

VERBAL INFLECTIONAL MORPHOLOGY IN HISTORICAL LINGUISTICS—A CASE STUDY IN THE HERBERT-BURDEKIN LANGUAGES OF NORTH QUEENSLAND¹

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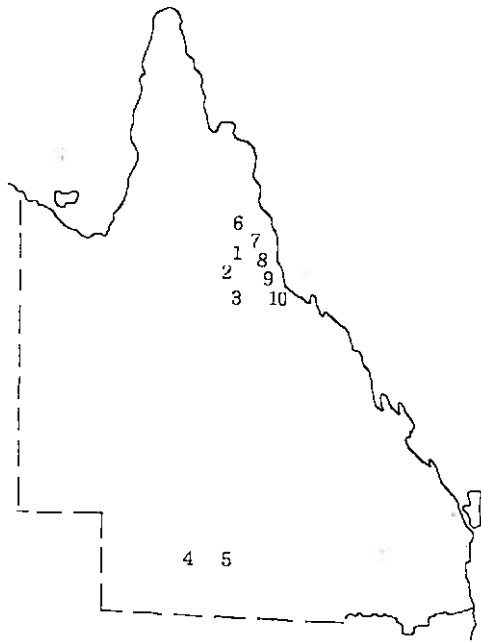
1. Introduction

The Herbert-Burdekin languages (HBLs) refer to Warrungu (WA), of the Upper Herbert River area, and Gugu-Badhun (GB) and Gudjal (GU), of the Upper Burdekin River area. They appear to be no longer actively spoken.

It has long been suggested (O'Grady, Voegelin, and Voegelin 1966: 51-52, Oates and Oates 1970: 169-77, Wurm 1972: 141, Sutton 1973: 4, Breen 1981: 257) that the HBLs are the northernmost members of a group of closely related languages — often called 'Mari languages' — that comprise languages which extended as far south as the present border of Queensland and New South Wales, their southernmost members being Margany and Gunya (Breen 1981). It has also been suggested that the HBLs are not closely related to their immediate neighbours on the west, the north, or the east. Their neighbours are Mbara and Wamin/Agwamin (Sutton 1976) on the west; Mbabaram (Dixon 1966) on the northwest; Jirrbal and Girramay (Dixon 1972) on the northeast; Warrgamay (Dixon 1981), Nyawaygi (Dixon, forthcoming), and Wulguru on the east.² See Map 1.

This paper compares the HBLs with Margany and Gunya — as the representatives of the southern languages — and with their northern/eastern neighbours (hereafter referred to as the NELs), i. e. Jirrbal, Girramay, Warrgamay, Nyawaygi, and Wulguru. (The neighbouring languages on the west and the central members of the Mari group are not well documented.) (Apart from the fact that Jirrbal and Girramay are very close to each other, the NELs as a whole do not seem to constitute one single genetic group — Dixon 1981: 4.)

The evidence regarding pronouns, shared vocabulary, and phonological correspondence overwhelmingly supports the above-mentioned view that the HBLs are closely related to these southern languages, rather than to the NELs. However, the evidence



- | | |
|--------------------|-------------|
| 1 Warrungu (WA) | 6 Jirrbal |
| 2 Gugu-Badhun (GB) | 7 Girramay |
| 3 Gudjal (GU) | 8 Warrgamay |
| 4 Margany | 9 Nyawaygi |
| 5 Gunya | 10 Wulguru |

Map 1. Approximate location of languages

regarding verbal inflectional morphology alone points to the opposite direction. The aim of this paper is to discuss the implications of this finding for language contact study and historical linguistics. (Note that it is not the purpose of this paper to prove — or disprove — the genetic grouping of the so-called Mari group as a whole.)

Before we examine the evidence, it is necessary to list the phoneme inventories of the languages concerned.

Warrgamay

b g d . . dy m ng n . . ny l . . rr r w y a i u
a: i: u:

Nyawaygi

b g . . . dy m ng n . . ny l . . rr r w y a i u
a: i: u:

Jirrbal, Girramay, WA

b g d . . dy m ng n . . ny l . . rr r w y a i u
GB

b g d . dh dy m ng n . . ny l . . rr r w y a i u
GU and possibly Wulguru

b g d . dh dy m ng n . nh ny l . . rr r w y a i u
Margany and Gunya

b g d rd dh dy m ng n rn nh ny l rl ly rr r w y a i u
p k t rt th ty a: i: u:

2. Evidence

2. 1. Pronouns

Jirrbal	Girramay	Warrgamay	Nyawaygi	Wulguru	HBLs	Margany, Gunya
1st person						
Sg ngadya	ngadya(A) ngayba(S)	ngadya(A) ngayba(S)	ngadya(A) ngayba(S)	ngawu 'my'	ngaya	ngaya
Du ngalidy	ngali	ngali			ngali	ngali
Pl nganadyi	ngana	ngana			ngana	ngana
2nd person						
Sg nginda	nginda(A) nginba(S)	nginda(A) nginba(S)	nginba(S)	nginu 'your'	yinda	yinda
Du nyubaladyi	nyubiladyi	nyubula			yubala	yibalu
Pl nyurradyi	nyurra	nyurra			yurra	yura(G) yida(M)
3rd person						
Sg		nyulangga(A) nyunga(S)			nyula(WA, GB) nhula(GU)	nhula
Du		bula(S) bulanggu(A)			bula	bula
Pl		dyana(S) dyananggu(A)			dyana(WA) dhana(GB, GU)	dhana

In certain person-plus-number combinations, Girramay, Warrgamay, and Nyawaygi have separate forms for the A function ('transitive subject') and the S function ('in-

transitive subject'). All the other forms listed above can be used for either function. (For Wluguru, only two forms — probably in the genitive — were obtained.)

In terms of the evidence regarding the pronouns, the HBLs clearly constitute a group with Margany and Gunya, rather than with the NELs. Thus, (i) in '1st person singular', *dy* has changed to *y* (resulting in *ngaya*) in the HBLs, Margany, and Gunya, but the NELs have retained *ngadya*. (ii) In the word-initial position of '2nd persons', the HBLs, Margany, and Gunya have *y*, but the NELs have (the original?) *ng* or *ny*. (iii) The additional forms *ngayba* '1st person singular'(S) and *nginba* '2nd person singular'(S) occur only in — three of — the NELs, i. e. Girramay, Warrgamay, and probably Nyawaygi, but not in other languages.

2. 2. Lexical Sharing

The languages under discussion share vocabulary as shown in Digram 1 — on the basis of a 247-item list, which consists of 149 nouns, 35 adjectives, 4 time words, 8 location/direction words, 49 verbs, 'yes', and 'no'. (Margany is not included in the diagram. Margany and Gunya are very similar to each other, and yielded almost identical figures.) The HBLs share more than 80% common vocabulary with one another. In sharp contrast, they generally share at most about 50% with the NELs, although they are immediately contiguous. On the other hand, the HBLs share more than 30% with Gunya, although it is almost 1,000km away. When verb roots only are

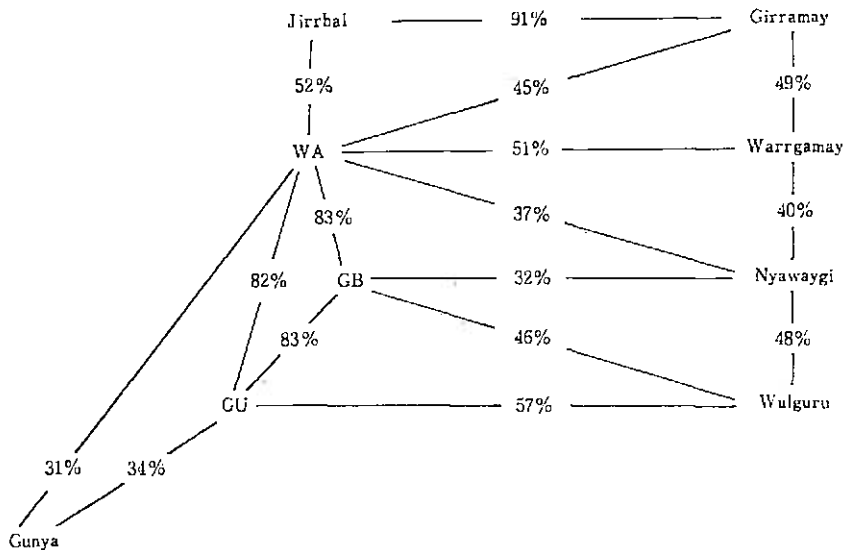
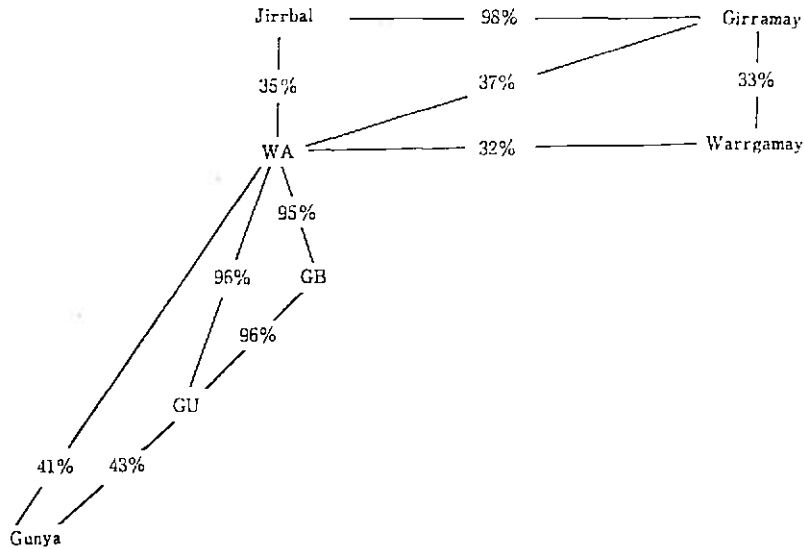


Diagram 1. Sharing of overall vocabulary



(The information on the verbs of Nyawaygi and those of Wulguru is limited, and no reliable figure has been obtained.)

Diagram 2. Sharing of verb roots

compared (see Diagram 2), the figures for the HBLs-NELs become even lower — less than 40%, while on the other hand those for the HBLs-Gunya become even higher — over 40%. Therefore, this evidence clearly supports the view that the HBLs are closely related not to the NELs but to the southern languages such as Margany and Gunya.

2. 3. *Phonological Correspondence*

Meillet (1967: 46) states that proof of genetic relationship is provided by regular phonological correspondence, not by mere superficial resemblance. Superficial phonological resemblance can be due to borrowing — particularly if the languages in question are geographically contiguous. On the other hand, regular phonological correspondence is more likely to be a result of inheritance from the proto-language, and is a surer indication of a genetic relationship — particularly if the languages in question are geographically apart.

The evidence regarding phonological correspondence overwhelmingly indicates that the HBLs are more closely related to Margany and Gunya — almost 1,000km away — than to the NELs — immediately contiguous. Inspection of the cognates shared by the HBLs and Margany/Gunya has so far yielded several sets of regular phonological correspo-

ndence. However, no regular phonological correspondence has been found between the HBLs and the NELs. The cognates shared by them are generally identical in shape, with sporadic/irregular differences in some instances. (Some examples are given below.)

(1) LAMINALS. *dha* and *dhu* in Margany/Gunya correspond, respectively, to *dha* and *dhu* in GU and GB; and to *dya* and *dyu* in WA. (But, not necessarily vice versa.)

Thus:

	Margany, Gunya	GU, GB	WA	NELs
'head'	gadha	gadha	gadya	
'thigh'	dharra	dharra	dyarra	dyarra(Warrgamay)
'to bite'	badha-	badha-	badya-	badya-(Jirrbai)
'to cook'	wadhu-	wadhu-	wadyu-	
	dhuwana	dhuwana	dyuwana	
	'son of woman'	'sister's son'		

For more examples, see the items for '3rd person plural' in 2. 1., and those for 'to enter' in (3) below.

nha and *nhu* in Margany/Gunya correspond, respectively, to *nha* and *nhu* in GU; and to *nyu* and *nyu* in GB and WA (but not always vice versa). Thus:

	Margany, Gunya	GU	GB, WA	NELs
'name'	nhari		nyari	
'to see'	nhaga-(G)	nhaga-	nyaga-	
'3rd Sg'	nhula	nhula	nyula	nyulangga(Warrgamay)

dhi in Margany/Gunya corresponds to *dyi* in the HBLs (but not always vice versa). There are no examples of correspondence involving *nhi*, but at least in one set of cognates, *nh* followed by *i* (with *dh* intervening) in Margany/Gunya corresponds to *ny* followed by *i* (with *dy* intervening, as expected) in the HBLs. Thus:

	Margany, Gunya	HBLs	NELs
'eye'	dhili	dyili	
'foot'	dhina	dyina	dyina(Warrgamay)
'to laugh'	yadhi-	yadyi-	
'to break'	gunhdhi-	gunydyi-	

For another set of examples, see the items for 'semen' in (3) below.

(2) RETROFLEXES. *rd*, *rn*, and *rl* in Margany/Gunya correspond to *r*, *n*, and *l*, respectively, in the HBLs (but not necessarily vice versa). Thus:

	Margany, Gunya	HBLs	NELs
'not'	garda(G)	gara	
	yurdi	yuri	yuri
'meat'		'kangaroo'	'grey kangaroo'(Jirrbal, Girramay)
'faeces'	gurna	guna	guna(Jirrbal, Girramay, Warrgamay)
'raw'	gurn.ga	gun.ga	gun.ga(Jirrbal, Girramay, Warrgamay)
'testicles'	garlu(G)	galun(GU, WA)	galun(Warrgamay)
'heart'	yurigu	ruigu	ruigu(Warrgamay)

(A dot is used, as in *gurn.ga* and *gun.ga*, in order to distinguish the phoneme /ng/ from the sequences /rn/-plus-/g/ and /n/-plus-/g/.) For another set of examples involving the *rd*-to-*r* correspondence, see the items for 'echidna' in (3).

(3) STOP-PLUS-STOP SEQUENCES. *dg*, *db*, and *dk* in Margany/Gunya correspond to sequence of *rr* or *r*-plus-corresponding stop, respectively, in the HBLs. (The HBLs prohibit a stop-plus-stop sequence.) Thus:

	Margany, Gunya	HBLs	NELs
'nape of neck'	gudga(G)	gurriga(WA)	gurriga(Jirrbal, Warrgamay)
'to enter'	dhadga-(Vint)	dharriga-(Vint)(GB)	dharga-(Vint, Vtr)(WA)
'semen'	dhidga(G)	dyiriga(WA)	
'echidna'	badbirda	barrbira	
'perch sp.'	gudba	gurrba(WA)	
'hawk sp.'	gadgany(M)	garrgay	garrgay(Warrgamay)
	gadkany(G)		

2. 4. Verbal inflectional morphology

The evidence given above — regarding pronouns, shared vocabulary, and phonological correspondence — strongly indicates that the HBLs are more closely related to the southern languages such as Margany and Gunya, than to the NELs. However, the evidence from verbal inflectional morphology points in the opposite direction.

	imperative	purposive	potential or irrealis	negative imperative
Jirrbal	- ϕ	-gu, -i	-bila, -mbila	-m
Girramay	- ϕ	-gu, -i	-bila, -nbila	-mu

Warrgamay	- ϕ , -ya, -ga, -a	-gu, -lagu	-ma, -lma	-dya, -ldya
Nyawaygi	- ϕ , -ya	-lgu		
WA	- ϕ -ya	-gu, -yal	-ga, -ngga	-mu
GB	- ϕ , -ya	-gu, -yal		
GU	- ϕ , -ya	-gu, -nggu	-ngga (future ?)	
Gunya	- ϕ	-lgu, -n.gu	-nyibayinga, -nyibadinga	
Margany	- ϕ	-lu, -n.gu	-:nydyu, -winydyu	

future

stative

Jirrbal	-ny			
Girramay	-ldyay, -ndyay			
WA	-dyi, -yi, -yay		-dyi	
GB	-dyi, -yi, -yay			
Gunya	-nggu		-nga, -nhdhana	
Jirrbal	-n 'past/present'	-nyu 'past/present'		-ngu 'subordinate'
Girramay	-n 'past/present'	-nyu 'past/present'		-ngu 'subordinate'
Warrgamay		-nyu 'perfect', 'subordinate'		
Wulguru	-na 'function unknown'	-nyu 'function unknown'		
WA	-n 'past/present'	-nyu 'subordinate', also 'past'(?)		-ngu 'subordinate'
GB	-n 'past,			
GU	-n 'past' -na 'past'	-nyu 'subordinate'		-ngu 'subordinate'
Warrgamay	-y 'unmarked aspect'			
Nyawaygi	-y 'function unknown'			
WA	-y/-l/- ϕ 'past/present'		-la 'past'	
GB	-y/-l/- ϕ 'present/future'			
GU	-y/-l/- ϕ 'past/present'(?)		-la 'present'(?)	

Gunya	-la, -:la 'past'
Margany	-la 'past'

(The statements on Nyawaygi and on Wulguru are highly tentative, as the data are very limited.) Other verbal inflectional suffixes, not listed above, are as follows. Warrgamay *-gi* 'perfect'. Nyawaygi *-gi* 'perfect/past'. WA *-ndyi*, *-ndyirra* 'subordinate', *-nga* 'affirmative imperative'. Gunya *-nhi* 'present', *:-nhi* 'recent past', *-:* 'interrogative'. Margany *-nhi* 'present', *:-nhi* 'recent past', *-ta* 'co-ordinate'.

Note that the HBLs share with the NELs, to the exclusion of Margany and Gunya, seven sets of cognates — four sets with Jirrbal, five sets with Girramay, and three sets with Warrgamay. They are *-ya*, 'negative imperative' (*-m*, *-mu*), 'future' (*-ldyay*, *-ndyay*, *-yay*), *-n*, *-nyu*, *ngu*, and *-y*. In sharp contrast, the HBLs share with Margany and Gunya, to the exclusion of the NELs, only one set of cognates, i. e. *-la*, *:-la*. (It seems unlikely that *-nga* 'affirmative imperative' (WA) and *-nga* 'stative' (Gunya) are cognate.)

3. Discussion

As we saw above, overwhelming evidence — regarding pronouns, shared vocabulary, and phonological correspondence — indicates that the HBLs are more closely related to the southern languages such as Margany and Gunya than to the immediately contiguous NELs. However, the evidence regarding verbal inflectional morphology alone points to the opposite direction.

In view of the evidence given above, it seems most likely that the HBLs constitute a genetic group with Margany and Gunya, rather than with the NELs. (This putative group is probably part of, or identical with, the so-called Mari group.)

In that case, why is it that the HBLs share so many verbal inflectional suffixes (VISs) with the NELs, but not with Margany and Gunya? The following possibilities have presented themselves.

HYPOTHESIS-A. All of the HBLs, the NELs, Margany, and Gunya originally shared the same VISs (presumably inherited from a common ancestor language). Later, Margany and Gunya replaced most of them with new forms — probably borrowed from some other language(s), whereas the HBLs and the NELs have retained — and still now share — many of them.

HYPOTHESIS-B. The HBLs, Margany, and Gunya originally shared the same VISs (probably inherited from the putative proto-Mari), to the exclusion of the NELs.

Later, one of the following three occurred:

- (i) The HBLs replaced most of the original VISs with new forms — probably borrowed from the NELs.
- (ii) Margany and Gunya replaced most of the original VISs with new forms — probably borrowed from some other language(s).
- (iii) Both (i) and (ii) took place.

I tentatively adopt the hypothesis-B-(i). There are three reasons for this. First, this view seems the most reasonable in view of the data given above. (There are no data available that will support any other possibility.) Second, there is a strong indication that an extensive borrowing of VISs occurred in the HBL-NEL area. There are at least three genetic groups among the NELs (cf Dixon 1981: 4). These three groups and the HBLs share many VISs with one another although they do not constitute one single genetic group. Third, bilingualism/ multilingualism, which is a prerequisite for borrowing, seems to have been common in the HBL-NEL area (as elsewhere in Australia). For example, among the last surviving speakers I interviewed (from 1971 to 1974), at least the following people spoke WA and one or two NELs although these languages are very different from one another: Alf Palmer (WA) — WA, Jirrbal, and Warrgamay; Alick Collins (WA) — WA and Jirrbal; Tommy Springcart (Jirrbal) — Jirrbal and WA; Tommy Murray (Jirrbal) — Jirrbal and WA; Ado Cashmere (Warrgamay) — Warrgamay and WA.

Note that whichever hypothesis is adopted, it seems certain that a fairly extensive borrowing of VISs was involved. (It seems highly unlikely that the VISs of the HBLs and those of Margany and Gunya are phonological developments from the common original forms.)

4. Implications

4. 1. *Extensive borrowing of verbal inflectional morphology*

It has sometimes been claimed that:

- (i) morphology is resistant to borrowing;
- (ii) generally, only derivational morphemes (but not inflectional morphemes) are borrowed, and;
- (iii) verbal inflectional morphemes are among the most resistant to borrowing.

(See Sapir 1939: 201-06, Weinreich 1968: 32, Bynon 1977: 189, 253, Heath 1978: 68-71.)

As we saw above, it seems that a large-scale borrowing of verbal inflectional morphemes

mes occurred in the HBLs (and possibly in Margany and Gunya as well.) This will then constitute counterexamples to the three claims above. It is particularly important to note that it appears to be only the verbal inflectional suffixes — the very morphemes that have been regarded to be among the most resistant to borrowing — that were borrowed extensively.

It seems that, within Australia, such large-scale borrowing of verbal inflectional morphemes has not been reported before. Heath (1978) reports an extensive borrowing of grammatical morphemes — among others — in Arnhem Land, but states that verbal inflectional morphemes were not borrowed. (See pp. 101-04.) Outside Australia, reported instances of extensive borrowing of verbal inflectional morphemes include that in Mbugu of Tanzania (Whiteley 1960, Goodman 1971, Tucker and Bryan 1974, Bynon 1977: 253-55) and that in the Copper Island dialect of Aleut (Comrie 1981: 252-63 — I owe this reference to Bruce Rigsby (p. c.))

4. 2. *Method in historical linguistics*

As verbal inflectional morphology has been regarded as very resistant to borrowing, it has often been used as important — and sometimes decisive — evidence in the reconstruction of a proto-language and the grouping of its daughter languages. For example, see Bynon (1977: 13) for Indo-European linguistics, and Dixon (1980: 222, 224-25, 251-60, 378-438) for Australan linguistics. However, in the case of the HBLs, as we saw above, the evidence from verbal inflectional morphology is contradicted by the overwhelming evidence from pronouns, shared vocabulary, and phonological correspondence. This suggests that, in historical linguistics in general, the evidence from verbal inflectional morphology:

- (i) is not always decisive, and;
- (ii) will have to be discarded if it is contradicted by overwhelming evidence that points to a different conclusion.

FOOTNOTES

- 1) This paper was presented at the University of Queensland and at the Australian Institute of Aboriginal Studies. It is based on Chapter 6 of Peter Sutton and Tsunoda Tasaku (in preparation), *The Herbert-Burdekin Languages*. This paper is highly tentative and is scheduled to be revised in the future.
- 2) The sources of the information are as follows. WA — Sutton's and my data. GB — Sutton's

data. GU — Sutton's and my data. Margany and Gunya — Breen 1981. Jirrbal and Girramay — Dixon 1972, supplemented by my data on Jirrbal. Warrgamay—Dixon 1981. Nyawaygi — Cassady and Johnstone 1886, information scattered in Dixon's published works and two handouts, my data. Wulguru — Johnstone and Curr 1886, my data. I wish to thank Peter Sutton for allowing me to use his materials for this paper.

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