners).¹² The most likely candidate is the marker for the vegetable food class which is typically *ma-*, *mi-*, or just *m-*. In Yanyuwa, for instance, the word for 'didgeridoo' is *magulurru*, where the prefix *ma-* marks the word as belonging to the food [*sic*] class (Kirton and Charlie 1996). In some languages *ma-* appears as a prefix on the verb representing an argument from the vegetable food class. One could plausibly hypothesise that noun-class affixes and prefixes on the verb both derive from the use of a generic like *maa* in (7) (cf. Dixon 1980:102, 273). An example from Ngandi of *ma-* as a prefix on the verb and as a class marker on nouns appears as (16) below. Note that in (7) *maa* is accompanied by the demonstrative *nhaa*, but in the absence of a demonstrative the generic is obviously the more general term and the one likely to be represented earlier in the clause, as in (8).

With body parts and other parts of wholes it is common for the noun representing the whole and the noun representing the part to be in parallel without any genitive or similar marking for the possessor. Pronominal possessors of body parts tend to be presented early in the clause, part of the generic-early-specific-later tendency referred to above. In (11a) the patient of the verb is represented by *nyini* 'you' preceding the verb and *thapantu* 'foot' following the verb. In (11b) the possessor has been represented on the verb.¹³

- (11)a. *Kupu-ngku nyini itjayi thapantu.*
 spider-ERG you bite foot
 'A spider bit your foot.'
- b. *Kupu-ngku itjayi-kin thapantu.*
 spider-ERG bite-you foot
 'A spider bit your foot.'

We might contrast the expression of inalienable possession in (11) with the expression of alienable possession in (12). In (11a) the pronoun representing the possessor is a direct dependent of the verb, whereas in (12a) the possessor is a dependent of the possessed and is marked by the dative, which has a genitive-like function here. The possessor can be represented on the verb (12c), but only by using a derived applicative verb which enables the possessor to be expressed as a direct object (12b).

¹² Dixon (1977:480ff.) uses 'classifier' as well as 'generic noun' to refer to generic nouns as used in examples like (7) and (8). Wilkins (1993) takes up the term 'classifier', which brings out their similarity with morphological class markers. He also notes that in Arrernte different classifiers may be used with a particular noun according to how the referent of the noun is perceived in a particular context. A word for zebra finch may be accompanied by the classifier specifying 'meat' or 'game', or the classifier meaning 'bird'. The use of different class markers with the same noun is also found in class-marking languages.

¹³ See Hale (1981b) for a discussion of part-whole relations in Warlpiri.

- (12)a. *Kalpin-tu intji-mi nga-tji utjan.*
 man-ERG chop-FUT me-DAT firewood
 'The man will chop my firewood.'
 'The man will chop the firewood for me.'
- b. *Kalpin-tu intji-(n)tjama-mi ngayi utjan.*
 man-ERG chop-APPLIC-FUT me firewood
 'The man will chop me firewood.'
- c. *Kalpin-tu intji-(n)tjama-mi-ngi utjan.*
 man-ERG chop-APPLIC-FUT-me firewood
 'The man will chop me firewood.'

It is the contrast between the inalienable possessor *nyini* in (11) and the alienable possessor *ngatji* in (12) that suggests the interpretation offered here. *Ngatji* in (12a) is fairly clearly a dependent of *utjan* and it is not accessible to the verb. *Nyini* on the other hand is accessible, which suggests it is a head. Implicit in this argument is that accessibility is mediated by a common mother node, and that a mother can usually 'see' its daughter, but only in exceptional circumstances can it see its grand-daughter (daughter of daughter).

Hale explored the idea that the clitics were copies of determiners and pointed out that such a correspondence must be with an abstract determiner. To some extent we could say a potential determiner as we did in connection with (10). Many noun phrases lack determiners, but any definite noun phrase can take one. In Kalkatungu, for instance, the English sentence 'The girls are playing' would typically be expressed by the noun for 'girl' and either a separate word *maltha* 'mob' expressing plural or a third-person plural enclitic on the verb. However, a third-person plural determiner is possible as in (13):

- (13) *Thina-ka wampampala-ka wani-manthi=kina.*
 they- \emptyset girl- \emptyset play-CONTEMP=3PLURAL
 'The girls are playing.' (12/1)

One type that led Hale to posit an abstract determiner was the conjoined phrase. As one might expect, such an argument would be represented by a dual or plural clitic, but there might be no such non-singular pronoun-determiner in the noun phrase and there could even be singular pronoun-determiners with one or more of the co-ordinands. While some Australian languages seem to have co-ordinated noun phrases that are not accompanied by a non-singular determiner, many languages do use such pronoun-determiners and their use is instructive. Consider the following examples from Diyari. In (14) the third-person dual pronoun accompanies the co-ordinands. In (15) it occurs separated from the co-ordinated noun phrase, and it is easy to see how such usage could lead to the use of a cross-referencing clitic. Diyari does not have such clitics (Austin 1981:230).

- (14) *Pula matharri ya wilha ngurra-nhi ngama-yi.*
 they.DU man and woman camp-LOC sit-PRES
 'The man and the woman are sitting in the camp.'
- (15) *Nhanthu nganrri ya kuparru, ngathu pula-nha kari-nha thika-yi.*
 horse mother and young I.ERG they.DU-ACC chase-PART return-PRES
 'I chase the mare and foal back.'

In some languages non-singular pronoun-determiners effectively act as markers of co-ordination, as in the following example from Ngandi (Heath 1978:128), where *bula* is identifiable with *pula* in (14) and (15), both reflecting a widespread root for 'two'. Note that *-bula* does not express dual number here.

- (16) *Ma-wurndan?* *nyarr-ma-ga-ma-ngi* *ma-berge?-bula.*
 VEG-black.plum WE-VEG-DEFOCUS-get-PAST VEG-green.plum-BOTH
 'We got black plums and green plums.'

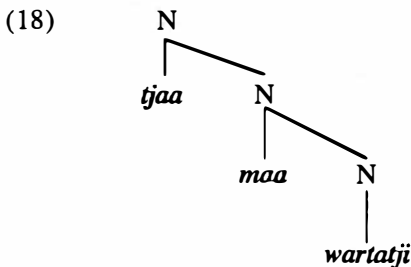
Kalkatungu does not have a marker for conjoined phrases that is clearly a determiner. In Kalkatungu co-ordination is marked by an enclitic =*yana*, which may derive from the widespread Pama-Nyungan third-person plural pronoun *tjana* or *thana* (reflected as *thina* in Kalkatungu). Whether this is the case or not, it can be used on more than one co-ordinand and it covers dual as well as plural.

- (17) *Kintja-(ng)ku=yana* *intji-mi-ngi-yu* *ntiya-(ng)ku* *tjipa-yi* *kurlayingu-thu.*
 female-ERG=and pelt-FUT-me-they.DU stone-ERG this-ERG male-ERG
 'The girl and boy will both pelt me with stones.' (232/6)

4. Conclusions

In light of the complementary distribution between traditional pronouns and traditional determiners it makes sense to consider them a single class. Where these occur as the sole constituent of a phrase they are by default heads. Where they co-occur with nouns, they can be shown to be heads. A consideration of data from English has led to the DP hypothesis, by which a determiner is taken to be head with an NP as a dependent. My preference is to call the pronoun-determiner class pronouns and consider them a subclass of noun, which they surely are by morphological criteria in any language with marking for categories such as case, number or class.¹⁴ This means that we retain the label noun phrase (NP), but recognise that if a pronoun occurs it will be head. It may take nouns as dependents, or on the other hand a noun phrase can occur that has no pronoun-determiner head.

In my view the noun phrase in Kalkatungu involves a succession of head-dependency relations between more general and more specific nominals. Thus a phrase such as *tjaa maa wartatji* (this vegetable.food orange) given as (3d) above would have the structure here shown:



¹⁴ Hale (1981a:49) notes that the principal parts of speech in Warlpiri are nominals and verbs, and that nominals "correspond to English nouns, adjectives, many stative verbs, adverbs and determiners".

In this dependency diagram heads are shown under vertical branches with dependents under sloping branches. The phrase is considered in terms of a series of head-dependency relations. If the head is chosen for earlier representation as in (8) or for clitic representation, the next highest nominal is left as the head. A more general term will be head over a more specific one. Typically a pronoun-determiner, if present, will be head, but there can be more than one pronoun-determiner as in (10) or at least as in the potential variant of (10) in which the argument is represented by *mpaya tjaa marapayi* (you.DU this woman). In such a case the more general pronoun-determiner would be head, in this instance *mpaya*.

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29 *Reminiscences of my meeting and working with Ken Hale in Australia*

STEPHEN A. WURM

Meeting Ken Hale for the first time

When I was visiting the Northern Territory in mid-1959 and reaching Darwin, I knew that Ken Hale, whom I had not personally met before, was in the Darwin area working on Aboriginal languages. After some unsuccessful attempts to find him, I was told by Mr Harry Giese, the Director of Social Welfare of the Northern Territory Administration, that Ken had proceeded to Howard Springs about 20 miles south of Darwin, not far from the highway. He suggested that I should head there immediately to catch up with him. I and my cultural anthropologist and museum curator wife Helen raced down there and stopped at the place indicated. When we got out of our car, out from the low trees came Ken, with his light blonde hair and blue eyes, a very impressive figure. He was there working with a Gunwinjgu speaker. We joined them there for a bush meal. I noticed that his informant had no fingers, only stumps. When he was out of earshot, I asked Ken what was wrong with his man's hands. He said 'leprosy' and gave me an inquisitive look, apparently expecting me to be shocked or frightened, because I had shaken hands with the man. However, I remained completely unconcerned and said: "I thought so"—I was used to lepers from my New Guinea fieldwork where I had worked with informants from a leprosy camp. We said goodbye to Ken, looking forward to meeting him on Mornington Island in 1960. It was a great meeting.

With Ken, Sally and little son Whit on Mornington Island

It had been decided that Helen and I should join Ken Hale and his wife Sally and their little son Whit on Mornington Island in the Gulf of Carpentaria, where Ken was studying the Lardil language. The Gayardild-speaking inhabitants of nearby Bentinck Island had been resettled by the Queensland government on Mornington Island, where they lived as a separate group. I intended to look at their language. We stayed for four weeks with them

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427

there, from late August to late September 1960, and got to know each other very well. Ken and I got together in the evenings to compare notes. I had, and sometimes still have, the habit of timing my working pace for a given task with a stopwatch. I did this whenever I was checking and assessing my notes then, and Ken found this very amusing. Our work proceeded very well, with excellent informants. The Lardil had a secret ceremonial language in which stops were replaced by clicks similar to those found in Khoisan (Hottentot and Bushman) languages and some Bantu languages (e.g. Xhosa) in South Africa. They gave us information on it, and the Lardil were very surprised when they heard me pronounce the clicks well—I had worked with Khoisan languages. Ken also had no problems with them after a little practice. One day we two were walking under some trees and heard someone calling out to us in Lardil from above, also using some words from the secret language. We looked up to find out where the Lardil speaker was who had climbed up into the tree, but all we found was a white cockatoo which called down to us in Lardil! Our work continued well, except that once Ken had a serious problem when little Whit in his playful mood got at his many recorded tapes, which were in marked and inscribed boxes, and took the tapes out of them. After Ken discovered this, it was a very major task to put the individual tapes back into their respective boxes, having to identify their language contents first! On most of the evenings, the leading Lardil Aborigines Lindsay and Dick Roughsea organised some ritual dances of Lardil tribesmen. On some occasions, there were quite large feasts for which the Lardil made elaborate preparations with body painting, preparation of headgear and footgear, armbands, etc., at a location which was to be regarded as secret, but to which Ken and I had access to watch the preparations. Interestingly, my wife, as an expert in Aboriginal culture and customs, was also allowed to watch these secret preparations, which were strictly forbidden to local women. When we left the secret location, an old Lardil whom we met and who was aware of where we had been asked me how I would say where we had been. I nearly told him the truth, but Ken gave me a wink, and I understood. For the old Lardil man, I pointed in the opposite direction, and he was very pleased at my apparently knowing that I was not allowed to give away the location of the secret place.

Before the departure of Ken, Sally, and Whit, and myself and Helen, the two tribes gave us a large evening feast as a goodbye gesture, for which they cooked and barbecued the food and at which many dances were performed by the men and also by individual women. Many photos were made by us with the help of flashlights. Ken, who had been studying Lardil for quite a long time, gave a short speech in that language, and I also said a few sentences in the Gayardild language for the members of the Gayardild tribe who were present.

When I left, I had collected a large amount of information on the Gayardild language, both on paper and on a considerable number of tapes. I was unable to undertake much analysis of this material myself, because for many of the years to follow I was fully committed to work on languages of the New Guinea area, in particular Papuan languages. Two decades after my fieldwork in the language, I went through my written materials with Nick Evans because the translations and explanations were in shorthand illegible to him, and I gave him copies of all my tapes and recommendations to my previous informants. He worked through these materials, and then undertook extensive fieldwork with the Gayardild speakers, publishing his results, first as Evans (1992) (a dictionary with a short grammatical introduction) and then as Evans (1995) (one of the most complete descriptions of an Australian language).

In subsequent years, Ken and I met repeatedly on different occasions. For years, we used to conclude our letters to each other with the Lardil phrase *ɲatju kurritju ɲumpantju* 'I will see you [soon]'. In Lardil, the object of a verb is inflected for tense.

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'Ngarrijbalangi kiyani.' Two men of Ngarrijbalangi subsection, Mornington Island, 1960.

Photo provided by Sally Hale.

30 *Leerdil Yuujmen bana Yanangarr (Old and New Lardil)*

NORVIN RICHARDS

1. Introduction¹

In 1960 and 1967 Ken Hale compiled extensive field notes on Lardil, a non-Pama-Nyungan language spoken on Mornington Island.² At that point the language was still spoken by many adults on the island, although the younger generation consisted primarily of monolingual English-speakers.

In July and August of 1996, Hale, along with Anna Ash, David Nash, Jane Simpson, and the author, returned to Mornington Island to complete a dictionary of Lardil begun by Hale during his earlier visits (Ngakulumungan Kangka Leman 1997a). The language is now spoken by considerably fewer people than in the 60s, the youngest being in their early fifties. No children are learning Lardil as their first language, and the language of daily conversation on the island is a local variety of Aboriginal English, which includes some Lardil expressions (for instance, kinship terms and a number of terms for animals, fish, and plants). Lardil conversation is generally limited to special occasions, such as religious ceremonies. It is worth noting, however, that there has been a recent resurgence of interest in learning to speak Lardil; the community has initiated the creation of a dictionary

¹ Many thanks are due to my consultants, especially Kenneth Jacobs (Kulthangarr), Cyril Moon (Birdibir), and Lindsay Roughsey (Burrurr), for their hard work and patience. *Waa, ngithun kubarda jika-ngada malthurii ngawijmariku kilmuun*. Thanks, too, to Anna Ash, Michel DeGraff, David Nash, Rob Pensalfini, Jane Simpson, the audience at the Australian Linguistics Circle in January of 1997, and especially Ken Hale, without whom this work would have been impossible. None of these people are to be held responsible for this paper's many faults, the responsibility for which is mine alone. One particularly egregious flaw in this paper is the lack of any discussion of similar phenomena in other languages; see, in particular, Schmidt (1985) and Lee (1987) for discussion of recent language change in Dyirbal and Tiwi, respectively. I hope to remedy this flaw in future work.

² For arguments that Lardil is not Pama-Nyungan, see Evans (1995).

(Ngakulmungan Kangka Leman 1997a) and textbook (Ngakulmungan Kangka Leman 1997b), and Lardil classes have begun in local schools. See Ash et al. (in press) for further discussion of the current sociolinguistic situation on Mornington Island.

There are certain systematic differences between Lardil as it is spoken today by its youngest speakers (hereinafter referred to as 'New Lardil') and Lardil as it was spoken at the time of Hale's first work on the language (referred to here as 'Old Lardil'). There has thus apparently been a rapid, and fairly radical, change in the grammar of the language in the course of the last thirty years or so. In this paper I will investigate the nature of this change and speculate about its origins.

Two distinguishing characteristics of Old Lardil are illustrated in the sentences in (1):³

- (1)a. *Ngada latha diini libani.*
 I spear this.OBJ pumpkinhead.OBJ
 'I speared/am spearing this pumpkinhead (fish sp).'
- b. *Ngada lathu diinku libanku.*
 I spear.FUT this.FUT pumpkinhead.FUT
 'I will spear this pumpkinhead (fish sp).'
- c. *Diinku libanku lathu ngada.*
 this.FUT pumpkinhead.FUT spear.FUT I
 'I will spear this pumpkinhead (fish sp).'

As the sentences in (1) show, Old Lardil has a nominative–accusative case system, with morphological inflection for case on the nominal head and its modifiers. Case and tense interact in interesting ways (which I will be unable to discuss here); essentially, morphologically marked tenses are spread to the entire verb phrase. Furthermore, the word order is fairly free; (1b) and (1c) are synonymous in Old Lardil.

Now let us turn to the properties of New Lardil. A typical New Lardil sentence is given in (2):

- (2) *Ngada lathathu diin liban.*
 I spear.FUT this pumpkinhead
 'I will spear this pumpkinhead (fish sp).'

This differs from its Old Lardil counterpart (1b) in a number of ways. One difference has to do with the morphological form of the verb; this will be discussed further in §2.2.3. Another difference is that the case morphology on the object is frequently dropped. Finally, New and Old Lardil differ in that the word order in (2) is by far the most common in New Lardil; a comparison of the frequencies of the various possible word orders for transitive sentences in the New and Old Lardil corpora⁴ is given in Table 1.

³ The abbreviations used in this paper (see Ngakulmungan Kangka Leman 1997a for detailed discussion of these terms) are: ACT – actual (roughly, indicates that a verb is actually occurring or has occurred); DISH – disharmonic (see footnote 11); DU – dual; EXCL – exclusive; FUT – future; HARM – harmonic (see footnote 11); IMP – imperative; INCL – inclusive; NEG – negative; OBJ – objective (marks case on objects); PERF – perfective; PLUR – plural; RECI – reciprocal.

⁴ The Old Lardil corpus in question is a series of texts gathered by Ken Hale in 1960 and 1967 (approximately 5200 words of text). The New Lardil corpus consists of texts and dictionary example sentences gathered by Anna Ash, Ken Hale, and the author during July and August of 1996 (and is approximately 5530 words of text).

Table 1: Old and New Lardil transitive word order frequencies

	SVO	VSO	OSV	SOV	OVS	VOS
Old Lardil	49 (38%)	25 (20%)	19 (15%)	19 (15%)	13 (10%)	3 (2%)
New Lardil	146 (94%)	3 (2%)	4 (2%)	1 (1%)	1 (1%)	0 (0%)

We have seen two major differences, then, between Old and New Lardil; New Lardil has comparatively impoverished nominal morphology and a more fixed word order than Old Lardil. It seems reasonable to assume that these changes are at least partly due to the decline in common everyday use of Lardil and to its contact with English. These two factors are sociologically related, of course, in that Lardil has largely been replaced by English in everyday use. Still, they are linguistically distinct.

One might hold, for instance, that the changes in Lardil are entirely due to English influence; the internal grammars of New Lardil speakers, on this theory, largely or entirely reflect the structure of English, with the only differences between New Lardil and English being the lexical items used. On this theory, New Lardil word order is overwhelmingly SVO because this is the word order of English, and New Lardil, like English, has impoverished nominal morphology. I will refer to this approach as the ‘English influence theory’.

Alternatively, one might believe that Lardil has changed in the way that it has purely because of the scarcity of the Lardil data available to children attempting to acquire Lardil. According to this theory, because Lardil is no longer used as often as it once was, Lardil learners do not hear crucial data which would lead them to posit and acquire the Old Lardil grammar, and they arrive at the New Lardil grammar instead. A theory of this type would owe us an account, of course, of why we see the particular changes that we do. Let us refer to this approach as the ‘scarce data theory’.⁵

These two positions are extremes, and a number of intermediate positions could be distinguished, but, at our current level of understanding, ruling out one or another of these extremes may be the best we can do. In this paper I will try to argue that the English influence theory, though plausible, is in fact incorrect. I will suggest that the scarce data theory is closer to the truth, and will offer an account of why New Lardil differs from Old Lardil in the way that it does.

We saw that New and Old Lardil differ in two major regards, one having to do with morphology, discussed in §2, and the other with word order, discussed in §3. Finally, in the appendices, I will consider briefly a couple of other distinctions between Old and New Lardil which may have arisen.

2. Morphology

Section 2.1 deals with the morphological properties of Old Lardil, and §2.2 focuses on how New Lardil differs from Old Lardil.

⁵ A number of authors have noted that language change appears to accelerate in situations in which children are learning the language on the basis of scarce data; see Dorian (1981), Schmidt (1985), and Maandi (1989) for discussion.

2.1 Old Lardil

In this section we will investigate the morphological properties of Old Lardil in more detail. Old Lardil distinguishes a number of morphological cases, as can be seen in Table 2.

Table 2: Old Lardil nominal morphology

	<i>kirdikir</i> 'moon'	<i>wangal</i> 'boomerang'
Nominative	<i>kirdikir</i>	<i>wangal</i>
Objective	<i>kirdikirdi-n</i>	<i>wangalk-in</i>
Future	<i>kirdikirdi-wur</i>	<i>wangalk-ur</i>
Marked non-future	<i>kirdikirdi-ngarr</i>	<i>wangalk-arr</i>
Locative	<i>kirdikirdi-i</i>	<i>wangalk-e</i>
Genitive	<i>kirdikirdi-kan</i>	<i>wangal-kan</i>
Intransitive allative	<i>kirdikirdi-ya</i>	<i>wangalk-iya</i>
Transitive allative	<i>kirdikirdi-mari</i>	<i>wangal-mari</i>
Intransitive ablative	<i>kirdikirdi-burrii</i>	<i>wangal-burrii</i>
Transitive ablative	<i>kirdikirdi-burri</i>	<i>wangal-burri</i>
Comitative	<i>kirdikirdi-ngun</i>	<i>wangalk-ingun</i>
Proprietary	<i>kirdikirdi-wur</i>	<i>wangalk-ur</i>
Privative	<i>kirdikirdi-werr</i>	<i>wangal-werr</i>
Instrumental	<i>kirdikirdi-wur</i>	<i>wangalk-ur</i>

Old Lardil nominal morphology is added to the *base*, which is often distinct from the nominative or citation form; for instance, the base for *kirdikir* 'moon' is /kirdikirdi/, and the base for *wangal* 'boomerang' is /wangalk/. The citation form is predictable from the base, roughly via the rules given in (3) (for further discussion see Hale 1973; Klokeid 1976; Wilkinson 1988; Ngakulumungan Kangka Leman 1997a).

- (3)a. final high vowels become non-high
 /nguku/ → *nguka* 'water'
 /kerndi/ → *kernde* 'wife'
- b. trisyllabic (or longer) bases are shortened
 /kirdikirdi/ → *kirdikir* 'moon'
- c. monomoraic bases are lengthened
 /ja/ → *jaa* 'foot'
 /yak/ → *yaka* 'fish'
 /jul/ → *julda* 'hair'
 /kang/ → *kangka* 'speech'
- d. final clusters are simplified
 /wangalk/ → *wangal* 'boomerang'
- e. certain final consonants (including all bilabials and velars) are deleted
 /kurkang/ → *kurka* 'panja (edible root)'

Note that although the citation form is predictable from the base, the reverse is not true; identical citation forms may arise from distinct bases, as in minimal pairs like that in (4):

- (4) /wun/ → *wunda* 'rain' (undergoes rule (3c))
 /wunda/ → *wunda* 'stingray sp.' (no change)

Thus, the relation between the citation form of a noun and the base to which nominal morphology is added is opaque.

A version of rule (3c) can also be seen in the domain of verbal morphology. Verbs with monosyllabic bases receive an augment /-tha/ when they are uninflected.⁶ Compare the paradigm for the monosyllabic base /la/ 'spear' with that of the polysyllabic base /kebe/ 'get':

Table 3: Old Lardil verbal inflection

	<i>kebe</i> 'get'	<i>latha</i> 'spear'
Plain	<i>kebe</i>	<i>la-tha</i>
Future	<i>kebe-thur</i>	<i>la-thur</i>
Marked non-future	<i>kebe-tharr</i>	<i>la-tharr</i>
Negative	<i>kebe-jarri</i>	<i>la-jarri</i>
Negative Imperative	<i>kebe-ne</i>	<i>la-ne</i>
Negative Future	<i>kebe-nengkur</i>	<i>la-nengkur</i>
Negative non-future	<i>kebe-nerr</i>	<i>la-nerr</i>
Contemporaneous	<i>kebe-jirr</i>	<i>la-jirr</i>
Evitative	<i>kebe-nymerr</i>	<i>la-nymerr</i>

Thus, the citation form *latha* 'spear' reflects a monosyllabic base /la/. Of course, a polysyllabic base /latha/ would also surface as **latha*; the rules in (3) would make no alterations to such a base. Interestingly, however, there appear to be no verbal bases of this form in the Old Lardil lexicon; that is, there are no bisyllabic bases of which the second syllable is /tha/ (although this syllable certainly occurs in longer bases, as in *darrathala* 'sweat' or *jithale* 'put in coolamon').

2.2 New Lardil

Now let us consider the changes made by the New Lardil speakers to the Old Lardil morphological system. As noted above, New Lardil speakers often do not inflect objects.⁷

⁶ In fact, the augment does appear with certain types of inflection, in particular the prefix *yuurr-* 'perfective' (the only inflectional prefix in the language) and the suffix *-kun* 'actual'. Both of these are arguably clitics; *-kun* appears to be a reduced form of the verb *kunaa* 'to be', and *yuurr-* can sometimes be found in isolation, unattached to the verb (see Klokeid 1976 for some discussion).

⁷ I have not included a count for subjects here; in New Lardil, as in Old Lardil, subjects never receive inflectional morphology. For reasons which will later become clear, this count does not include objects of imperative verbs. For purposes of this count, I counted as 'marked' nominals like those in (a) and (b), in which only part (shown in bold) of the object exhibits case morphology. (a) *Dangka yuud-dene niweni maarn jirrka* (lit. 'person PERF-leave his.OBJ spear north') 'Someone left his spear in the north'; (b) *Ngada barrkithu diinku daljirr* (lit. 'I cut.down.FUT this.FUT wild.cassava') 'I'm going to cut down this wild cassava'. Of the 34 marked objects, twelve were of this type, and of the eleven

Counts are given in Table 4, showing that objects are inflected in New Lardil roughly a third of the time. Here the English influence theory would say that the morphological system of Lardil is becoming more like that of English. On the scarce data theory, on the other hand, the data in Table 4 reflect a conclusion drawn by the New Lardil speakers on the basis of a comparatively small amount of Lardil data, which they presumably would not have drawn had they been exposed to more Old Lardil as children.

Table 4: New Lardil nominal inflection frequencies

	unmarked	marked
objective	66 (66%)	34 (34%)
future	23 (68%)	11 (32%)

To see what this conclusion might be, let us consider more carefully the allomorphs of the Old Lardil objective and future object markers:

- (5)a. *-(i)(n)* Objective
wangalk-i(n) 'boomerang-OBJ'
bultha-(n) 'dust-OBJ'
- b. *-(k)(u)(r)* Future
kurkang-ku(r) 'panja-FUT'
birdibirdi-wu(r) 'crescent moon-FUT'
wangalk-u(r) 'boomerang-FUT'
bultha-(r) 'dust-y'

In Old Lardil, the Objective and Future cases are marked with the suffixes *-in* and *-ur* respectively. For many Old Lardil speakers, however, the final consonants of these suffixes often fail to appear⁸; for a certain set of Old Lardil speakers, then, the suffixes appear as *-i* and *-u*. Furthermore, for vowel-final bases, even these forms often fail to appear in Old Lardil: the objective ending *-i* vanishes after all vowel-final bases, and the Future ending *-u* is not found after bases ending in vowels other than /i/.

In other words, the Objective and Future markings are often absent even in Old Lardil, especially with vowel-final bases. The scarce data theory might therefore claim that New Lardil speakers have generalised this absence of inflection. On this theory, New Lardil speakers failed to realise, from the small Lardil sample from which they were working, that the relevant factor determining whether inflection appears or not has to do with the presence or absence of a base-final vowel. In other words, New Lardil differs from Old Lardil in that the null alternate of certain inflectional suffixes may appear freely, rather than being phonologically conditioned.

future-marked objects, three were partially marked. Ten of the twelve partially marked objects were like the one in (a) in that marking appeared on a modifier rather than on the head noun; all three of the partially future-marked objects had this property.

⁸ Ken Hale (pers. comm.) informs me that the dropped final /-n/ was most common for roots of more than two syllables. Thus, zero marking of the objective may have been more uncommon than I have represented it as being here; it may have been marked on roots of more than two syllables by failure to undergo the truncation rule in (3b), and on shorter roots by the addition of /-(i)n/.

The conclusion that inflectional markers could be freely dropped might have been aided by a collapse of the opaque relation between bases and citation forms which we saw in §2.1. Recall that Old Lardil citation forms are predictable from nominal bases via the rules in (3). Several of these rules ((3c) and (3e)) have the effect of creating vowel-final citation forms out of consonant-final bases.⁹ Suppose that New Lardil speakers have reanalysed these nominals, making the bases identical to the citation forms; thus, the New Lardil base for ‘fish’, for instance, would be /yaka/, rather than /yak/ as in Old Lardil. New Lardil would then have considerably more vowel-final bases than Old Lardil, and consequently more cases in which Objective and Future endings would have a null realisation even in Old Lardil.

In the next three sections we will see some evidence suggesting that the scarce data approach is in fact the correct one; the relevant distinction between New Lardil and Old Lardil is a loss of regular but opaque morphosyntactic rules, such as those which relate bases and citation forms and the one which says that inflectional affixes are dropped only after vowel-final bases. We will see that New Lardil case morphology differs from English morphology in ways which are unexpected on the English influence account.

2.2.1 Imperative objects

In Old Lardil, objects of imperative verbs are in the nominative case:

- (6)a. *Nyingki latha kiini libani.*
 you spear that.OBJ pumpkinhead.OBJ
 ‘You spear(ed) that pumpkinhead (fish sp.)’
- b. *(Nyingki) latha kiin liban!*
 you spear that pumpkinhead
 ‘Spear that pumpkinhead (fish sp)!’

This is apparently also true of New Lardil. While objects of nonimperative verbs, as we saw, are marked for objective case roughly a third of the time, objects of imperatives are almost never marked, as Table 5 shows. The difference between imperative and non-imperative objects is statistically significant ($p < .001$).

Table 5: New Lardil imperative object marking

unmarked	marked
34 (92%)	3 (8%)

This result is expected on the scarce data theory. On this theory, New Lardil speakers and Old Lardil speakers have essentially the same grammar, but New Lardil speakers differ in having generalised the null allomorph of the Objective and Future case endings. We therefore expect New Lardil speakers always to correctly mark objects of imperatives with nominative, which appears to be the case.

⁹ Of course, (3b) has the opposite effect. I have no data to support this, but my impression is that the nouns affected by (3c) are far more common than those affected by (3b).

On the English influence theory, on the other hand, these results are unexpected. If New Lardil objects often drop their case because English objects have no case marking, then New Lardil, like English, should make no distinction between objects of imperatives and objects of nonimperatives.

2.2.2 *Regular and irregular opaque relations*

Further evidence for the scarce data theory comes from the different morphological behaviour of different nominals in New Lardil. Table 6 gives frequency counts for unmarked and marked objective forms of various common New Lardil nominal elements. Recall from Table 4 that nominals in general are marked for objective case 34 per cent of the time.

Table 6: New Lardil objective marking on particular nominals

	unmarked		marked	
	count	percentage	count	percentage
<i>yaka</i> 'fish'	10	63%	6	37%
<i>werne</i> 'food, animal'	15	65%	8	35%
<i>dangka</i> 'man, person'	12	75%	4	25%
<i>bidngen</i> 'woman'	10	100%	0	0%
<i>diin</i> 'this'	27	93%	2	7%
<i>jika</i> 'many'	8	53%	7	47%
<i>ngada</i> 'I'	0	0%	15	100%
<i>nyalmu</i> 'we (pl.excl.dish)'	7	100%	0	0%

By far the most statistically significant result¹⁰ in Table 6 is the behaviour of *ngada* 'I', which appears in the objective form in all fifteen of its appearances in the corpus as an object ($p < .000001$). This might in principle be taken as support for the English influence theory, given that pronouns are also among the few nominals that English declines. Such a theory would have no account, however, for the behaviour of *nyalmu* 'we (plural exclusive disharmonic)';¹¹ New Lardil consistently fails to decline this, although its English equivalent is declined.

¹⁰ Another statistically significant result, which I will not try to account for here, is that *diin* is unusually infrequently marked for objective case ($p < .001$). One possibility is that this is haplology, given that the Old Lardil objective form for *diin* is *diinin*. Note the infrequency of objective marking on *bidngen* 'woman' as well ($p \alpha .02$), which might be explained in a similar way. *Diin* is marked for future case 27 per cent of the time (three out of eleven occurrences), which is comparable to the frequency of other nominals and which would not be expected to trigger the same kind of haplology (the Old Lardil form is *diinkur*).

¹¹ Like a number of other Australian languages, Lardil has two sets of nonsingular pronouns, conventionally referred to as harmonic and disharmonic. The distinction has to do with how the members of the group referred to are related to one another: roughly, if every pair in the group is separated by an even number (including zero) of generations, harmonic pronouns are used, and disharmonic pronouns are used in other cases. Thus, harmonic pronouns might be used to refer to groups of siblings, or grandparents and their grandchildren; disharmonic pronouns would be for groups containing, for instance, a parent-child pair.

In fact, it seems that the most reliable indicator of whether a New Lardil nominal will be declined has to do with Old Lardil rather than with English. What distinguishes *ngada* 'I' from *nyalmu* 'we (pl.excl.dish)' and other nominals is that its declension is entirely irregular, as Table 7 shows.

Table 7: Three Old Lardil nominal declensions

	<i>ngada</i> 'I'	<i>nyalmu</i> 'we (plural exclusive disharmonic)'	<i>kurka</i> 'panja (edible root)'
Nominative	<i>ngada</i>	<i>nyalmu</i>	<i>kurka</i>
Objective	<i>ngithaan</i>	<i>nyalmuun</i>	<i>kurkang-in</i>
Future	<i>ngithantha</i>	<i>nyalmung-ku</i>	<i>kurkang-ku</i>
Marked non-future	<i>ngithunarr</i>	<i>nyalmung-arr</i>	<i>kurkang-arr</i>
Genitive	<i>ngithun</i>	<i>nyalmung-an</i>	<i>kurkang-an</i>

Learning the declension of *ngada* 'I', in other words, is a matter of learning several completely irregular forms. By contrast, *nyalmu* 'we (pl.excl.dish)' has an irregular Objective form but is otherwise completely regular; its base is /nyalmung/, and all of its forms other than the Objective one (including the Nominative form) are predictable from this. Morphologically, then, *nyalmu* is more like *kurka* 'panja' than it is like *ngada* 'I'. Its declension is handled primarily by regular morphophonological rules, and these are precisely the morphophonological rules which, on this analysis, are being lost in New Lardil. New Lardil speakers thus appear to have had enough evidence to acquire irregular forms in certain cases, but not enough to make the generalisations across different forms which are needed to posit a regular morphophonological rule.

2.2.3 Further evidence for reanalysis: verbs

Further evidence for this particular account of the morphological differences between New and Old Lardil comes from the behaviour of verbs in New Lardil. Recall that Old Lardil verbs are subject to a minimal word requirement; monosyllabic stems, when uninflected, receive an augment *-tha* in order to make them sufficiently metrically heavy (Table 8).

Table 8: Old Lardil verb inflection

	<i>kebe</i> 'get'	<i>latha</i> 'spear'
Plain	<i>kebe</i>	<i>latha</i>
Future	<i>kebe-thur</i>	<i>la-thur</i>
Marked non-future	<i>kebe-tharr</i>	<i>la-tharr</i>
Negative	<i>kebe-jarri</i>	<i>la-jarri</i>
Negative imperative	<i>kebe-ne</i>	<i>la-ne</i>
Negative future	<i>kebe-nengkur</i>	<i>la-nengkur</i>
Negative non-future	<i>kebe-nerr</i>	<i>la-nerr</i>
Contemporaneous	<i>kebe-jirr</i>	<i>la-jirr</i>
Evitative	<i>kebe-nymerr</i>	<i>la-nymerr</i>

In New Lardil, on the other hand, this augment *tha* is often reanalysed as part of the verb base; thus, the Old Lardil base /la/ 'spear', for instance, has been changed to /latha/ in New Lardil. Table 9 gives an exhaustive list of all inflected verbs ending in *-tha* in the New Lardil corpus; forms in bold are those reflecting reanalysis of *-tha* as part of the base.

Table 9: New Lardil augment reanalysis

	Future	Negative	Negative Imperative
<i>betha</i> 'bite'	<i>bethajarri</i> (1)	<i>bethane</i> (1)	
<i>wutha</i> 'give'	<i>wuthajarri</i> (1)		
<i>latha</i> 'spear'	<i>lathajarri</i> (1)		
<i>jitha</i> 'eat'	<i>jithathu</i> (3)	<i>jithajarri</i> (1) <i>jijarri</i> (6)	<i>jithane</i> (3)
<i>netha</i> 'hit'	<i>nethu</i> (1)		
<i>ditha</i> 'sit'	<i>dithu</i> (1)		

Again, New Lardil appears to be in the process of doing away with the opaque (but regular) relation between the base and the overt form.¹² On the other hand, completely irregular relations appear to be retained, as was the case with nominal inflection. The irregular verb *waa* still appears in its irregular Old Lardil forms (Table 10).

Table 10: New Lardil *waa* 'go'

	Actual	Future
Regularised	* <i>waa-kun</i> (0)	* <i>waa-thur</i> (0)
Irregular	<i>waangun</i> (31)	<i>waangku</i> (7)

Waa is never changed to a regular verb. Here, again, it looks as though the New Lardil speakers had enough data on Lardil to learn completely irregular forms but not enough to posit regular morphophonological relations between forms; the latter alternations are therefore being lost, while the former are retained.

3. Word order

The second major distinction between Old and New Lardil has to do with word order. New Lardil word order is in practice¹³ considerably less flexible than Old Lardil word order. The

¹² In fact, this may be a case in which morphophonological irregularity has actually been created where none existed before, although (as with many of the conclusions drawn in this paper) more work would be needed to establish this for certain. If the various forms in Table 9 reflect inconsistency on the part of individual speakers as to the treatment of these forms (for instance, if there are New Lardil speakers who use *jijarri* for the Negative form of *jitha* 'eat' but the reanalysed form *jithathu* for the Future), then they have become irregular forms (whereas in Old Lardil they were regular forms, with a regular morphophonological rule forcing the addition of *-tha* in the unaffixed form).

¹³ It is probably worth noting that New Lardil speakers still judge sentences as grammatical which appear quite infrequently in texts. Kenneth Jacobs (Kulthangarr), a fluent New Lardil speaker, volunteered early in our work together his observation that Lardil word order was freer than English word order, using as his example the pair of grammatical and synonymous sentences for 'I will go', (a) *Ngada waangku* (lit. 'I go.FUT') and (b) *Waangku ngada* ('go.FUT I').

first part of Table 11 summarises the facts for sentences containing both a subject and an object, while the second describes sentences in which only a single argument is visible:

Table 11: Old and New Lardil word order frequencies

	SVO		VSO		OSV		SOV		OVS		VOS	
Old Lardil	49	38%	25	20%	19	15%	19	15%	13	10%	3	2%
New Lardil	146	94%	3	2%	4	2%	1	1%	1	1%	0	0%

	SV		VS		VO		OV	
Old Lardil	147	55%	119	45%	179	77%	52	23%
New Lardil	158	92%	13	8%	67	87%	10	13%

These facts are clearly consistent with an English influence theory; New Lardil word order, like English word order, is apparently essentially SVO.

On the other hand, a scarce data theory might be able to handle these facts as well. It is interesting to note that the word orders which have become dominant in New Lardil are also the most common word orders in Old Lardil. We might theorise, then, that some syntactic processes which disrupt the basic word order in Old Lardil have become less available, or less frequently used, in New Lardil. One can easily imagine a connection between this phenomenon and the loss of nominal case endings in New Lardil.

Evidence against the English influence theory comes from the behaviour of a certain class of adverbs. These adverbs are typically preverbal in both New and Old Lardil (Table 12).

Table 12: Lardil preverbal adverbs

	Old Lardil		New Lardil	
	preverbal	postverbal	preverbal	postverbal
<i>buda(a)</i> 'behind'	1	1	2	0
<i>budameen</i> 'behind'	0	0	3	0
<i>jarma</i> 'quickly'	1	0	8	0
<i>maa</i> 'only, just'	9	1	17	0
<i>merri</i> 'again'	4	1	1	0
<i>nguthungu</i> 'slowly'	22	1	5	1
<i>walmaan</i> 'up'	2	1	4	0

In English, on the other hand, most of the equivalents of these adverbs frequently cannot occur in preverbal position. Examples from the New Lardil corpus which would be ungrammatical in English are given in (7)–(9):

- (7) *Bana Kirdikir, niya waa, walmaan waa.*
 and moon he go up go
 'And Moon, he goes, goes up.'

- (8) *...ngada budaa waa kangarakun.*
 I behind go ask.for.food.ACT
 'I'll go behind, asking people for food.'
- (9) *Nyingki jarma kangkakun.*
 you quickly talk.ACT
 'You're talking fast.'

Here, then, is a case in which Old and New Lardil word order behave alike. On the English influence theory this is rather surprising: why should adverbs be unique in escaping the influence of English? There is one clear morphological difference, however, between the adverbs and nominal arguments; in Old Lardil, the latter but not the former carried case morphology roughly indicating their semantic role. In New Lardil, as we have seen, this morphology has partly been lost; it is therefore not surprising that the word order of just those elements which bore this morphology has changed in a certain way.

4. Conclusion

In general, it appears that the role of English per se in the transition between Old and New Lardil is minimal. The differences between New and Old Lardil are not a matter of influence by a particular language, but rather of ordinary language change, probably accelerated by the scarcity of Lardil data available to the New Lardil speakers as they were acquiring Lardil. I have theorised that this language change consists largely of the loss of certain regular morphophonological rules of Old Lardil; various regular alternations have been regularised in favour of a particular form. Completely irregular alternations, on the other hand, have apparently been retained. This seems consistent with a theory in which children acquiring Lardil were exposed to less Lardil data than is typically available to learners of a first language. On this theory, the New Lardil speakers heard enough Lardil as children to learn the Lardil lexicon, including various irregular forms and a number of arguably syntactic facts about Lardil grammar (for instance, the fact that objects of imperatives take nominative case, or that certain adverbs are obligatorily preverbal), but not enough to acquire various regular but language-specific morphophonological rules governing the concatenation of morphemes. The resulting impoverishment of nominal morphology has had effects on the possible orders of nominal elements in New Lardil.

Appendix 1: Negative imperatives

In the appendices I discuss two more apparent differences between New and Old Lardil. In Old Lardil, negative imperatives are formed by addition of a negative imperative suffix *-ne* to the verb:

- (10) *Kunaa, kebene baya.*
 be get-NEG.IMP anger
 'No, don't get angry'
- (11) *Kilmu ngawithurane niya, banda niya thaathur...*
 you.PL.DISH miss-NEG.IMP he eventually he return.FUT
 'Don't be sad about him; eventually he'll come back...'

In New Lardil, by contrast, this suffix does not appear with this meaning in the corpus. It may be that it can still have a negative imperative meaning; the suffix is seldom enough used in the New Lardil corpus that this possibility cannot be ruled out. The attested instances of *-ne*, however, seem to involve a more general negative modal force:¹⁴

- (12) *Diin wurdal birdi; ngada jithane.*
 this meat bad I eat-NEG.IMP
 'This meat is bad; I can't eat it.'
- (13) *Diin thungal burndiny, murndamen thungal,*
 this tree mangrove.cedar mangrove.with tree
bana niwen werne, nyalmu jithane.
 and its fruit we eat-NEG.IMP
 'This tree, mangrove cedar, it grows with the mangroves, and we don't eat its fruit.'

This meaning of *-ne* does not appear to be available in Old Lardil. Negative imperatives in New Lardil are now typically formed using the word *ngawun*. *Ngawun* in Old Lardil seems to be an adverb meaning something like 'only a little bit, with restraint', but it can also apparently have a negative imperative meaning:

- (14) *Ngawun kuubarnga.*
 a.little open.eyes
 'Open your eyes just a little (not too much).'
- (15) *Kernde, kambin thaldii.*
 wife child stand-up
Ngawun merri waa kurrithu burdalu.
 don't again go see.FUT corroboree.FUT
 'Wife, child, get up. Don't go see the corroboree again.'

In New Lardil, by contrast, *ngawun* only appears with a negative imperative meaning:

- (16) *Ngawun dukurme ngithaan.*
 don't deceive me
 'Don't lie to me.'
- (17) *Ngawun duranji.*
 don't poke.RECIP
 'Don't poke each other.'

In New Lardil, then, the Old Lardil negative imperative suffix *-ne* has apparently been reanalysed as having a more general negative modal force, and the adverb *ngawun* is used exclusively to form negative imperatives. As Michel DeGraff (pers. comm.) has pointed out to me, these developments are somewhat reminiscent of the evolution of negation in French, where the older negative head *ne* has largely been lost, to be replaced as the primary overt exponent of negative meaning by a phrasal element *pas*, formerly a noun which was frequently associated with negation.

¹⁴ It is potentially relevant that the cases of *-ne* in the New Lardil corpus all involve verbs like *jitha* 'eat' which have monosyllabic bases in Old Lardil and have been reanalysed with their augment *-tha* as bisyllables in New Lardil.

Appendix 2: Third-person pronouns

It is interesting to note that the Old Lardil non-singular third-person pronouns (*birri* 'they (du. harm)', *niinki* 'they (du.dish)', *bili* 'they (pl.harm)', *bilmu* 'they (pl.dish)') do not appear in the New Lardil corpus. Moreover, there are some examples in the corpus in which the pronoun *niya* 'he/she' appears where we might expect to see plural forms¹⁵:

- (18) *Nyingki yukarr, karan ngakurrwen mangarda jika?*
 you husband where our.DU.INCL.HARM child many

Niya denkawakun wajbelkan laka.
 (they) dance-ACT white.person.GEN way

'Hey, husband, where are all our children? They're doing disco.'

- (19) *Dangka, bidngen warnawu yaka, thurarra,*
 man woman cook fish shark/stingray

barun, kendabal, dilmirru— warnawu.
 sea.turtle sea.turtle/dugong dugong cook

Bana wutha niya Kirdikir, Birdibir
 and give (they) moon crescent.moon

'The men and women cook fish, shark, sea turtles, dugongs—they cook them.
 And they give them to Moon, Crescent Moon.'

- (20) *Diin kiyanda, niya wayithu burdal marndar.*
 this two.person (they) sing.FUT corroboree *marndar*

Bana diin kiyanda, diin kiyanda dangka,
 and this two.person this two person

niya kubarithu, luulithu diin jika mangarda.
 (they) make.FUT dance.FUT this many child

'These two, they're going to sing the *marndar* song. And these two, these two people,
 they're going to fix him, they're going to initiate (lit. 'dance') these boys.'

In these cases *niya* appears to have a plural antecedent. It may be the case, then, that in New Lardil *niya* has become a general third-person pronoun with no specified number; again, this is a language change which cannot be ascribed to English influence. Note that New Lardil, like Old Lardil, has an inclusive–exclusive distinction in the first-person plural pronouns, a singular–plural distinction in the second-person pronouns, and possibly also a dual–plural distinction¹⁶; these distinctions are absent in English, of course.

¹⁵ The referent of *niya* in (19) is not entirely clear, but it seems mostly likely that it is the subject of its clause; it appears in the nominative form, and *niya*, like *ngada* 'I', regularly appears in its objective form when it is an object in New Lardil (also like *ngada*, its objective form is irregular). It is perhaps worth noting that these examples all come from a single informant, our main New Lardil informant, Kenneth Jacobs (Kulthangarr).

¹⁶ Dual pronouns are fairly infrequent even in the Old Lardil corpus, but there are a few examples of their use in the New Lardil corpus ((18) above is one such example).

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31 *Learn Yir-Yoront*

†NGERR-THUY AND BARRY ALPHER

Transcription, translation, and annotation by Barry Alpher, on the basis of fieldwork at Kowanyama.

Kowanyama is an Aboriginal community near the mouth of the Mitchell River on the Gulf coast of Cape York Peninsula (see Map 1 in Sutton, this volume). There in 1978, most people lived away from their traditional lands and received no governmental support in trying to get back to them; alcohol and violence occupied the adult generations; a substantial part of authority over children was ceded to the school, whose personnel were however rotated out of the community every two years; the contexts for use of the indigenous languages of the community were shrinking; and the children were rarely heard using their Aboriginal languages. In many communities faced with these situations, members turn away from recognition that problems exist and that seemingly unrelated problems are connected. But there are some who see rather clearly what is being lost and who devote time to thinking what to do about it. The foreseen loss of a language is a painful prospect, but the problem of renewing is mystifying and daunting. Suppose that it is conceded that education is to take place in the school. What do you teach? How do you begin? Not necessarily where a highly trained linguist would think to begin.

Ngerr-Thuy (Jack Bruno 1909–81) was a Yir-Yoront-speaking Kowanyama resident who had considerable sophistication in the ways of the outside world, including the prison system. He was uncomfortable with the Kowanyama School, both its personnel and its building, a large very white rather fortress-like structure whose construction was said to have been subsidised by the military for easy conversion to a headquarters in a potential attack. He would not go unaccompanied into the building's precincts. Notwithstanding his fear and distrust, however, he saw the school as the place to begin. Quite independently, he turned his attention to the problem of teaching language to the children of the community in a school setting and set about on his own initiative designing the beginnings of a pedagogy. Although an adept at the decontextualised sentences of the linguist's informant session, Bruno preferred to contextualise bits of language whenever possible. He would no doubt have tremendously enjoyed working with Ken Hale in this respect as well as others.

Jane Simpson, David Nash, Mary Laughren, Peter Austin, Barry Alpher, eds,
Forty years on: Ken Hale and Australian languages, 447–452.
Canberra: Pacific Linguistics, 2001.

© †Ngerr-Thuy and Barry Alpher

447

During one of Alpher's extended absences from Kowanyama, Bruno created the following language lesson. He imagined these lines as the speech of a child (or perhaps of a parent to a child) and recited them as a jingle: the pronunciation of each line as transcribed here lasts about as long as that of any of the others. It is intonation-contour-timed verse. The jingle terminates neatly with the rhyme of *ngopol* and *nhoqol*. The numbered parts are stanzas, and the pause between them is slightly longer than the other pauses. These lines should not be thought of as written in stone (or written at all). Bruno recited stanza 1 on a second occasion as *Ngele thonorr kurrtha ngopol, ngart wanyyle*—with words in a different order and with no intonational break except that after *ngopol*.

Learn Yir-Yoront¹

1	<i>Ngele</i> — weINDU <i>ngopol</i> — weINPL <i>thonorr</i> — together <i>kurrtha</i> ; forage:IMP <i>ngart wany</i> /l+e. fish throw+PRP	You and I— all of us together, let's go fishing, to catch fish with hook and line.
2	<i>Poy</i> n 'ngopol— by.and.by weINPL <i>i+pal</i> — there+hither <i>morr-nguwl</i> — afternoon <i>thal/nh+wa+l</i> 'ngopol— return+go+IMP weINPL <i>pen-kith/a</i> — camp+LOC <i>nhoq</i> /o+l. here+LOC	By and by we, from out there, late afternoon, we'll come back to camp, to this place.

¹ Abbreviations used in glosses are as follows: ACC – accusative case; CNT – continuative aspect; DC – dependent (adjoined relative) clause marker; DSD – desiderative ('want to, will'); DUR – durative (predicate describes a lasting state); EMPH – 'emphasis': following verb carries new information; EXDU – exclusive dual; gP – general past (often imperfective); IMP – imperative; INPL – inclusive plural; INDU – inclusive dual; LOC – locative (function of ergative case); nP – non-past tense; P – past tense (never imperfective); PRP – purposive ('in order to'); TR – transitivity marker (forms a transitive verb from an intransitive one). Notational conventions for interlinear glosses are: X:Y (colon), the expression of grammatical categories X and Y is morphologically fused; X.Y (full stop), the English words X and Y are part of the gloss of a single Yir-Yoront form. See the end of the paper for notational conventions used in the Yir-Yoront text.

Written out as normal language:

*Ngele ngopol thonorr kurrtha, ngart wanyvle.
Poyn ngopol i pal morr-nguwl thalnhwal ngopol,
pen-kitha nhoqol.*

This dictated and transcribed, it was tried out in some language lessons to adult non-Aborigines at Kowanyama: "Memorise this". It was an engaging start for a programme for children and adults that might have been, given some lasting official support. What it 'meant', however, was not obvious to an outsider and, prodded, Bruno created "'Don't leave me": a father indulges his son': children's talk, early days—a follow-up to 'Learn Yir-Yoront'. The child is first stipulated as a son, but by line 17 it is clear (as Bruno improvises) that at least one daughter as well as at least one son is involved. It is a lesson not only in language but also in community norms: children are not abandoned to violence; their father indulges them; their mother gets the work.

Don't Leave Me

Mother to son:

- | | | |
|---|--|---|
| 1 | <p><i>"Thuwa;</i>
son

<i>ngorto nhoq pen-kith/a.</i>
you here camp:LOC</p> | <p>"Son,

you [stay] here at the camp.</p> |
| 2 | <p><i>Ngelen Ping yarra kurrtha+rr;</i>
weEXDU father away forage+nP

<i>ngart wany/l+e."</i>
fish throw+PRP</p> | <p>Father and I are going out
fishing,

to catch fish with hook and line.</p> |

Son:

- | | | |
|---|--|--|
| 3 | <p><i>"Ping— nginhi ngala tharr.</i>
Fa me:ACC don't leave:IMP</p> | <p>"Father! Don't leave me!</p> |
| 4 | <p><i>Nginhi nga@ thonorr ya+rr nguwl.</i>
me:ACC don't together go+IMP weINPL</p> | <p>Me—Let's go together.</p> |
| 5 | <p><i>Nginhi yarra kurrtha/rr+on.</i>
me:ACC away forage+TR:IMP</p> | <p>Take me out fishing.</p> |
| 6 | <p><i>Pen-kith/a kar nhilin/n+v/ng 'y.</i>
camp:LOC not sit:CNT+DSD I</p> | <p>I don't want to keep sitting down
about the camp.</p> |
| 7 | <p><i>Ngul nginh pam powvlow+l oq.</i>
then me:ACC because hit:CNT+nP here</p> | <p>Because then they'll
beat up on me here.</p> |
| 8 | <p><i>Lerrn an yamar.</i>
children here many</p> | <p>There are many children here.</p> |
| 9 | <p><i>Ngopol thonorr.</i>
weINPL together</p> | <p>Let's be together.</p> |

- 10 *Ngart ng'n pala/l+v ngoyo, ngi+korr;*
 fish DC eat:CNT+DSD I there+back
Ping#/"
 Father
- Father:
- 11 *"HaNQ kuwa;*
 yes let's.go
thonorr kurritha nguwl;
 together forage:IMP weINPL
Ngama+lon;
 mother+with
kurritha nguwl yirr."
 forage:IMP weINPL away
- Son:
- 12 *"A-woy, Ping— ngopol-lon;*
 yes father weINPL-with
kurritha+rr, yarra nh ngart wany/l+e."
 forage+nP away DC fish throw+PRP
- Narrator:
- 13 *Lerrn awr, worryvrrl,*
 Children those long.ago
kar+w tharr/l+nh+y.
 not+DC leave+gP+DUR
- 14 *Pam+l-pirr+l a kurritha/rr+on/n+nh.*
 father+ERG EMPH forage+TR+gP
- 15 *Lerrn awr a pay/l+nh,*
 children those EMPH cry+gP
kirr/i+rr nh.
 behind+LOC DC
- 16 *"Ping, nginhi ngala tharr;*
 father me:ACC don't leave:IMP
nginhi ngala tharr."
 me:ACC don't leave:IMP
- For I want to eat fish round
 about out bush there,
 Father.”
- “All right, let’s go;
 let’s go fishing together;
 with Mother as well;
 let’s go off fishing.”
- “Yes, Father—all of us together,
 will go fishing, out to catch
 fish with hook and line.”
- The children, in the old days,
 [we] never used to leave them
 behind.
 [Their] father would take
 them fishing.
 Those children would cry,
 back there.
- “Father, don’t leave me,
 don’t leave me!”

The father says to his wife:

- 17 “*Lerrn i, Puth+Kiwrr i,*
children those daughter there
Puth+Pam i, nga yam.
son there EMPH carry:IMP
“Those children: Daughter there,
Son there, bring them.
- 18 *A kurrtha/rr+on ngel.*
EMPH forage+TR:IMP weINDU
Let’s take them fishing.
- 19 *LoQ@ awr @ low i kith @*
there crying there
kithkiyw pala+l inhn,
incessantly cry:CNT+nP there:DC
low inhn.
crying
Crying there—
because they won’t stop
crying there,
that crying there.
there:DC
- 20 *A kuy/l+aw.*
EMPH call+go:IMP
Go call them.
- 21 *Yarra kurrtha/rr+v nguwl;*
away forage+DSD weINPL
Puth+Pam +lon;
son also
Puth+Kiwrr +lon;
daughter also
kurrtha/rr+v.
forage+DSD
Let’s all of us go out fishing,
including Son,
including Daughter,
let’s go fishing.
- 22 *Ngart i+korr pala/l+v.*
fish there+back eat:CNT+DSD
We want to eat fish round
about back there.
- 23 *Poyn morr-nguwl thallan/n+v*
by.and.by afternoon arrive:CNT+DSD
nguwl i+pal.
weINPL there+hither
By and by in the late
afternoon we’ll be calling
back in from out there.
- 24 *Mel-wiqi@ larr-mel-wiqi thallan/n+v#*
twilight twilight arrive:CNT+DSD
We’ll be coming in at twilight.
- 25 *I+korr ngolngonm/nh+v#*
there+back stay:CNT+DSD
ngonm/nh+wa/l+v.”
stay+go+DSD
We’ll stay around for a while out
there;
we’ll go and stay.”

The evident longing for more responsible times reflects an unease that was by 1978 quite old. Some time in the early 1930s, while most Yir-Yoront speakers lived most of their lives away from the direct influence of Mitchell River Mission (later Kowanyama), a twelve-year-old boy murdered a four-year-old boy while they were alone in camp, their elders having gone off to hunt. The young boy had heard voices saying he was to die, and/or the

older boy had heard voices saying he was to kill him. The older boy was speared nonlethally as a traditional punishment; nonetheless the police picked him up and sent him to Palm Island, where he spent the rest of his life. People knew even then that society was coming unglued. Jack Bruno in 1978 was not inclined to compartmentalise language lessons separately from the state and needs of society.

Notes to 'Don't Leave Me', by line number:

6. Or "I don't want to keep staying at the camp."
8. Or "These children are numerous."
17. A woman could also use these kinship terms in the same form speaking to her husband.

Notational conventions for sounds, other than the usual practical-orthographic conventions:

- N (after a vowel symbol) nasalisation
 q the phoneme glottal catch
 Q glottal catch other than the phoneme

Notational conventions for intonation:

- ' (straight apostrophe) main clausal stress (centre of intonation) on the following form (not written if the stressed form immediately precedes a verb)
 #/ fall-rise terminal intonation contour
 . (full stop) final fall
 ; final fall (phonetically identical to full stop, but with following material possibly in a syntactic relation with the preceding)
 , (comma) half-fall and quick continuation
 % half-fall
 — mid to high level tone throughout intonation contour; 'e—' is a drawn-out vowel with non-falling pitch at the end of one of these ('recapitulation') contours
 @ hesitation (usually with glottal catch)

Notational conventions for separation of Yir-Yoront morphemes:

- X+Y (1) X is stressed relative to Y (word stress for the sequence) or (2) Y is an inflectional suffix; (2) is always reflected as "+" in the glosses, but (1) is reflected only when separate English glosses for the parts make sense.
 X-Y Y is stressed relative to X (compound, or phrasal, stress for the sequence). Not reflected in the glosses.
 X|Y Y has no morphological value and is present as a thematic vowel or for phonological reasons only. Not reflected in the glosses.
 X:Y Y is an inflectional category of X, but they are morphologically sufficiently fused as to render a written boundary arbitrary.

32 *Talking language*

PETER SUTTON

Introduction: a little history¹

In 1960 Ken Hale spent 1–17 August at Aurukun Mission, Cape York Peninsula, recording basic materials in five different languages.² Given that he spent such a short time there, it is remarkable that Aurukun people have remembered him ‘talking language’ with them in a competent way, long after the event.

In 1972 Ken sent a taped message for an unspecified audience in one of the languages, Linnghithigh, to Bruce Rigsby at Bamaga. This tape was destroyed during the 1974 Brisbane floods, when it was lodged in Athol Chase’s house near the river. In 1976, Ken sent a new tape in Linnghithigh to Fred Kerindun, the son of Sam Kerindun, the latter having passed away by then.³ Sam had been one of Ken’s main linguistic consultants at Aurukun. His was a phonologically difficult Northern Paman language with little overt resemblance to the Wik

¹ Primary acknowledgments are due to the Wik and Wik-Way peoples of western Cape York Peninsula for their longstanding commitment to collaborative efforts with scholars who have carried out fundamental ethnographic research among them, myself included. Scholarly assistance with knowledge is acknowledged elsewhere in the text below, but particular thanks are due to John von Sturmer and David Martin for sharing major cultural mapping data on which I have based parts of this paper. Funding for the research behind this paper came from the AIATSIS, the Commonwealth Department of Education, the University of Queensland Department of Anthropology and Sociology, Aurukun Shire Council, Aurukun Community Incorporated, the Department of Aboriginal Affairs, the Australian Heritage Commission, the Australian Research Council, and the Cape York Land Council. I thank Barry Alpher, David Nash, Bruce Rigsby, Nicolas Peterson, and John von Sturmer for helpful comments on earlier drafts. I thank Regina Ganter for providing the translation of Richter (1910) from the German.

² These included the northern Paman language Linnghithigh, a Wik variety known as both Wik-Ep and Wik-Me’enh (two others are known as Wik-Ep and Wik-Me’enh, respectively), Wik-Ngatharr, Wik-Mungkan, and Kugu Muminh, the later being a Wik language also and a variety of Kugu Nganhcara. His informants included Sam Kerindun (Linnghithigh), Joe Marbendinar (Wik-Ep–Wik-Me’enh, Wik-Ngatharr, Wik-Mungkan), Jim Henry (Wik-Mungkan), and Billy Ngakapoorgum (Kugu Muminh). The dates of Ken’s visit are derived from the Aurukun Mission Diary. Information about Ken’s informants is from copies of his field notes held at AIATSIS, Canberra. Aurukun is now a local government area township. See Map 1.

³ “All thought it a prodigious achievement” (John von Sturmer, pers. comm.).

languages Ken had also studied in this instance.⁴ The Aurukun people's perception that Ken was able to absorb a language in an extraordinarily short time was no exaggeration.

The Aurukun Mission diary of the day, chiefly maintained by Superintendent Reverend William MacKenzie, was rather more offhand in its response to Ken's visit. Diary entries such as "Grind valves and re-cut seats on kerosene engine" or "repaired broken brake-line Ford Blitz" are typical and indeed more frequent than anything to do with culture, but in this case there are at least the following:⁵

Aurukun Mission diary entries:

Monday 1 August 1960: Watt Leggatt [a boat, probably from Mornington Island] arrived 5.30. Ted Butler, Dr Hale, Gully, Pompey, Prince, Larry and Dick.⁶ Had good trip.

Tuesday 2 August 1960: Dr Hale had Sam Kerindun to help him with Lengitie⁷ Language, also Polly [Blowhard].

Friday 12 August 1960: Dr Hale still working with Sam.

Sunday 14 August 1960: Jack⁸ and Ken Hale went to Wutan afternoon load girls to pick up coconuts.

Wednesday 17 August 1960: Reliance [mission boat] away 7.30. Ted Butler and Ken Hale went up [presumably to Weipa⁹], also 3 Mornington men.

⁴ See Hale (1964, 1966, 1997a).

⁵ Bill MacKenzie was, according to his own record, a "cot case" with ill health for most of Ken's visit, but his diary entries for this period were no different from the usual. It is of note that they move from referring to "Dr Hale" to "Ken Hale" by late in Ken's visit, probably a sign of something positive in MacKenzie's reception of Ken. It is certainly in contrast with his use of the formal "Mr McCarthy" all the way through the Aurukun diary entries covering Frederick McCarthy's ethnological visit to Aurukun of 16–29 November 1962, for AIAS. This visit was cut short when MacKenzie arranged for the manager of the nearby Weipa mine to fly McCarthy out before his expected field time had expired. Earlier MacKenzie had come into conflict with anthropologists then working in the area (Ursula McConnel in 1927–28 and 1934; Donald Thomson in 1933) over their criticisms of the mission regime's severity. Both at times became unwelcome as visitors to Aurukun.

⁶ These men were probably Gully Peters, Pompey Wilson, Prince Escott, Larry Lanley, and Dick Roughsey, from Mornington Island. Ken Hale spent two months there between July and October 1960 (Ngakulmungan Kangka Leman 1997:3–6). The Aurukun and Weipa trips seem to have been interpolated into this more extensive fieldwork.

⁷ Linnghigh.

⁸ This may have been Jack Walmbeng, also known as Jack Chickenbark (from 'skinbark [canoe]'), or a mission staff member.

⁹ The people Ken worked with at Weipa included those listed below, although no date or place is provided in the field notes that I have seen. I have respelled personal names as most often officially recorded and added surnames where I know who the people were from my own work in the area. As in most other cases dealt with here, the main consultant (informant) is usually both a full owner of the variety concerned (not merely a competent speaker of it) and a, if not the, politically pre-eminent member of his or her land-holding group. I take this to be an index of the cultural and political importance attached to acting in this role. It is notable that many others' linguistic and anthropological consultants have been the 'bosses'. In this case Ken's consultants were Tictic (Yinwum), Frank Moreton (Ngkoth), Andrew Mark (Arritinnghigh), Willie (Mbiywom), Robert Hall (Ndrwa'angith), Monty Motton (Ndra'angith), Arthur Dick (Mamngayth), Hector (Ndrwa'angayth), and Keepas (Alngith(igh)); and, presumably at Weipa, Uradhi (William Ducie), David Cockroach (Mpalitjanh), Joseph Catfish (Luthigh), and [name not recorded in field notes] (Thyanhngath).

And that is it. There is however an intriguing entry about an outbreak of mild bolshevism which occurred just after Ken's departure:¹⁰

Saturday 20 August 1960: People wanted talk with Rev Sweet¹¹ & self. some grievances over no work. mostly of infantile nature. Denny B re store wages. Morrison re wages. Allan re child endowment. Paul re people having children¹²—repercussion from Mornington Islanders. Went on till 1.15. J.R.S. [Rev Sweet] explained shortage of money. Most of the men very loyal. . . . Sam [Kerindun] offered that people's Communion offering be devoted to money shortages. RS [Rev Sweet] very graciously thanked him but that would not be enough.

Cultural implications of 'talking language'

One day in about 1976 a Wik man, Peter Peemuggina, asked me if I knew a 'Doctor Keneyl', and, if so, how and where was he? I had been studying Ken's foundational work on Australian languages since 1969 and in 1973 Ken, Geoff O'Grady, and I had travelled to Darwin while they advised Northern Territory education authorities on the establishment of a bilingual education program for Aboriginal children in schools. In 1974 Ken had taken part in a conference on Cape York Peninsula languages which I had convened, and in 1976 Ken published several of his papers on the Wik region and nearby areas in the conference proceedings.¹³ So I replied to Peter that I did indeed know Ken, who was often at home in America.

This was not the last time Wik people inquired after Ken or brought his name up in conversation, the most recent to my knowledge being in 1999.¹⁴ He clearly made a significant impact on them. They also spoke of the anthropologists Ursula McConnel and Donald Thomson, who had spent many months living among Wik people in the 1920s and 1930s. It was understandable that these two long-stayers would be remembered. Stories about them were told and retold by fires on the long evenings of quieter days, by those who had known them personally. In terms of the time he had spent there, Ken was just another short-term visitor whose name and identity would normally have been forgotten like all the others, but this was not how people saw it at all.

What made the difference, as I understand it, was Ken's ability to speak local languages, at least to an extent and well, in a phenomenally short time. No doubt another factor would have been Ken's capacity to relate to the people from whom he was learning. The very act of approaching their languages with seriousness, and taking the trouble to study them carefully, combined with what was probably a rather startling ability to sound like he was born there, would all have smoothed the way to being memorable.

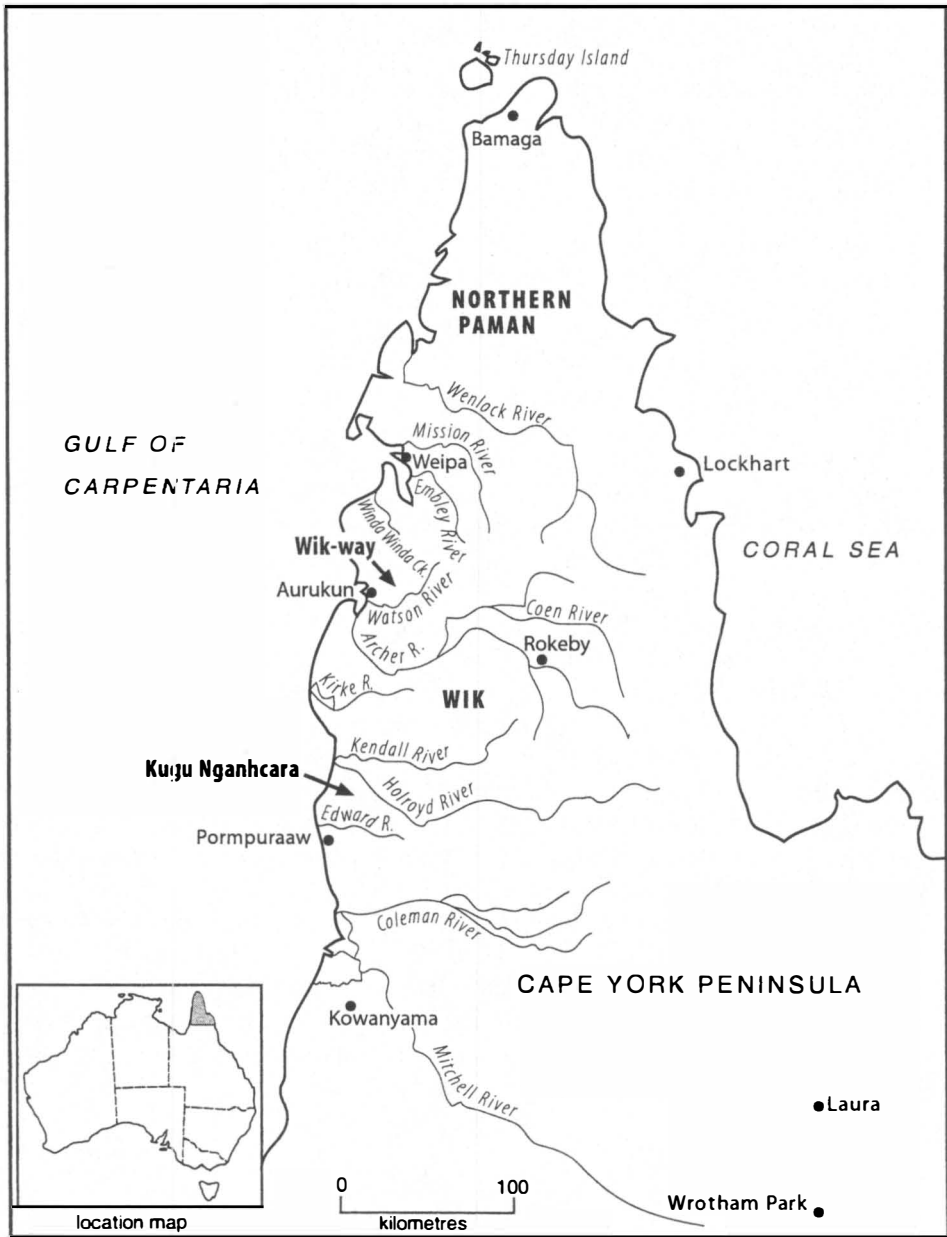
¹⁰ As a matter of context, the MacKenzie regime was very autocratic and morally strict and at times involved corporal punishments decided upon by the Superintendent.

¹¹ The Reverend James R. Sweet.

¹² The four persons just named were Denny Bowenda, the late Morrison Wolmby, the late Alan Wolmby, and the late Paul Peemuggina, all Cape Keerweer men.

¹³ See Hale (1976a, 1976b, 1976c).

¹⁴ Amanda Reynolds (pers. comm.).



Map 1: Cape York Peninsula: places and language groups referred to.

I doubt, though, that even this feat alone would perpetuate such memories of a brief visit four decades later. I think a deeper and specifically Aboriginal cultural factor is also at work here.

In a small-scale society it is possible, and in fact in Cape York Peninsula it was highly likely under classical cultural conditions, that an adult would personally know and be genealogically related to everyone else who shared a common primary language affiliation, especially at the level of the named language variety.¹⁵ In the Wik region this was the case whether the affiliation was at the level of the small patrilineal clan groups which averaged around twenty or so members and which are dialect-holding entities, or at the level of the proper-named linguistic varieties held by a number of different clan groups, or even at the level of linguistic macro-groupings which are based on a recognition of degrees of grammatical and lexical similarity between sets of separately named varieties.

In at least several areas of Cape York Peninsula the small countries classically held by patrilineal groups constituted the elemental linguistic unit in terms of language-related territories, and the groups holding them (loosely: 'clans') were the smallest formal sociolinguistic groups in local ideology. In the Wik region the speech variety allotted to such a clan at the foundation of the world was typically known as '*Wik X*' (in the south, '*Kugu X*'), X being in each case the name of a principal totem of the clan, but these are descriptive phrases rather than proper names as such.¹⁶

Examples of terms for clan patrilineals include *Nguungk Piith* 'Grassbird Language' and *Nguungk Chiynchiyn* 'Bushrat Language'.¹⁷ Proper names of linguistic varieties shared by a number of clans (sometimes possessed by only one clan) are instead built on lexical items which are characteristic of the named variety. This is not to say that these lexical items are unique to the variety, merely that the variety is distinctive from certain relevant other varieties in the specified way. Such relational terms usually fall into contrast sets of several like-named entities such as *Wik-Me'enh*, *Wik-Keyenganh*, *Kugu Muminh*, and *Kugu Uwanh*, all meaning 'language + move'. People also recognise that some such differently named varieties belong to macro-groupings, although these are not always perfectly aligned with a linguist's technical ideas of subgroupings as they do have considerable geopolitical content. Notable macro-groupings in the area discussed here are *Kugu Nganhcara* in the

¹⁵ Actually, not all Cape York Peninsula language varieties had names, but in those cases known to me the different varieties could still be identified by salient linguistic characteristics, or by references to the main totem of a clan owning the variety, or by a 'big country name' for one of the areas the language belonged to.

¹⁶ I hyphenate proper names of linguistic varieties such as *Wik-Mungkan* or *Wik-Ngathan* because they are single phonological words with primary stress on the first syllable. A clan 'patrilineal' label (Smith and Johnson 2000:358) such as *Wik Thuulk* (Brolga Language) or a southern Wik variety name such as *Kugu Muminh*, by contrast, consists of two phonological words. This alternation is found across a much wider region. *Guugu Yimithirr* (north of Cooktown) is two phonological words, but *Gugu-Badhun* (upper Burdekin River) is one.

¹⁷ *Nguungk* is the respect form appropriate to a totemic reference, but not obligatory, and *wik* is the unmarked form, in this language (Wik-Ngathan). Both mean 'language, speech, story', as also does *kugu* further south, within the Wik subgroup.

south and *Wik-Way* in the north.¹⁸ Even at this level an adult would normally have known and been related to all other adults in the same macro-grouping.

Linguistic organisation in a small-scale society¹⁹

The number of patrilineal groups identified with each proper-named linguistic variety in the *Wik-Way* area is not large. Some figures on the number of clan estates identified with each proper-named linguistic variety in the area between the Embley and Archer Rivers will illustrate the point:

18 *Wik-Way*, 'language difficult/bad', is originally a term for the languages north of the Archer River along the coast, as spoken of in the languages of people from south of the Archer to about the Kendall River, i.e. it is an exogenous term by origin, although it has been adopted as a self-descriptor in recent decades by people from much of the area between the Archer and Embley Rivers, especially those resident at Aurukun. *Wik-Way* languages are members of Hale's Northern Paman subgroup, which extends from the Archer to the tip of Cape York Peninsula (see below). Here I also include data for some other languages of the same subgroup which come from areas just east of the coast, but which are not now necessarily classed as *Wik-Way*, e.g. *Anathangayth*, *Ngkoth*, *Mbiywom*. The *Wik* languages 'proper' come from the area between the Archer and Edward Rivers and inland to about Rokeby in the north and south-east across to Stewart River and Running Creek on Princess Charlotte Bay (see below). They belong to Hale's Middle Paman subgroup, along with certain other languages of the Peninsula's east coast and hinterland. The *Wik* languages proper include *Kugu Nganhcara* (= *Wik-Ngencherr* in some other *Wik* languages). They may be referred to in a gross sense and by members of neighbouring groups as 'Mungkan' and the people as 'Mungkan-side' or 'Mungkan mob'. Since the *Wik* native title claim, the use of *Wik* as a cover-term has spread from academic usage, where it has been long established, to those described. Some Aurukun usage, however, is now distinguishing 'Wik' from 'Kugu' areas and peoples within the academically defined *Wik* domain. McConnel (1930:97) had referred to "a group of tribes, characterised by names formed with the word *Wik*, signifying 'speech' . . ." and to the "*Wik* tribes" (McConnel 1936:455); Thomson (1936:374) wrote of the "*Wik*-speaking peoples"; others have continued the usage. *Wik-Mungkan* was already something of a lingua franca in at least the north-western sector of the *Wik* region in the early twentieth century, before most people from that area settled at Aurukun, but it has become even more so in the last seventy or eighty years. The semantics of its name ('language + eat') puts it into a labelling contrast set that runs right across the middle Peninsula. Other 'eat'-based linguistic labels are the east-coast macro-grouping terms *Yangkunya* (covering *Kuuku Iyu*, *Kuuku Ya'u*, and *Uutaalnganu*) and *Kanthaanyu* (covering *Umpila* and *Kuuku Yani*) (Thompson 1976). It is possible that a south-western variety, *Ogunyjan*, in which *og* is 'speech' and *unyjan* is a participial form of 'to eat', also forms part of this contrast-set (Barry Alpher, pers. comm.).

19 The main source of the information in this section is Sutton et al. (1990), which is based on fieldwork by myself, David Martin, John von Sturmer, Roger Cribb and Athol Chase, and further unpublished field data from prior to 1990 (see below). That report has been supplemented by substantial additional fieldwork since 1990 by myself, Martin, and von Sturmer.

Table 1: WIK-WAY (Subset of Northern Paman: from Archer River north to Weipa Peninsula)²⁰

Named variety	No. of estates ca 1900
Adithinngithigh	1
Alngith	2
Anathangayth	1
Andjingith	8 (+ two possibles)
Arraythinngith ²¹	1
Latumngith	1
Linnngithigh	4
Mamangathi ²²	1
Mbiywom	4 (+ two possibles)
Ndrra'ngith	2
Ndrangith	1
Ngkoth	1
Paach (Wik Paach)	4 ²³
Total	31 (35)
Average	2 (possibly 3)
Median	1

- 20 There are other Northern Paman languages beyond Weipa to the tip of Cape York Peninsula, but they are not discussed here. Of the varieties listed here, and particularly considering shared phonological developments and lexicon, Hale presents evidence that they may be subgrouped as follows (some would say as five technically defined languages): Alngith-Linnngithigh, Mamangathi [-Thyanhngayth-Ndrwa'ngayth-Ndrra'ngith], Ngkoth [-Trotj], Arraythinngith, and Mbiywom (Hale 1966:163ff.). However, the first two subgroups appear to belong to a dialect chain (Hale 1966:175) such that each shares at least 80% of basic lexicon with at least one of the other varieties, but at the opposite extreme two of the chain's members, Thyanhngayth and Linnngithigh, share only 54%. Relations between the others are not as yet clear, to me at least.
- 21 Known as Arrithinngithigh (in Linnngithigh) and Arrithinngayth (in Ndrwa'ngayth, both Hale 1966:166), I can confirm that it is also known as Arraythinngith (possibly in Ndrra'ngith) and as Arreythinwum (probably in Yinwum). It probably had several other names as well—one expects there to have been a Wik version something like Wik *Arrithangathi, for example. Given that Adithinngithigh and 'Arrithinngithigh' seem to have been identified with only one estate each and the names are so similar, it might be tempting to consider their distinct spellings a mere artefact of the recording process, but the names are indeed distinct and moreover the relevant estates are noncontiguous and owned by different people (my own fieldwork). Basically, McConnel's (1939–40:55) rough map seems to have been the first to get it right, showing 'Adetingiti' separate from 'Aritingiti' (in spite of demurrings by Sharp 1939:265fn.). Similarly, Ndrra'ngith and Ndrangith estates are noncontiguously located and have distinct custodians. Separate again are Ndwa'ngith and Ndrwa'ngathi, the countries connected with the latter two lying too far north to come within the purview of the mapping research referred to here.
- 22 According to Hale (1966:165), Mamngayth (Mamangathi) is one of three virtually identical dialects subsumed under the title Awngthim. According to Crowley, Mamangathi is referred to as one of several 'groups' speaking the Awngthim language, and the implication is that these were exogamous clan groups rather than dialect groups per se (see Crowley 1981:150). The data I have suggest that the name Mamangathi (Mamngayth, Mamangithigh etc. depending on the language in which it is being named) functioned as the name of a linguistic variety and was not just a clan name. I am not aware of clans being formally named in the region.
- 23 Of these estates, two were also probably affiliated with Andjingith. They are also included under Andjingith above.

Note the generally low number of clan estates per named language variety. These estimates can be complemented by population estimates.

In the area between the Archer and the Embley, an estimate based on 15–25 people per clan multiplied by 31–35 clans comes to a rough population estimate of 465–875 people. Given there are 13 named language varieties in this case, that comes to about 35–60 persons per named variety. Even if we were to assume an average of 35 persons for each of 35 clans, that would still result in an average of only 94 persons per named variety in this area.

It is hard to say how many technically defined languages were in this small area, but a figure of six or more seems not unreasonable, given the comparative data already published by Ken Hale.²⁴ At a figure of six such ‘technical’ languages the estimate of how many people there were on average per language comes to a range of 78 to 146 using 15–25 as the clan average. Assuming 35 as the clan average the average reconstructible population for each technically defined language would be 204 persons. These are extremely modest figures, and even more dramatically than in the Wik case fall well below the rule of thumb figure of about 500 people per Australian ‘tribe’ that has at times been used, such as Dixon (1980:18), a figure which may derive from the work of Joseph Birdsell.²⁵

Among several examples of ‘small tribes’ Tindale cited the Wik area and what in this paper has been referred to as that part of the Wik-Way area immediately to its north.²⁶ However, the smaller the area covered by a language variety name, the more Tindale seems to have been inclined to regard it as a ‘sub-tribe’, more or less on principle. In his catalogue of tribes he listed the Wik (proper) language names as separate tribes, but from the Archer River to just north of the Embley he listed the names of twelve language varieties as “hordes or incipient small tribes” under the “valid embracing name” of Winduwinda.²⁷ It seems likely that the origin of the term Windawinda (Winduwinda) is essentially geographical, centred on the Winda Winda Creek area and covering groups with lands between the Archer and Mission Rivers.²⁸ But there are ‘valid embracing names’ for many congeries of language groups, and Tindale’s preference for entering the Wik-Way languages under Winduwinda seems unmotivated, except perhaps as a means of dealing with exceptional regions which fell outside his figures for average sizes. In any case, he decided not to be too dogmatic about this particular arrangement.²⁹

²⁴ Especially Hale (1966:163–76).

²⁵ For example, Birdsell (1953, 1957:53, 1958:196, 1968:230, and 1973:339). However, as Birdsell himself pointed out, Krzywicki (1934) had derived a mean value of Australian tribal populations “as approximating 500 persons on the basis of data collected from the literature” (Birdsell 1973:339). Even earlier, however, A.R. Radcliffe-Brown had used the figure of 500 in order to make tribal estimates in at least one case. With regard to the estimation of previous Victorian population figures he said, “If we allow only 500 persons for a tribe or language and only 100 to 120 for a dialect, . . .” (Radcliffe-Brown 1930:693), thus prefiguring Birdsell’s ‘magic number’ of 500 by over twenty years.

²⁶ Tindale (1974:112–13).

²⁷ Tindale (1974:188–90).

²⁸ See also W.E. Roth (1910:96 and Pl. XXXI; more detail in the MS version 1900:2–4), McConnell (1939–40:62), and Hale (1966:176), on Winduwinda/Windawinda. The term has become archaic.

²⁹ “Those who feel inclined to regard the Winduwinda and Jupangati [Mapoon area] assemblages as having full tribal status may add a further dozen or more to the number of Australian tribes, bringing the total to over 600 tribes” (Tindale 1974:113). Writing about his fieldwork on the same area, Lauriston Sharp (1939:264) said: “Again in this area of small tribes it is not easy to distinguish local groupings, clans, or slightly differentiated linguistic groupings from tribes”.

Patterns of diversity in the wider Wik region

Especially in the coastal and pericoastal areas, it is clear that in the wider Wik and Wik-Way region linguistic diversity was both real at a technical level and also highly valued and marked culturally.³⁰ Even near-identical dialects could have distinct autochthonous names.

Just over half the thirteen named Wik-Way varieties for which reasonably good mapping is available were intrinsically associated with just one estate each. This was within an area approximately 100 kilometres north–south by 75 kilometres east–west. In the past this concentrated Babel represented a challenging prospect for any newcomer, in spite of the regional tradition of highly skilled multilingualism. Although there were some marriages between Wik-Way and Wik proper prior to the effects of colonisation, one reason given for the difficulty of arranging such marriages was that Wik people from south of the Archer were daunted by the difficulty of the languages to their north.³¹ Certainly the Wik-Way languages are phonologically much more complex than Wik ones, but their sheer number and diversity would also have been a problem for those not brought up there, given the necessity to be a polyglot in order to survive socially, and to treat one's kin with respect, in this part of the world.

The area just south of the lower Archer River thus represented a rather abrupt transition between two regional *Sprachbünde*, one demanding greater multilingual competence than the other.³²

Conclusion

In the Wik and Wik-Way region, as in so many other parts of Aboriginal Australia, the mere fact that someone can speak the same language as oneself is usually taken to imply that the other person must be kin, related to ego somehow or another, in either an actual or a classificatory sense. In the absence of disputation the default relationship to one's kin is one of underlying amity. There is also a common view that linguistic competence in an Aboriginal language by a non-Aboriginal person must imply not only cultural competence and understanding, but also an acceptance of the worth of Aboriginal culture itself.

When a non-Indigenous person is heard speaking an Aboriginal language—a situation still rare in Australia outside the Western Desert—Aboriginal people are usually quickly of the view that this person has in some significant way entered into their world of values, their web of relationships, and their patchwork of country identities, and furthermore that this is someone who does not look down on them, who is not 'stuck up'.

People who can 'talk language', as it is so often put in Aboriginal English, speak what the ancestors spoke. The ritualised process of talking to the spirits of the 'Old People' when visiting particular places is itself often referred to in English simply as 'talking language'—

³⁰ On the prehistory of developments within the Wik subgroup, see Hale (1997b), a revision of which will appear as two chapters of Sutton and Hale (n.d.).

³¹ Another reason, and a major one, must have been the fact that the Wik and Wik-Way peoples had significantly different prescriptive marriage rules (see e.g. McConnel 1939–40:60).

³² I discuss the pattern of linguistic diversity of the Wik region south of the Archer in considerable detail elsewhere; see Sutton and Hale (n.d.).

because the ancient ancestors did not know English.³³ To 'talk language' is not merely to make evident one's linguistic education, but in a sense it is also to reproduce the characteristic voice of the Old People who were ancestral to some particular network of kin.

A common shorthand Aboriginal expression of this recognition of outsider skills in insider matters is to say of the person that he or she 'knows'. In classical Aboriginal thought there is more to this 'knowing' than mere grammatical competence or cultural familiarity. In the Wik area, as has been documented over much of Australia, languages are held by their Aboriginal owners to have been implanted in specific countries at the foundation of the world, by heroic ancestral figures or, as they are known in Cape York Peninsula, 'stories'.³⁴ A small clan of anywhere between one and a few score people, in Wik thought, is itself considered a microlinguistic group with its own unique variety of speech,³⁵ a variety that is typically specified by naming a principal totem of the clan, as explained above. Language is, in this sense, at once both spiritual and political.

The first people spoke these respective varieties when the world was young, and their descendants ideally speak the same way today, or at least used to.³⁶ The highly emotional and spiritual links between one's principal ancestral language variety and the deepest reaches of local identity were made clear when naming that variety by means of the primary totemic symbol of each descent group. This, as well as the intrinsic connection between that variety and a passionately held clan country or homeland, meant that choice of speech variety was no casual matter in this society. To choose any Aboriginal speech variety, especially one other than a lingua franca, was to immediately implicate specific areas of country and to demonstrate links to their particular people.³⁷

In 1960, into this intense world where speech varieties resonated daily not only with the people's geopolitics but also with their cosmogony and ontology, stepped a young American who almost overnight began to speak and sound like one of their own. This was a unique experience for the people of Aurukun, as it probably was for others elsewhere. Those who were old enough to appreciate the import of it and who are still with us at the time of writing continue to regard Ken Hale with enduring interest and respect, and with not a little awe.

33 That is, 'talking language' is sometimes a shorthand idiomatic way of referring to the addressing of ancestral spirits. Many times I have heard people say: "We go to place X, we talk language", i.e. "When we go to place X, we will address the spirits in an appropriate local language". In my experience, spirits are only rarely addressed using English.

34 One legendary account of the creation of Wik languages is provided by Noel Peemuggina in Sutton (1997). In that legend the named varieties are implanted estate by estate as the two culture heroes move across the landscape establishing totemic centres in each clan's estate. In a number of other accounts referred to in that paper, drawn from other parts of Australia, Dreaming (story) beings implant or recognise specific languages across whole linguistic territories, typically beginning to speak a new language as each linguistic territory is entered and switching to another on departure.

35 Sutton (1978:138), von Sturmer (1978:325-6), Smith and Johnson (2000:366-7).

36 While a number of Wik varieties such as Wik-Me'enh and Wik-Ep are moribund, and Wik-Ngathan and Wik-Elkenh-Wik-Ngatharr have only adult fluent speakers, Wik-Mungkan is the first language of most children at Aurukun, and some Kugu Nganhcara varieties persist well, especially at Pormpuraaw. Wik-Way varieties seem now to have only senior adult speakers of any competence.

37 Conversely, to mainly employ a lingua franca and abandon use of one's own speech variety also has its motivations, although in many community situations it is hard to separate motivation from necessity in this domain.

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33 *Playing songs can be dangerous*

BARRY ALPHER AND KEVIN KEEFFE

“It’s just like mucking around at school and changing the words.”
(Louise McClatchy, of Supergirly, p.32 in *The Australian Way*,
April 2000)

1. Introduction¹

A genre of song and dance in Cape York Peninsula is the *malgarri*, or ‘playabout corroboree’. The songs accompany ‘shake-a-leg’ dancing. They are melodically and rhythmically traditional and use a mixture of languages that, although now including English, is thoroughly traditional. *Malgarri* are secular and performed for entertainment; many include an element of comedy.² In this paper, we trace what we have been able to make out of the history of one of the more widely performed of these comic song–dance skits, ‘Manager’ or ‘*Mari Manager*’.³ Our analysis takes as its focal point the version of ‘Manager’ that both of us have heard performed live, that of Claude Wilkie. We take it that Claude’s is a development from an earlier one recorded in a variety of versions, and we ask what it is that he did to it and speculate on why he did so.

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- 1 Thanks to AIATSIS and the recorders of the songs mentioned below for making the tapes available; to Linda Barwick, Myfany Turpin, and John von Sturmer for musicological advice (although they are not responsible for our errors of notation); to Grace Koch for keying in the musical notation; to Viv Sinnamon, Gary Drewien, and John Clark for sharing information and interpretations; to Gavan Breen for proofreading and for allowing us to use his Kokiny materials; and to Henry Andrew, Pindi (deceased December 2000), Billy Thomas, and George Lawrence for their recent performance of ‘Manager’. Of these performers, Billy Thomas deserves special mention as an active promoter of the preservation of traditional Aboriginal performance modes.
 - 2 The comic song is mentioned in some of the earliest anthropological literature on the indigenous cultures of Australia (Howitt 1996[1904]:413, 424).
 - 3 A thorough account of creations of this type would of course make extensive use of motion-picture or video recordings. We are in regard to ‘Manager’ unfortunately limited to the audio record alone.

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Forty years on: Ken Hale and Australian languages, 465–475.
Canberra: Pacific Linguistics, 2001.

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Claude (Kalq Pothalnhonl 'bundles up spears') left his country near Kowanyama (formerly known as Mitchell River Mission; see Map 1 in Sutton, this volume), Cape York Peninsula, at an early age and travelled on boats and worked on pastoral stations around Cape York and the Torres Straits. A native speaker of Yir-Yoront and the other Kowanyama languages Koko-Bera and Uw-Oykangand (Kunjen), on his own account he learned to speak thirteen languages. He earned high respect for his work in the pearling lugger industry (V. Sinnamon, pers. comm.). A breaker of rules and accomplished buffoon, Claude would have struck a chord with Ken Hale, with his love of language, music, travel, humour, and the underdog.

In his later years, during the 1970s, Claude gained notoriety for his performances in official 'corroborees' at Kowanyama, performing a series of dances and songs some of which satirised those official dignitaries being honoured. These burlesques were a form of low-key resistance to the institutional framework of the Mitchell River Mission and the subsequent Queensland-managed reserve. The official subjects of his humour were generally unaware of the joke, although the community would erupt with laughter.

'Manager' is generally performed as one of a short suite of dances. We know it from eight recorded performances (and versions). These (identified by AIATSIS tape archive number where appropriate) are by Billy Flower (A412, recorded at Lockhart River by LaMont West in 1961), Paddy Stumpy (A1222, recorded at Bloomfield River Mission by Hank Hershberger in 1964), Michael Webb (A1903, recorded at Mareeba by Peter Sutton in 1970), an unidentified singer at Wrotham Park (A2601, recorded by Alice Moyle in 1966), Peter Flying Fox (recorded at Wrotham Park by Moyle in 1966 and published as Moyle 1988 [1981]), and Claude Wilkie (recorded at Kowanyama by Barry Alpher in 1966). These performers either identify themselves as Olgolo (south-central Cape York Peninsula) or come from the fringes of Olgolo country. The chronological order of the recordings should not be taken as a reflection of the order of development of the versions. The song is at least one lifetime old: Tommy George (of whom more below), a pensioner now living in Laura, recalled having heard 'Manager' as a child and mimed an old man stooped with one hand on his back.

We are aware of two other noteworthy renditions of 'Manager', though we do not provide transcriptions or analyses of these here. The first is that of Michael (Mick) Richards, recorded in Charters Towers by Gavan Breen in 1972 (AIATSIS archive tape A2547) and associated with Delta Downs and Neumayer Valley, where Mr Richards had worked. These stations are close to Normanton and quite far to the southwest of the other places where the song was recorded.⁴ The second additional 'Manager' was performed at Kowanyama in September 2000 by Henry Andrew (Garrell), with accompaniment by Billy Thomas, Pindi, and George Lawrence, and recorded by Alpher. It differs from all previously recorded versions and shows that 'Manager' is alive and well in Cape York Peninsula.

2. Peter Flying Fox's and related versions

Peter Flying Fox, an Olgolo man (deceased ca. 1970), performed the recorded 'Manager' in the suite 'Dunbar Load', 'Fish Hawk', and 'Manager'. According to his statement in the

⁴ Alpher came across this rendition unexpectedly while working on Breen's Kokiny language materials in connection with another project. The presence of this song on the Kokiny tape suggests the existence of other archived but uncatalogued versions.

recording, the song originally belongs to the place Laura (see also Moyle 1966:8), just outside of Olgolo country and not far from Wrotham Park. We set out his version first because of its accessibility to the tape-buying public and because it gives us a first access to what we believe is the song's original concept. Musical notation of this (Figure 1) and of Claude Wilkie's rendition (Figure 2) is provided here to show that the songs differ not only in verbal content but also in melody, rhythm, and phrasing. The notation is 'broad', to be understood in the same sense as in 'broad phonetic'.⁵ The notation of these songs is truncated ("etc."), and notation of renditions by other singers is omitted, because of space limitations, but there is much of analytical interest in the "etc." and in the other renditions, which differ melodically and otherwise in striking ways.

Sung:⁶ *Ey a menedja, menedji—wulpala w' menedji—ngi*
Mari mari mari—ngi
Mari mari mari—
Menedja u' menedji—wulpala wu' [breath] -dji—
Wulpala wu menedji—'ngi
Mari mari mari—
Menedja wu mene-

Spoken, businesslike but friendly conversational voices, same singer doing both voices, with the rhythm continued:

[A:] *Where he bullock?*
[B:] *Nother side of creek. Okay?*
[A:] *Okay, goodbye. Bullock nother side.*
[B:] *Right?*
[A:] *(H)ooray.*

Sung: *O—ulpala ulpala uwv menedja, menedji—*
Spoken:
[A:] *Okay, where the bullock[s]?*
[B:] *Nother side. Nother side of bullock [sic, for 'creek']*
[A:] *Ooray. Good-bye.*
Falsetto: *ku#*
Aside, spoken: "Thas belong Laurie." [very obscure on the tape]

⁵ Among the features of great interest that we gloss over here are (in Claude Wilkie's performance) certain melodic and rhythmic intricacies, the latter including entrances to some lines slightly before the beat. As for the pronunciation of the words, Linda Barwick points out to us that Claude says something like *waypala* in the first run-through and then *whitefella*, with an *f*, in the repeat, and that this difference needs to be taken into account in a complete characterisation of the irony in the song. These and other subtleties we leave for a later treatment.

⁶ The right single-quote mark (apostrophe) represents the singer's glottal catch (punctuating an extended sung vowel); (*w*)*ulpala* 'old fellow'; *mari* 'Aboriginal person' has a glide alternating with a retroflex flap (*mardi*); *menedja* and *menedji* are 'manager'. *Okay* 'okay' in one instance is our construal (possibly our misconstrual) of an utterance with a possible medial glide *r* transcribed as *ooray*! 'hooray' by Moyle (1966:10); in later lines it is clearly *ooray*.

Sung: *O:ungug ulpala ul menedji—
ngi mardi mardi mardi—*

Spoken:

[B:] *Goodday!*

[A:] *Goodday. Where the bullock?*

[B:] *Nother side of creek.*

[A:] *Okay.*

Falsetto: *ku* [57 sec]

Aside, spoken: "That song's Laura." [very obscure on the tape]

The song concerns an Aboriginal cattle manager, or head stockman in the current speech of the area. That this is the *mari* in question is clear from another recording, that of Michael Webb in 1970, who introduces the song (which he characterises as 'belonging to Lamalama') with the spoken explanation, "This's a boy, been managing, a station. Coloured boy; he—he—he reckon he's a gentleman." Here there is laughter on the tape. The lines then run:⁷

*'e mardi mardi mari
mardi mardiiyiyi / mardi mardi* [repeated]
manidja manidja [3 times] *la
manidja manidja*

and continue (with some words we are not able to gloss but which apparently do not include *wulpala* 'oldfella') [1 min 8 sec]. 'Mari Manager' in Paddy Stumpy's rendition gives the same information:

*mari' mari mari
mari' mari ga'
manidja manidja ga'*

Spoken: "That—*bama* [Aboriginal person]."

Sung: *'æ mari mari mari*

and so on (much of which we are unable to gloss) [about 5 min], including the earliest recorded introduction of 'whitefella': *'e ga manidja / 'a waypala la 'ulpala* 'whitefella, oldfella', this collocation repeated many times. We take this to expand on "he reckon he's a gentleman": he is behaving like a white man. The same collocation occurs in the unidentified singer's version recorded by Moyle in 1966, in the form of parallel lines: after

*menvdjaw menvdji ow
whitefella menvdji ng
mari mari mari ngow
mari mari mari ya
waytfala waytpala dbuuu ngu
waytfela* [laughter in the audience]

there is *menedja wu menedji / wulpala wu menedji*, and so on [1 min 38 sec].

⁷ Here *mardi* 'Aboriginal person' has a retroflex flap in most tokens and a glide in a few. The terms *boy* and *wulman* 'old man' can in this English variety refer to the same person.

The musical score consists of ten staves of music in a single system. Each staff begins with a treble clef and a 7/8 time signature. The lyrics are written below the notes, with some words in bold. The guitar part is indicated by 'x' marks on the staff lines and 'v' marks below the notes. The lyrics are as follows:

e a me - ne - dja me - ne - dji
 wul - pa - la wu? me - ne - dji - 'ngi
 ma - ri ma - ri ma - ri - ngi ma - ri ma - ri ma - ri
 me - ne - dja - u' me - ne - dji wul - pa - la wu' dji
 wul - pa - la wu me - ne - dji - ngi
 ma ri ma - ri ma - ri
 me ne - dja - u me - ne **Spoken**
 Where he bullock
Spoken Where he bullock 'nother side a creek okay okay
 goodbye Bullock nother side Rey ey 0 - ray
 'O wul - pa - la ul - pa - la u - wa me - ne - dja me -
 ni - dji ho - ray **Spoken**
 Where the bullock (etc.)

Figure 1: 'Mari Manager'; Peter Flying Fox's rendition, 1966. Notation by Grace Koch from Alpher transcript; pitch approximate.

Billy Flower's 1961 rendition is on an almost inaudible recording in which only the words *mari mari mari* are recognisable.

What is present in Peter Flying Fox's version and absent from the others described above is the spoken interlude *Gday, gday, where my cattle?* etc. However, something like this is shouted by the other participants during the unidentified Wrotham Park man's rendition (Moyle's 1966 tape, A2601), and the singer adds, after Moyle's questioning, "Stockman, where he's ridin about he's 'Where the where the where the cattle?' He's 'Oh, they're over there across the swamp over there.' Or 'In the paddock', Y'know like that."

3. Song transmission as creativity

Creativity in language transmission in the generative-grammarians tradition is generally taken to be part and parcel of the process of learning. Learners (most typically small children) come to know the grammatical rules by which the sentences of a language are produced through a series of inferences and hypotheses made from the often fragmentary and imperfect data (utterances) presented by the speakers around them, together with the external circumstances under which the utterances took place. Because the inferred rules do not necessarily match those by which the original utterances were produced, the resulting language can differ slightly from that of the parental generation. The process of resynthesising the language is said to be one of creation (as are the processes of uttering a new sentence and of understanding, i.e. resynthesising, a new sentence uttered by another person). It is this notion of creativity that Ken Hale applied in his analysis of the transmission of Arrernte songs from one generation to the next and to speakers of Warlpiri (Hale 1984). A related creativity characterises the work of transcription and notation of a song of this type on paper, involving as it does acquisition of the ability to perform a reasonable approximation to the song before it can be clear what in fact one has been hearing all along (rhythm calibrated against melody and words). Note that creativity in the 'resynthesis' sense does *not* consist in the mechanical playing-out of an algorithm, but rather in the use, reuse, and modification of algorithms to produce a match or near-match to something in experience.

In the transition from the Wrotham Park to the Kowanyama version of "Manager", however, we find creativity in a rather more familiar sense: the deliberate changing of words to add a further satirical edge. We attribute this development (rightly or wrongly) to Claude Wilkie. In the 1966 recording, it is performed in the suite 'Rooster' (of which more below), 'Eagle' (same as the Wrotham Park 'Fish Hawk'), 'Cattle Manager', 'Sugarbag', and 'Fighting Bulls'. For our putative chronology of creation we have no other evidence than Claude's personality and the song-texts themselves, and we build conjecturally on these. Wrotham Park is far inland from Kowanyama on the Mitchell River, on the eastern fringe of Olgolo language territory, but very much within the round of cattle stations at which Kowanyama people worked and within the area from which people went, willingly or unwillingly, to live at Mitchell River Mission.

4. Claude Wilkie's 'Manager'

*Manager, manager, whitefella manager,
 Manager, manager, whitefella manager,
 Manager, mana-*

is, in peremptory voice: *G'day, g'day, where my cattle, in the paddock? Alright,
 I'll get on, make my dinner, hokay?*

[repeats; roughly 1 min 12 sec]

Flour drum

me - ne - dja me - ne - dja way - pe - la me - ne - dja - e

me - ne - dja me - ne - dja - e way - pe - la me - ne - dja e me - ne - dja

me - ne Spoken: G'day, g'day, where my cattle, in the paddock? All right, I'll get on, make my dinner Hokay? ku

e me - ne - dja me - ne - dja e me - ne - dja me - ne - dja - o (etc.)

Figure 2: 'Manager'; Claude Wilkie's rendition, 1966.
 Notation by Grace Koch from Alpher transcript; pitch approximate.

Here Claude has, it would appear, omitted the *mari* from the picture; the manager is a white man and a rather overbearing one. In all the difficulties of interpretation this song has presented, no listener has understood the manager to be nonwhite. If the manager is an oldfella, there is no mention of it here. We take these differences from the songs discussed above to be Claude's own refashioning, both elaborating and simplifying the content to suit a new context. Other interpretations, made at this distance of 34 years, are something of a free-for-all. In both repeats, the phrase rendered here as *I'll get on* is a bit obscure on the tape, and a number of different readings have been offered.⁸ Are one or two speakers represented in the spoken lines? Who cooks whose dinner anyway? Because the song is a secular one, in the sense that (so far as we know) there is no Manager Story (Dreaming) and it is not tied to an identifiable site, there are no apparent constraints on construal, no apparent tradition for readily rendering a thing like this understandable after years have elapsed. One contemporary Kowanyama listener, a Yirrk-Mel speaker who had known Claude, offered, in Yirrk-Mel, the explication that the manager was speaking to him, praising him for having worked hard all day putting up fences, to build a paddock. Although freedom of, and difficulties with, interpretation do occur with other genres of Aboriginal art—songs, for example, and rock painting and engraving (Linda Barwick, pers. comm.), in the nonsacred realm and especially in overlapping Aboriginal and non-Aboriginal domains, this freedom seems to be expanded (as it is in Western Desert Aboriginal art, for example).

All interpreters, white and black, think the song is funny. Most whites need their arms twisted to listen to these words in an unfamiliar dialect, however, and the success of the covertly satirical performance before a mixed audience in the 1960s would seem to have depended on this and the general noise level. What does seem clear is that Claude Wilkie in this version has changed the words and sharpened the edge.

A further version of 'Manager' is known from a slightly later period at Kowanyama. This too is Claude's. The words cited here are from the personal memory of members of the audiences of performances between 1976 and 1978 with, to the best of our knowledge, no taped version to check for the exact words, rhythm, and melody.

Sung:

Gubment man, gubment man, whitefella government maaan

Spoken:

C'mere c'mere c'mere; get away, get away, get away

[danced, with great deal of handshaking]

This version takes the satire on the behaviour of the "whitefella manager" out of the station and onto the reserve, and hardens the political edge. One of these performances in (mid-1978) took place when Government officials and politicians from Canberra and Brisbane (including the senior Aboriginal politician, Senator Neville Bonner) were overnighting on the way to visit the communities of Aurukun and Mornington Island, at the time embroiled in a Federal-State dispute over the management of the communities, with threats of Federal intervention (which were never realised; the state of Queensland won). Claude's performance

⁸ *I'll git on—make my dinner; I'll sit home eat my dinner; Ah, get home, make my dinner; I'll git home make my dinner; I'll get home and make my dinner; Oray, I'm gonna go make my dinner; I'll sit home make my dinner; I go and have dinner; I go and have a dinner.* Alpher and one other North American listener hear *Out the door, make my dinner*, or something like it; although this reading would be consistent with Claude's outrageous turn of mind, all other listeners firmly reject it on phonetic grounds.

of ‘Manager’ spoke to a community perception that Government actions were contradictory and inconsistent, giving Aboriginal communities the opportunity for self-management and then taking that opportunity away.

Another of Claude’s star turns, “Rooster”, was performed at official occasions with zeal and energy, the song punctuated by the crowing of a rooster and the dance with strutting marches and flapping wings. There is little doubt that this number was meant to be funny from its first creation, though it was quite simply a matter of a rooster and no more. Claude made satire of it in the act of performing it before a visiting official audience rather than a local group. The creativity was in the performance in context (the songs before and after it, together with the audience) and not in changed content. Government dignitaries (the roosters) in their shorts and long socks watched from their steel folding chairs at the dance-ground in front of the Kowanyama hotel. These honorees saw, we presume, what they wanted to see, as the community audience laughed helplessly.

5. Linguistic and other context: ‘Fishhawk’

Although nonsacred, malgarri songs can be drawn from religiously significant material. Such is ‘Fishhawk’, another number in the suites recorded by Moyle (1966:27) and Alpher and recorded again from Tommy George of Laura by Alpher in April 2000. Its reincarnations over time and from one side of the Peninsula to the other carry the subject of creativity into the mysterious area of the generation of new melodic and rhythmic sequences, for which no generative principle at present suggests itself.⁹

‘Fishhawk’ is an important story belonging to an Olgolo place on the upper Coleman River. Moyle (1966:27) gives as the song’s owner Jimmy Koolatah. Peter Flying Fox’s 1966 rendition went: [Spoken:] *Kang kang kang kang*; [Sung:] *Aw Minya ngaw nga nga ngaw i ngau’u ngi-nya / A ngay ngaw minya-u ngangka ngi-nya-u ’i / Nya nga nya nga minya / Kang, kang, kang, kang*. The name of the fishhawk (white-bellied sea-eagle, *Haliaeetus leucogaster*) in many of the languages of the area is imitative of its call, conventionally *kang kang kang . . .*, hence Olgolo *inh-kangkang*, Pakanh *minh-kangkang*, etc. It is audible in the song lines cited above as *minya kangkang* and *inya kangkang*. The song is generally in a rhythm of one strong beat followed by three weak ones.

In 2000 Tommy George, a Kuku-Thaypan (Aghu-Laya) and Olgolo speaker, gave the Fishhawk song as follows (both before and after hearing a playback of the 1966 recordings): [Sung:] *Minyu-ngu kangkaaa, minyu-ngu kangkaaa, minyu-ngu kangkaaa*; [Spoken, falsetto:] *rrrrrr*; [ordinary voice:] *kang, kang, kang, kang!* [several repeats]. The rhythm here is one strong beat followed by two weak ones, very different in effect from the preceding. The sense of the lines is clear, with *minyu* for the more usual *minya* ‘animal’; Mr George volunteered that the *-ngu* is added to “carry on” the line. The language is not contemporary Olgolo (in which the generic *inh* ‘animal’ does not retain the initial *m* of Proto-Paman **minya*), and it is certainly not Kuku-Thaypan, which turns up instead in Claude Wilkie’s

⁹ This is creativity in the ‘how-did-Schubert-ever-think-of-that-melody’ sense. It is our hope, perhaps a forlorn one in this age of artificial intelligence, that no algorithm to ‘create’ in this way can, in principle, be developed.

1966 rendition: [Sung:] *Aaaa, tjalpa le kang-ka kang-ka kang-ka kang-ka / minha le kang-ka kaN-e kaN-e kangka-e kang-ka kangka-le kangka kaN-e kaN / minha-le kang-ka kang;* [Spoken, falsetto:] *prrrr;* [normal:] *kang, kang, kang, kang;* [several repeats, with variations].¹⁰

Here the rhythm is one strong beat followed by three weak ones, with syncopation effected by placement of the first syllable of important words at the beginning of a rhythm group on a shortened (eighth) note, with the second syllable given prominence on a following eighth note tied to a quarter note or eighth-note sequence (i.e. lengthened) beginning on the second beat: *tjalpa*, *kangka*, and *minha* are treated this way. The word *minha* 'animal' (generic) is the reflex in a number of phonologically conservative languages of the area of Proto-Paman **minya*, but Tommy George identified *tjalpa* as Kuku-Thaypan *thilwa*, in full generic-specific compound form *nhye-thilwa* 'fishhawk', with **minya* regularly continued as *nhye*.

Who created what? There is little that can be said at present as to how these variations came about, other than that in the last version we hear Claude on his travels. Kuku-Thaypan country lies on the middle reaches of the Morehead River and Saltwater Creek, some 200 km eastwards as the crow flies from his Yir-Yoront homeland. To be considered along with this fact is the near certainty that all of the singers whose renditions are reported on here knew each other at a maximum remove of one. Peter Flying Fox is recorded as having lived at Kowanyama. Billy Flower, encountered by Monty West in 1961 at Lockhart River, was helped to escape from Palm Island by Kowanyama's Jack Bruno (Ngerr-Thuy). Cape York Peninsula is a huge area but a small world.

6. Coda

Who created what, but also for what purpose? The creativity of the singers, and the adaptability of the song, is shown in its changing applications. At one point 'Manager' is used to poke fun at the Aboriginal manager who considered himself "a gentleman", or a cut above his fellow stockman. No doubt this was a real, though at present unidentified, person. Later the same song is used to strong theatrical effect in satirising non-Aboriginal managers. The irony would not have been lost on an Aboriginal audience. The process of resynthesising the art for different contexts is one of creation (developing a new twist on an old thought, developing the song for a different context).

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¹⁰ Capital *N* in the transcription is a diacritic for nasalisation of the preceding vowel.

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34 *The morphodirectional sphere*

EPHRAIM BANI

The idea of creating a geometrical structure of directions was to show how an EGO expresses directions in his own language. In Kala Lagaw Ya a direction expression is usually a word composed of smaller meaningful parts, and these morphemes can change to show where something is and whether it is stationary or in motion, visible or invisible, and to identify gender. I invented the Morphodirectional sphere (see Figure 1) to show how directional expressions indicate place, direction, and visibility. This imaginary sphere moves with EGO, who is always at the centre. This sphere accompanies EGO even when he is indoors, as long as he knows his exact location.

It is a simple process to indicate the gender of the object referred to in a direction expression just by replacing *nu* (male) with *na* (female). All inanimate objects in Kala Lagaw Ya are female in gender; thus when saying 'The golf ball landed to the west' the sentence should be *Golf ball pinapun pudhi. Betty pinapunki ulayk* means 'Betty is walking on the western horizon': Betty is *pinapunki* (*pi+na+pun+ki*), but John is *pinupunki* (*pi+nu+pun+ki*); see Bani (1987).¹

The main cardinal points with this sphere are east and west. In Torres Strait the sphere changes according to the source of the wind. If it is blowing from the west then the sense of *pinupay* ('east') will change to 'west', and 'east' becomes *pinupun*. This happens only when we have the northwest winds, which blow from November to January; otherwise the southeast wind is the wind that blows all year around. I have found that the original sense [according to wind direction] does not exist today among younger people, as 'east' is always *pinupay*; it doesn't matter if a westerly wind is blowing.

Hand actions and facial expressions sometimes accompany directional words.

¹ Ed. note: The material presented here began as part of work with Alpher in the late 1970s, in which Bani also produced a four-position morpheme-order analysis of these place-and-direction adverbials. In that schema, which remains unpublished, the first position is that of *pi* 'there' (vs. zero 'not there'), the second is that of one of the gender prefixes or *pal* 'DUAL', the third is that of *ka* 'up', *gu* 'down', *ngapa* 'hither, low angle', or zero ('here'), and the fourth is that of *ki* 'moving' (vs. zero 'not moving').

Here are some examples of morphemes of direction and place and how they are put together: *ki* 'in motion', *pi* 'visible', *kidh* 'on the same plane as EGO's normal line of sight', *kay+ka* 'above and invisible' as in *Dwarf star kayka* 'the dwarf star is above and not visible to the naked eye', *pi+nu+ka* 'above and visible' as in *Moon pinuka* 'the moon is above and visible to the naked eye', *kay+gu* 'below and invisible' (for example the core of the earth), *pi+nu+gu* 'below and visible' as in *Umay pinugu plonu* 'the dog is under the floor (visible through the cracks)'.

Some other examples show that *kidh* (on the same plane as EGO's normal line of sight) is used to indicate a horizontal position of EGO's body with *kadaka* (facing up) or *muluka* (facing down), so *kadaka+kidh* is determined when EGO is lying horizontally facing up, while *muluka+kidh* is facing down. For example, *John kadakakidh yuka* 'John is lying down facing up', *Betty mulukakidh yuka* 'Betty is lying down facing down, on her stomach'. Objects are spoken of in the same manner, for example *Plate mulukagud yuka* 'the plate is lying down face down'. *Kawa* is the reference point that can be called EGO. *Kawa* moves, the sphere moves with it. *Sewa* is an arm's-length distance and stationary. If someone approaches you and you want them to stop at an arm's-length distance, you simply say *Sewa thaari* 'Stand there' or *Sewa thanur* 'Sit down there'. *Kay+pa* means 'horizontally at a distance, to infinity', *pi+nu+pun+ki* means 'towards the western horizon', *pi+nu+pay+ki* means 'towards the eastern horizon', and *pi+nu+ka* means 'above and in sight': a star is *pinaka* but an aeroplane is *pinakaki* because it is in motion.

There are actions that go away from EGO and those that come towards him: *paw+pa+kidh* 'westwards away from EGO', *pay+pa+kidh* 'eastwards away from EGO', *bal+kidh* 'away from EGO to either side (not east or west)', *kizi+pay* 'horizontally from east to EGO', *kizi+pun* 'horizontally from west to EGO', *ngapa* 'coming from any direction at a low angle towards EGO', *paw+pa* 'away to the west of EGO, not necessarily horizontal', and *pay+pa* 'away to the east of EGO, not necessarily horizontal'. If you are in an aeroplane, as usual this imaginary sphere accompanies you like an invisible force-field. Flying over Canberra, you can say *Canberra pinagu*. If you are hitting a golf ball towards the west, the flight of the ball as it curves can be described in this schema: *Golf ball pawpa*, and when it lands, *pinapun*, and vice versa to the east.

Morphemes

<i>bal</i>	to the side	<i>na</i>	FEMININE
<i>gu</i>	below	<i>ngapa</i>	coming from any direction (except above or below) towards EGO
<i>ka</i>	up, above	<i>nu</i>	MASCULINE
<i>kadaka</i>	facing up	<i>pa</i>	away from EGO
<i>kawa</i>	EGO	<i>paw</i>	west
<i>kay</i>	invisible	<i>pay</i>	east
<i>ki</i>	in motion	<i>pi</i>	in sight, visible
<i>kidh</i>	horizontal/vertical: on same plane as EGO's normal line of sight	<i>pun</i>	west
<i>kizi</i>	hither, horizontally	<i>sewa</i>	at arm's length
<i>muluka</i>	facing down	<i>wa</i>	stationary

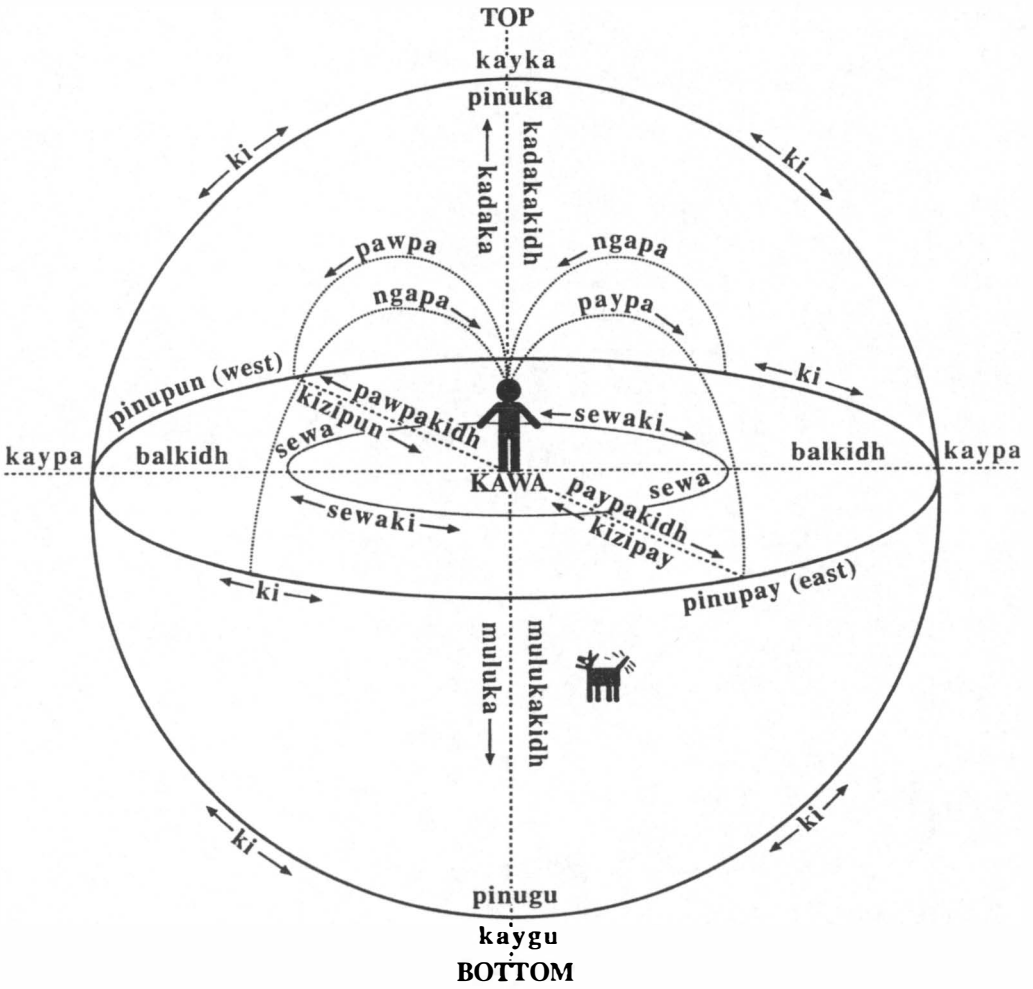


Figure 1: Morphodirectional sphere

Wordlist (forms shown in the Chart, and a few others)

<i>balkidh</i>	on either side (not east or west) of EGO	<i>ngapa</i>	towards EGO
<i>kadaka</i>	facing up	<i>pawpa</i>	westwards and above, away from EGO
<i>kadakakidh</i>	facing up, from a horizontal position	<i>pawpakidh</i>	westwards away from EGO, at eye level
<i>kawa</i>	position of EGO (reference point)	<i>paypa</i>	eastwards and above, away from EGO
<i>kaygu</i>	below and out of sight	<i>paypakidh</i>	eastwards away from EGO, at eye level
<i>kayka</i>	above and out of sight	<i>pinugu</i>	vertically below EGO
<i>kaypa</i>	on the same plane as EGO and out of sight	<i>pinuka</i>	vertically above EGO
<i>ki</i>	in motion at a constant distance from EGO	<i>pinukaki</i>	in motion above EGO
<i>kizi</i>	from EGO	<i>pinupay</i>	stationary in the east
<i>kizigu</i>	towards EGO from below	<i>pinupayki</i>	in motion in the east
<i>kizika</i>	towards EGO from above	<i>pinupun</i>	stationary in the west
<i>kizipay</i>	from the east towards EGO	<i>pinupunki</i>	in motion in the west
<i>kizipun</i>	from the west towards EGO	<i>sewa</i>	stationary at arm's length
<i>muluka</i>	facing down	<i>sewaki</i>	circular motion at arm's length around you
<i>mulukakidh</i>	facing down, from a horizontal position	<i>sipa</i>	established destination
		<i>sizi</i>	towards EGO

Reference

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35 *Where have all the onsets gone? Initial consonant loss in Australian Aboriginal languages*

JULIETTE BLEVINS

1. The question¹

The unmarked or most natural syllable type in spoken languages is thought to be CV, a single consonant, the onset of the syllable, followed by a vowel, the nucleus of the syllable (see Jakobson 1962:526). In many Australian Aboriginal languages however, consonants have been lost from the beginning of words, leaving vowel-initial syllables, as schematised in (1).

(1) Initial C-loss: *C > Ø / Word [_

The basic question addressed in this paper is why consonants have been lost from the beginning of words in so many Australian languages. What conditioning factors give rise to vowel-initial words?

¹ This is a revised and shortened version of a talk first given at the 1995 Australian Linguistic Society Meeting at The Australian National University, Canberra, and later at the Linguistic Society of America Annual Meeting in San Diego, January 1996, and the Phonetics and Historical Linguistics Mini-Symposium at the University of California, Berkeley, April 1996. I am grateful to the editors, especially Barry Alpher, and to Ian Maddieson and John Ohala for discussion and comments on earlier drafts. This research was supported by an Australian Research Council large grant and by a Stanford Women's Fellowship granted by the University of Western Australia. IPA symbols are used throughout for the presentation of data and sound changes. Voiceless stop symbols are used in languages without a voicing contrast. Language names are written in the standard orthographies.

2. Exemplification

Ken Hale was the first person to identify initial consonant loss as a regular sound change in Australia. Over fifty Australian Aboriginal languages show evidence of the basic sound change shown in (1), first formalised by Hale (1964) in his comparative study of the Northern Paman languages. Subsequent studies of initial consonant loss include Alpher (1976) for the Cape York languages, Hercus (1979) for Arabana-Wangganguru, and Dixon's (1980, 7.1) survey. (A complete listing of languages with data sources is given in the Appendix.) Initial C-loss is not limited to any single genetic or areal group of languages within Australia; it occurs in western, central and eastern Pama-Nyungan languages, and in non-Pama-Nyungan languages as well. Examples from three distinct geographic regions are shown in (2)–(4).

(2) Northern Paman C-loss (Hale 1964, 1976a, 1976b)

proto-Paman	Mpalitjanh	Yinwum	Mbiywom	Gloss
*kalka	aka	ika	ilka	'spear'
*maji	aji	aji	aji	'vegetable food'
*juku	uku	uku	tju	'tree'

(3) Arandic C-loss (Hale 1962, Koch 1997)

pre-Arandic–Western Desert	Eastern/Central Arrernte	Gloss
*ka aja	a eje	'emu'
*mu ja	ir we	'night'
*wala ja	ala je	'sea'

(4) Nhanta C-loss (Blevins and Marmion 1994, Blevins 1999)

proto-Pama-Nyungan	Nhanta	Gloss
*paca-	a a-	'to bite'
*paŋ ɟi	aŋ ɟi-	'to smell'
*piri	iri	'nail, claw'
*puma-	uma-	'to hit'

3. Some answers

There is mounting evidence that regular sound change occurs when, due to perceptual properties of the acoustic signal, a string is given a phonological analysis which differs from its historical source (Ohala 1974, 1981, 1993; Blevins and Garrett 1998). For rule (1), this means that the cues once associated with the initial consonant are no longer perceptually recoverable, or are associated with the following vowel, or are associated with prosodic word-initial position. In all three instances, the word is reanalysed as vowel-initial.

3.1 Segmentally conditioned C-loss

Certain consonants have intrinsically weak perceptual cues in word-initial position. Weak (nonstrident) fricatives include the voiced velar fricative (5a), the voiceless dental fricative

(5b), and the voiceless bilabial fricative (5c).² It is quite possible that the weak noise associated with these sounds was interpreted as light breathiness associated with prosodic word-initial position or with laryngeal initiation of word-initial vowels. Glides also have intrinsically weak perceptual cues in word-initial position, where the slow VC transition distinctive of these segments, an important perceptual cue, is absent. It is not surprising then to find unconditioned glide loss (5d). Finally, similarity between voiced fricative or glide formant structure and that of the following homorganic vowel allows the listener to reinterpret perceptual properties of the former onset as part of the following vowel (5e-h). The phonetic account of the rules in (5e) also explains the many Australian languages where there is not necessarily glide loss, but where there is no possible phonological contrast between *ji* vs. *i* and *wu* vs. *u*. Rules (5e-f) were likely restricted to utterance-initial position, a restriction discussed further in §4. The symbol 'N' in (5g-h) represents a nasal glide. Of the nasals, the velar is the weakest, occurring, in many languages, like Japanese, as a true glide.³ From a purely phonetic perspective then, all of the regular sound changes in (5) can be understood in terms of the intrinsically weak perceptual cues of the consonants in these particular environments.

(5) Loss of initial Cs with intrinsically weak perceptual cues

a.	*g > *ɣ > Ø / Word[_	Adnyamathanha
b.	*t̥ > *θ > Ø / Word[_	Kalkatungu ⁴
c.	*p > *ɸ > Ø / Word[_	Nhanta
d.	*j > Ø / Word[_	Luritja
e.	*j > Ø / Word[_ i, *w > Ø / Word[_ u	Western Desert
f.	*g > *ɣ > Ø / Word[_ a	Yaygir ⁵

² The lenition of *g to *ɣ in Adnyamathanha as an intermediate stage receives indirect support from parallel lenition of *b > β and *d̥ > j. If we do not posit an intermediate frication phase in (5c), then the fact that bilabial stops typically have weaker bursts and shorter voice onset times than stops at other points of articulation may also be relevant.

³ Note that in (5g) we must assume that it is the relatively small distance between the first two formants (presumably due to coarticulation) which is interpreted as a feature of the following vowel, whereas in (5h) it is the (relatively) low first formant of the nasal glide which is reinterpreted as a feature of the following high vowel. Though this study is restricted to initial C-loss, similar phonetic factors are involved in word-initial lenitions which occur in many of the languages classified with 'sporadic' C-loss in the Appendix.

⁴ Blake (1979b:132-3) suggests that C-loss in Kalkatungu is sporadic. If we discard *wu/u* and *yi/i* forms, which are due to the noncontrastive nature of glides in this position, we are left with *a*-initial (and C-initial) words, the majority of which show evidence of *t̥ > Ø: Kalkatungu *arrkun* and Mayi-Yapi *tharrkun* 'a fight' (Blake 1979b:133); Kalkatungu *arra* and Yalarnnga *tharrV* 'where'; Kalkatungu *artii* 'to alight, put down', cf. *maka-thartii* 'to put down'; Kalkatungu *ara* 'enter; set (of sun)', Ngawun and Mayi-Kulan *thara* 'stand'; Kalkatungu *almi* 'squeeze', Ngawun *thalmirra* 'bring'; Kalkatungu *ari(rli)* and Pitta-Pitta *thaji* 'eat'; Kalkatungu *rintuu* and Yalarnnga *tharntu* 'hole'. Comparative data are from Breen (1981, 1990) and Blake (1979a, 1979b).

⁵ Crowley (1979:370) notes that [i,u,a] all occur initially, but that it is doubtful there is a contrast between *i* and *yi* and between *wu* and *u*. Looking just at *a*-initial forms, we find that nearly all have *g*-initial cognates in neighbouring languages: Yaygir *aba:la* and Gumbaynggir *gaba:la* 'west (loc)', Gunggari *gaba- ~aba-* 'that, there'; Yaygir *abi* and Gumbaynggir *ga:bi* 'wallaby', Nunagal *gabi* 'possum'; Yaygir *alga ~ algi* 'cut, hit, kill', Goeng Goeng and Bandjalang *galga-*, Gidabal *galga-* 'chop'; Yaygir *aygi* and Gumbaynggir *gaygi* 'cut'; Yaygir *angga:li* and Gumbaynggir *gangga:li* 'shout', Gunggari *ganggali-* 'call'; Yaygir *arugurum* and Gumbaynggir *galugun* 'one', Kabi Kabi and

g.	*ŋ > (*N) > Ø / Word [_a	Arabana
h.	*ŋ > (*N) > Ø / Word [_i	Baagandji

3.2 Stress-conditioned C-loss

Stress shift from the initial syllable to a following syllable has given rise to unstressed (unaccented) or reduced initial syllables in some languages. The direct association of initial C-loss with stress shift was first suggested by Hale (1964:256): "Most conspicuous among the many developments which characterise Northern Paman reflection of Proto Paman is the reduction of initial syllables (*CV₁) by loss of initial consonants (*C) and loss or other reduction of immediately following vowels (*V₁). Associated with initial reduction, and at least partially responsible for it, is a shift of primary stress . . . from the initial to the second syllable."

Reduced syllables are shorter than other syllables. Shortening or compression of the syllable can result in undershoot of consonantal gestures, so that stops are realised as flaps or glides. Initial nasals and glides may be shortened to the point where phonetic cues for place and manner are difficult to perceive. Languages where stress has shifted from first to second syllable, leaving unstressed initial syllables, include Mpalitjanh, Yinwum, Linngithigh, Anguthimri, Ngkot.h, Mbiywom, Rimanggudinhma, Umbuygamu, Lamalama, Kuku-Thaypan, Mbabaram, Agwamin, Wamin, Yanga, Mbara, Ogunyjan, Olgol, Oykangand, Arrernte and Nganyaywana. In all of these languages, I propose the sequence of rules in (6), where C-loss in (6b) can be understood in terms of the intrinsically weak perceptual cues of consonants in reduced syllables.⁶

(6)a. Stress shift: * [ǒǒ. . . > [ǒǒ. . .

b. C-loss: *C > Ø / Word [ǒ

For nearly all of these languages, the sequence of sound changes in (6) is well attested. One exception is Nganyaywana (Crowley 1976:25) where: "The rules for stress placement are largely unknown, but the Nganjaywana forms in the Court notebooks carry stress on the first syllable—how general this rule is, is not known." Forms cited with stress from Court are 'kja:ja 'food' (cf. Djangadi *wiga:j*) and 'gwa:Na 'child' (cf. Yugambal *guga:Na*). These are consistent with a stress-shift analysis, since the first syllable has been lost in its entirety. I suggest, then, that in pre-Nganyaywana stress shifted from the first to second syllable. This stress shift appears to be incipient in neighbouring Baanbay (Gumbaynggir), where stress falls on a long vowel if there is one, otherwise on the leftmost VG-rime, and if there are no long vowel or VG-rimes, then stress is initial, *except that in words of two or more syllables*,

Wakka Wakka *garu-* 'self, one'; Yaygir *a:gal* and Gumbaynggir *ga:gal* 'sea'; Yaygir *aluga* and Gumbaynggir *galu:ga* 'kangaroo rat' (Crowley 1979:371); Yaygir *alina* 'wind', Darumbal *gali* 'rain'. Holmer (1983:183) describes a similar sound change in progress in Gunggari: "It should be noticed that *g* has a particularly weak articulation and is often suppressed, even initially: *amu* for *gamu* 'water', etc." Gumbaynggir data is from Eades (1979); other comparanda are from Holmer (1983).

⁶ Other properties associated with stress-conditioned C-loss are (i) loss of vowel-length contrasts in initial syllables, (ii) common subsequent loss/shift of unstressed initial-vowel features and (iii) common subsequent loss of unstressed initial vowel.

the second syllable can be stressed (Eades 1979:268; Crowley 1976:19). Another questionable case is the Ogunyjan and Oyikangand-Olgol group, languages which constitute a Sprachbund known as 'Kunjen'. Alpher (1976:86-7) argues that a stress-shift analysis of Ogunyjan and Oyikangand-Olgol is not possible, since, in these languages, V₂ has been reduced or deleted in open syllables, and in Ogunyjan, V₂ has also been reduced in closed syllables. If V₂ was stressed, reduction and deletion would be unexpected. Alpher also cites Sommer's description of Uw-El sister dialects of Oyikangand-Olgol, which are also initial dropping without exception, and which differ from Oyikangand only in having initial (V₁) stress on all roots. The Olgol recorded by Rigsby, on the other hand, shows consistent stress on V₂. I suggest that what makes Oyikangand-Olgol different is not that stress-shift never occurred, but that in most dialects, after conditioning initial C-loss, stress shifted back to the initial syllable. The Olgol recorded by Rigsby would constitute a conservative dialect, both in terms of stress pattern, and in terms of retention of V₂. That such a stress-shift could have taken place is acknowledged by Alpher himself (1976:87): "It is possible, but not probable, that stress in Uw-El shifted to the second syllable and then (through contact with Yir-Yoront) shifted back to the first syllable after initial-dropping had taken place".

Perhaps the strongest evidence for a link between stress shift and initial C-loss is found in Kurtjar, a Norman Pama language, and its sister language Kuthant (Black 1980). Black (1980:206) suggests that C-loss may have only occurred in stems of the form CVCVC or longer. Alpher (1976 and pers. comm.) points out that, in other forms, final vowel-loss would result in monosyllables which would resist stress shift. So we expect to find differences between suffixed CVCV- stems, which should show stress shift and C-loss, and unsuffixed CVCV stems, with final V-loss, no stress shift, and no C-loss. Though the majority of stems in both languages are consistently C- or V-initial due to apparent levelling, doublets do occur. Compare Kurtjar *a:γ* 'mouth' with *ǎa:γ* 'opening', both from **tja.wa*. The word for 'opening' was arguably unsuffixed, with 'mouth' occurring with a regular suffix. A similar case is Kurtjar *lβu.w* 'dark' vs. *wulβuw* 'night', where the second form was conceivably an old locative, with the suffix now frozen on the original stem form as well.

4. Remaining problems

The segmental and prosodic conditioning factors for weakening of perceptual cues of consonants in word-initial position outlined in §3 account for a great majority of Australian languages with the sound change in (1). However, there are additional languages for which the most important identifiable conditioning factor for C-loss is utterance-initial position. Utterance- or phrase-initial consonant weakening and loss has been observed as a nondistinctive property of natural speech in Worora, Wajarri, Nhanta, Warlpiri, and Yir-Yoront. Utterance-initial cases of historical C-loss are apparent in Arabana, Baagandji, Maljangaba, Yadiyawara, Nhanta, Nyungar, Warumungu, Yir-Yoront, and Burarra.⁷

⁷ In Diyari, Dyirbal, Guugu Yimidhirr and Ngalakan, the small set of vowel-initial words are always phrase-initial, though, in most cases, comparative evidence is lacking to demonstrate loss of initial *C. Vowel-initial words are Ngalakan *alako* 'by and by', *alanga* 'directly', *alki?* 'still, yet', *ana* 'but' and *anji* 'and, now'; Dyirbal *anja* 'particle marking topic, action or quality as new'; Guugu-Yimidhirr *a* 'particle signifying agreement', *awuun* 'that's the one!'; Diyari *adu* 'hello', *aji* 'hey!', *a?aji* 'no, that's not correct'. Ngalakan *anji* and Dyirbal *anja* appear to be cognate with Gupapuyngu *ɲanja* 'or, but' and Yir-Yoront (*ɲaŋt*, leading Alpher (1991:130) to suggest proto-Pama-Nyungan **(ɲ)anja*. Compare Diyari *a?aji* with Old Arabana **jaraji* 'yes', modern Arabana *araji*.

In (7), we show a slightly modified version of (1) for these languages. In some languages, like Warumungu, initial loss (of *ŋ and *j) has occurred in all pronouns, elements which (synchronically) appear initially or in second position. In other languages, like Arabana (8), a combination of exclamations, vocatives, and pronouns shows the C-loss pattern, strengthening the view that loss of *ŋ before *a* in this language occurred primarily in utterance-initial position. Notice, in particular, the contrast between *ama* 'mother' (used as a vocative) and *ŋama* 'milk', both from **ŋama*.

(7) Utterance/phrase-initial C-loss: *C > Ø / Phrase[_

(8) Utterance-initial C-loss in Arabana

Archaic	Modern
ŋaŋta	aŋta 'I'
ŋaraŋi	araŋi 'yes'
ŋa a	a a 'true'
ŋaŋanaa	aŋa 'father (vocative)'
ŋama	ama 'mother (vocative)', but cf. ŋama 'milk'

A preliminary phonetic explanation for utterance-initial C-loss is relatively straightforward. Unlike the phrase-medial position, where a possible preceding vowel-final word places the word-initial C in a V_V context, preceding vowels are never present in utterance-initial position. In general then, the utterance-initial position provides fewer perceptual cues to consonant identity than other positions, all else being equal. For cases like Arabana, with loss of the intrinsically weak velar nasal *ŋ* before *a*, a homorganic vowel, intrinsic weakness of consonantal cues (see §3.1) is further diminished by the complete absence of VC transition cues.

However, other cases of utterance-initial loss do not appear to involve intrinsically weak consonants, suggesting that part of the phonetic explanation of utterance-initial loss has yet to be discovered. For example, in Nhanta, *uŋu* 'dog (vocative)' from **tuŋu*, has exceptional loss of initial **t*. Elsewhere in word-initial position, **t* is preserved (*talaju* 'tongue', *tayiri* 'snake', *tiraa* 'yellowtail (fish)', *turi* 'sun', *tudaru* 'song', etc.) suggesting that utterance-initial position itself somehow leads to diminished perceptual cues of otherwise intrinsically strong consonants. Several possibilities present themselves.

One possibility is that the default setting for the oral tract on initiation of speech is 'open'. The interaction between this default setting and the articulatory requirements of initial consonants could result in undershoot of articulatory gestures, resulting in short flaps or glides with the intrinsically weak profiles outlined in §3.1 and §3.2 then leading to loss.

Another possibility is that audible ingressive breathing phrase-initially could result in reduction or elimination of perceptual cues. Consider, for example, a word like Old Arabana *ŋa|a* produced with audible ingressive airflow at initiation. The breathy noise associated with the ingressive intake of air eliminates modal voicing and the nasal formant structure associated with it, making the nasal perceptually irrecoverable.

A third possibility for dealing with languages where C-loss is limited to words which appear in utterance-initial position (including possibly those mentioned in footnote 5), appeals to the 'minimization of effort' principle. This principle demands minimal articulatory effort, but is normally checked by a demand to maximise distinctiveness. However, in words with predictable distribution and/or segmental content, distinctiveness is not an issue, and the minimisation effect wins out.

Finally, and perhaps most worthy of further investigation, is the possibility that a general phonetic property makes word or utterance-initial consonants in many Australian languages of shorter duration than word-initial consonants in other languages. I have in mind Pama-Nyungan languages which show both word-initial stressed syllables and post-tonic gemination of consonants, for example Umpila (Harris and O'Grady 1976), the Wik languages and Kuuk-Thaayorre (Barry Alpher, pers. comm.), Warumungu (Simpson 1996), and Nhanta (Blevins 1999), where the historical length contrast has been phonologised. Local and Simpson (1999) demonstrate that the phonetic implementation of (sonorant) gemination in Malayalam nouns involves not only a length contrast in the medial consonant, but durational differences in surrounding vowels, as well as durational differences in word-initial consonants. Of direct relevance is the finding that initial consonants (the onsets of syllables closed by geminates) are significantly shorter in nouns with medial geminate laterals than in those with medial nongeminates.⁸ If word-initial stress in many Australian languages is associated with lengthening of the tonic vowel or post-tonic consonant, and if absolute constraints on syllable length exist, then this rhyme-internal lengthening could be associated with compensatory word-initial C-shortening, or compression, whose phonetic effects would include articulatory undershoot resulting in lenition and loss. Only this last explanation can account for the otherwise coincidental occurrence of segmentally conditioned, stress-conditioned, and utterance-initial conditioned C-loss in the Aboriginal languages of Australia.

Appendix: Languages with evidence of word-initial C-loss

(listed alphabetically within genetic/areal groupings)

Classification:

- invariable = all *C₁ lost
- weak = all *C₁ of a particular phonological class lost
- utterance = *C₁ lost from words of lexical or syntactic syntactic categories with a tendency to occur phrase-initially or to occur as single-word utterances
- sporadic = *C₁ lost (and lenited) in words of no obvious phonological or grammatical class

Northern Paman (all with stress shift)

Anguthimri	invariable	Crowley (1981)
Atampaya	sporadic	Crowley (1983)
Linngithigh	invariable	Hale (1964, 1976a)
Luthigh	invariable	Hale (1964, 1976a)
Mbiywom	invariable	Hale (1964, 1976a)
Mpalitjanh	invariable	Hale (1964, 1976a)
Ngkoth	invariable	Hale (1964, 1976a)
Uradhi	sporadic	Hale (1964, 1976b), Crowley (1983)
Wuthathi	sporadic	Alpher (1976), Crowley (1983)

⁸ The authors also note that their results accord with a durational interpretation of Balasubramanian's (1972) airflow data for Tamil.

Yaraikana	sporadic	Crowley (1983)
Yinwum	invariable	Hale (1964, 1976a)

Other Paman

Agwamin	invariable	Sutton (1976)
Barrow Point Lg.	sporadic	Alpher (1976) (pers. comm. from John Haviland <i>via</i> Bruce Rigsby)
Flinders Island Lg.	sporadic	Alpher (1976: pers. comm. from Bruce Rigsby), Thompson (1976)
Guugu Yimidhirr	utterance (v. fn.5)	Haviland (1979)
Kuku-Thaypan	invariable	Rigsby (1976)
Kurtjar (Kunggara)	sporadic	Black (1980)
Kuthant	sporadic	Black (1980)
Kuuku-Yaʔu	sporadic	Hale (1976c), Thompson (1976)
Lamalama	invariable	Laycock (1969), Alpher (1976: pers. comm. from Bruce Rigsby)
Mbabaram	invariable	Sutton (1976), Dixon (1980)
Mbara	invariable	Sutton (1976)
Ogunyjan	invariable (v. fn.4)	Sommer (1969), Alpher (pers. comm.)
Olgol	invariable (v. fn.4)	Sommer (1969), Alpher (pers. comm.)
Oykangand	invariable (v. fn.4)	Sommer (1969), Alpher (pers. comm.)
R imanggudinhma	invariable	Alpher 1976 (pers. comm. from Bruce Rigsby)
Umbindhamu	sporadic	Laycock (1969), Alpher (1976: pers. comm. from Bruce Rigsby)
Umbuygamu	invariable	Alpher (1976: pers. comm. from Bruce Rigsby)
Umpila	sporadic	Hale (1976c), O'Grady (1976)
Wamin	invariable	Sutton (1976)
Yanga	invariable	Sutton (1976)
Yir-Yoront	utterance, weak	Alpher (1991 and pers. comm.)

Arandic (all with stress shift)

		Hale (1962), Koch (1997), Breen (this volume), Koch (this volume)
Alyawarr	invariable	Hale (1962), Koch (1997)
Antekerrepenh	invariable	Hale (1962), Koch (1997)
Anmatyerre	invariable	Hale (1962), Koch (1997)
Arrente	invariable	Hale (1962), Koch (1997)
Kaytetye	invariable	Hale (1962), Koch (1997)

New England Languages		Crowley (1976, 1979)
Nganyaywana	invariable	Crowley (1976, 1979)
Yaygir	weak	Crowley (1976, 1979)
Yugambal	sporadic	Dixon (1980:198, 43)
South Australian Languages		
Adnyamathanha	weak	Hercus (1979), Tunbridge (1991)
Arabana	utterance	Hercus (1994)
Baagandji	weak/utterance	Hercus (1982)
Barnjarla	weak	Schürmann (1844)
Maljangaba	weak/utterance	Hercus (1979)
Yadliyawara	weak/utterance	Hercus (1979)
Western Desert (in dialects which bordered Arabana)		
Luritja	weak	Hansen and Hansen (1992)
Pitjantjatjara	weak	Goddard (1992)
Yankunytjatjara	weak	Goddard (1985, 1992)
Other Pama-Nyungan		
Diyari	utterance (v. fn. 5)	Austin (1981)
Dyirbal	utterance (v. fn.5)	Dixon (1972)
Gunggari	weak, sporadic	Holmer (1983); Breen (1973)
Nhanta	weak, utterance	Blevins and Marmion (1994), Blevins (1999)
Nyungar	utterance/ŋ	Moore (1842)
Kalkatungu	weak, sporadic	Blake (1979b)
Warlpiri	utterance	(Mary Laughren, pers. comm.)
Warumungu	sporadic	Simpson (1996)
Wajarri	utterance/ŋ	(observed by the author)
Non Pama-Nyungan		
Burarra	utterance, sporadic	Glasgow (1984, 1994)
Ngalakan	utterance (v. fn.5)	Merlan (1983)
Worora	utterance/ŋ	(observed by the author)

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36 *The complete person: networking the physical and the social*

NICHOLAS EVANS AND DAVID WILKINS

If we take personhood to mean people's notions of what a human being is and ought to be, then one strong theme. . . is that bodies and social identities are intimately connected. A person is/has both a corporal and a social condition which should correspond to and express one another. (Reynolds Whyte 1990:108)

1. Introduction¹

In the beginning was the 'word', or more accurately, the comparative wordlist. Ken Hale's first two Australianist publications (1962 and 1964) used lexical comparisons to examine, respectively, the internal relationships of the Arandic languages of Central Australia and the Northern Paman Languages of the Cape York Peninsula. Behind these two works lie not only a lot of travelling, language learning, field observations, and friendship making, but also a series of comparative word lists collected in 1959–60 while Hale was on a National Science Foundation post-doctoral fellowship. It is his 1964 paper which is widely identified by

¹ This paper represents some preliminary results of the research on polysemy and semantic change in Australian languages which we have undertaken jointly over the past several years, and it will, in due course, be incorporated into a coauthored book by the two of us. We would like to thank Felix Ameka, Peter Austin, Gavan Breen, Jenny Green, Denise James, Mary Laughren, Patrick McConvell, Bill McGregor, David Nash, Eva Schultze-Berndt, Jane Simpson and Myf Turpin for their comments and help. Evans would like to thank the Australian Research Council (grant 'Polysemy and Semantic Change in Australian Languages') for partial financial support of fieldwork and other research in 1993–96. Wilkins would like to thank the MPG for funding fieldwork in Australia during the period 1993–97. Both authors would like to thank the Cognitive Anthropology Research Group, later known as the Language and Cognition Group, of the Max Planck Institute for Psycholinguistics for enabling us to work together on these matters. Special thanks go to Steve Levinson and the many researchers there, too numerous to name, for intellectual and practical support.

Australianists as the first recognition that the languages of three-quarters of the Australian continent, including Cape York, are part of the same genetic grouping, superseding the view put forward a half century earlier by Schmidt (1919) who saw the languages of Cape York as forming part of a divergent “northern” category unrelated to those of the south. In showing that sound correspondences could be established between cognate vocabulary of the phonologically deviant Northern Paman Languages and languages to the south, Hale was able to argue that:

It can be shown that all Cape York Peninsula languages. . . are related to one another, indeed rather closely, and that the area as a whole articulates intimately with the mesh of close relationships extending over the southern bulk of Australia. (Hale 1964: 250)

His reconstruction of the ancestor of the languages of Cape York was based on a comparison of approximately 30 linguistic corpora which he had collected himself, and he named the ancestor “Proto Paman” based on the reconstructed stem **pama* ‘person’. Hale is also credited with coining the name ‘Pama-Nyungan’ to cover that vast mesh of close linguistic relationships which covers most of Australia—this term being a compound of his reconstructed stem for ‘person’ in Cape York, and the word for ‘person’ found in the extreme south-west of the country: *nyungaa* ‘man, person, human’.

The term *homage* derives etymologically from Latin *homo* ‘person, human being’ (V. Latin also ‘adult male human being’), and we intend to pay homage to Ken Hale—man, person, and his work—by examining the network of semantic relations that adhere around the notion ‘person’ in Australian languages. In essence, we go back to the ‘word’ and to the comparative historical concerns Hale began with, but we push meaning to the fore over form and phonology. Forty years down the track we have the luxury of not needing to ask, for most Australian languages, what the word for ‘person’ is, or the word for ‘man’, since most of the basic vocabulary has been assembled. Now, we can turn the question around and ask “what does *pam* mean in Yir-Yoront?” or “what does *bama* mean in Yidiny?” Moreover, we can start applying, and developing, the comparative tools that will allow us both to investigate the cultural particularities of semantic association and to undertake rigorous semantic reconstruction that will allow us to put contentful flesh on the formal bones that have already been reconstructed by pioneers such as Hale and O’Grady.

In the context of comparative Australian linguistics, there is actually a rather particular reason that we have chosen to focus on words for ‘person’. Ever since the publication of O’Grady, Voegelin and Voegelin’s (1966) fundamental classification of Australian languages, which followed the naming practice established by Hale, the local terms for ‘person; man’ have been used for naming subgroups, e.g. Paman, Nyungic and Tangkic, based on the words *pama*, *nyungaa* and *tangka(r)a* widespread in the respective groups. Such a practice implies that ‘person’ is an item of comparable stability across the continent.² But on the one hand some terms, such as *pama* and its reflexes, probably have a wider range

² An interesting update to this practice in the context of 1990s ideologies is the replacement of some subgroup names, such as *ngarrka*, based on the Warlpiri word for ‘(initiated) man’, with gender-inclusive terms like *yapa*, based on the term *yapa* ‘person; Aboriginal person’ in Warlpiri, Warlmanpa and Ngardi (e.g. Nash 1996). Nash (pers. comm.) notes that additional considerations were (a) *yapa* is more diagnostic than *ngarrka*, which is found outside the subgroup, and (b) *yapa* admits of a distinctive abbreviation (Y) freeing Ng to be used unambiguously for Ngumbin.

than the relevant subgroup, while in others, such as the Western Desert dialect chain, virtually every dialect has a distinct word for 'person'. Our exploration of 'person' and the semantic webs that are woven around it will aid in determining the actual degrees of semantic and formal areal stability of terms which have gained a certain emblematic status in Australianist circles.

The paper is organised as follows. In §2, we present some background information concerning the anthropological understanding of the concept 'person', and examine some initial linguistic data which strongly support the anthropological view that personhood has both a physical and a social dimension. In §3, we explore the physical dimension by looking at the network of semantic associations which link 'body' and 'person' together and to such notions as 'physical appearance', 'physical presence', 'reality', and 'completeness'. In §4 the social dimension is explored by examining the network of semantic associations linking 'person' and social conceptions such as 'man', 'woman', 'countryman', 'friend', 'brother', and 'subsection'. In §5 we summarise the results from earlier sections and then conclude by examining a small controlled English corpus of occurrences of 'man', 'person' and 'human being', in which the reference is held constant to a single individual.

2. Comparative lexicology and the anthropological view of 'personhood'

As Hill and MacLaury (1995:277) point out, "[t]he proper anthropological understanding of 'persons' . . . is today the site of intense debate". The crux of this debate is whether the conception of 'person' and 'personhood' is universal across cultures, or whether it is culturally relative. Hill and MacLaury themselves suggest a middle way in which the concept of 'person' emerges from the interplay between culture-specific local understandings and a small universal set of dimensions which organise those understandings. Independent of which side of this debate researchers come from, there seems to be a general agreement that the notion of 'person' lies at the nexus between corporeal, physical understandings on the one hand, and social and psychological understandings on the other. The quote which opens this paper states this quite succinctly: "bodies and social identities are intimately connected". Collins (1985:73-4) elaborates this theme as follows:

[A] universal and necessary predicament of personhood . . . has, I think, two necessary aspects:

1. The body is a necessary but not sufficient condition of personhood. Personhood must be completed by some psychological identity, the possibility of which essentially depends on social relations. In logical terminology persons are physical particulars but psychological *relata*.
2. No specific psychological/social completion of physical identity can be regarded as necessary.

While there is a vast anthropological literature on the concept of the person, there has been little cross-linguistic exploration of the semantics of words for 'person'. Despite the proposed universality of terms for 'person' (or 'people') in the world's languages (see Goddard and Wierzbicka 1994 for the linguistic case,³ and Brown 1991 for an

³ How often the relevant words mean 'people' rather than 'person' is not an issue we will be examining in this paper.

anthropological argument), the exact boundaries to the category, the polysemies in which it participates, and the etymological sources for the term display interesting variations across language families and culture areas that have yet to receive serious typological attention. It is, in fact, a surprisingly neglected topic in comparative lexicology. In this section, we use comparative lexical data from Australian languages to demonstrate that 'body', 'person' and 'social identity' are intimately linked in semantic association, thus providing direct linguistic evidence for the standard anthropological position—which is more often justified by philosophical introspection, theoretical reasoning, or inference from ethnographic practice than by direct empirical evidence (see Carrithers, Collins, and Lukes 1985).

Crucial to our investigation is the attestation of recapitulated patterns of polysemy. It has become a standard assumption that virtually all cases of semantic change from meaning A to B involve a transitional phase of polysemy where the word has both meanings:

Synchronic polysemy and historical change of meaning really supply the same data [. . .]. No historical shift of meaning can take place without an intervening stage of polysemy. If a word once meant A and now means B, we can be fairly certain that speakers did not just wake up and switch meanings on June 14, 1066. Rather, there was a stage when the word meant both A and B, and the earlier meaning of A eventually was lost. (Sweetser 1990:9)

The study of polysemy supports and constrains proposals regarding semantic change which, in the Australian context, are essentially unsupported by historical evidence and are of necessity inferential and therefore vulnerable to the unbridled use of claims about semantic naturalness and/or cultural difference.

We begin with an examination of the recurrent polysemies in which cognates of *pama* participate. Table 1 gives the cognates of *pama* in twelve languages of the Pama-Maric group. The languages are arranged across the table in what is essentially a south-to-north transect, and cover most of the proposed subgroups within Pama-Maric. The meaning range includes roughly eleven senses: the general 'person/people' and 'Aboriginal person' senses; the physical sense 'human body'; the human classification senses 'man (i.e. adult human)' and 'male person (of any age)'; the 'social generic'; the gender-specific kinship notions 'husband', 'son', and 'brother'; the sense of 'male' that applies to animals as well as humans; and finally the sense in which the corresponding form in Yir-Yoront can be used as an address term, which Alpher (1991:406) tells us is "understood as 'you' without specification as to gender". The polysemy patterns of Yir-Yoront and Wik-Ngathan demonstrate that single lexemes can cover 'person', 'body', and notions of human classification and kinship.

Although in most languages where there is a 'person' sense there is also an 'Aboriginal person' sense, we are told explicitly that this is not the case for Wik-Ngathan. Sutton (1995) writes: "Unlike most Aboriginal languages, Wik-Ngathan does not normally oppose *pam* in the sense of 'Aboriginal person' to terms for non-Aborigines. An Aboriginal (or other black) person may be specified as *pam mak* ('black person') or as *pam nhuth mak* ('black-fleshed person'), as opposed to (*pam*) *nhuth pachel* ('white-fleshed person') or *koethoeth* ('ghost' i.e. white person)."⁴ This is the only explicit evidence we have of a given sense *not* applying, and it is shown here by a dash; the blank cells occurring elsewhere in Table 1 cannot be

⁴ This is also the case in Kayardild, where to express the meaning 'Aboriginal person', the word *dangkaa* 'person' must be combined with the adjective *ngumuwa* 'black'; thus *ngumuwa dangkaa* 'black person; Aborigine' vs. *balarra dangkaa* 'white person'.

interpreted as absence of a sense for the relevant forms, only as an indication that the sense was not provided by the source used. For example, although Yir-Yoront is the only language for which an author explicitly gives the sense of 'generic of social persona' to cover the fact that the cognate term is regularly used in a form of generic-specific construction where it regularly collocates with kinship terms, initiation grade terms, age-grade terms and other social status terms, it seems that this same function also applies in a number of the other languages listed, including Wik-Ngathan and Wik-Mungkan. For instance in Wik-Mungkan (Kilham, et al. 1986) one finds analogous formations like *pam komp* 'young man'; *pam pikiy* 'married woman'; *pam thum* husband; and *pam uchan* 'initiated man after participating in *uchanam*'.

The final six languages in the table, the 'most northern' of the set, stretch up along western Cape York, and these languages all show 'man' as a sense of their reflex of *pama*. Five of the six also show 'person'. Of the six more southerly languages, only one shows 'man' as a sense, although two others do show senses for which the feature 'male' is relevant. 'Person' and/or 'Aboriginal person' is also a sense of the relevant term in four of these more southerly languages. While there is thus some degree of regional variation in patterning, it is still possible to say that three-quarters of the languages show the 'person' sense, and a different three-quarters show senses where the feature 'male' is relevant. Given the geographic range for which this holds true, and the fact that all subgroups within the group recapitulate these facts, it seems plausible to reconstruct some form of polysemy for proto-Pama-Maric **pama*. We could suggest, as has been suggested for proto-Paman **pama*, that the polysemic senses are 'person' and 'man', but more conservatively we could suggest 'person' and 'male human being', or, to be even more conservative, we could simply suggest that the original meaning range clustered around 'human' on the one hand and 'male' on the other, without specifying whether this range was split into two distinct senses. In other words, instead of jumping to assigning two discrete meanings to a reconstructed form, it may sometimes be more appropriate to isolate the semantic components which structure the polysemies and association chains found in the daughter languages pending further etymological evidence.

A very similar pattern of semantic associations can be found halfway across the continent in a subset of languages of the Nyungic subgroup. Table 2 gives the range of meanings of the form *puntu* in five varieties of the far-flung Western Desert language (Wati subgroup of Nyungic), as well as in Warlpiri (Ngarrka [Yapa] sub-subgroup). Once again we see the association of 'body', 'person', 'man', male kin relations and general (i.e. gender-neutral) kinship-related terms. New associations include 'initiated man' (presumably reflecting the fact that a man is not considered a man by virtue of age, but by virtue of having been initiated into manhood); the characterising notion 'big; important' (which appears to arise out of the 'initiated man' sense; see Hansen and Hansen 1992); the suite of gender-neutral notions 'relation, kin, friend, companion'; the more general kinship organising sense 'subsection, skin(-name)⁵ (a notion which we would not expect to find in north-east Queensland, where subsections do not exist); and a sense pertaining to reality and presence, namely 'in the flesh; the real thing' (this sense apparently only arises in Pitjantjatjara in combination with the verb *nyanganyi* 'to see' (Goddard 1992)). Unlike the *pama* cognate set, there is no one language with *puntu* which manifests a polysemy range that spans both the physical and the social side of the person. In fact, the physical side is manifested in just Pitjantjatjara and Yankunytjatjara, and shows no direct link to person or kinship in this variety.

⁵ The use of the word 'skin' to mean 'subsection' is widespread in Aboriginal English.

Table 1: The range of senses associated with reflexes of proto-Pama-Maric **pama* in twelve languages

Sense	Margany & Gunya bama	War- gamay bama	Yidiny bama	Dja- bugay bama	Kuku- Yalanji bama	Guugu Yimithirr bama	Yir- Yoront pam	Wik- Ngathan pam	Wik- Mungkan pam	Linngi- thigh ma	Angu- thimri ma	Uradhi ama
person, human being			+		+	+	+	+	+	+		+
Aboriginal person				+	+	+	+	—				
address term (gen-der neutral)							+					
human body							+	+				
'man'				+			+	+	+	+	+	+
male person (any age)								+				
male (person or animal)		+					+					
husband								+				
son							+	+				
brother (unspeci- fied)	+											
generic of social persona							+					

Table 2: The meanings of *puntu* in six Central Australian languages

Sense	Pitj. and Yank.	Ngaany.	Pint. and Lur.	Kukatja	Martu W.	Warlpiri
person, human being				+	+	
Aboriginal person				+	+	
initiated man		+	+			
man (any adult male person)		+	+	+	+	
young unmarried male school leaver				+		
male				+		
term of address among young men				+		
wife's brother				+		
relation, kin, friend, companion						+
sub-section, skin (name)'						+
live body	+					
"in the flesh", the real thing	+					
	[when used with 'see']					
big, important, great, heavy			+			

Although the 'man' sense is the most frequently represented in Table 2, there are good reasons for not immediately assuming this is the original meaning. Firstly, we need to remember that the four varieties which attest this meaning are geographically adjacent varieties of the one language—Western Desert. This makes it problematic to apply frequency as a criterion. Secondly, Table 2 strictly represents only the form *puntu*; if we loosen the formal criterion slightly, the cognate set becomes significantly bigger. Likely cognates include Yankunytjatjara *pantu* (1) 'skin, hide', (2) 'body'; Ngaanyatjarra *pintu* 'foreskin, prepucce'; Kayardild *binthu* 'foreskin'; Warlpiri (Willowra) *parntu* 'male at age of puberty (youth, pubescent male, young fellow, lad)'; Jaru *puntuwali* 'subincised penis and person'; Warlpiri *pinti* 'skin, hide, husk, peel'; Warumungu *purnturku* 'old man'; Walmarjarri *purntu* 'take someone's side'; Kukatja *puntu-tjurra* or *purntu-tjurra* [probably 'person-put'] (1) 'take

someone's side (in a fight)', (2) 'take another's place (e.g. in a meeting)', (3) 'help'; Martu Wangka *purntu-junu* 'to take our side' and *purntu-rringu* 'to stand up for someone'.⁶ On the basis of argumentation presented in Wilkins (1996) the original meaning is most likely to have been 'skin', with the etymon undergoing the following natural set of changes: 'skin' > 'body' > 'person'. The shift of 'skin' > 'foreskin' > 'initiate' is a further possible pathway. The sense of 'man' could naturally arise from either of these pathways, i.e. narrowing of 'person' to 'man', or extension of 'initiate' to 'initiated man' to 'man'. The discussion in §4 will help to explain how the 'subsection' and 'companion' senses of Warlpiri *puntu* fit in with these proposed changes.

The polysemy patterns exemplified in Tables 1 and 2 are recapitulated in numerous Australian languages. For example, The Eastern and Central Arrernte to English Dictionary gives the following six senses for the form *tyerrtye* (Henderson and Dobson 1994:575-76): (1) 'body', (2) 'person, people', (3) 'Aboriginal person, Aboriginal people', (4) 'a person's appearance', (5) 'human, people' (as opposed to animals, etc.), (6) 'skin name'. Similarly, for Pitjantjatjara and Yankunytjatjara, Goddard lists four senses for *anangu*: (1) 'person, people', (2) 'Aboriginal person, Aboriginal people', (3) 'body (= *puntu*)', (4) 'euphemism that may be used in place of *kuri* [mate, spouse] with specially respected relatives'.⁷ Finally, moving far outside of Central Australia, consider Kayardild *dangkaa* (1) 'entity' (in context could refer to a tree, a rock, a fish or shark, or a person), (2) 'being' (as in 'a mythic being'), (3) 'person', (4) 'man' (vs. woman), (5) 'someone; anyone' (in certain specific constructional contexts), (6) (after a possessive phrase) 'friend, companion'. The Arrernte and Pitjantjatjara-Yankunytjatjara forms are of interest because they show that 'man' need not participate in polysemy structures which link the physical and the social sides of 'person'. The Kayardild form is noteworthy because it suggests that linking of 'person' to the physical side need not pass directly through a sense meaning 'body', but may instead have to do with entityhood (the person as a concrete physical object).

In short, through attestation of recapitulated polysemy patterns, we have strong comparative lexicological evidence to support the anthropological view that the concept of 'person' has both a physical and a social side. At this level of generality, however, we do not get any good sense of what local conceptions of 'person' may be like in Australia. In other work (Evans and Wilkins 1998 and 2000), we have argued that different patterns of polysemy will reflect different pathways of semantic extension, and conversely that different

⁶ Strengthening the case that the form *purntu* is a cognate of *puntu*, we find that Warlpiri has a verb form *purntu-yirra-rni* 'to blame, accuse' (*purntu* 'blaming, accusing' and *yirra-rni* 'to put'), and this is surely cognate with idiomatic forms involving *puntu* in Pintupi-Luritja and Pitjantjatjara-Yankunytjatjara, such as Pintupi and Luritja *puntu watjaju* 'accused, blamed' (lit. 'said great/man') and Pitjantjatjara and Yankunytjatjara *puntuza watjaji* 'tell someone off very severely, very personally'. That these uses of *puntu* are associated with the 'person' network is clinched by the fact that these verb forms have synonymous forms where another word that clearly means 'person' replaces *puntu*, thus Pintupi and Luritja *yanangu watjaju* 'accused, blamed' (lit. 'said person') and Pitjantjatjara and Yankunytjatjara *ananguza watjaji* 'tell off or rebuke severely, going into quite personal details'.

⁷ For the Kukatja equivalent, Peile (1997:89) writes "*Yarnangu* refers to both the 'body' and 'flesh' of a human or animal (cf. Old Testament Hebrew, *basar*). It is also used in many metaphorical and idiomatic expressions. For example it is used to refer to somebody being present or any person or group of people anywhere and to meat, flesh of a fruit, shaft of a spear or any long instrument (e.g., woomera, shovel) or a prefabricated building".

pathways of semantic change will lead to different patterns of polysemy in earlier language states. Moreover, one of the major sources for different trajectories of semantic change is differences in cultural beliefs and understandings, leading to differences in conceptual association which manifest themselves in language use and contextualised interpretation. Considering the etymologies for 'person (human being)' in Indo-European languages, Buck (1949) writes, "The principal source of words for 'man 1' [i.e. 'person', 'human being'], so far as their etymology is clear, is the notion of 'earthly' or 'mortal', thus distinguishing men from the gods. But a few are derivations of words for 'man 2' [i.e. 'adult male human']". Of these, only the 'man' source is current in Australian languages, as the previous data suggest.⁸ We contend that the other pathway is blocked for cultural reasons. That is to say, the cultural knowledge schemas opposing mortal human beings to immortal gods are absent in traditional Australian texts, and the absence of such scripts robs words covering the notions 'earthly' and 'mortal' (to the extent that these exist at all) of the potential to extend to 'human being, person'. Similarly, the pathway which gave rise to the Modern English word 'person'—namely, 'mask (as worn in ancient classical theatre)' > 'character (in a play)' > 'persona, personage' > 'person'—would not arise in the Australian context, since it is so embedded in Indo-European cultural particulars concerning the nature of theatre and performance, and the existence of 'masks' as cultural artefacts. On the other hand, as we shall see, common etymological sources for 'person' in Australian languages find no echo in Indo-European (see §4). We now take a closer look at what Australian languages can tell us about local conceptions of personhood, starting first with the physical side and proceeding to the social side.

3. The physical side: body, appearance, presence, reality, completeness, health

In the preceding section we saw that it was common in Australian languages for a single lexeme to cover both the notions 'body' and 'person'. Of course, this is not only an Australian phenomenon, but appears to be widespread in the world's languages. Such English expressions as 'bod' for 'person' in some North English dialects, the 'somebody/anybody/nobody' set, and songs like 'if a body meet a body coming through the rye' all underline the close semantic connection. In the vast majority of cases there is good reason to believe that the 'body' sense is prior and the 'person' sense is an extension (see Wilkins 1996 for argumentation on this point). To understand how the extension from one sense to another occurs, one must examine usage in context (Benveniste 1966). On the model of semantic change we have advanced in previous works (Evans 1992a, 1997; Evans and Wilkins 1998 and 2000; Wilkins 1981, 1996, 1997), pragmatics plays a central role in the initial phase of extension: specific contexts, including specific suites of mutually assumed encyclopaedic knowledge, are needed to generate the particular pragmatic extensions that are a prerequisite to eventual lexicalisation of an additional sense. Such contexts we term 'bridging contexts'.

⁸ As will become apparent in §4, although the 'man' to 'person' shift occurs in Australia, it seems to be driven by very different cultural knowledge schemas than are the Indo-European shifts. In particular, the significance of initiation and the identification of 'initiated men' as prototypical people seems to be critical for many Australian examples.

There appear to be a number of bridging contexts which support the extension of 'body' to 'person'. An example of a sentence furnishing such a bridging context is Kukatja *wiya=rna nyangu yarnangu nyinantjakutu* (lit. 'not.I see body/person sitting/existing') 'I didn't see anyone [there]', where *yarnangu* could be translated equally well in its etymologically prior sense of 'body' (i.e. I didn't see a body there) or its subsequent sense of 'person' (i.e. I didn't see a person there). In this context, that is, 'I didn't see a body' implicates 'I didn't see a person'. This means that, probably universally, statements like 'I didn't see a body' furnish bridging contexts for 'I didn't see a person', because of ubiquitous beliefs about the body being a necessary condition of personhood. In fact, there may be an intermediate link in such an extension, namely the notion of 'somebody' or 'someone'.⁹ This sense may in fact go unlisted in dictionaries and wordlists, precisely because it is hard to be sure whether the sense is pragmatically generated or is lexicalised. In the Alyawarr dictionary (Green 1992), for example, the word *arlka* is given only one sense, 'body', but an example sentence is provided which resembles the Kukatja sentence, and the translation gives a 'somebody/someone' reading: *Nhak atha ingwerenty arew arlka alherl-anenty arleng* (lit. 'there I other saw body going far') 'I saw somebody walking in the distance'.

Since the 'body' is the physically perceivable manifestation of a person, it is not surprising that the above examples of bridging contexts involve visual perception, and we will see shortly that the visual context is particularly significant when considering further extensions of 'body'. But first, consider another example of a potential bridging context between 'body' and 'person', as demonstrated in the following case of an English-to-Arrernte translation, with follow-up back-translation by a number of Arrernte-English bilingual consultants. As part of a translation concerning diabetes, the English clause 'all these things are bad for the body' was translated into Arrernte as *arne nhenhe ingkerreke akurne tyerrtye-ke* (lit. 'thing this all bad person/body-DAT'), and the back translation into English by a number of speakers confirmed that this could be read either as originally intended (i.e. the 'body' sense) or as 'all these things are bad for a person', with no apparent loss in comprehension of the text. In other words, in the context of health matters, what is good or bad for the body is normally also good or bad for the person (and vice versa), thus the distinction between the 'body' sense and the 'person' sense of Arrernte *tyerrtye* becomes blurred (and is inconsequential for adequate comprehension).

As we have seen previously in the case of Arrernte *tyerrtye*, a term which covers 'body' and 'person' may also take 'physical appearance (of a person)' in its semantic range. As the following example from Henderson and Dobson (1994:576) shows, in this usage visual perception may be implied rather than directly coded: *tyerrtye arrpenhe-irreke* (lit. 'person/body other-INCH.past': 'person/body became different') 'He really looks different'. The sense of 'physical appearance' can extend to resemblance and similarity. In Murrinh-Patha, for instance, the term *nginipunh* 'body' has the extended sense 'similar', as in *thamul ngay nginipunh thamul nhinhi* (spear 1sg body spear 2sg) 'my spear is similar to yours'. In explaining this use, Walsh (1996:377) reminds us that '[t]he relationship between *body* and

⁹ The Kukatja dictionary (Valiquette, ed. 1993:358) gives 'body' as the primary (first) sense of *yarnangu*, but the second sense listed (out of a total of six senses provided) is: 'somebody; anybody; group of people'.

like or similar is familiar from English: Old English *lic* denoting 'body' gave rise to Modern English like.¹⁰

While 'physical appearance' can be a sense associated with 'body' and 'person', it seems to be the case that in Australia 'physical appearance' is most commonly an extension from 'face'. In Kukatja, for instance, there are seven terms (*miparr(pa)*, *mulya*, *ngalya*, *nganyinyanyi*; *nyanyi-nyanyi*, *yiku*, *yurnpa*) which can be used to refer to the face, and five of these (*miparrpa*, *ngalya*, *nyanyi-nyanyi*, *yiku*, *yurnpa*) can be used in the sense 'general appearance of person or object', despite having what are otherwise quite different ranges of polysemic senses. The primary Kukatja term for 'face' is *miparr(pa)*, and this is also used to cover the notion 'person'. In fact, the polysemy range of *miparr(pa)* possesses striking similarities to that of terms for 'body' and 'person' we have already examined: *miparr(pa)* (1) 'face', (2) 'general appearance of a person or object', (3) 'the thing itself', (4) 'person', (5) 'personality'. The semantic association of 'face' and 'person' also exists in Bandjalang, where *mipiny* means 'face' in the Waalubal dialect and 'man, Aboriginal person, people' in the Mandadjali dialect, and finally in the Gidabal variety has the basic sense 'face' but is sometimes used to mean 'person', thus providing us with the necessary intermediate polysemy to validate the association (see James 1990).

In Table 2 we saw that in Pitjantjatjara and Yankunytjatjara *puntu*, which primarily means 'body', could mean 'the real thing' when used in combination with the verb 'to see', and the English phrase 'in the flesh' helps give some sense of the bridge between 'body' and 'reality', which almost certainly relies on the notion of 'presence' (and co-presence). The semantic association of the notions 'body', 'physical presence', 'reality' and 'existence' is recapitulated in languages all over the country, and regularly brings 'person' into the same cluster. In Yir-Yoront (Alpher 1991) the term *morr* means "1. body, 2. the human body in substance, human being as physical entity; it is often compounded with *pam* to give *pam-morr* 'the human body in substance'". Alpher makes it clear that *pam-morr* is used to refer to 'non-supernatural humans' and 'person not in a dream', in other words a real and present natural human being. As such, he associates *morr* 'body' with another Yir-Yoront entry *morr* 'real; very'. He helps justify this association by noting that examples like Pintupi *yarnangu* 'person; body; real' and Yankunytjatjara *martu* 'true, real, genuine, serious' next to Pintupi *martu* 'initiated man' provide plausible parallels.

Another parallel is the Ungarinyin pair *arin* 'self, existence, real self, presence, stature' and *arindji* 'alive, one who lives, native, living being'.¹¹ And a further cognate set which probably reflects the set of changes flesh > body > somebody > man, and in at least two languages brings in notions of 'presence', 'existence' and 'reality', includes: Diyari *parlku* 'body, flesh, cloud', Arabana and Wangkangurru *palku* 'flesh', Warlpiri *palka* 'body; trunk (of body); main or central part of a thing; present, in person; actually, really'; Warlmanpa *palka* 'body, seed pod, present', Alyawarr *arlka* 'body' (with uses as 'somebody; someone' as noted above), Antekerpenhe *alke* 'body', Ngarluma *palku* 'muscle, flesh of thigh or arm', and Pitta-Pitta *palku* 'man'.¹² In the context of the present discussion, it is the Warlpiri term

¹⁰ In Murrinh-Patha, another body-part term that is extended to mean 'like, similar' is *mange* 'hand'.

¹¹ The relationship between these two forms is noted by Coate and Elkin (1974:45).

¹² As another potential cognate in this set, David Nash has brought to our attention that Geoff O'Grady has recorded Mirniny *palka* and *parlka* 'head', corroborating Eucla and Eyre's Sand Patch vocabularies in Curr (1886-87). He gives the form *parlka* for Mirniny 'head' in O'Grady and Klokeid (1969:304).

palka that is of interest to us. A native speaker's informal definition of this term shows that visibility is a critical component of the 'in person' sense: *Palka ngulaji yangka kujaka ngunami nyiyarlangu warraja parlankawangu, manu yangka kujakarlipa nyampu mardarni palka ngalipa-nyangu wakujarrakurlu manu wirliyajarrakurlu* [PPJ 6/87] 'Palka is anything that is visible and not hidden, and it is also our bodies which we have with two arms and two legs'. Although this Warlpiri term does not take 'person' or 'people' in its meaning range, one can see a relation between the 'body' sense and an associated 'person' sense by looking at verb forms derived from this nominal root. The inchoative form *palka-jarri-mi* is regularly used to mean 'be born', and similarly the causative form of the verb *palka-ma-ni* can mean 'to give birth to, conceive, or "find" in the local Aboriginal English sense of be animated by one's conception totem'. An example of this last usage was collected by Hale in 1959: *Wirnpangkuju palka-manu* 'The lightning found me (i.e. caused me to be, as of Conception Dreaming)'. With these examples in mind, it seems plausible to analyse such verbalisations as meaning 'become embodied' or 'cause to be embodied', where the spirit is made flesh, so to speak, and the result of these processes is a 'person'. Thus, even if Warlpiri *palka* does not lexicalise the sense 'person', its derivatives do help give an insight into Warlpiri notions of personhood.¹³

We conclude this section by examining briefly associated notions of 'body', 'completeness', 'fullness', 'fat' and 'health'. In Wilkins (1989), the Central Arrernte form *mpwerrke* was glossed as 'body; whole; complete (syn. *mpwanke*); be fat and healthy (antonym *utyewe*); full (of cup; antonym *artwe*)'. Although, *tyerrye* is the primary Central Arrernte term for 'body', *mpwerrke* can be used as an alternate, especially when talking about a live, ideal, healthy, real human body. As Hale (n.d.) recorded in his original comparative Arandic Word List, several Arandic varieties have a cognate of *mpwerrke* as their primary word for 'body'—Western Arrernte and Pertame, for instance, both have *mperrke* 'body'. In Alyawarr, the cognate form *ampwerrk* does not cover 'body', but instead simply means 'whole, full, unopened, shut'. Forms which mean 'whole' or 'complete' regularly extend to meaning 'totally' or 'completely'. Thus, there may be two routes in this domain by which a form meaning 'body' comes to be associated with intensifier-like meanings such as 'very', 'really', 'truly', 'completely' and 'totally': that is, either via the 'reality' route or via the 'completeness' route. The association of 'completeness', 'fullness', and 'fatness' needs little explanation, but it is necessary to point out that, with respect to humans, 'fatness' was traditionally a desirable trait in many Australian communities. For instance in Kukatja *putarri* means (1) 'having much fat', (2) 'beautiful; good-looking' (of either sex), (3) 'excellent'. One Kukatja word for 'old person' is *putarriparni* (lit. 'not beautiful/fat'). Further, in the Lardil initiation register Demiin, described by Hale et al. (1981), the word *l*i* replaces the everyday Lardil words *luwa* 'fat, grease' and *kuba* 'good' (among others).

¹³ We are grateful to Jenny Green for providing even more data to substantiate the widespread connection between 'person', 'body', 'tangible', 'real', and 'really'. In Eastern Anmatyerr there are two forms that are cognate with the Arrernte form *tyerrye* 'body, person, physical presence, subsection'. These are *tyerry* 'body, person' and *iyterry* 'really, truly'. This second lexeme is very close in form to the Kaytetye *eyterrye* 'body, person'. Moreover, in personal communication, she points out that "Alyawarr and Eastern Anmatyerr speakers use *inngerem* to mean 'people', and *inna* to mean 'really', or 'the tangible' or 'the actual one'".

Returning to 'body' and 'person', we can note that in Kukatja the derived verb *yarnangu-rriwa* (lit. 'body-become') means 'become well; return to health'; and this is synonymous with *miparr-kurlu-rriwa* (lit. 'face-with-become'). Thus, two body-part terms, 'body' and 'face', which we have seen previously as extending to refer to 'person', can take on a reference to 'health' as constituents of derived verbs. In this connection then, it is worth mentioning that in Warlpiri a verb form based on the nominal *puntu* 'relation, kin, companion; sub-section' (see Table 2 above), namely *puntu-puntu-jarrimi*, means 'to be accustomed to, to be acquainted with, to feel at home', and in one Warlpiri variety a similar derivation, *puntu-jarrimi*, has a health-related meaning, 'to be better, to be without pain, not sore, healed'. While the 'become healthy' sense can easily be reconciled with the 'be(come) accustomed' sense, one would not want to rule out the possibility that the Warlpiri root *puntu*, in derivations like these, still retains some aspects of an original 'body/person' sense and that this is showing up in the health-related uses.

4. The social side: kin, companion, countryman, man, woman

Carrithers (1985:235), in discussing Mauss's (1938) seminal essay 'Une catégorie de l'esprit humain: la notion de personne, celle de "moi"', notes that the *personne* is a conception of the individual human being as a member of a (1) significant and (2) ordered collectivity. In the most basic society type, the order is that of kinship or clan membership and the *personne* found in that society is one determined by kinship or clan membership. Australian Aboriginal societies are very much of this type, where kinship is an overarching framework guiding both individual behaviour and collective action, and giving a structure not only to the interpretation of the social world but also to the construal of the natural world. In this section, we will discuss in more detail how lexemes for 'person' show semantic association with notions of kinship on the one hand, and human classification (by gender, age, and/or role) on the other. In the process, we will gain some further understanding of the Aboriginal view of the prototypical human being.

In many Aboriginal societies, a central determinant of a person's place in the social world is their 'subsection' or 'skin', and polysemies including 'person' and 'skin (name)' are not unknown. In §2, we saw two instances where the sense 'subsection name (generic); skin name' entered into the set of semantic associations surrounding 'body' and 'person'. In Arrernte this is an extended sense of *tyerrtye*, as in *tyerrtye iwenhe-ame unte?* (lit. 'body/person what-INTERR 2sgS': 'what person/body are you') 'What skin are you?' (i.e., 'what is your skin name?'), and in Warlpiri this is a recorded sense of the term *puntu*, which otherwise means 'relation, kin, friend, companion'. If we were just looking at these two examples, we might be tempted to think that the 'subsection name' sense emerges naturally out of a 'person' or 'kin' notion, but further comparative evidence suggests that this sense most typically emerges as an extension of terms for 'body' and certain body parts, and there is no direct evidence that it ever emerges as an extension from 'person' or 'kin'. Languages in which a term which centrally means 'body' extends to cover 'subsection name (generic)' include Murrinh-Patha (*nginipunh*, with each sense taking a different noun class marker) and Ngarinyman (*mayi*). Extensions of particular body-part terms to cover '(sub)section name' include Walmajarri *ngilyki* 'flesh, skin group (generic)'; Kukatja *puya* (1) 'muscles', (2) 'flesh; meat; skin', (3) 'skin name'; Kaytetye *ekwe* 'smell, taste, skin name'; Alyawarr *ikwa* (1) 'skin name, section

name' (general term), (2) 'body smell, body scent'; Gun-Djeihmi *gun-gurlah* 'skin (body part); skin (subsection)'; and Lardil *julda rel* 'hair of head; skin (subsection)'.¹⁴ Given that the organisation of kin relations into sections and subsections is of restricted distribution in Australia (not occurring, for example, in the northern Cape York Peninsula), extensions of the type mentioned in this paragraph are necessarily highly culture- and region-specific. Still, they help demonstrate that, with regard to word meanings, the association of the physical and the social sides of personhood, as demonstrated by the many polysemies taking a body part and a social category meaning, need not include a sense of 'person' or 'kin', even if these notions are critical to the explanation and the understanding of the semantic shifts.

A more widespread set of recapitulated connections in Australia links the notions of 'companion, friend, mate' with that of 'person'. We saw this linkage arise in the *puntu* set, and it is worth spending a moment examining how the Warlpiri term *puntu* 'relation, kin, friend, companion' is to be understood. Consider the following informal definition provided by a Warlpiri native speaker: *Puntu, ngulaji yangka kujakapala nyinami yapajarra nyurruwarnu manu wunguwarnu, yangka tarngawarnu yulkajirri* [PPJ 6/87]. 'Puntu is how two people are who have been together as companions for a long time—who are company for each other'. Revealingly, Hale's (1971) discussion of the Warlpiri tradition of antonymy found in the initiation register Jiliwirri exemplifies the use of *puntu-nyayirmi* (which he glosses 'kinsman-real') as the standardised antonymic substitute for *walypali* 'European'.

The notion of companionship and accompaniment, centrally important in Australian Aboriginal societies, is intimately linked to kinship. In hunter-gatherer groups with a high degree of mobility over large tracts of country, and where the community size of a travelling population was low, these notions of companionship and accompaniment take on special meaning. Moreover, given that kinship sets the pattern for who can 'hang out' with whom and who must be avoided, the set of individuals that can be 'companions' (in the narrow sense of 'company for each other') is limited to a number of particular classificatory kin relations. While the folk definition of *puntu* cited in the previous paragraph seems to relate to a narrow notion of close companionship, a seemingly contradictory use of *puntu* as 'kin', which pertains to kin avoidance, was collected by Hale in 1959. The example sentence is: *Yikirrinjilpankulujana wurnturu wapayarlayi yangka—yapa-wurru puntu* 'You have to always keep your distance from them as you are a real Aboriginal—kin (to them)'. First of all, as has often been mentioned, the notion of 'kin avoidance' tends to be misleading, and it is often better to replace the notion of avoidance with 'respect' and its overt demonstration, and keeping one's distance is a way of showing respect for certain kin. Still, the notion of close kin includes both those you can be close companions with and those you must keep your distance from, but with regard to major shifts from one place to another, these would all be part of the larger group that would travel together. In other words, we can have a narrow and a broad reading of 'accompaniment' and 'companionship', and the former relates to those people who can be 'mates', in its usefully ambiguous Australian usage, while the later

¹⁴ The Alyawarr and Kaytetye forms are clearly cognate with one another and with Eastern and Central Arrernte *ikwe*, which Henderson and Dobson (1994) define as follows: "1.a. smell, odour (pleasant or unpleasant); 1.b. (a person or animal's) scent; 2. some speakers, sensitive language 'the company of other people, their presence. Not a nice way to describe this. Used to criticise someone for hanging around the other people'; 3. (Northern) the taste of something".

reading can take in the whole community of co-travelling kin—the people who most centrally define one's social group (the true people).

There are at least three examples of cognate sets meaning 'companion; friend; mate' and often also 'spouse' in some languages, and 'person' (sometimes also Aboriginal person, man etc.) in others. We will present these starting with the most regionally restricted set and progressing through to the most widespread.

Looking at the Western Desert dialects, *yamaji* means 'friend, girl/boyfriend, spouse, mate' in Ngaanyatjarra, with similar meanings in other Western Desert dialects: Wangkatja *yamaji* or *yamarji* 'friend, relative, spouse', Pintupi and Luritja *yamatji* 'companion; associate; one who accompanies or shares an experience' (Hansen and Hansen 1992); Ngarluma, outside Western Desert, likewise has *yamaji* 'wife's elder brother; friend'. But in Watjarri (Douglas 1981), closely related to Western Desert, *yamatji* means 'a person (usually male), a man, an Aboriginal person, the Watjarri people ('the Yamatjis')'.¹⁵

The second cognate set also has 'friend, companion' type meanings in Western Desert languages: Kukatja *marlpa* 'companion; friend', Martu Wangka *marlpa* 'companion (human or a weapon), mates', Pitjantjatjara and Yankunytjatjara *malpa* 'companion, company, friend, euphemism for girlfriend or boyfriend, similar species usually found in the same habitat', *malparinganyi* 'to become friends', and Pintupi and Luritja *marlpa* 'companion; associate; one who accompanies or shares an experience'; note also Ngarluma *marlpa* 'mate, companion; man; wife; marriage' and Warlpiri *marlpa* 'company, companionship, comfort, protection', *marlpa-kurlu* 'having along for protection or comfort'. But it has 'person; man' meanings in a number of languages to the west of Western Desert: *marlpa* 'man, person, human' in Panyjima, *marlpa* 'man' in Nyungar (to the south-west) and *marlba* 'man' in Ngadjunmaia. In the Ethel Creek dialect of Watjarri, to the south of Panyjima, *marlpa* means 'an initiated man'; given the lack of direct links between 'companion' and 'initiated man', the second sense is likely to be a semantic specialisation from an earlier 'person'.

Finally, in the third cognate set we find Pitjantjatjara *kurri* with the meaning 'mate, spouse, sexual partner' and in Wangkatja with the meaning 'wife; spouse', and in Panyjima with the meaning 'marriageable girl'. These all lack the more general 'companion' meaning but could readily be semantically specialised from such, given the ready extension from 'companion, mate' to 'spouse' in possessive contexts, as attested in the semantic range of the *yamaji* and *marlpa* sets. Ngarluma also has the form *kurri* with the meaning 'spouse, wife or husband; mother's brother's daughter, cross-cousin'. In Wembawemba the same form is glossed as 'cross-cousin, male or female'. This form is likely to be cognate with the word *kurri* found on the East Coast in Awabakal and neighbouring languages with the meaning 'Aboriginal man; Aboriginal person', a word that has more recently been widely disseminated in English as *koori*.

Whether or not the above three sets represent a case of semantic narrowing from 'person' to 'friend, companion, mate' or a case of broadening in the reverse direction, they tell us something about one conception of the prototypical 'person'. That is to say, since it is widely acknowledged that 'broadening' and 'narrowing' between superordinate and hyponym only happens with hyponyms that are considered central exemplars of the superordinate category,

¹⁵ The term has additional classifier-like occurrences in the phrases *yamatji katja* 'son', *yamatji njarlu* 'an Aboriginal woman' (as contrasted with *wiljipila njarlu* 'a white woman'), *yamatji pakarli* 'an Aboriginal man who is fully initiated'; cf. *pakarli* 'a fully initiated man'.

our conclusion must be that in many parts of Australia ‘companions, mates’ (i.e. those that accompany and give company) are regularly considered to be central members of the category of human beings. Further, the most typical ‘companion, mate’ is one’s spouse, although other members of one’s own (classificatory) generation also appear within the given cognate sets.¹⁶

In trying to decide the likely direction of the shifts in these cognate sets, there are two main factors we have considered. First, many languages provide evidence that suggest the most typical direction of extension is one of narrowing from ‘person’ to ‘friend; companion’. For instance, a ‘friend’ meaning may only occur in limited syntactic contexts—typically in possessive constructions like ‘my person’, used to mean ‘friend’, ‘companion’, ‘spouse’, ‘countryman’ or ‘co-ethnic’. In Kayardild, for example, the word *dangkaa* ‘man; person’ has the sense ‘companion, friend’ just in possessive constructions, e.g. *ngijinda dangkaa* ‘my friend’, or *kiyarrngka waydbala dathinki warraj; ngalawanji dangkaya kurrkath* ‘two whitefellers went there; they took our companion (with them)’. And just in its proprietive form *dangkawuru* (lit. ‘person-having’), it has the sense ‘mate, spouse’, since the whole expression means ‘married, having a mate/spouse’. Similarly, in Arrernte, *tyerrtye X-GENITIVE* = ‘X’s People’ = ‘X’s countrymen’. For example, speaking of someone who was taken away from his Arrernte family as a child, and raised by a white family in another state, one Arrernte person asserted *Re pmere nhenhe-arenye, anwerne tyerrtye ikwerenhe* (lit. ‘3sgS country this-denizen, we people 3sg.genitive’: ‘we are his people’) ‘He belongs to this country, we are his countrymen’.¹⁷

A second consideration in deciding the likely direction of shift was the distribution of meanings across subgroups: the logic is that those meanings with the widest (and possibly also the most discontinuous) attestation across subgroups are original, while those found only in one subgroup are more recent. On the basis of these two considerations, we tentatively suggest that, in each of the three cognate sets above, the most likely direction of semantic change is from ‘person’ to ‘friend, companion’ (and thence on to ‘mate, sexual partner’), probably via possessive contexts, as with Kayardild *ngijinda dangkaa* ‘my person, my friend’ or expressions like ‘her people’ for ‘her countrymen’ in a range of languages.¹⁸ If this is indeed the case, then the above data suggest a recurrent cycle in which words for ‘person’ shift to ‘companion, friend’ while a new word for ‘person’ is recruited. We may further suggest that in the above three cases *kurri* is the oldest word for ‘person’ (perhaps at the level

¹⁶ Bill McGregor has brought to our attention the Warrwa form *wamba* ‘mate; male; man; husband; person, persons; Aborigine(s)’ and points out that this participates with the word *jarndu* ‘woman’ in the compound *wamba-jarndu* ‘people’. This example shows how a single lexeme can cover most of the social-side senses discussed in this section. In other Nyulnyulan languages the cognate form, at least according to the published sources, has a narrower range, e.g. Nyulnyul *wamba* ‘person, man’, *wamburiny* ‘people’ (a compound of *wamba* with *uriny* ‘woman’), Bardi *aamba* ‘man; husband, brother-in-law (term of reference)’ and the parallel compound *ambooriny* ‘person; people; someone’ (cf. *oorany* ‘woman’), and Yawurru *wamba* ‘man; men; Aborigine’ and *wambakarra* ‘people’.

¹⁷ In Iwaidja and Ilgar the word for ‘person; Aboriginal person’ is *arr(k)bi*. A possible etymology for this is root *bi* ‘person’ (cf. Dalabon *bi* ‘person’) prefixed by *arr(k)*- which elsewhere in these languages means ‘we (inclusive), our (inclusive)’, i.e. ‘our person, we people, people (such as) us’.

¹⁸ Extension from ‘friend/companion’ to ‘person’ is not inconceivable either, via contexts like ‘he is a friend (i.e. a real person, someone like us)’, but such a direction of extension, with the ‘friend’ sense primary, is not presented in any dictionary entry of an Australian language.

of Pama-Nyungan, since it is shared between Western Desert and East Coast languages, in both cases with a 'person' meaning), *marlpa* the second oldest (being shared, at the Nyungic level, between Panyjima, Ngadjunmaia, Nyungar, Western Desert and Watjarri), and *yamatji* the most recent (being restricted to the level of proto-Western Desert/Watjarri). As *yamaji* moved from 'person' to 'friend, relative' in Western Desert it got replaced by different words for 'person' in different WD dialects: *arnangu* in Pitjantjatjara and Yankunytjatjara (< 'body'), *miparrpa* (< 'face') or *wuyulyku* (< 'throat') in Kukatja, *puntu* (< 'man, esp. initiated' < body < skin) in Kukatja and Martu Wangka, and *martu* in Martu Wangka (< 'initiated man' < 'true; real; serious').

An example of a common and clearly bidirectional shift in this field is that between 'person' and 'man'. Again we must take this as evidence suggesting which members of the category are considered more central and prototypical.

Narrowing from 'person' to 'man', as has happened with English 'man', originally meaning 'human being', has occurred in the case of *puntu*, where 'person, man' in Kukatja can be shown to have originally meant 'body', as in Pitjantjatjara, but means only 'man' in Pintupi. Since 'body' never extends directly to 'man' (unlike the sex-specific body parts 'penis' and 'beard'), but regularly extends to 'person', the direction of shift must be body>person>man (see Wilkins 1996).

Broadening from 'man' to 'person' is also possible, perhaps via the specific sense 'initiated man', and fits in with the common mode Aboriginal groups have of characterising their culture in terms of the specifics of how they initiate men (e.g. we subincise, they only circumcise; we circumcise, they only cicatrise etc.), which makes it very natural to use initiated men as the prototype for ethnic group membership. Daisy Bates records Baaduk 'circumcised' as a group name for the Mirminy, a term repeated in Tindale (1974:248–9),¹⁹ and Wilyaru, the name given to some peoples on Eyre Peninsula and to the west by some respondents to Curr and Taplin's surveys, actually refers to an initiation ceremony (see Hercus and Simpson, this volume).²⁰

Let us now consider two examples where the etymology suggests extension from 'initiated man' to 'person'.

First we consider Western Desert *martu*, which in Martu Wangka is glossed 'person, people, Aborigine, a man' but which we take to have originally meant 'initiated man' with extension to 'person'. Three reasons for taking the 'initiated man' meaning as original here are (i) the distribution of meanings across the dialect chain—any dialect in which it means 'person' has a 'man' sense as well; (ii) the sense selected by derivation shows the 'initiated man' sense to be central—Martu Wangka *marturringu* specifically means 'become an initiated man' rather than 'become a person'; (iii) the trail of meanings in other dialects (Pintupi and Luritja *martu* 'initiated man', Pitjantjatjara and Yankunytjatjara *martu* 'true, genuine, real, serious') all favour a direction of change from '(initiated) man' to 'person' rather than the reverse.

Second consider the apparent semantic development of the word *ngarrka*,²¹ which in Western Desert refers to the chest—e.g. Kukatja 'chest', Pitjantjatjara 'bony chest area', and

¹⁹ And note the possible cognacy of this term with Kukata (Southern Western Desert) *patu* 'man'.

²⁰ We are grateful to David Nash, Peter Austin and Jane Simpson for bringing these examples to our attention.

²¹ See James (1990:14), although we have extended her discussion to emphasise the link of 'initiated man' to 'person'.

Pintupi ‘chest, sternum; male chest area’—but in Warlpiri, Mudburra, Ngardi and Warlmanpa means ‘man, esp. initiated man’. The cultural foundation for this particular shift is the cicatrisation of the male chest area in this region during initiation (Elkin 1970:706), and Kendon (1988:142) reports that in Warlpiri sign language “the sign for ‘fully initiated man’ . . . is articulated in relation to the upper chest, doubtless because of the practice, followed in all these groups, whereby a man, when fully initiated, has conspicuous scars cut in his chest as a badge of status”. Finally, in Mudburra, *ngarrka* can mean ‘person’ as well as ‘man’ (Pat McConvell pers. comm.), and in Warlpiri although the base form cannot mean ‘person’ the plural form *ngarrkangkarla* means ‘very big group of people; mass of people’.

These examples underline the fact that, even though shifts between ‘man’ and ‘person’ may seem to be recapitulated in many different language families across the world, the cultural particulars that drive these shifts may be importantly different. Initiation, from the standpoint of its relations to the constitution of the ideal of masculinity and marking of social role and group identity, and of particular methods such as chest-cicatrisation by which it is realised, is clearly significant for the ‘man’ <==> ‘person’ shifts in Australia, but does not appear to show up in Indo-European languages.

While association of ‘man’ and ‘person’ is common in much of Australia, it is not attested everywhere. In fact, the absence of ‘man/person’ polysemy turns out to be an areal feature of Central Australian languages. This extension is lacking in all the Arandic languages, in Warlpiri, Warlmanpa and Ngardi, and in all the Western Desert dialects except those of the extreme north-west (Kukatja and Martu Wangka). On all sides of this Central Australian area are languages with the ‘man, person’ polysemy so typical throughout the rest of Australia—e.g. Jingilu to the north (*paya* ‘man; person; Aborigine’),²² Adnyamathanha to the south-east (*yura* ‘man, person, Aboriginal person’), Panyjima to the north-west (*marlpa* ‘man, person, human’) and Nyungar to the south-west (*nyungar* ‘man, person, Aboriginal person’). It is just within this Central Australian context where we in fact find the very rare case of an association of ‘person’ and ‘woman’. In Arandic this occurs with the etymon *arelhe*, whose reflexes mean ‘person’ in Antekerrepenh, Western Arrernte (most speakers) and Pertame; ‘person; woman’ in Anmatyerr and some speakers of Western Arrernte; and just ‘woman’ in Kaytetye, Alyawarr and most varieties of Eastern and Central Arrernte (see Wilkins 1996).

One final insight into the types of features that are attributed to a prototypical ‘person’ in the Australian context comes from analysing the derivations for terms for ‘person’. In fact, we get information of this sort only from non-Pama-Nyungan languages; all the attested cases of ‘person’ words in Pama-Nyungan languages are nonderived. Formations based on social factors of understanding a shared language, and acting the same way, are clearly seen in Burarra and Gurr-goni. In Burarra the word for ‘human; Aboriginal man/woman (as

²² Originally we had identified Warumungu as the first north(eastern) language to show ‘man; person’ polysemy (outside the Central Australian cluster). This was because Warumungu *kartti* was glossed as ‘man; person’ in both Menning and Nash (1981) and in Simpson and Heath (1982). However, Jane Simpson (pers. comm.) notes that: “I used to think *kartti* meant ‘person’, but the clearest context I had for it was from a person who spoke Mudburra more than Warumungu, and I was never able to replicate it in natural speech, or even in written Warumungu. There was some suggestion it could be used for ‘Aboriginal’ as opposed to ‘European’—but not very strongly so”. This shows that the issue of identifying this polysemy in particular languages is not always a simple and straightforward matter, and also indicates the danger of taking the published accounts at face value.

opposed to Europeans) is derived by prefixing masculine *an-* or feminine *jin-* to the stem *gu-galiya*, a deverbal noun based on *galiya* 'hear, understand', thus *an-gu-galiya* 'Aboriginal man, lit. he who hears/understands'. Gurr-goni *at-gu-galiyi*, the word for 'male human; Aboriginal man', is similarly derived from the verb *galiyi* 'to hear, listen, understand, feel'; literally, it is 'the listening / understanding one' (Green 1995). Burarra has an alternative and parallel form *an-/jin-gu-yinda* 'native, Aboriginal person' based on the root *-yinda* 'do thus', i.e. 'one who does thus (as we do)'. With the forms *an/jin-gu-galiya* and *at-/jit-gu-galiyi* it appears that the original designation is of Aboriginal people, with extension to all humans in cases where no contrast is salient.

5. Conclusion

In this paper we have used comparative lexicology to study the category of 'person' (and 'personhood') in Australia. In particular, we have investigated the polysemy structures of lexemes which take 'person' as one of their senses, and have used this evidence to both establish and explore the connections between 'physical' and 'social' sides of personhood. A simplified summary of the attested network of semantic associations which cluster around the notion of 'person' in Australian languages is provided in Figure 1. In this figure, lines between senses indicate that at least two (relatively) unrelated languages have been attested as using one lexeme to cover these two senses. The wider the line the more numerous and widespread the number of recapitulated attestations.

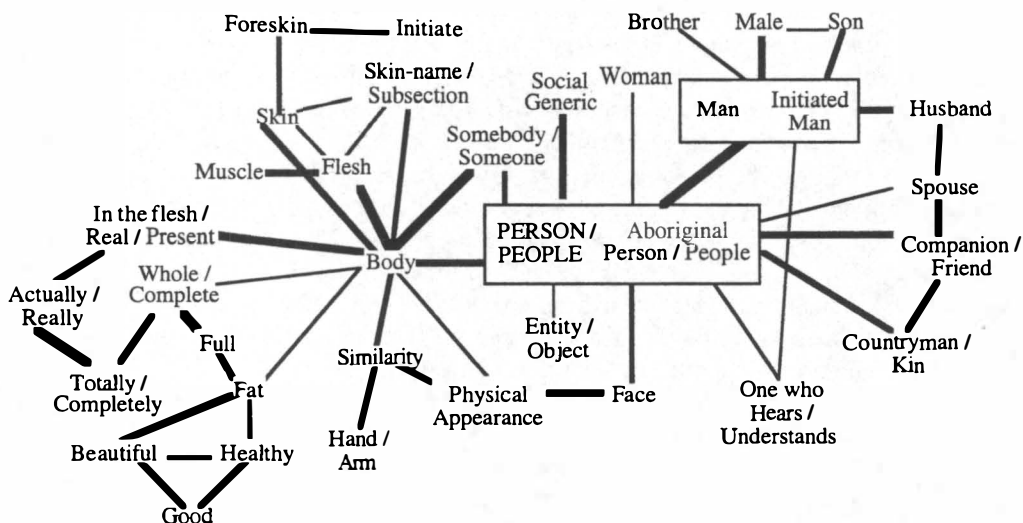


Figure 1: Networking the physical and social sides of 'person' in Australia

What insights does this give us into local notions of 'person' in Australia? On the physical side, a true person has a real physical presence (i.e. is not mythic or spiritual), and that presence is manifested through a living body which is ideally fat and healthy and complete. On the social side, from the point of view of a member of a community group, a prototypical person may be conceived of as 'someone who understands the things all

members of my group understand (including language and knowledge)', 'someone who behaves like the other members of my group', 'someone who accompanies us other members in our travels', 'someone who's my mate', 'someone who shows the marks of initiation that distinguish our group', and 'someone who fits within our system of kin calculation'. These results add further support to Hill and MacLaury's (1995:318–19) observation that "[c]ategorizers draw from their local semiotic environment the specific stuff of meaning through which persons are understood".

Although we started with Ken's comparative-historical concerns, we have strayed into other areas that he has helped to elucidate, namely his interests in the relation between language and world view (Hale 1975, 1986), the importance of kinship in the grammar and lexicon of Australian languages (Hale 1966b), the value of auxiliary registers in explicating semantic relationships (Hale 1971, 1973, 1982) and lexicographic practice (Hale 1983, 1990a, 1990b, 1997; Warlpiri Dictionary; Ngakulmungan Kangka Leman 1997; see also interview this volume). Along with his long-term friend and colleague Geoff O'Grady, Ken has helped to establish the data base and the practices which will enable us to properly conceive of an Australian comparative dictionary.

A perfect comparative dictionary would contain a list of reconstructed forms from some proto-language, together with their meanings, and would then list the various modern reflexes, together with an account of the phonological and semantic changes they have undergone. We have shown by demonstration that the possibilities for relating diachronic to synchronic variation, and for supporting notions of 'naturalness' through the study of recapitulated changes in the same system viewed diachronically, are not confined to the field of historical phonology (cf. Nikiforidou and Sweetser 1989). Yet, while our methods for reconstructing sound systems have reached a high level of sophistication and rigour over the last century and a half, those for reconstructing semantic change—or even for deciding whether two phonologically relatable but semantically distinct forms are cognate—remain in their infancy. Since meaning and meaning systems (fields, frames, scripts, schemas, etc.) are so tightly connected with culture, semantic change is not culture-independent in the way that sound change tends to be.²³ Some changes are widespread, perhaps even universal; others are specific to particular culture areas or geographical settings and, in the limiting case, may require a unique constellation of cultural and/or geographical factors. Our understanding of what is general and what is specific is at a very rudimentary level, given the lack of research on semantic change in most language families of the world. One aim of such research must therefore be to determine the ubiquity or locality of particular changes and to isolate the crucial external factors that encourage or discourage them.

Four key areas of study need to be developed further before we can gain a better understanding of semantic change.

Firstly, pragmatics needs to develop a more restrictive model of implicature. Particularly neglected is the area of lexicalisation, in the sense of which implicatural interpretations get conventionalised as lexical senses. Part of giving a more explicit account is developing models of 'cultural models' or 'cultural scripts', which are required to give an explicit account

²³ Here we should not confuse the driving forces for linguistic change with the mechanisms, items and contents of change. For both semantic and phonological change, the driving forces of change clearly emerge out of a matrix of societal and cultural factors. Once begun, however, the mechanisms and content of phonological change are culture-independent, unlike those of semantic change.

of contextual interpretations and hold the promise of showing how culturally specific patterns of polysemy can arise.

Secondly, we need detailed studies of semantic fields: as Lehrer (1978, 1985) points out, we will only gain a proper understanding of semantic change by "looking, not at the whole lexicon, but at words which belong to a single semantic field" (1985:283).²⁴

Thirdly, the importance of approaching the study of semantic change through patterns of synchronic polysemy underlines the need for better lexicography, with generous textual exemplification (particularly useful in finding bridging contexts), argumentation about the relations between senses, explanations of why alternative analyses are rejected, and so on (see Goddard and Thieberger 1997 for a critical survey of lexicographic practice in dictionaries of Australian languages). In many cases such detailed treatment cannot be incorporated into a dictionary, of course, and a genre that needs to be promoted in the description of exotic languages is the article devoted to the lexicographic treatment of particular lexical items.

Fourthly, semantic typology seems bound to play a major role in the study of semantic change, and especially in the difficult field of semantic reconstruction, since our best understanding of directionality of extension comes from careful cross-linguistic studies of polysemy of the type exemplified by Williams (1976) and Viberg (1984).

Envoi

We would like to conclude by indicating how corpus text analysis can be used to augment and illuminate the type of research reported in this paper. To do this, we move from Australian languages to English, and investigate the use of 'man', 'person', and 'human being' as they were applied in reference to Ken Hale in the contributions to 'A Tribute to Ken Hale' which was posted on the World Wide Web (web.mit.edu/linguistics/www/ken/posted). Some examples from this corpus of texts are as follows.

- 21 I was looking at the *man* from the distance.
598 Immediately, I felt a kinship with this cowboy booted *man*.
662 . . . all know who Ken Hale is: the *man* who can learn a new language just by flying over that country at 35,000 feet!
816 Ken Hale is a passionate *man* passionate about his work, passionate about truth, passionate about the people and the world around him.
994 . . . Ken Hale is a *man* who stands out more by what he is than by any external measure of achievement ...
1332 What a modest *man* he is
1446 saw him with this white *man*
1448 they heard the white *man* speaking Warlpiri fluently and correctly
1456 George never ceased to be amazed at how quickly this white *man* could learn a new language.
2234 —a generous *man*, truly interested in languages for their own sake.

²⁴ Although we have not done it in this paper, it is important to make a clear distinction between the Fillmorean concept of a frame and the more traditional notion of a semantic field, since both ways of structuring the lexicon are important to semantic change.

- 14 ... Ken Hale would be the *person* to meet the two needs, ...
- 103 The *person* that teaches you the trade, the trade of linguistics
- 377 he is a very special *person*.
- 568 but I heard tell of one *person* in the MIT arena who was using theory seriously to work on non-English languages, in fact on VERY non-English languages.
- 603 I could feel that this *person* had a generosity of spirit to match his phenomenal gifts as a linguist.
- 1537 It is not easy to find joined in the same *person* the virtues that we have come to associate with Ken Hale's work and his human figure.
- 2223 A true scientist and a nice *person*
- 66 a compassionate *human being*!
- 126 as an outstanding *human being*.
- 829 ... a model of a *human being* ...
- 838 ... how a *human being* should be like!
- 1055 ... a role model both as a scholar and as a *human being*.
- 1821 ... one of the kindest and most generous *human beings* ...

First, a skim through these examples should give a reader unfamiliar with Ken a fairly good idea of what he is like and how he is regarded by other people: we could easily script the shared knowledge structures surrounding the individual. More specifically, a look at these English examples reveals that, although the terms have overlapping uses, they are also deployed in quite different ways to build quite different propositions. So, while all three terms would be roughly synonymous in phrases like 'a generous man/person/human being', they would not all be semantically equivalent, or even acceptable, when inserted in the phrase 'a model of a human being / man / ??person' or the phrase 'the person / man / ??human being that teaches you the trade'. Further, given the main focus of this paper, it is worth pointing out that these terms split in relation to 'the physical' and 'the social' sides of personhood. When physical properties are being talked about then we only find 'man' used: an individual that can be seen, is white, and cowboy-booted.²⁵ By contrast it appears 'person' is used when talking more about the individual's social specifics, his social role, especially in relation to the people making the comments: an individual who meets needs, who teaches you the trade, and who is in the MIT arena and applies theory to non-English languages. Finally, it seems 'human being' is favoured when one is thinking of the individual in comparative terms in relation to the larger comparison set of all human beings, and, in this particular case, asserting that the referent has general moral, social, and ethical features which everyone else should have, even if few actually do: he is outstanding, a model, and the kindest and most

²⁵ The fact that physical properties are here associated with 'man' but not 'person' may reflect a recent and ongoing dephysicalisation of English 'person' stemming from its use as a gender-neutral term. This then leads to a pattern of association that contrasts with the Australian picture painted here, where gender-neutral body parts (e.g. 'body', 'face' and 'throat'), and associated notions of 'physical appearance', participate in polysemies with 'person'.

generous of individuals. Wierzbicka (1972:13) provides the following definition of *human being*:

human being ('homo') = someone like you and me

While there's much evidence to suggest that Ken is not really 'someone like you and me', it's still nice to think that having him in the same comparison set helps raise us all up a little bit—that's what we call a real human being, a true mensch, and a good person to learn from.

Language sources

Languages mentioned in text	Sources used
Adnyamathanha	Menning and Nash, eds 1981
Alyawarr	Green 1992, pers. comm.; Yallop 1977
Anmatyerr	Green pers. comm.; Purle, Green, Heffernan 1984; Hale n.d.
Antekerrepenh	Menning and Nash, eds 1981
Arabana	Menning and Nash, eds 1981
Arrernte (Eastern and Mparntwe/ Central dialects)	Wilkins 1988, 1989, fieldnotes; Van Valin and Wilkins 1993; Henderson and Dobson 1994
Awabakal	Dixon, Ramson and Thomas 1990
Bandjalang (Bundjalung)	Sharpe 1994
Bardi	Aklif 1999
Burarra	Glasgow 1994
Dalabon	Evans fieldnotes
Diyari	Austin 1981
Djabugay	Patz 1991
Gurr-goni	Green 1995
Gugu Yalanji (Kuku-Yalanji)	Oates 1992
Guugu Yimithirr	Haviland 1979 and n.d.
Jaru (Djaru)	Tsunoda 1981
Jingilu	Menning and Nash, eds 1981; Chadwick 1975
Kayardild	Evans 1992b, 1995, and fieldnotes
Kaytetye	Breen 1996 [compiled from wordlists by Koch and Hale]
Kukatja	Valiquette 1993; Peile 1997
Lardil	Ngakulmungan Kangka Leman 1997
Linnghithigh	Hale 1966a; 1997
Margany and Gunya	Breen 1981 and pers. comm.
Martu Wangka	Marsh 1992
Murrinh-Patha	Walsh 1996; 1997
Ngaanyatjarra	Douglas 1988
Ngadjunmaia	von Brandenstein 1980
Ngardi	Menning and Nash, eds 1981

Languages mentioned in text	Sources used
Ngarinyman	McConvell pers. comm.
Ngarluma	O'Grady 1966; 1979; 1990; Hale 1990a
Nyulnyul	McGregor pers. comm.
Nyungar	Dench 1994
Panyjima	Dench 1991
Pertame	Swan and Cousens 1993; Hale n.d.
Pintupi and Luritja	Hansen and Hansen 1992
Pitjantjatjara	Goddard 1992; Eckert and Hudson 1988
Ungarinyin [Ungarinjin]	Coate and Elkin 1974
Uradhi	Crowley 1983
Walmajarri	Richards and Hudson 1990
Wangkangurru	Menning and Nash, eds 1981, Hercus 1994c
Wangkatja	Blyth 1988
Warlmanpa	Nash 1981
Warlpiri	Laughren 1992; Hale and IAD 1990; Warlpiri Dictionary; Nash 1986
Wargamay	Dixon 1981
Warumungu	Menning and Nash, eds 1981; Simpson and Heath 1982; Simpson pers. comm.
Watjarri	Douglas 1981
Wembawemba	Hercus 1992, 1994a
Western Desert	Douglas 1977, 1988. See also Kukatja, Martu Wangka, Ngaanyatjara, Pintupi and Luritja, Pitjantjatjara, Yankunytjara
Wik-Mungkan	Kilham et al. 1986
Wik-Ngathan	Sutton 1995
Yankunytjara	Goddard 1992; 1994
Yidiny	Dixon 1977; 1991
Yir-Yoront	Alpher 1991

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Index of languages

- Adnyamathanha 233, 253, 263, 271,
275–6, 285, 404, 410, 413, 483, 489,
510, 515
- Aghu Tharrnggala 8, 16
- Agwamin 484, 488
- Akarre 69, 178
- Aleut 397–8
- Alingit 15
- Alngith 15, 454, 458
- Alyawarr 10, 12, 42, 69, 72, 110–11, 521
- Anguthimri 462, 484, 487, 490
- Anmatyerr 12, 17 (Unmatjera), 30–1, 33,
35–40, 46–7, 52, 62–4, 68, 72–4, 89–98,
100, 102–4, 106, 108–9, 111, 125,
134–5, 144, 170–2, 488, 504, 510, 515,
520
- Antekerrepenh 5, 16, 47, 49, 51, 55, 57,
72–3, 488, 503, 510, 515
- Arabana xiii, 8, 12, 17, 80–2, 245, 248–50,
255, 257–8, 260, 276–7, 301, 484–6,
489, 491, 503, 515, 519
- Arandic xii, xvii, 1, 6, 10, 29ff., 71ff.,
89ff., 125, 128–9, 144, 172, 236, 260,
482, 488, 490–1, 493, 504, 510, 518–9
- Aritinngithig 15
- Arremte (see also Alyawarr, Anmatyerr,
Antekerrepenh, Ayerrereng)
- Aranda 10, 12, 24, 33, 38, 43, 46, 69,
72–4, 77–82, 85, 124, 171, 233, 241,
244, 383, 521
- Arremte Imarnt 46–7, 67
- Central Arremte 35–6, 39, 42, 47–8,
50–1, 53, 65, 68, 72–3, 86, 89, 91,
94, 100, 102–5, 107–8, 110–11, 125,
129, 482, 500, 504–5, 510, 519
- Eastern Arremte 30, 33, 35, 37, 46–7,
50–1, 53, 125
- Lower (Imarnt) Arremte 33, 46–7,
66–7, 72–3, 91, 231, 233, 236, 250
- Mparntwe Arremte 69, 87, 404,
409–10, 413, 521
- Southern Arremte 13, 33, 47, 64, 66–7,
72–3
- Tyurretye 64
- Atampaya 487
- Awabakal 507, 515
- Ayerrereng 47, 55, 56
- Baagandji 484–5, 489, 491
- Baanbay 484
- Badjiri 248–50, 256–9
- Balardong 231, 233
- Bandjalang (Bundjalung) 483, 503, 515,
520
- Banjima (Panyjima) 334, 507–8, 510,
516–7
- Bardi 338–40, 343–4, 350, 352, 507,
515–16
- Barngarla (Parnkala, Parnkalla) xiii, 14,
231–3, 263–7, 270–7, 279, 282–6, 289,
291–7, 300, 302–3, 489, 491

- Barrow Point Language 488
 Bayungu (Payungu) 234, 236, 309
 Binbinka 385, 402, 411
 Brinken 13
 Bundjalung: see Bandjalang
 Burarra 485, 489–90, 510, 515
- Dalabon 175, 368, 508, 515
 Damin: see Lardil
 Darumbal 483
 Dieri: see Diyari
 Diyari (Dieri) xiii, 12, 17, 233, 242, 244, 247–50, 253–4, 259–60, 264, 305, 309, 321, 404, 411, 415–6, 422, 424, 485, 489–90, 503, 515–6
 Thirrari 248
 Djaabugay (Tjapukay) 3, 16, 28, 515, 520
 Djangadi 484
 Djaru: see Jaru
 Djingili: see Jingulu
 Dyirbal 5, 17, 28, 91, 225, 260, 361, 431, 445, 485, 489–90
- English 187ff., 353ff.
- Flinders Island Language 488
- Garama 13
 Garlali 247–9, 254–9
 Garrwa (Karwa) 10, 13, 394–5, 398
 Gidabal 483, 503
 Goeng Goeng 483
 Gooniyandi 312, 322, 348, 351, 397, 399, 403, 412, 418, 425
 Greek 179, 181
 Gudanji (Kutandji) 13, 17, 385, 401–2, 406, 411
 Gugu Yalanji (Kuku-Yalanji) 16, 498, 515, 520
- Gumbaynggir 483–4, 490
 Gunggari 483, 489
 Gunwinjgu (Gunwinggu) 13, 17, 427
 Gurama (Guruma, Kurrama) 14, 17, 232, 234, 236
 Gurindji 12, 17, 134, 170, 226, 390, 395, 397
 Gurr-goni 410, 412, 510, 515, 518
 Guruma: see Gurama
 Guugu Yimithirr 16–17, 225, 419, 424, 457, 485, 488, 491, 498, 515, 519
- Jaminjung 385, 390, 399, 403, 411, 413
 Jaru (Djaru) 17, 232, 391–2, 499, 515, 521
 Jawoyn 367ff.
 Jingulu (Jingilu, Djingili, Djingilu) xiii, 8, 10, 14, 365, 385ff., 398, 402, 411–12, 510, 515, 517
 Jiwarli 305ff., 416, 420
 Jiwarliny 14, 232, 235–6
- Kaantju 16, 17 (Kandju)
 Kabi Kabi 483
 Kaititj: see Kaytetye
 Kala Lagaw Ya 163, 169–70, 176, 477ff.
 Kalaw Kawaw Ya 168, 170, 175, 177
 Kalkatungu 16–17, 80–1, 109, 253, 306, 321, 404, 411, 415ff., 483, 489–90
 Kandju: see Kaantju
 Karanya 248
 Kardutjarra: see Kartutjarra
 Kariyarra 231, 234, 235, 329, 331, 334
 Karlamayi xiii, 14, 231–3, 236, 291–7, 299, 302–3
 Karnic languages 245ff.
 Kartutjarra (Kardutjarra) 17
 Karwa: see Garrwa
 Kaurna 244, 263, 275–6, 278–9, 282, 287, 302

- Kayardild 7, 14, 410, 412, 429, 445, 496,
499–500, 508, 515, 518
- Kaytetye (Kaititj) 7–8, 10, 13, 30–1, 33–5,
37, 39–40, 42, 46–7, 59–61, 68–9, 71–4,
77–8, 87, 89–91, 93–6, 98–103, 106–7,
109, 111, 113, 125, 135, 144, 404,
408–10, 488, 504–5, 510, 515, 517
- Kija 170
- Kirramay: see Dyirbal
- Koko-peRa 16
- Kriol 125, 128, 136, 144, 170, 243, 377
- Kukata 263–4, 266–7, 270, 274, 279–83,
287, 509
- Kukatja 499–502, 504–5, 507–10, 515–16,
521
- Kuku Tyunkay 9, 16
- Kuku-Nyungkul 16
- Kuku-Thaypan 474, 484, 488, 491
- Kuku-Yalanji: see Gugu Yalanji
- Kungadutyi 248
- Kunggara: see Kurtjar
- Kurrama: see Gurama
- Kurtjar (Kurtyar, Kunggara) 9, 16–17,
485, 488
- Kutandji: see Gudanji
- Kuthant 485, 488
- Kuuk Thaayorre 16, 487
- Kuuku-Ya?u 464, 488, 492
- Kuyani 263, 266, 275–9, 288, 302
- Lamalama (see also Rimanggudinhma)
8–9, 16, 468, 484, 488
- Lardil xiii, 1, 2, 5–8, 11, 14, 17–18, 26–7,
77, 101, 111, 116, 118–19, 122, 228,
427–9, 431ff., 463, 504–5, 515, 519–20
- Damin 4, 6, 11, 17, 27, 116, 121–2,
225, 519
- Larrakia 13
- Lhanima 248
- Linngithigh 2, 5, 9, 15, 453, 458–9, 463,
484, 487, 515, 519
- Luritja 12, 17, 20, 29, 30, 42, 65, 113, 125,
128, 144, 170, 483, 489, 491, 500,
506–7, 509, 516, 519
- Luthigh 15, 454, 487
- Mabuiag 2
- Malgana 234
- Malyangapa (Maljangaba) 248–50,
253–5, 259, 485, 489
- Mamangidigh 15
- Mamngayth 15, 454, 459
- Mangarayi 395–6, 399
- Manjiljarra (Manyjilyjarra) (see also Martu
Wangka) 177, 329, 333–4
- Mara 8, 13, 17
- Margany & Gunya 498
- Marithiel 13
- Martu Wangka (see also Manjiljarra) 500,
507–10, 515–16, 520
- Maung 170
- Mayali 13, 17, 40, 368–9, 383
- Mayi languages 4, 86, 490
- Mayi-Kulan 483
- Mayi-Yapi 483
- Mbabaram xiv, 484, 488
- Mbara 484, 488
- Mbiywom (Mbeiwum) 9, 15, 454, 458–9,
482, 484, 487
- Meriam Mir 168, 170
- Mindi languages 385, 387, 389–92, 395–7,
402
- Mirninny 14, 80, 231, 233, 236, 263, 267,
273–4, 277, 279–81, 288, 503, 509
- Mithaka 248–9, 254, 259
- Mpalitjanh 15, 454, 482, 484, 487
- Mparntwe Arrernte 69, 87, 404, 409–10,
413, 521

- Mudburra 14, 170, 387, 390–7, 399,
 509–10
 Mulurutyi, 9, 16
 Muriny-Kura, 13
 Murrinh-Patha, 502, 505, 515, 521

 Nauo xiii, 263ff.
 Navajo 11, 114, 120–2, 353
 Ndjébbana 170
 Ndraangidh 15
 Ngaanyatjarra 2, 499, 506, 515–16
 Ngadjumaya (Ngadjumaja, Ngadjunmaia)
 274, 277, 280–1, 287, 507–8, 515, 517
 Ngalakan 485, 489, 491
 Ngaliwurru 385, 399
 Ngaliya 12, 17, 151, 267
 Ngalkbon 163, 169, 368
 Ngamini 248–50, 254, 264
 Ngandi 307–8, 416, 421–2, 424
 Ngan'gityemeri 365ff.
 Nganyaywana 484, 489
 Ngardi 494, 509–10, 515
 Ngarinyman 505, 516
 Ngarla 231, 334
 Ngarluma 4, 8, 11, 14, 119, 228, 231,
 234–7, 327, 333–5, 503, 506–7, 516,
 519
 Ngarnka (Ngarnga, Ngarnji) 385, 392,
 397, 402, 411
 Ngawun 443, 483
 Ngkothl 15, 454, 458–9, 484, 487
 Nhanta 14, 228, 234, 259, 482–3, 485–7,
 489–90
 Nhirrpi 248, 259, 261
 Nrwa?angith 15
 Ntrangith 15
 Nukunu 80, 233, 236, 263–4, 266, 270,
 275, 278–9, 285, 288, 302
 Nunagal 483

 Nungali 385
 Nunggubuyu 242, 322, 416, 424
 Nyamal 81, 236, 334
 Nyangumarta 2, 21, 228, 231, 235–6, 240,
 328–9, 334, 419, 424
 Nyininy 6, 14, 232, 235–6
 Nyulnyul 337ff., 507, 516
 Nyungar 273, 279, 303, 485, 489, 507–8,
 510, 516–7

 Ogunyjan 16, 458, 484–5, 488
 Olgol 484–5, 488
 Oykangand 9, 484–5, 488

 Palyku 231, 235, 237
 Paman languages 1–3, 6, 7–9, 16–17, 260,
 360, 453, 457–8, 462–3, 474, 482, 484,
 487–8, 490–1, 493–4, 518
 Pama-Nyungan (see also Proto-Pama-
 Nyungan) 1, 2, 18, 47, 68, 72, 74, 76–7,
 86–7, 91, 110–11, 237, 245–7, 249, 258,
 260–1, 274, 276, 281, 288, 351, 360,
 386–7, 390–2, 395–6, 398, 401–4, 410,
 411–12, 423, 431, 463, 482, 487,
 489–91, 494, 508, 510, 518–20
 Panyjima: see Banjima
 Papago 1, 5, 32, 118, 175, 323
 Parnkala, Parnkalla: see Barngarla
 Payungu: see Bayungu
 Pertame 33, 47, 64, 66, 72, 76, 504, 510,
 516, 520
 Pintupi 12, 17, 42, 81, 83, 125, 144, 383,
 491, 500, 503, 506–7, 509, 516, 519
 Pitjantjatjara 10, 12, 17, 31, 40, 47, 59,
 109, 113, 116, 120, 125, 128–9, 140,
 144, 170, 241, 267, 489–90, 497, 500,
 503, 507–9, 516–18
 Pitta-Pitta 11, 77, 79–81, 248, 253, 258–9,
 404, 411, 415–16, 418, 424, 483, 490,
 503
 Karanya 248

- Kunkalanya 248
 Rakaya 248
 Ringuringu 248
 Proto-Paman 6, 9, 474
 Proto-Pama-Nyungan, 50, 74, 249–50, 252, 482, 486
 Punthamara 248, 254–6, 259
 Putjarra 330
- Rakaya, 248
 Rembarrnga 170
 Rimanggudinhma 8, 16, 484, 488
 Ringuringu 248
- Talimana 248
 Thalanyji 234, 236, 309, 330
 Thanngath 15
 Thirrari: see Diyari
 Tiwi 13, 170, 385, 431, 445
 Tjapukay: see Djaabugay
 Tjingili 17
 Tjiwarlin 17, 232
 Tyirrpai: see Dyrbal
- Umbindhamu 488
 Umbuygamu 484, 488
 Umpila 458, 487–8, 491
 Ungarinyin (Ungarinjin) 353–63, 403, 413, 503, 516
 Uradhi 3, 8, 15, 454, 463, 487, 490–1, 498, 516–17
 Uw-El 485
- Wagiman 403, 413
 Wajarri (Watjarri, Wadjari) 8, 14, 234, 485, 489, 507–8, 516–17
 Wakaya 14, 48, 76–7, 81, 404
 Wakka Wakka 483
 Walbiri: see Warlpiri
- Walmajarri 80–1, 84, 391–2, 499, 505, 516
 Wambaya xiii, 13, 17, 385, 389–90, 392–4, 397, 399, 401ff.
 Wamin 484, 488
 Wangkangurru xiii, 81–2, 233, 286, 503, 516
 Wangkatha 170, 178
 Wangkatja 506–7, 516
 Wangka-Yutjarra 50, 81, 248, 258
 Lhanima 248
 Talimana 248
 Wangkumara 171, 247, 248, 250, 253–6, 258–9, 261
 Wardaman 13, 381, 395
 Wargamay 516–17
 Warigang 9
 Warlmanpa 6, 12, 14, 17, 81, 84, 119, 390–1, 397, 494, 503, 509–10, 516, 520
 Warlpiri (Walbiri) xii–xiii, 2–8, 10–11, 17–18, 20–1, 29, 31–3, 37–43, 47, 59, 62, 76–7, 80–3, 98–100, 102, 106–7, 109, 111, 113–19, 121, 123, 125, 128–31, 134–5, 144, 148–50, 151ff., 163, 169–70, 177, 179ff., 187ff., 199ff., 228, 243, 305–9, 313, 320, 322–3, 348–9, 351, 354–5, 362, 365, 383, 390–2, 396–7, 402–4, 412–13, 415ff., 470, 485, 489, 494, 497, 499–500, 503–7, 509–10, 512–13, 516, 519, 520–1
 Eastern 12, 17
 Warluwarra (Warluwara) 15–17, 50, 82, 101, 249
 Warnman 14, 17, 232, 234–5, 329, 333
 Warumungu 6–8, 12–13, 17, 37, 76–7, 79–81, 107, 111, 113, 119, 125, 170, 193–4, 279, 397, 404, 409–10, 485–7, 489, 491, 499, 510, 516, 520
 Watjarri: see Wajarri
 Watjirri: see Wajarri

- Western Desert Language (see also
Kartutjarra, Kukata, Kukatja,
Luritja, Manjiljarra, Martu Wangka,
Ngaanyatjarra, Pintupi, Pitjantjatjara,
Putijarra, Wangkatha, Wangkatja,
Warnman, Yankunytjatjara) 21, 38, 46,
76–7, 83–4, 120, 125, 128–9, 144, 169,
266–7, 270, 274, 278, 309, 329, 334–5,
383, 461, 472, 483, 489, 494, 497, 499,
506–10, 516, 517
- Wik languages 9, 117, 453ff., 487
Wik Ep (Wikepa) 8, 15, 17
Wik Meʔnh 8
Wik Mumenh 15
Wik Ngathr 15
Wik-Mungkanh (Wik-Mungkan,
Wik Munkanh) 8, 15, 17, 170, 322,
453ff., 497, 498, 516, 519
Wik-Ngathan 457, 462, 496, 498, 516,
520
Wikngatara 17
- Windawinda 15, 460
- Wirangu 80, 231, 233, 263–7, 270–83,
286, 288, 300, 302–3
- Wogaty 13
- Worora 485, 489
- Wunae 13
- Wuthathi 487
- Yadliyawara 485, 489
- Yalamnga 483
- Yandruwandha 248–50, 253–4, 259
- Yanga 484, 488
- Yangkal 7, 11, 14, 429
- Yangman 381, 397
- Yankunytjatjara 13, 76, 125, 144, 489–90,
497, 499, 500, 503, 507–9, 516, 518
- Yanyula (Yanyuwa) 8, 13, 222, 395, 398,
399, 421, 425
- Yapa languages 390, 395, 520
- Yaraikana 488
- Yarluyandi 248–9, 260
- Yawarrawarrka 248–9
- Yaygir 483, 489, 490
- Yidiny xiii, 8, 16, 28, 205, 225, 312, 322,
353ff., 404, 411–12, 419, 424, 494, 498,
516–17
- Yindjibarndi (Yinytyiparnti) 14, 119, 231,
234–7, 327, 331, 334
- Yinggarda 234, 236
- Yinhawangka 330, 334
- Yinwum 9, 15, 454, 458, 482, 484, 488
- Yirram languages 385, 389–95, 399, 402
- Yir-Yoront xiii, 86, 416, 424, 447ff., 466,
474, 485, 488, 494, 496, 498, 503, 516
- Yolŋu Matha 170, 383
Dhalwangu 170
Djamparrpuyngu 170
Djapu 170
Gälpu 170
Gumatj 169
Liyagalawumirr 170
Manggalili 170
Marrakulu 170
Marrangu 170
Wan.gurri 170
Warramirri 170
- Yugambal 484, 489
- Yukulta 14