

WADJUK AND UMPILA: A LONG-SHOT APPROACH TO PAMA-NYUNGAN

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Anttila (1972:338-340) experiments with a direct comparison of modern German and Russian with a view to determining whether they can be shown to be genetically related when normal comparative procedures are thus bypassed. He compares such forms as German *möglich* with Russian *можно* *mózhno* *possible* and German *liegen* with Russian *лежать* *lezhát'* *to lie, recline*. In this way he establishes 'matchings' such as g:zh, m:m and l:l, defined by him as 'tentative correspondences' (in this sense, p:p in loans such as German *Politik*, Russian *политика* *polítika* counts as a matching also). He concludes that 'German and Russian are plausibly relatable on the basis of contemporary evidence', even though actual reconstruction is not readily possible.

While such an approach can never supplant rigorous use of the comparative method, it can still serve as a useful preliminary pointer as to directions in which the comparativist's efforts might best be directed.

In the Australian field, for example, a comparable experiment might be to carry out a direct comparison of the Wadjuk language of the south-west of the continent (as documented in Moore 1884) with Umpila in Cape York Peninsula. If Wadjuk and Umpila were indeed to turn out to be as plausibly relatable as German and Russian – and with vastly smaller data bases at that! – then surely this would count as an incentive to add to the comparative scales selected additional languages distributed throughout the intervening linguistic and geographical space. Needless to say, every last lexical entry and grammatical marker of Wadjuk and Umpila should be included in the comparison.

If the Pama-Nyungan language family, foreshadowed in O'Grady (1959) and explicitly delineated in Hale (1964), is indeed a 'coherent linguistic genetic construct', then this should become ever more apparent later in this work as we raise the number of languages being compared first from two to nine and later to thirty.

In theory, any attempt to set up sound correspondences between Australian languages is faced with an awesome logistic nightmare. The languages of the Australian Phylum are for the most part in contact with numerous neighbours, and diffusional forces are ever at work. Even when languages separated by immense distances such as Wadjuk and Umpila are compared, we are still not to know *a priori* which roots and affixes are inherited and which are loans. It is not that direct borrowing between Wadjuk and Umpila is a serious possibility, but rather that certain Wadjuk

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lexical entries could be loans from, say, the direction of the Western Desert or from peoples further up the Western Australian coast, while a given entry in the modest available Umpila lexicon could have been borrowed, for example, from the direction of Wik Mungkan, Uradhi or Miriam.

Even more daunting are the potential problems which could arise were we to be able to narrow the focus of our study from macrolects such as Wadjuk and Umpila down to the level of the *microlect*, the speech of the individual local group. Haviland (in Shopen, ed. 1979:168-169) details thirty-two named locales in the traditional territory of the Guugu-Yimidhirr-speaking people, 'each with a dominant family group'. Throughout this territory, six different dialects of Guugu-Yimidhirr are recognised.

Assuming for a moment a comparable degree of dialect variation within Wadjuk and Umpila, internal borrowing from microlect to microlect could theoretically complicate the comparativist's task still further. It is factors such as these which are at least in part responsible for the occurrence of doublets such as Umpila *yipa/thi'a liver*, or for the limited applicability of rules such as Pintupi or Umpila prenasalisation, dealt with in Baldi, ed. (1990).

Our purpose herein is to identify sets of forms which represent, in part at least, the sharing of a linguistic tradition. In this direct comparison of Wadjuk with Umpila, we will be aiming at the outset to set up matchings, as defined above, rather than outright correspondences. Matchings 'allow the linguist freedom for analytic operations without commitment to any ultimate historical explanation' (Anttila 1972:336). The term 'correspondences' will be reserved for situations where its use appears to be warranted.

When it comes to the practical use of the comparative method within Pama-Nyungan, many of the conceivable problems recede into the background. Even between pairs of Pama-Nyungan languages chosen for being at geographical extremes of the continent, such as Wadjuk and Umpila, many of the matchings, e.g. G:k, U:u, M:m, B:p and again U:u in WJK GUMBU, UMP kumpu, below, will be seen to be totally transparent. It is in this sense that Capell (1956) claimed quite correctly that cognate identification is for the most part much more straightforward in Australian comparative work than in Indo-European. This must reflect either extreme conservatism in at least some aspects of the phonologies of both languages, or a relatively recent separation of the two languages from a common ancestor, or both. To envision an enormous time depth – 15,000 years, say – for the common ancestor of Wadjuk and Umpila would appear to be preposterous in the extreme.

The symbols used in Moore's transcription system are charted below. Different symbols or symbol combinations which we take to represent single phonemes are grouped together.

Vowel symbols used by Moore are I E A O U. The four spaces marked with dashes in Figure 1 represent distinctions probably missed by Moore, involving nh rn lh rl respectively. The assignment of graphemes to phonemes is by no means entirely conjectural. Phonological studies carried out by Douglas, O'Grady, Hale and others in Balardong, inland from Perth, during the past quarter century strongly suggest a Ngarluma-type sound system for Wadjuk, with six distinctive positions of articulation for consonants. While Balardong, on the surface at least, has a five-vowel system i e a o u, Wadjuk at its demise probably had just i a u. Moore's I E appear typically to represent i; adjacent to W, his O stands for a; U O otherwise are usually u.

P	TD	T	RT	TJ/T-Y	K	KW
B	DT	D	RD	DJ/D-Y	G	GW
PP		TT	RTD	D-J	KK	
BB		DD			GG	
B-B						
M	—	N	—	N-Y	NG	NGW
MM		NN				
	—	L	—	L-Y		
		LL				
		R				
		RR				
			RH-R	Y		W

Figure 1: Moore's appreciation of Wadjuk consonantism

The Umpila consonant system is charted below. Note that ' represents glottal stop. Although the alveolar trill is the sole rhotic in this language, we write this sound as rr for the sake of phonetic realism (compare Osborne's 1974 treatment of Tiwi vocalism).

p	th	t	j	k	'
m	nh	n	ny	ng	
		l			
		rr			
			y	w	

Figure 2: Umpila consonants

Umpila vocalic segments are i a u ii aa uu.

Below are displayed putative Wadjuk:Umpila cognate sets arranged in terms of position of articulation of consonant initials and ranked from most plausible to least.

Bilabial initials¹

B- : p- sets:

1. WJK BANDANG : UMP paantiku *all*.
2. WJK BEBAL : UMP pii'al *kneecap*.
3. WJK BULA *numeral (dual)*. *Two brothers, sisters*. . . : UMP pula *they (du, pl)*.
4. WJK BI *a fish* : UMP piyitha *stonefish*.

¹Note also WJK BATTA *sun's rays*: UMP paaja+ *to dawn, break - of day*.

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5. WJK BIDJAR *sleep*. . . : UMP pijii+TH+ *to dream*.
6. WJK BUDJAN *to pluck feathers*. . . : UMP puuja+ *to fly*.
7. WJK BIBI *female breast* and BIB-BYL (appar pipaly) *mother mourning for her child* : UMP piipi (PP *piipa) *father*.
8. WJK BINDI *stick, skewer* : UMP +pinta PROPRIETIVE.

W- : p- sets:

9. WJK WARH-RANG *three* : UMP pa'amu *two*.
10. WJK doublet WU-YUN *soul*, BU-YU *smoke* : UMP puuya *soul, heart*.

M- : m- sets:

11. WJK MARH-RA : UMP ma'a *hand*.
12. WJK MAR *cloud; wind* : UMP maarri *whirlwind*.
13. WJK MEL *eye* : UMP miil'a *face*.
14. WJK MADTO (appar mathu) *green-backed crane* : UMP maathuy *pelican*.
15. WJK MABO *skin*. . . *bark* : UMP mapurra *grease, fat, juice*.

N- : m- set:

16. WJK NABBA+ *to rub on, anoint*¹ (with idiosyncratic – or misprinted? – N-) : UMP mapa+L+ *to illuminate*.

M- : ø set:

17. WJK MUL-YA : KNJ² uujal *nose*.

Apical initials³

D- T- : th- sets:

18. VAS DAKARUNG, WJK TAKKAN *to break* : UMP thangkii+TH+ Vintr *to break, disintegrate*.
19. WJK DARBA+ *to dive; to pass through or under*. . . : UMP tharr'imu *long sea-grass ('where crabs, etc. take refuge')*.⁴

T- : th- set:

20. KGS TI-ENDI *stars* : UMP thiyithi *star, starfish*.

¹The probable semantic relatedness of *fat* and *anoint* invites further study.

²Closely related neighbour of UMP.

³i.e., where Moore writes D- or T- or where t- appears in UMP.

⁴cf Ngarluma tharrpurl *crab*.

D- : ø set:

21. WJK DOWIR *always; continually* : UMP doublet awu *devil, spirit; machine/awi bald* (with semantic linkage via '*spiritual/eternal/ethereal/immateral/nonexistent*').
22. WJK metathesised form GURDU *the heart* : UMP prenasalised form tungkupa+TH+ *to beat – of the heart*.

Laminal initials

There are no known instances in WJK:UMP putative cognate sets in which an unambiguous surface j (symbolised by Moore as DJ or J), or th (written by him usually as DT) corresponds in word-initial position to UMP j or th.

N-Y- : nh- set:

23. WJK N-YINNA+ *to sit, remain. . .* : UMP nhiina+ø- *to sit*.

N-Y- : ng- set:

24. WJK N-YUNDU(L) *will you?. . .* : UMP nganu ~ ngunu *you (SG)*.

N- : ng- set:

25. WJK NUBAL *ye two* : UMP ngu'ula *you (non SG)*.

Y- : y- set:

26. WJK YUGA+ *to be, stand, exist* : UMP yuku *tree* (cf English *stand of trees*).

y- : ø sets:

27. WJK YABBAL *bark. . . of banksia or hakea* : UMP aapa+ Vintr *to peel off, shed (skin)*.
28. WJK YULAP *hungry; empty* : UMP uuli *hungry*.

Velar initials**G- : k- sets:**

29. WJK GUMBU *to make water* : UMP kumpu *urine, bladder*.
30. WJK GIDJI *a spear* : UMP kajin *digging stick*.

GW- : w- set:

31. WJK GWABBA *good. . .; proper. . .* : UMP wa'a *all right*.

K- : k- sets:

32. WJK KONANG *to void the excrement* : UMP kuna *excrement*.
33. WJK KALGA *stick with crook at each end* : UMP kalka *spear*.
34. WJK KANNING *the south* : UMP kani *up; ashore*.
35. WJK KOPIN *secretly*, KOPIN IJA+ *to hide* (IJA+ *to put*) : UMP kumi+L+ Vtr *to lose*.
36. WJK KARA : UMP kaatha *spider*.
37. WJK KANDANG *to vomit* : UMP ka'antanga+L+ *to belch*.

NG- : ng- sets:

38. WJK NGALLI *we two; brother and sister. . .* : UMP ngali *we (DU INCL)*.
39. WJK NGANNIL *we; us*, NGANNAMA *we two; brothers-in-law* : UMP ngana *we (EXCL)*.
40. WJK NGAD-JO I : UMP ngatha+ *me (OBL)*.
41. WJK NGAN-YA : UMP +nyi *me* (optional alternative to ngatha+n).
42. WJK NGANNI *who* : UMP ngaani *what*.
43. WJK NGO-LANG-A *after; behind* : UMP ngula *by-and-by, later*.

NG- : w- sets:

44. WJK NGAL-YA : UMP waatha *armpit*.
45. WJK NOPYN *the young of animals* : UMP wupuy *young one* (if Moore's spelling is in error for ngupany).

NGW- : w- set:

46. WJK NGWUNDA+ *to lie down* : UMP wuna+ \emptyset *to lie, sleep*.

W- : ng- set:

47. WJK WELLE *a dream* : KNJ ngiili *name*.

Ø- : ng- sets:

48. WJK IJA+ *to place; to put; to produce – young, fruit, eggs* : UMP ngiija+Y+ *to put, lay (egg), give birth to*.
49. WJK I-I : UMP ngii *yes*.

In the above two sets, it is conceivable that Moore missed an initial velar nasal.

W- : w- sets:

50. VAS WONNANG *to throw, cast* : UMP wana+L+ Vtr *to leave*.

51. WJK WARRANGAN *to tell, relate. . ., to desire* : UMP waanta *story*, waana+L+ *to tell, test* (PNPN *waarra+ *to tell*).
52. WJK WINJALLA : UMP wantuna *where* clearly count as a further cognate set, but the internal consonantism of the UMP form calls for further study.

Ø- : ø sets:

53. WJK INJAR *dry* : UMP iji+L+ *to bask, get dry* (PNPN *lija+).
54. WJK ULOYT *calf of the leg* : UMP uulu *bone* – as in tali uulu *shin* (PNPN *wulu).

One notes, in passing, grammatical evidence for the genetic relatedness of Wadjuk and Umpila in the following case markers:

WJK +AK *POSSESSION* (sic) : UMP +ku *DATIVE*.

WJK +AL : UMP +lu ~ *ERGATIVE*.

WJK +IN *ACCUSATIVE* : UMP +n *ACCUSATIVE* (of pronouns).

We extract from the above the following matchings for initial consonants:

Wadjuk	Umpila	Examples	Wadjuk	Umpila	Examples
B	p	1-8, 10	G	k	29-30
W	p	9, 10	GW	w	31
M	m	11-15	K	k	32-37
N	m	16	NG	ng	38-40, 42-43
M	ø	17	NG	ø	41
D, T	th	18-20	NG	w	44
D	ø	21	N	w	45
RD	t	22	NGW	w	46
N-Y	nh	23	W	ng	47
N-Y	ng	24	Ø	ng	48-49
N	ng	25	W	w	50-52
Y	y	26	Ø	ø	53-54
Y	ø	27-28			

If we ignore voicing in Wadjuk and treat laminals and apicals as constituting single classes, then we have isomorphic matchings (K:k, etc.) of initial consonants in 35 out of 54 sets. In the case of W:p, D/T:th, Y:ø, Ø:ng and Ø-:ø, we have a minimum of two instances of each matching, which makes them 'systematic or nonrandom' (Anttila 1972:335).

Matchings for C₂ are as follows:

Wadjuk	Umpila	Examples	Wadjuk	Umpila	Examples
PBBBB-B	p	7, 15, 16, 27, 45	P	m	35
BBB	'	2, 19, 25, 31	MB	mp	29

Wadjuk	Umpila	Examples	Wadjuk	Umpila	Examples
N NN	n	23, 32, 34, 39, 42...	JDJD-JDT	th j	5, 6, 14, 30, 40...
ND	nt	1, 8, 37	N-Y	ny	41
ND	n	24, 46	NJ	j	53
L LL	l	3, 13, 28, 38, 43...	NJ	nt	52
R	rr	12, 19	L-Y	th j	17, 44
R	th	36	Y	y	10
RH-R	'	9, 11	Ø	y	4, 20
RR	nt	51	G	k	26
RR	n	51	KKKG	ngk	18, 22
RD	t	22	W	w	21

Heterorganic clusters appear in Wadjuk LG:Umpila lk (#33) and in L:l' (#13). In the C₂ position there are 34 isomorphic matchings. In a further ten sets we find at least *pairs* of matchings of non-identical sound types. These are B BB:' (four matchings); RH-R:' (two); ND:n (two); and L-Y:th j (two).

In the V₁ position, matchings are:

Wadjuk	Umpila	Examples	Wadjuk	Umpila	Examples
I	i	4, 5, 8, 20, 53	A	Ø	41
I	ii	7, 23, 48	O	a	21, 50
I-I	ii	49	O	u	32, 35, 43, 45
E	ii	2, 13, 47	U	a ~ u	24
A	a	9, 11, 15, 16, 28...	U	u	3, 22, 25, 26, 29...
A	aa	1, 12, 14, 37, 36...	U	uu	6, 10, 17, 28, 54
I	a	30, 52			

Leaving aside Umpila vowel length for the moment, V₁ show isomorphic matching in 42 out of 54 instances. Of the remainder, E:ii (three matchings) and O:u (four) probably reflect Moore's perception of i u as having rather lax and open realisations. The two I:a matchings are found preceding a laminal, and the O:a pair involve an adjacent w. In #41, UMP cliticised +nyi matches the -N-YA portion of WJK NGAN-YA.

Matchings for V₂ are the following:

Wadjuk	Umpila	Examples	Wadjuk	Umpila	Examples
I	i	7, 21, 30, 34, 35...	A	ii	5, 18
E	i	20, 47	A	a	2, 3, 6, 9, 11... (21 examples)
I	a	8, 39	A	u	25, 26, 52
I	u	21	Y	u	45
Ø	i	4, 12	Ø	a	13
A	i	1, 19, 28, 41, 53			

Wadjuk	Umpila	Examples	Wadjuk	Umpila	Examples
o	a	40	u	a	10
o	u	14, 15	u	u	22, 24, 29
oY	u	54			

Reduced second-syllable stress probably accounts in part for non-isomorphic matchings such as A:i and A:u in the above.

Matchings for C₃ are in most cases of a different order altogether from those of C₁ and C₂:

Wadjuk	Umpila	Examples	Wadjuk	Umpila	Examples
P	∅-	28	R	∅	5, 18, 21, 53
∅	p	22	∅	rr	15
M	∅	39	N	y	45
∅	m	19	ND	th	20
N	∅	6, 10, 18, 35	∅	th	4
∅	n	30	∅	y	14
ND	nt	37	YT	∅	54
L	l	2, 25	YL	∅	7
LL	n	52	NG	k	1
L	∅	27, 39	NG	m	9
∅	l	17	NG	∅	32, 34, 43, 50 (and see 51)

The majority of Wadjuk-Umpila C₁, V₁ and C₂ matchings are, as noted above, isomorphic. All the indicators point to a pair of genetically related languages. With C₃, the situation is dramatically reversed: only two out of twenty-two matchings (involving ND:nt and L:l) are isomorphic. Much of the remaining C₃ evidence so much gives the impression of randomness that we could conclude from it that we are dealing with a pair of languages of quite different genetic affiliations.

The problems resulting from the attempt to set up plausible correspondences for C₃ in Ngayarda and other Pama-Nyungan languages were earlier highlighted by us (O'Grady 1966). In fact, what we found we were dealing with in the great majority of cases was not a matter of phonology at all, but one of *morphology*. Part of the purpose of this volume is to provide further evidence that the vast majority of Pama-Nyungan roots are disyllabic. Wadjuk NGO-LANG-A (plausibly ngulanga) and Umpila ngula (#43) will be seen to reconstruct just to *ngula, and in like vein the two rightmost segments in Umpila tharr'imu will be shown to have nothing in common with Wadjuk DARBA+, the ancestral form in question being *jarrpa+Y *to enter, go under*. Similarly, Umpila tungkupa+TH+ (#22) will be etymologically decomposed to *tuku *heart* + *+pa+ *PERFORMATIVE* (see at P7 herein).

With regard to the Wadjuk:Umpila C₁ and C₂ matchings, we note for example that we have nine matchings of Wadjuk initial B, i.e. p, with Umpila initial p, but only two sets with W-:p-matching. Highly favoured matchings such as B-:p-, above, will henceforth count for us as

examples of *Major Matchings* (MJMs); and statistically infrequent matchings of the type W-:p- will be referred to as *Minor Matchings* (MNMs).

It would appear reasonable to assume that in the absence of evidence for split, merger, assimilation, reanalysis or the like, the difference between MJM and MNM patterns will correlate at least in part with the differing degrees of antiquity of various layerings in the lexicon. Compare, for example, the four different reflexes of *k- in PIE *kan+ *to sing* in the following Modern English examples:

in	sh	anty (sailors' song) – from Modern French
	ch	ant – from Old French
	c	antation – learned Latin loan
	h	en – old Germanic inherited form

If, as seems indeed likely, Dixon (1980) is correct in proposing that each speaker of a given natural language – Australian or otherwise – makes use of a lexicon of about ten thousand entries, then the modest available Umpila vocabulary of about one thousand items lacks fully 90% of what a full-blown dictionary of the language would contain. Similarly, Moore's Wadjuk dictionary of about 2,000 entries falls 80% short of exhaustiveness. A given lexicographer, moreover, might zealously pursue bird names, for example, while his colleague elsewhere largely ignores this part of the semantic realm as being 'unimportant'.

It is clear, then, that a Wadjuk-Umpila comparative study utilising full-fledged dictionaries of each language would turn up far more cognate sets – perhaps something of the order of 300 or 400. It should be pointed out also that instead of comparing Wadjuk and Umpila, we could have compared, let's say, Wadjuk and Guugu Yimidhirr, Nyangumarta and Guugu Yimidhirr, Gawurna and Gupapuyngu or Warlpiri and Gidabal, and assembled a fairly comparable amount of lexical evidence for genetic relationship. All that would happen would be that in different pairings of languages, the members of cognate sets would involve only *some* of the roots which figured in some other pairing. Thus a root *lumpu *cavity, recess*, not to date known to have a reflex in Umpila, survives in the nearby Guugu Yimidhirr and in Wadjuk – as well as, e.g., in Nyangumarta and Ngarluma (O'Grady 1966, 1981c). Were we to move away from the so-called Nuclear Pama-Nyungan constellation of languages and bring, e.g., Lardil or Gippsland languages into the picture, we would find the number of plausible cognates shrinking appreciably. Comparison of Wadjuk with, say, non-Pama-Nyungan languages such as Alawa, Maung or Ungarinyin – which we have indeed attempted – would yield, in turn, a still more drastically attenuated scattering of what we might dare to put forward as conceivably related forms.

All in all, the feeling grows that the ultimate common ancestor from which Wadjuk and Umpila eventually sprang was spoken perhaps only 3,500 to 4,000 years ago. Certainly the results obtained by Anttila in his Ge man-Russian comparison give us good reason to hypothesise that the time depth for Nuclear Pama-Nyungan is appreciably less than that for Indo-European.

We move on now to the comparison of successively larger numbers of Pama-Nyungan languages, thus coming closer to following the classical procedures of Comparative Method linguistics. The results of our long-shot comparison of Wadjuk with Umpila certainly suggest that proper adherence to the tried and proven traditional methodology in the Pama-Nyungan field should yield a greatly increased body of evidence for genetic relationship.