



Map 5 Locations of languages of the Lower Sepik family

mixed languages (see Dutton 1976). As Austronesian languages are usually typologically very different from Papuan languages and comparatively well studied, these examples of language mixing are not too difficult to identify. Language mixing among Papuan languages, which are often typologically similar, is likely to be even more pervasive, but much more difficult to discover.

7.2 The Lower Sepik family: a comparative study

In this section I will take a detailed look at the Lower Sepik family, a family of six languages spoken in the Sepik basin, with a view to exemplifying how the specialized techniques of the comparative method may be applied to Papuan languages. The languages in this family are Yimas (250 speakers), Karawari (1,500 speakers), Angoram (7,000 speakers), Chambri (1,200 speakers), Murik (1,500 speakers) and Kopar (250 speakers). Map 5 gives the relative positions of the languages. Murik and Kopar are very closely related, almost dialects of the same language, so I will regard them as one for the purposes here. The source of data for each language is as follows: Yimas (own fieldnotes), Karawari (own fieldnotes), Angoram (own fieldnotes; Abbott 1977; and Laycock's fieldnotes of 1959 trip), Chambri (own

fieldnotes and Pagotto 1976), Murik (Schmidt 1953; Abbott 1977; 1978; Abbott and Abbott 1978). Consider first the possible cognates in a basic word-list for the five languages shown in Table 2 (K after words in the Murik column indicates Kopar forms). A number of straightforward consonantal correspondences with reconstructed Proto-Lower Sepik (PLS) phonemes are presented in Table 3.

Table 2 Lower Sepik family: basic word-list

	Yimas	Karawari	Angoram	Chambri	Murik
1 'one'	<i>m̥ba-</i>	<i>m̥ba-</i>	<i>m̥ba-</i>	<i>m̥b̥wa-</i>	<i>abe</i>
2 'two'	<i>-rpal</i>	<i>-r̥p̥ay</i>	<i>-(h)par</i>	<i>-r̥i</i>	<i>kompar(K)</i>
3 'three'	<i>-ramaw</i>	<i>-riamaw</i>	<i>-el̥m</i>	<i>-ram</i>	<i>kerongo</i>
4 'person'	<i>nam̥aw</i>	<i>yarnash̥ar</i>		<i>noraman</i>	<i>nor</i>
5 'male'	<i>pan̥mal</i>	<i>pan̥mari</i>	<i>pon̥do</i>		<i>puin</i>
6 'female'					
mother'	<i>g̥ay</i>	<i>as̥ay</i>	<i>n̥u̯gor</i>	<i>k̥aye</i>	<i>g̥ai</i>
7 'father'	<i>ap̥wi</i>	<i>an̥ay</i>	<i>ap̥a ano</i>	<i>k̥anu</i>	<i>apa</i>
8 'water'	<i>ar̥m</i>	<i>ar̥m</i>	<i>ar̥m</i>	<i>ar̥m</i>	<i>ar̥m</i>
9 'fire'	<i>aw̥t</i>	<i>aw̥t</i>	<i>al̥u̯g</i>	<i>ay̥r</i>	<i>aw̥t</i>
10 'sun'	<i>t̥mal</i>	<i>st̥mari</i>	<i>m̥b̥wino</i>	<i>st̥mari</i>	<i>ak̥h</i>
11 'moon'	<i>m̥la</i>	<i>t̥ug̥wi</i>	<i>m̥le</i>	<i>m̥wl</i>	<i>k̥arewan</i>
12 'star'	<i>aw̥k</i>	<i>s̥ug̥w̥in̥st̥m</i>	<i>ar̥en̥jo</i>	<i>s̥ug̥k̥wi</i>	<i>moai</i>
13 'canoe'	<i>k̥ay</i>	<i>k̥ay</i>	<i>ke</i>	<i>ke</i>	<i>gain</i>
14 'house'	<i>nam</i>	<i>yam</i>	<i>nam</i>	<i>kuir</i>	<i>iran</i>
15 'village'	<i>num</i>	<i>im̥u̯ga</i>	<i>num</i>	<i>num</i>	<i>nomot</i>
16 'breast'	<i>n̥g̥ay</i>	<i>n̥g̥ay</i>	<i>g̥e</i>	<i>n̥g̥ke</i>	<i>n̥ugen</i>
17 'tooth'	<i>t̥r̥g̥</i>	<i>st̥g̥</i>	<i>st̥g̥</i>	<i>st̥g̥k</i>	<i>asarap</i>
18 'blood'	<i>y̥al</i>	<i>y̥ay</i>	<i>ay̥akone</i>	<i>y̥ari</i>	<i>yaran</i>
19 'bone'	<i>tan̥m</i>	<i>tan̥m</i>	<i>s̥al̥g̥</i>	<i>an̥amp</i>	<i>s̥ar̥ig̥b</i>
20 'tongue'	<i>m̥n̥y̥t̥g̥</i>	<i>m̥n̥y̥t̥g̥</i>	<i>m̥n̥y̥t̥g̥</i>	<i>t̥b̥ul̥ant̥g̥k</i>	<i>ment̥g̥</i>
21 'eye'	<i>t̥ug̥ur̥t̥g̥</i>	<i>san̥b̥is</i>	<i>tan̥b̥li</i>	<i>st̥i̯g̥k</i>	<i>n̥ab̥rin</i>
22 'nose'	<i>t̥k̥ay</i>	<i>ip̥un</i>	<i>n̥ag̥m</i>	<i>w̥an̥bus̥u</i>	<i>d̥aw̥</i>
23 'hair'		<i>w̥an̥bi</i>	<i>m̥b̥wik̥ma e̯y</i>	<i>y̥aw̥i</i>	<i>k̥ar̥ep</i>
24 'ear'	<i>kw̥and̥m̥t̥g̥</i>	<i>kw̥and̥kas</i>	<i>kw̥and̥m</i>	<i>k̥uk̥nam</i>	<i>gang</i>
25 'egg'	<i>aw̥g̥</i>	<i>y̥aw̥g̥</i>	<i>aw̥g̥</i>	<i>aw̥k</i>	<i>n̥ab̥ik̥</i>
26 'leaf'	<i>n̥m̥b̥t̥m</i>	<i>y̥in̥b̥r̥m</i>	<i>(nam)b̥lam</i>	<i>m̥in̥pr̥amp</i>	<i>y̥ar̥ar</i>
27 'tree'	<i>y̥an</i>	<i>y̥u̯wan</i>	<i>lor</i>	<i>y̥u̯wan</i>	
28 'yesterday'					
'tomorrow'	<i>g̥ar̥t̥g̥</i>	<i>ar̥t̥g̥</i>	<i>n̥ak̥n̥m̥</i>	<i>nam̥st̥n̥t̥g̥</i>	<i>g̥ar̥t̥g̥</i>
29 'oar'	<i>m̥ur̥ag̥</i>	<i>m̥n̥i̯ag̥</i>	<i>in̥ap</i>	<i>nam̥k̥</i>	<i>in̥ag̥</i>
30 'betelnut'	<i>pa̯m</i>	<i>pa̯m</i>	<i>pa̯t̥g̥</i>	<i>nam̥k̥in̥</i>	<i>porog</i>
31 'lime'	<i>aw̥t</i>	<i>as̥</i>	<i>aw̥er</i>	<i>ay̥r</i>	<i>ay̥r</i>
32 'pig'	<i>nam̥bran</i>	<i>im̥b̥an</i>	<i>im̥bar</i>	<i>nam̥pr̥an</i>	<i>(nim)b̥ren</i>
33 'crocodile'	<i>man̥ba</i>	<i>man̥bo</i>	<i>w̥al̥ami</i>	<i>ay̥i</i>	<i>or̥am̥en</i>
34 'snake'	<i>w̥ak̥in</i>	<i>w̥ak̥in</i>	<i>pa̯t̥g̥</i>	<i>w̥an</i>	<i>w̥ak̥in</i>
35 'mosquito'	<i>nam̥gin</i>	<i>y̥ang̥in</i>	<i>w̥aw̥ar̥in</i>	<i>nam̥gin</i>	<i>nam̥(g̥ang̥)(K)</i>

Table 2 (*cont.*)

	Yimas	Karawari	Angoram	Chambri	Murik
36 'chicken'	<i>nukwan</i>	<i>yakwan</i>	<i>kikikala</i>	<i>nukwan</i>	<i>goobar</i>
37 'sago grub'	<i>wun</i>	<i>wun</i>	<i>wurɔn</i>	<i>wun</i>	<i>kanur</i>
38 'sago palm'	<i>inun</i>	<i>sinasum</i>	(1) <i>uli/(no)</i>	<i>inun</i>	<i>dan</i>
39 'sago refuse'	<i>iki</i>	<i>sikis</i>	<i>ifkɛr</i>		
40 'pound sago'	<i>pan-</i>	<i>pan-</i>	<i>pan-</i>	<i>pan-</i>	<i>pon-</i>
41 'wash sago'	<i>tuku-</i>	<i>suku-</i>	<i>tuku-</i>	<i>tuku-</i>	<i>tokun-</i>
42 'heart'	<i>andi-</i>	<i>andi-</i>	<i>andi-</i>	<i>andi-</i>	<i>dɛn-</i>
43 'hit'	<i>tupul-</i>	<i>kurar-</i>	<i>ti-</i>	<i>di-</i>	<i>di-</i>
44 'eat'	<i>am-</i>	<i>am-</i>	<i>am-</i>	<i>am-</i>	<i>mɛn-</i>
45 'go'	<i>wa-</i>	<i>kuria-</i>	<i>kal-</i>	<i>wa-</i>	<i>on-</i>
46 'faeces'	<i>mɛlɛm</i>	<i>mɛndi</i>	<i>mɛndi</i>	<i>mɛnɔar</i>	<i>mɛndɛn</i>
47 'spine of leaf'	<i>kinɛŋ</i>	<i>kinɛŋ</i>	<i>kinɛŋ</i>	<i>kinɛŋk</i>	<i>kinɛŋ</i>
48 'leg'	<i>panɛŋ</i>	<i>panɛŋ</i>	<i>namɛŋ</i>	<i>namɛŋk</i>	<i>namɛŋ(K)</i>
49 'big'	<i>kupa-</i>	<i>kupa-</i>	<i>kupa-</i>	<i>wupa-</i>	<i>apo-</i>
50 'cold'	<i>tark</i>	<i>sark</i>	<i>popant</i>	<i>sark</i>	<i>serɔpant(K)</i>

Table 3 Lower Sepik phoneme correspondences: consonants

PLS	Yimas	Karawari	Angoram	Chambri	Murik	Examples
*p	p	p	p	p	p	2, 5, 30, 40, 49
*m	m	m	m	m	m	3, 8, 10, 11, 14, 15, 20, 44, 46, 48
*w	w	w	w	w	w	25, 34, 37
*k	k	k	k	k	g/k	13, 24, 47, 50
*ŋ	ŋ	ŋ	ŋ	ŋ	ŋ	6, 28
*y	y	y	y	y	y	18, 27
*r	r	r	r	r	r	2, 3, 4, 8, 26, 28, 50
					r	2, 9, 18, 30, 32
					*r → Yt/#, _____ n	*r → Ky/a
					l/i	
*t	t	t	t	t	t	38, 39, 41
*s	s	s	s	s	s	10, 12, 17, 50
					*s merges with *r in Y and *t in K	
*n	n	n	n	n	n	5, 16, 32, 34, 37, 47
					n	4, 14, 15, 32, 35, 36
					*n → Ky/#	

The voiced stops and the homorganic nasal-plus-stop clusters present greater problems. Chambri has the most complex system of stops, contrasting plain voiced and voiceless stops and pre-nasalized voiced and voiceless stops, although the voiced pre-nasalized stops are rare in Chambri. In final position Chambri

Table 4 Lower Sepik phoneme correspondences: pre-nasalized stops

PLS	Yimas	Karawari	Angoram	Chambri	Murik	Examples
*mp	mb	mb	mb	mp	b	21, 26
m	m			mp	b	19, 26
*mb	mb	mb	mb	mb	b	1
*ŋk	ŋg	ŋg	ŋg	ŋk	(ŋ)g	12, 16
ŋ	ŋ	ŋ	ŋ	ŋk	ŋ/g	17, 20, 25, 29, 30, 47, 48
				*ŋk → Y, K, A ŋ/ _____ # ^a		
*ŋg	ŋg	ŋg	ŋg	ŋg	k/ŋg(K) ^b	35
(*nt) no examples						
*nd	nd	nd	nd	nd	d/nd ^c	42, 46

^a The split in Murik between *g* and *ŋ* for **ŋk* in final position is unexplained.

^b Why Murik shows *k* rather than the expected *g* here is unclear.

^c The alternations in the Murik reflexes could be the result of initial versus intervocal position; other examples of pre-nasalized reflexes are intervocalic: (16) 'breast' and (35) 'mosquito'.

neutralizes this to a simple plain versus pre-nasalized stop contrast, with the stop realized as voiceless. Yimas and Karawari are the simplest, contrasting a plain voiceless stop with a pre-nasalized stop which varies freely between voiced and voiceless. The contrast between Chambri pre-nasalized voiceless and voiced stops is neutralized in Yimas and Karawari: compare (12) 'star' with (35) 'mosquito'. As there is no apparent conditioning factor for this Chambri contrast, we must assume it reflects the situation in the proto-language.

Murik stops are intermediate in complexity. It contrasts plain voiceless and voiced stops, but has pre-nasalized voiced stops only. The plain and pre-nasalized voiced stops generally correspond to pre-nasalized stops in other languages. Consider the correspondences in Table 4. For the plain voiced stops the data are very sketchy. Only (43) 'hit' provides any evidence for a plain voiced stop in the proto-language. In this word Chambri and Murik show *d*, while Yimas and Angoram have a voiceless correspondent. The Chambri *d* is the crucial evidence; it is difficult to explain away. It could not arise from a pre-nasalized stop because in Chambri they do not undergo simplification. I tentatively reconstruct **d* for this correspondence:

PLS	Yimas	Karawari	Angoram	Chambri	Murik	Examples
*d	t	-	t	d	d	43