

RELATIONS AMONG LANGUAGES OF WEST NEW BRITAIN: AN ASSESSMENT OF RECENT THEORIES AND EVIDENCE

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1. INTRODUCTION

It is now forty years since I was a member of a team, led by Ward Goodenough, which carried out anthropological fieldwork among the Lakalai speakers of the West Nakanai Census Division. In the mid-50s the Tri-Institutional Pacific Program (TRIPP) was trying to collect comparative data on many Pacific Austronesian languages, using a single word list (Grace 1955), and a member of our team, C.A. Valentine, filled out all or part of the TRIPP forms (the first part consisted of the Swadesh 215-word 'basic vocabulary') for a number of languages on and near the north coast of what is now West New Britain. Goodenough's two papers on West New Britain languages (1961a, b) were based on his and Valentine's data, on which I have also relied.

Eventually I worked in two other West New Britain societies, Sengseng and Kove. Some of my own papers were written in reaction to statements by others about specific languages with which I had worked (e.g. Chowning 1973). Stephen Wurm, however, asked me to write on New Britain languages in general, and my attempts to revise subgroupings and classifications (as Austronesian or non-Austronesian) suggested by linguists such as Capell and Dyen resulted from this project. Although I had the advantage of first-hand knowledge of three languages – which seemed, furthermore, to belong to three different subgroups – my investigations suffered from the problem that has continued to plague linguists trying to assess the situation in New Britain. Everyone has access to a different set of data. In addition, although many linguists have been extraordinarily generous in giving others copies of their data,¹ they do not necessarily collect the same sorts of things. Though both purporting to deal with basic vocabulary, for example, the TRIPP and Summer Institute of Linguistics (SIL) word-lists differ so much that an investigator trying to establish cognacy between terms in languages recorded by different investigators may be hard-pressed to find adequate evidence for regular sound-correspondences.² Apart from the well-known weaknesses of word lists collected in a single session, it is difficult to find even lexicostatistical evidence for subgrouping.

Where word lists are supplemented or replaced by other kinds of linguistic evidence, the problem of lack of comparability is greatly acerbated. The grammatical data on TRIPP lists, apparently devised by those familiar with Eastern Oceanic languages, has no overlap with

¹ I am particularly indebted to C.A. Valentine, George Grace, David Counts and Ray Johnston.

the data elicited on SIL lists, and many linguists, notably Capell and Ross of those whose classifications concern me, have collected data which accord with their own ideas of what is likely to be significant. It can be difficult, and sometimes impossible, to challenge subgroupings based on non-lexical criteria, or even on lexicon most of which is outside the realm of basic vocabulary, unless one has access to relatively full material on each language. Until much more detailed accounts of certain languages, such as those now classed as Bibling and Arawe, are published, attempts at subgrouping must necessarily be tentative. But even when full descriptions are available, the problem of subgrouping may remain. Present evidence indicates that the linguistic prehistory of New Britain has been long and complex, and that movements around the island and contacts with other languages have obscured boundaries and divisions between what initially were genetic groupings.

2. NON-AUSTRONESIAN LANGUAGES

At present, it is generally agreed that only two languages in West New Britain are unquestionably non-Austronesian. These are Anêm or Karaiai, spoken on and near the north coast in the Kaliai Census Division, and Wasi (Ata, Pele-Ata), spoken in the Nakanai Mountains in the Central Nakanai Census Division. Both are surrounded by Austronesian languages and have borrowed some lexicon from these. It was these loans that originally led some linguists to classify Wasi as Austronesian, but no one has done so in recent years. Although Wurm grouped Anêm and Wasi, together with the more numerous non-Austronesian languages of East New Britain, into a New Britain Stock (Wurm 1975:1787-1791), the evidence for links among these languages is meagre, especially where Wasi is concerned. I am doubtful about the validity of the grouping, at least as regards Anêm and the East New Britain non-Austronesian languages, and so is Thurston, the authority on Anêm (Thurston 1982:6-7). (Thurston had no access to material on Wasi.) Until much more material is available on Wasi, it seems safest to assume that it bears little if any relation to Anêm. It is possible that the various non-Austronesian languages now in New Britain derive from a single migration, presumably from New Guinea, in which case a combination of time and the influence of later migrants speaking Austronesian languages might account for the present diversity of the non-Austronesian languages. (Precisely the same scenario has been invoked to account for the diversity of Austronesian languages.) But until better evidence is presented for close similarities linking the non-Austronesian languages, it is probably best to start with a different set of hypotheses.

The first, which I shall follow here, is that the non-Austronesian languages of New Britain have long differed from each other. If they have indeed influenced most or all of the Austronesian languages, we should not expect these influences to be uniform from one part of the island to another. The second hypothesis is that there may well have been other non-Austronesian languages in New Britain different from those that remain. They may

² The differences in these lists partly account for the discrepancy between rates of cognacy for Bola and Harua estimated by Goodenough and Johnston (see Johnston 1982: 62). Re-checking Valentine's lists, and eliminating a few forms like 'narrow' that I consider difficult to elicit through Tok Pisin, I found the languages shared about 70 percent cognates, far below the 85 percent reported by Johnston. The list in Johnston (1980b), which contains many names of animals and cultigens as well as cultural objects, gave a rate of 77 percent.

have disappeared entirely, at least from New Britain itself, or they may be represented only by features of languages spoken in areas that no longer contain any languages that can be classified as fully non-Austronesian. The third possibility was favoured by Capell as regards much of New Britain (§5), and it also seems to be Thurston's preference. Given that non-Austronesian speakers antedated Austronesian speakers, I think it highly probable that the former influenced the speech of the latter in a number of places and probably in different ways. Almost surely the later arrivals interbred with the earlier ones. But the difficulty is to detect even the fact, much less the details, of the influences of now vanished languages. Where non-Austronesian and Austronesian languages are still in contact, as in parts of East New Britain (Chowning 1969:21, Thurston 1982) and in the region that contains Anêm, it is much easier to make a plausible case, though there is still room for argument. Elsewhere perhaps all that can be done is to suggest and evaluate a range of possibilities.

3. QUESTIONS AND ASSUMPTIONS

The principal questions to be addressed are the following:

- (a) Does evidence support what seems to be Ross's assumption that Lakalai and Kove, and their closest relatives, are direct descendants of the earliest pre-Proto Oceanic settlers in New Britain, who have remained near the ancestral settlement areas? (Ross 1988:386ff.). The corollary seems to be that the Oceanic languages of south New Britain, and some that reached the north coast such as Maleu, Amara, and Bebeli, represent later settlements.
- (b) Have some of the languages of West New Britain been influenced by contact with speakers of non-Austronesian languages, so that (i) resemblances between them reflect a shared non-Austronesian substratum, and (ii) they cannot be considered fully Oceanic? (Thurston 1982, 1987, 1989). This theory has implications for subgrouping of the languages so labelled.
- (c) Is it possible to resolve disagreements about genetic relations among various languages of southwest New Britain, and if so, on what basis?

As will be seen, the most that I can do is to evaluate some of the evidence and arguments put forward both by others and, in the past, by myself. A combination of inadequate data, uncertainty about the weight to be given to what is available, and the undoubted complexity of the situation makes it impossible for me to draw firm conclusions. I can, however, point to what I consider flaws in some of the recent assessments of language relations in West New Britain.

There exist several theories that I do not intend to deal with here. Since I agree with Ross that Kove and Lakalai do not belong to the same subgroup however defined (Chowning 1973), I shall not discuss the possibility that they do (Grace 1985). I shall have to refer to some of Thurston's suggestions about the influence of Anêm-like non-Austronesian languages on Sengseng and its relatives, but it would take another lengthy paper to discuss in detail the applicability of his ideas about 'pidginisation' and 'esoterogeny' (Thurston 1982, 1987, 1989). I have already argued (Chowning 1986) that I do not believe Kove to show any evidence of non-Austronesian influence, and here I shall have little to say about that language except where Kove data are pertinent to questions about the position of Sengseng.

3.1 GENETIC GROUPINGS

Although this may have become an increasingly unpopular or old-fashioned stance (Grace 1985, 1988), I still believe that if enough data are available, it is usually possible to establish genetic groupings that reflect a 'family tree' model. Furthermore, I expect that in most cases evidence from lexicostatistics, grammar, and phonological developments will coincide. The use of only one type of evidence, whether inspection of short word lists (as in parts of Chowning 1969), a few grammatical features (as in some of Capell's papers), or a small number of apparent morphophonemic innovations (as in parts of Ross 1988) may produce results that are unconvincing or actually mistaken. In attempting to establish genetic relations, considerable difficulties are likely to result from borrowing, parallel developments in different languages, and uncertainty about the restricted distribution of apparent innovations (see discussion in Ross 1988:7-13).

I should add that I differ from Ross as regards the definition of 'comparative method'. To me, if cognacy is established by demonstrating regular sound correspondences, and if subgroups are based on systematic differences in reflexes of protoforms, then a proper application of lexicostatistics involves the comparative method (Bloomfield 1933:485-492; Pawley and Green 1985:162-164). Morphophonemic or other innovations need not be demonstrated, although they certainly strengthen the case for the establishment and the separateness of subgroups (compare Ross 1988:260). Decisions about cognacy should therefore be conservative, offered only as suggestions if it is impossible to demonstrate regular sound correspondences, a likely source of borrowing, or good evidence that the reflex is highly likely to reflect a particular protoform. If it is necessary to postulate unlikely phonological developments, then cognacy is either queried or rejected. An example is Kove *boma*, Lak *soma* 'leech' (Table 1); the Kove term is not likely to be cognate with the Lakalai one, which is derivable from POc **droman*. (In this particular case, the fact that the creatures were hardly ever mentioned by the Kove makes it possible that I misheard or misrecorded the term.) The Lakalai form is irregular and perhaps was originally borrowed from a dialect such as Ubae in which **dr* is reflected as /r/, then underwent whatever shifts produce irregular /r/ and /s/ as reflexes of a single protophoneme (Chowning 1973:201, Ross 1988:162). This case, like Lak *dui* 'dugong', is irregular but not impossible. On the other hand, I would put in the non-cognate category Lak *kale* 'hut', which it would be tempting to derive from POc **pale*, Lak *veru* 'distribute' as a reflection of POc **pase* (Johnston 1982:80), and Sng *pe-lap* compared with Kove *pelaka* 'lightning', though the latter presumably derives from POc **pilak*, with unexpected first vowel.

3.2 BORROWING

In drawing conclusions about borrowing, it is necessary to distinguish between two very different situations. The point is elementary but is not always made. It leads to confusion when cultural items are involved, as they are even for the 'basic' wordlist used by SIL. In a number of cases in Melanesia, items are traded far away from the region in which they originated, and may be accompanied by their original name. Examples in West New Britain include both clay pots and carved wooden dishes, both originally manufactured on or near the north coast of New Guinea. The fact that the Kove names for both of these items (*ulo* 'clay pot', *tavila* 'wooden dish') derive from Proto Oceanic forms is no reason to think that

TABLE 1: COMPARATIVE LEXICON

Note: Items 1-200 of this list are Blust's (1981) modified Swadesh list for use in Austronesian lexicostatistical study. Item 201 is my addition. I also list as items 202-246 some of the words from Th (1987) which refer to New Britain flora and fauna. I have omitted some of his items for a number of reasons: an excess of terms for different varieties, as with bamboo; absence of the particular plant or an in certain environments; failure to elicit the term or to know the identity of certain plants and animals; r introduction of the plant. *A(c)* beside the term indicates that the plant is usually, and in some cases alw cultivated.

	Sengseng	Lakalai	Kove
1. hand	<i>vili</i>	<i>lima</i>	<i>nima</i>
2. left	<i>(a)kos</i>	<i>meru</i>	<i>ɣayala</i>
3. right	<i>apipsik</i> (cf.94)	<i>labalaba</i> (cf.94)	<i>tau</i>
4. leg/foot	<i>kive</i>	<i>vaha</i>	<i>ahe</i>
5. to walk	<i>yok; hih</i>	<i>tuga</i>	<i>lalao</i>
6. road/path	<i>hiso, koməŋ</i>	<i>gauru</i>	<i>erapu</i>
7. to come	<i>me(i); moi</i>	<i>go-mai</i>	<i>nama</i>
8. to turn	<i>pakeh, puk</i>	<i>vulo</i>	<i>palele</i>
9. to swim	<i>su(h)</i>	<i>puru</i>	<i>waia, nao</i>
10. dirty	<i>soin</i> (cf. 165); <i>mi-sumu-iyən</i> (‘interior-dirt-y’)	<i>mumugu</i>	<i>ŋahaŋa</i>
11. dust	<i>nekokwa; kau</i> (cf. 146)	<i>magasa-pupusi</i> (‘earth rises’)	<i>kahu</i>
12. skin	<i>elit; ho</i> (‘body’)	<i>kulikuli; vovo</i> (=‘body’)	<i>kulikuli; tinɿ</i> (=‘body’)
13. back	<i>posiliha, musu</i>	<i>poga, poke</i>	<i>ruɣu</i>
14. belly	<i>kuma</i>	<i>tia</i>	<i>apo</i>
15. bone	<i>pokoin</i>	<i>tuha</i>	<i>tuatua</i>
16. intestines	<i>muhulu</i>	<i>tamusi</i>	<i>moyali</i>
17. liver	<i>eta</i>	<i>hate</i>	<i>ate(a)te</i>
18. breast	<i>sus(u)</i>	<i>susu</i>	<i>turu</i>
19. shoulder	<i>huwa</i>	<i>pala, beho</i>	<i>wala</i>
20. to know (things	<i>haop; hion</i> (cf.46)	<i>rovi</i>	<i>atai</i>
21. to think	<i>kumak</i> (‘believe’), <i>min hu</i> (‘think about’)	<i>gabutatala</i>	<i>vaya</i> (‘believe’); <i>mata i</i> <i>nana</i> (‘think about’, lit. ‘eye follows’)
22. to fear	<i>lem, noknok</i>	<i>taga, matau</i>	<i>matauri</i>
23. blood	<i>eŋhik</i>	<i>kasoso</i>	<i>siŋi</i>
24. head	<i>mihi, po</i>	<i>gama</i>	<i>vola</i>
25. neck	<i>hot; hmoŋ</i> (‘throat’)	<i>loho</i>	<i>ɣayalu</i>
26. hair	<i>yut</i>	<i>ivu</i>	<i>launi</i>
27. nose	<i>muhut, hut</i>	<i>maisū</i>	<i>nuru</i>
28. to breathe	<i>moyo</i> (‘breath’)	<i>lalahate</i>	<i>uhu</i> (‘breath’)

TABLE 1: COMPARATIVE LEXICON (continued)

	Sengseng	Lakalai	Kove
29. to sniff, smell	<i>hipek, pin</i>	<i>aso</i>	<i>nuri</i>
30. mouth	<i>wo</i>	<i>hare</i>	<i>awa</i>
31. tooth	<i>ŋi</i>	<i>livo</i>	<i>luo</i>
32. tongue	<i>mamai</i>	<i>kalamea</i>	<i>mae</i>
33. to laugh	<i>hoŋ</i>	<i>lege</i>	<i>ŋiŋi</i>
34. to cry	<i>tinis</i> (with tears); <i>hau</i> (sound; general term)	<i>tali</i>	<i>taŋi</i>
35. to vomit	<i>mutwok, kelaut</i>	<i>kalalua</i>	<i>lua</i>
36. to spit	<i>kusap, lakmo</i>	<i>kapute, kavarasi</i>	<i>taluan, burari</i>
37. to eat	<i>i</i>	<i>ani</i>	<i>ali</i>
38. to chew	<i>nas</i>	<i>gari, kamuta</i>	<i>ŋau</i>
39. to cook	<i>wut, kau</i>	<i>gutu</i>	<i>nono</i>
40. to drink	<i>num</i>	<i>liu</i>	<i>unu</i>
41. to bite	<i>koho, tuk, kat</i>	<i>ala, tolo, koro, gari</i>	<i>yoŋo</i>
42. to suck	<i>sus, slup</i>	<i>susu</i>	<i>ruru</i>
43. ear	<i>kliŋa</i>	<i>gavusa</i>	<i>taliŋa</i>
44. to hear	<i>kihoy</i>	<i>lolo</i>	<i>loŋo-ni</i>
45. eye	<i>mata</i>	<i>mata</i>	<i>mata</i>
46. to see	<i>hion</i>	<i>hilo</i>	<i>kona</i>
47. to yawn	<i>tak wo</i> ('split mouth')	<i>tolomaha</i>	<i>awa manaja</i> ('mouth open')
48. to sleep	<i>nahuy</i>	<i>mavuta</i>	<i>eno</i>
49. to lie down	<i>nok, sinok</i>	<i>mavuta</i>	<i>eno</i>
50. to dream	<i>enu-n li</i> ('soul goes')	<i>tagabara</i>	<i>anunu-yu</i> ('my soul')
51. to sit	<i>sioŋ</i>	<i>pou</i>	<i>roa</i> ('seat oneself')
52. to stand	<i>sipit</i>	<i>magiri</i>	<i>yuru</i>
53. person	<i>po, po-tonus, po-tuhu</i>	<i>tau</i>	<i>ava, pana</i>
54. man/male	<i>po-masay</i>	<i>tahalo</i> ('man'), <i>hatamale</i> ('male')	<i>tamone</i>
55. woman/female	<i>po-wala</i>	<i>tavile</i> ('woman'), <i>hatavile</i> ('female')	<i>tamine</i>
56. child	<i>po-kusan</i>	<i>guliliki</i>	<i>kekele</i>
57. husband	<i>ve</i> (cf. 184)	<i>harua</i>	<i>aroa</i>
58. wife	<i>et</i> (cf. 184)	<i>rutu</i>	<i>aroa</i>
59. mother	<i>tom</i> (reference), <i>tina</i> (address)	<i>tila</i>	<i>tina</i>
60. father	<i>ve-tama</i> (reference)	<i>tama</i>	<i>tama</i>

TABLE 1: COMPARATIVE LEXICON (continued)

	Sengseng	Lakalai	Kove
61. house	<i>mok</i> ('family house') <i>masaŋ</i> ('men's house; general term')	<i>luma</i>	<i>luma</i>
62. thatch/roof	<i>masaŋ</i> + names of different materials	<i>varu</i> ('forehead'); <i>ivu</i> ('hair')	<i>usu</i>
63. name	<i>iya, ya</i>	<i>isa</i>	<i>era</i>
64. to say	<i>tik</i> (=196), <i>yai, sakal</i>	<i>vei</i>	<i>vaya</i> (=21), <i>varo</i>
65. rope	<i>elik</i> ('vine'); <i>esih</i>	<i>mota</i>	<i>waho</i>
66. to tie up	<i>vat, kan</i>	<i>kisi, solo, vuu</i>	<i>vono, lauri, piti</i>
67. to sew	<i>sihit</i>	<i>sahi</i>	<i>ralei, riri</i>
68. needle	—	<i>salu</i>	<i>salumu</i>
69. to hunt	<i>hip</i>	<i>vamusi</i>	<i>paŋo, wana kauwa</i>
70. to shoot	<i>ves</i>	<i>kapiti</i>	—
71. to stab	<i>ves, tak, nin</i>	<i>ubi</i>	<i>yali</i>
72. to hit	<i>wok, vi</i>	<i>kue</i>	<i>hau</i>
73. to steal	<i>tip</i>	<i>pakali</i>	<i>panaho</i>
74. to kill	<i>vi</i> (see 72)	<i>bili</i>	<i>hau ya i mate</i> ('hit and he dies') <i>sulu</i>
75. to die, be dead	<i>hun, hisi, lukhon</i>	<i>peho</i>	<i>mate</i>
76. to live	<i>oŋ, mon, in</i>	<i>oio; mahuli</i>	<i>mororo</i>
77. to scratch	<i>kas, niyoŋ</i>	<i>kasi</i>	<i>kaho</i>
78. to cut (wood)	<i>vel, ut, tai, puk</i>	<i>vari, tubi, tolo</i>	<i>keti</i>
79. stick	<i>up</i>	<i>malege</i>	<i>rumola</i>
80. to split	<i>pal</i>	<i>sulu</i>	<i>pala</i>
81. sharp	<i>to-ŋi-n</i> ('with teeth') <i>mata-keŋ</i>	<i>kara, mata</i>	<i>karikariŋa</i>
82. dull, blunt	<i>ni-som</i> ('teeth-not'), <i>mata-poŋ, -puhun, -puk</i>	<i>matatupo</i>	<i>matatura, matatupo</i>
83. to work (in garden)	<i>kum, niŋ-pi</i>	<i>igo-golu</i>	<i>karo, umo</i>
84. to plant	<i>h(u)wa, yasi</i>	<i>galu</i>	<i>roa, uwe</i>
85. to choose	<i>sahal</i>	<i>isu</i>	—
86. to grow	<i>nuhum, mihit</i>	<i>tubu</i>	<i>tuvu</i>
87. to swell	<i>sosohom</i>	<i>sogo, buku, pore</i>	<i>vini</i>
88. to squeeze	<i>paŋ</i>	<i>bebe</i>	<i>vivi</i>
89. to hold	<i>kak-sum, kom, soŋ-ho</i>	<i>abi, sau</i>	<i>kisi</i>
90. to dig	<i>kel</i>	<i>oli</i>	<i>sale</i>
91. to buy	<i>kol</i>	<i>loto</i>	<i>oli</i>
92. to open	<i>klas, las</i>	<i>kope</i>	<i>rere</i>

TABLE 1: COMPARATIVE LEXICON (continued)

		Sengseng	Lakalai	Kove
93.	to pound	<i>tut</i>	<i>katu, voro</i>	<i>watu</i>
94.	to throw	<i>psik, tay, tij</i>	<i>pigi, laba</i>	<i>taro</i>
95.	to fall	<i>loŋ-koh, hesun</i>	<i>boru, paru</i>	<i>tapu</i>
96.	dog	<i>elva</i>	<i>paia</i>	<i>kauwa</i>
97.	bird	<i>eki</i>	<i>malu</i>	<i>manu</i>
98.	egg	<i>ponuwat</i>	<i>hatotolu</i>	<i>kaka</i>
99.	feather	<i>yut</i> (cf. 26)	<i>ivu, kokoma</i>	<i>launi</i>
100.	wing	<i>mihit</i>	<i>palapala</i>	<i>vaye</i>
101.	to fly	<i>yak</i>	<i>lovo</i>	<i>hoho</i>
102.	rat	<i>kakum</i>	<i>kusuke</i>	<i>kuruke</i>
103.	meat	<i>mali-n, keniŋ, luma-n</i>	<i>maili</i>	<i>meramera</i>
104.	fat/grease	<i>tuleŋ, molia-n</i>	<i>molamola</i>	<i>mona</i>
105.	tail	<i>kut</i>	<i>kiu</i>	<i>hihiu</i>
106.	snake	<i>amat</i>	<i>pase</i>	<i>mota</i>
107.	worm	<i>emleŋ, mulusmatanumtun</i>	<i>pakeso, kirere</i>	<i>motamota</i>
108.	louse	<i>emut</i>	<i>utu</i>	<i>tuma</i>
109.	mosquito	<i>humuk-a-kenken</i>	<i>lamo</i>	<i>makinikini</i>
110.	spider	<i>kamukmuk, kayekyek</i>	<i>kamimisi</i>	<i>yaliki</i>
111.	fish	<i>esma</i>	<i>ia</i>	<i>iha</i>
112.	rotten	<i>hwok, hiis</i>	<i>mavulu, parara, pusa</i>	<i>vusa, vura</i>
113.	branch	<i>sa-vili-n</i> ('tree hand')	<i>halala</i>	<i>voka</i>
114.	leaf	<i>kisaŋ, sa-kin</i>	<i>galalau</i>	<i>laulua, launi</i>
115.	root	<i>kumut</i>	<i>ua</i>	<i>wawahi</i>
116.	flower	<i>yihun</i>	<i>sese</i>	<i>puhu, koko</i>
117.	fruit	<i>yihun; nun</i> ('edible part')	<i>vavua</i>	<i>tautau</i>
118.	grass	—	<i>rako</i>	<i>uyu</i> (' <i>Imperata</i> ')
119.	earth	<i>epluk</i>	<i>magasa</i>	<i>tano</i>
120.	stone	<i>umat</i>	<i>uati</i>	<i>patu</i>
121.	sand	<i>nemah</i>	<i>magasa-la-mago</i> ('earth of sea')	<i>lavu, tano</i> (= 119), <i>vovala</i>
122.	water	<i>eki</i>	<i>lalu</i>	<i>eau</i>
123.	to flow	<i>sut</i>	<i>sali</i>	<i>silele</i>
124.	sea	<i>hisik</i>	<i>mago</i>	<i>tari</i>
125.	salt	<i>sahuli</i>	<i>mimila</i>	—

TABLE 1: COMPARATIVE LEXICON (continued)

	Sengseng	Lakalai	Kove
126. lake	—	—	—
127. woods	<i>sil, mihak, miyemwe</i>	<i>tibulu</i>	<i>sahu</i>
128. sky	<i>hiyis, het-pi</i>	<i>lagi/lage</i>	<i>vuvuhi</i>
129. moon	<i>namih</i>	<i>taio</i>	<i>taiko</i>
130. star	<i>kihap, li-mlek</i>	<i>matatabu</i>	<i>motala</i>
131. cloud	<i>avat</i> (rare); <i>hiyis, hetpi</i> (= 128), <i>pe-kun</i> (= 132)	<i>gauku, mori</i>	<i>vuvuhi</i> (= 128), <i>bubu</i>
132. fog	<i>aup, pe-kun</i> (cf. 145)	<i>gauku, veto</i>	<i>yauyau</i>
133. rain	<i>pe-yuŋ</i>	<i>hura</i>	<i>awaha</i>
134. thunder	<i>pe-klur</i>	<i>mori kumu, kuraraba</i>	<i>balibali i kukururu</i>
135. lightning	<i>pe-lap</i>	<i>sima, meme</i>	<i>pelaka</i>
136. wind	<i>pe-puh, pe-hokot</i>	<i>lolovi</i>	<i>namule</i> (borrowed term)
137. to blow, of win	<i>puh</i>	<i>vai/vahi</i>	<i>lele</i>
138. warm (weather)	<i>ŋenŋen</i>	<i>tivura</i>	<i>wanawana</i>
139. cold (weather)	<i>ŋlik</i>	<i>maigi</i>	<i>pulipuli, lukuluku</i>
140. dry (general); dry up	<i>heihyi, yat</i>	<i>tagara, masaga</i>	<i>mamasa</i>
141. wet	<i>wuŋ</i>	<i>beta</i>	<i>kua, petaka</i>
142. heavy	<i>maŋik</i>	<i>tikumu</i>	<i>ai uha tau</i> (‘its weight great’)
143. fire	<i>yau</i>	<i>havi</i>	<i>eai</i>
144. to burn	<i>tun, sut</i>	<i>goo/goho</i>	<i>ani</i> (= 37)
145. smoke	<i>yau-kun</i>	<i>sosobu</i>	<i>vosu</i>
146. ash	<i>epia, yau-sin</i>	<i>buburo</i>	<i>mola</i>
147. black	<i>kuwi</i>	<i>kuru, parakuru</i>	<i>kasoka</i>
148. white	<i>plel, wok</i> (‘light’)	<i>kakea</i>	<i>kaŋakaŋa</i>
149. red	<i>memhe, ŋehŋeh</i>	<i>magegese</i>	<i>siŋisiŋia</i>
150. yellow	<i>yaŋ, molo</i>	<i>ialalo</i>	<i>eaŋoeaŋo</i>
151. green	<i>keheŋ</i>	<i>lamalivoloo, kakesa</i>	<i>vivihia</i>
152. small	<i>tun, titun, sakun</i>	<i>bisi</i>	<i>kahaku, yiyihiti</i>
153. big	<i>apluk, nemutu</i>	<i>uru</i>	<i>paka</i>
154. short (height)	<i>hut</i>	<i>boboto</i>	<i>volovolo</i>
154a short (length)	<i>hutyas</i>	—	—
155. long	<i>nimalak</i> (cf. 180)	<i>malau</i>	<i>raerae</i>
156. thin (object)	<i>ha, atitun</i>	<i>malauga, tavi</i>	<i>manipinipi</i>
157. thick (object)	<i>nuhum</i>	<i>uru, bitolu</i>	<i>matolutolu</i>

TABLE 1: COMPARATIVE LEXICON (continued)

	Sengseng	Lakalai	Kove
158. narrow	<i>min-tun</i>	<i>bisi</i> ; <i>kapilikia</i> (of doorway only)	—
159. wide	<i>min-apluk</i>	<i>uru</i>	<i>paka</i>
160. painful, sick	<i>sahi</i> ('sick') <i>man, musuk</i> ('to hurt')	<i>lea</i> ('sick'); <i>ligi</i> ('to hurt')	<i>rivali</i> ('sick'); <i>eaieai</i> ('to hurt')
161. ashamed	<i>manjin</i> ('shame')	<i>mahela</i>	<i>mamaia</i> ('shame')
162. old (people)	<i>hiyanan</i>	<i>uru</i> ('big')	<i>paka</i> ('big')
163. new	<i>ahoman, netijin</i>	<i>halaba</i>	<i>pau</i>
164. good	<i>tonus, tuhu</i>	<i>taritigi, tigi</i>	<i>doko</i>
165. bad	<i>soin, legwal, lok</i>	<i>kama kokora</i> (‘not adequate’)	<i>sasi</i>
166. correct, true	<i>tihit</i> ('straight') <i>tonus, tuhu</i> (cf. 164); <i>hevin</i>	<i>taritigi, sesele, matata</i> (‘straight’)	<i>tutui</i> ('straight')
167. night	<i>pe-luwok</i>	<i>logo</i>	<i>vonji</i>
168. day	<i>siyanan</i>	<i>haro</i>	<i>waro</i>
169. year	<i>pe-nan</i> ('dry season')	<i>leavala</i> ('rainy season')	<i>awahalolo</i> ('rainy season'); <i>hai</i> ('dry season')
170. when?	<i>to-pi-ele</i>	<i>gaisa</i> (future), <i>alisa/alaisa</i> (past)	<i>nera</i>
171. to hide	<i>kek</i>	<i>tari-kokovu</i>	<i>mura, kuku</i>
172. to clumb tree	<i>si, sopa</i>	<i>go-ata, sae</i>	<i>rae</i>
173. at	<i>ho, ta</i>	<i>oio te</i>	<i>pani</i>
174. in, inside	<i>mi</i>	<i>o-ilo</i>	<i>ai lolo</i> ('its interior')
175. above	<i>ahon</i>	<i>o-ata</i>	<i>sae</i>
176. below	<i>ahet</i>	<i>o-talo</i>	<i>sio</i>
177. this	<i>-ne</i>	<i>-le, ale</i>	<i>diene</i>
178. that	<i>men, kahmen</i>	<i>aleo</i>	<i>diana, duawa</i>
179. near	<i>tikayun</i>	<i>hagavi</i>	<i>somoli</i>
180. far	<i>malak</i>	<i>malau</i>	<i>vahi</i>
181. where?	<i>ani, hiye</i>	<i>o-ve, oio-ve</i>	<i>sora</i>
182. I	<i>na</i>	<i>na (eau)</i>	<i>eiau</i>
183. thou	<i>o, a</i>	<i>eme</i>	<i>u(veau)</i>
184. he/she	<i>ve (M); et (F); i (N)</i>	<i>eia</i>	<i>i(veai)</i>
185. we (I)	<i>ita</i>	<i>etatou</i>	<i>ta(ita)</i>
185a we (E)	<i>pima</i>	<i>amiteu</i>	<i>ya(yai)</i>
186. you (P)	<i>om</i>	<i>amutou</i>	<i>ami(amiu)</i>
187. they	<i>po</i>	<i>egiteu</i>	<i>si (pana, asiri)</i>
188. what?	<i>ele</i>	<i>(la)-rova, lava</i>	<i>saua</i>

TABLE 1: COMPARATIVE LEXICON (continued)

	Sengseng	Lakalai	Kove
189. who?	<i>ano</i> (M), <i>eno</i> (F)	<i>ere</i> (i)	<i>sei</i> (S); <i>sapara</i> (P)
190. other	<i>mak, maksi</i>	<i>isapolo</i>	<i>pape</i>
191. all	<i>lik</i>	<i>tomi</i>	<i>to, tosalai</i>
192. and	<i>ma</i>	<i>me</i>	<i>ya</i>
193. if	<i>aka</i>	—	—
194. how?	<i>tehe</i>	<i>mave, ilava</i>	<i>maro</i>
195. no, not	<i>awo</i> ('no'); <i>som</i> ('not')	<i>ouka</i> ('no'); <i>ka(ma)</i> ('not')	<i>mao</i> ('not')
196. to count	<i>tik</i>	<i>gigi</i>	<i>ware</i>
197. one	<i>ta, tahin</i>	<i>-saa, -sasa</i>	<i>ere, kehe-tauere</i>
198. two	<i>hwo, ponuwal, wuon</i>	<i>-lua</i>	<i>hua</i>
199. three	<i>miok</i>	<i>-tolu</i>	<i>tolu</i>
200. four	<i>nal</i>	<i>-vaa</i>	<i>paŋe</i>
201. ten	—	<i>savulu</i>	<i>saŋaulu</i>
202. banana (c)	<i>muhuk</i>	<i>vugi</i>	<i>puri</i>
203. bat (flying fox)	<i>yunul, piyanpiyan</i>	<i>bureki</i>	<i>viana</i>
204. betelnut	<i>kahama, sulai</i>	<i>bua</i>	<i>vua</i>
205. betelnut, wild (= areca nut) (c)	<i>ekoi, ekohpo</i>	<i>koi</i>	<i>kalago, kalagisi</i>
206. betel pepper (c)	<i>eman</i>	<i>toma</i>	<i>royi</i>
207. breadfruit (c)	<i>pana</i>	<i>ulu</i>	<i>unu</i>
208. bush hen, megapode	<i>mulun</i>	<i>kileo</i>	<i>kio</i>
209. butterfly	<i>ewup</i>	<i>bebe</i>	<i>vovo</i>
210. canarium	<i>evel, miynip, leŋep</i>	<i>uele</i>	<i>aŋahi</i>
211. cassowary	<i>kukiyoŋ, eseko</i>	<i>kehu, kalisu</i>	<i>soko, meŋo</i>
212. casuarina	<i>suhup</i>	<i>lealu</i>	<i>ealu</i>
213. clam	<i>kolon</i>	<i>kasi</i>	<i>tue</i>
214. cockatoo	<i>nalŋin</i>	<i>kea</i> ('white')	<i>elea</i>
215. coconut (c)	<i>evit</i>	<i>liu</i>	<i>niu</i>
216. cordyline (c)	<i>mimi, lele</i>	<i>malemale</i>	<i>mohe</i>
217. crab (generic)	<i>kahe</i>	<i>keho</i>	<i>karoki, laumu</i>
218. crocodile	<i>aputio</i>	<i>bogea</i>	<i>bayele</i>
219. crow	<i>k(o)hoŋ</i>	<i>kaokao</i>	<i>karo</i>
220. cuscus	<i>elan</i>	<i>kaupolo</i>	<i>sahakui, kapulu</i>
221. cycad	<i>matiti</i>	<i>rou, patola</i>	<i>vavala, matolo</i>

TABLE 1: COMPARATIVE LEXICON (continued)

	Sengseng	Lakalai	Kove
222. dove	<i>eluwus</i>	<i>kuru</i>	<i>varuhi, balu</i>
223. eel	<i>ewul</i>	<i>rau</i>	<i>lubaluba, malome, mota</i> (‘snake’)
224. <i>Ficus</i> tree	<i>eva, sa-nuhum</i>	<i>balele</i>	<i>lawani</i>
225. frog	<i>kahok</i>	<i>karukaru, pere</i>	<i>kalo</i>
226. ginger, <i>Zingiber</i> (c)	<i>emit, hijil, sakhei, amom</i>	<i>lahia</i>	<i>haia, mahaka</i>
227. hibiscus	<i>kisaj</i>	<i>gelegele</i>	<i>kokohi, napolopolo</i>
228. hornbill	<i>kaŋkaŋ, sopo</i>	<i>tavu</i>	<i>bea</i>
229. leech	<i>siglip</i>	<i>soma</i>	<i>boma</i>
230. Malay apple(c)	<i>lahup</i>	<i>gaiva</i>	<i>puai</i>
231. mango	<i>eyun</i>	<i>keme</i>	<i>korae</i>
232. mangrove	<i>nemsiy</i>	<i>toho</i>	<i>vale, tojo, poru,</i> <i>romuromu</i>
233. monitor lizard	<i>apahiya, limpak</i>	<i>vareki</i>	<i>pahia, taroa</i>
234. mosquito	<i>humuk-a-kenken</i>	<i>makilikili</i>	<i>nimunimu, kemukamu,</i> <i>moromo</i>
235. moss	<i>lumlu, mumut</i>	<i>lumu</i>	<i>yulumu</i>
236. mushroom (fungus)	<i>iliŋ, kumiya, etuwil</i>	<i>taliga</i>	<i>makue, koko</i>
237. parrot	<i>kahalaŋ, susu</i>	<i>kerakera, marea</i>	<i>kahanani, vahoa</i>
238. pig	<i>yu</i>	<i>bolo</i>	<i>gaea</i>
239. <i>Saccharum</i> <i>edule</i> , pitpit(c)	<i>ehmal</i>	<i>tabua</i>	<i>tavuahi, tabuka</i>
240. <i>Pometia</i>	<i>elop</i>	<i>ropa</i>	<i>lopi</i>
241. sandfly	<i>humuk</i>	<i>lamo</i>	<i>makinikini</i>
242. sugarcane (c)	<i>eyim</i>	<i>tovu</i>	<i>tou</i>
243. taro (c)	<i>ŋai</i>	<i>mavo</i>	<i>moi</i>
244. turtle	<i>miyat</i>	<i>bolu</i>	<i>ponu</i>
245. wallaby	<i>apup</i>	<i>pakasa</i>	<i>kuta</i>
246. yam (c)	<i>emom, ewol</i>	<i>huvi</i>	<i>viri</i>

they are other than borrowings.³ Throughout New Britain, it seems that steel knives and axes were often called by different names than those used for pre-contact cutting implements. The reason was probably not only the difference in material but in ways of hafting and using them. The distribution of certain linguistic forms affords interesting evidence for the post-

³ Ross has suggested that the medial consonant in *tavila* also indicates borrowing, but there seems to be some uncertainty about the medial consonants in the proto-form, from Proto Austronesian **ta(m)bi[l]*. (Editor's note: See Ross (ms) regarding this form.)

European spread of these implements, but should not be taken as evidence for earlier contact or common history. So the fact that the same word for steel knife (Sng *e-pul*) is found throughout southwest New Britain as far as Kilenge, and a different one (Lak *viso*) is shared with Mergen and the non-Austronesian languages of East New Britain, tells us nothing about prehistoric connections between speakers of these languages (also Johnston 1980b:113).⁴ The same caveat applies to plants recently introduced into New Britain such as sweet potatoes. By contrast, the shape of a word for manganese used for blackening teeth (Sulka *a kät*,⁵ Sng *e-kit*, Kove *keto*) throughout much of New Britain does point to prehistoric trade relations, even though the term is probably cognate with Lak *kato* which designates only other black things.

3.3 INTERPRETING SHARED LEXICON

Evaluation of the nature and possible significance of the sharing of lexical items among New Britain languages is made difficult by several factors. The most important of these, as I mentioned above, is the paucity of comparative material outside of lists of basic vocabulary. The second problem is the absence of an up-to-date published list of Proto Oceanic reconstructions. Many of us working in the region have our private lists or proposed addenda, but anyone trying to separate out Proto Oceanic reflexes from words likely to be of non-Austronesian origin is likely to underestimate the number of the former. Third, those who work in one area tend to have considerable comparative material from languages spoken near each other, but may know little of those spoken farther away, or fail to examine the relevant material. It was my attempts to subgroup all of the Austronesian languages of New Britain that made me realise how many items, not so far attributable to Proto Oceanic, have a discontinuous distribution that raises many questions about earlier movements of peoples, shared histories, or even trade contacts of which there is little additional evidence. It is not enough to point to the sharing of an item between contiguous groups without knowing its total distribution. For example Lusi *mogali* 'intestines' is certainly related to the identical word in Kove and possibly to Sng *muhulu* as well as to Bali *mangali*, but then there is a large gap along the north coast of New Britain before another cognate turns up in Meramera (East Nakanai) *magali*. Cognates of Lusi, Kove *taiko* 'moon' are found in Lak *taio* on the north coast, the Bibling languages (Mouk *daiko*), and Uvol, far to the east on the south coast, but not in the intervening areas (compare Bola *keva*, Sng *namih*). It is probable, of course, that some of these discontinuous items will indeed turn out to derive from Proto Oceanic or from some now vanished non-Austronesian language that was widespread, but for the present they can only be noted as a complication.

Where the distribution of a form is known to be limited, it is certainly reasonable to apply phonological criteria to ascertain the direction of borrowing. In view of the very different phonologies of basic vocabulary, I agree that Thurston is wholly justified in assuming that words in Lusi beginning with an initial consonant cluster, apart from those resulting from the deletion of Proto Oceanic high vowels, have been borrowed (1982:56). But many shared items cannot be attributed without doubt to one source. For example, Thurston assumes (1982:65) that all cognates that have a *gê-* prefix in Anêm and a *ka-* prefix in Lusi, many of

⁴ Ross suggests (pers. comm.) that *viso* derives from POc **piso* 'k.o. cane'; this is presumably regularly reflected by Lakalai *viro* 'Phragmites reed'.

⁵ Parkinson 1907:183, with his spelling.

which do indeed contain initial consonant clusters, represent borrowings into Lusi (in this volume). The ultimate Anêm origin of a few seems dubious, however. I earlier (Chowning 1986:426) discussed the case of Lusi *ka-muru*, Anêm *gê-muxu* 'coo, of doves', beside Kove and Kabana ('Bariai') *kamuru* 'whisper, murmur'. If it were not for the Kabana example, I would assume that Kove had borrowed from Lusi, but this suggests a different direction of borrowing. Another uncertain case is Anêm *gê-bot*, Lusi *ka-vot* 'float to surface', in which the root seems suspiciously close to Kove *poti* 'float', cognate with Lak *pati* and Manam *poati* (but presumably not with Sng *plot*). A third uncertain case is that of Anêm *gê-siusiu*, Lusi *ka-siusiu* 'buzz, of cicada'. I have Kove *sisiu* defined as 'brown grasshopper', but it may in fact designate a cicada (though see Sng *esis* 'grasshopper'). In Kove the verb *karo* 'make, do, affect, etc.' is often abbreviated to *ka*, and appears in phrases like *ka daila* 'make (like a) frigate bird' (telling a baby to spread its arms). If the same abbreviation occurs in Lusi, it may be that a Lusi phrase was assumed by Anêm speakers to belong to the series in which a different Lusi *ka-* was equated with Anêm *gê-*. These cases are only suggestive, but may at least point to somewhat more complex interaction than Thurston has postulated.

A different sort of problem arises when maritime vocabulary is examined. In his latest work (1989), Thurston has noted that words for interior flora and fauna shared between Lusi and Anêm may come from other languages such as Biling ones. He still seems to assume, however, that the shared maritime vocabulary was simply brought by the ancestors of the Lusi when they migrated into New Britain from the Siassi Islands (Thurston 1982:6). In the case of Kove, however, despite a stronger maritime orientation than the Lusi, the maritime vocabulary seems to have a decidedly mixed origin. Disregarding words connected with sails, some of which (because of the fossilised noun-marker *na-*) seem to be from Kilenge and so support the contention of many Kove that sails were not used by their remote ancestors, the words referring to sea creatures include many which, because they contain voiced stops, were presumably not inherited directly from the common ancestor of Kove and Lusi. Goulden (this volume) has also noted that much maritime vocabulary seems to have been borrowed *into* Lusi. Many of these apparent borrowings designate shellfish and so may reflect the local environmental differences; that is, these shellfish may not have occurred in the region from which the ancestors came. Other words, however, designate sea creatures found everywhere, from the frigate bird mentioned above to the fish-hawk (*bulu*), crocodile (*baye*), sailfish (*baruku*), and 17 other salt-water fish on my list. At least two of these words, those for crocodile and sailfish, are shared with Bola, even in Kove villages far from the Bola border, and presumably were borrowed from Bola. *Baruku* may have spread along with a major ritual of the same name which is said to have originated on the Willaumez Peninsula, and it is interesting that Thurston reports that cognates of the Kove *baye* are used in Kabana and by his Kove informants when they are avoiding the name of an affine called by the usual term for 'crocodile', which is *puaea*. Where I lived, *Puaea* appeared only as a personal name.

Whatever the processes involved, Kove has clearly adopted foreign terms relating to the sea without, as far as they know, ever having lived far from the coast. The situation is in fact similar to that which Thurston describes for Anêm. If we exclude both "maritime" vocabulary and words for presumably new items of technology that might have been brought by later migrants, the Anêm language still contains forms of Austronesian origin in two significant areas: basic vocabulary, and names of flora and fauna.

There are also a few words which, though not clearly derived from Proto Oceanic, are distributed outside the mainland of New Britain, and so unlikely to have originated in Anêm.

These include Anêm *abiaŋ* 'flying fox' and *esin* 'blood' (Chowning 1973:209). Thurston (1989) noted that the "Anêm words for 'moss' and 'rat' are clearly copies of Proto Oceanic etyma from Lusi or Kabana", and so, he adds, is the word for 'sun' (*ado*). I would add the Anêm words for 'barkcloth' (*malo*), canarium almond (*aŋaxi*), flower (*eipuxu*), honeycomb (*uame*; compare Motu *uamo* 'beeswax'), pandanus of a type formerly used by interior people to make mats (*parpara*), snake (*mota*), probably stone (*pa*), and yellow/tumeric (*iaŋo*). Thurston also pointed out that some terms, such as Anêm *enik* 'nest', are probably derived from Oceanic but not directly from Lusi (where the word is *giniu*) (1989). When languages are in close contact, a certain amount of borrowing seems to take place that cannot be explained simply by the attractions of new technology, by the need to find words for unfamiliar phenomena in a new environment, or by the resistance of basic vocabulary to change. If we grant this, what can we then deduce from the distribution of cognates in West New Britain?

4. PREVIOUS CLASSIFICATIONS

The contrast between lumpers and splitters is particularly evident in the work of some of the linguists who have dealt with the Austronesian languages of New Britain. (I shall not discuss all of the classifications, which have been described elsewhere (Chowning 1969, 1976a), but confine myself to those most relevant to the questions to be discussed here.) The outstanding lumper has been Grace. Initially, and apparently prior to his own field research in New Britain, he divided the Austronesian languages into two subgroups. The first subgroup put together languages of the 'northern half' of the island (apparently the Gazelle Peninsula) with those of New Ireland and the Duke of Yorks. The second included 'Southwest New Britain', 'Kobe' (my Kove), the French Islands (Bali-Vitu), the Siassi Islands, and several languages spoken on "the adjacent coast of New Guinea" (Grace 1955:339). Of languages for which published data were then available, there is no indication of the placement of Mengen and Lakalai. He has said that his subgroupings were intended to represent "chains of varieties such that each chain was completely set off by boundaries from all outside varieties" (Grace 1985:6). Grace's subgroupings continued to be cited in the literature (as in Pawley 1981:279) for many years, though he had told me that he no longer supported them (pers. comm.). Nevertheless, his most recent publication on the subject explicitly presents a similar division to that set up in 1955. Tolai, as unquestionably a migrant from New Ireland, is separated from all other New Britain Austronesian languages, which derive from a "settlement from the Morobe Coast" (Grace 1985:11). Presumably he meant by this a single settlement, with all later diversification taking place within New Britain.

The outstanding splitter of New Britain languages, Dyen, also did not suggest that they entered the island at different times and by different routes. On the contrary, he originally postulated that their degree of diversity indicated that perhaps New Britain was the homeland in which Austronesian languages originated (Dyen 1965:54). When I began to consider data much fuller than that available to Dyen, I fully expected to reduce the amount of diversity that he had found. Instead, I ended up increasing it, both because of having material on languages (my Lamogai, Thurston's Bibling) about which he knew nothing and because of evidence that the apparent ties between Kapore (Bebeli, Banaule) and neighbouring languages were the result of borrowing (Chowning 1969). But more significant for the problems to be considered here is that some of my subgroups ('families') have subsequently been further split by others. The case of the Whiteman languages will be discussed separately below. Ross has

demonstrated that Bali-Vitu should be separated from my Kimbe Family (Ross 1988:262-263), and that I was wrong to treat Bilur (my Birara) as only a dialect of Tolai (Chowning 1976b:366; Ross 1988:259).⁶ He has also treated as a separate language another 'dialect' of Tolai, Minigir (Ross 1988:257). Lincoln (and Ross) had both noted that Kilenge was more different from Bariai and Kove than I had originally assumed (see discussion in Chowning 1986), and Goulden (this volume) has since convincingly demonstrated the amount of the difference. At present, none of these languages seems closely related to any other. Neither does Amara, discovered by Thurston (this volume). Furthermore, there are still unknown languages in New Britain. One is spoken up the Via River, inland from Kove. Most probably, it will, like the Bibling language Tourai, recently found by Thurston and Goulden, turn out to belong to that subgroup, but the example of Amara shows how dangerous it is to assume that there are no other languages to be discovered that cannot be easily sub-grouped.

Ross himself splits at one level, but lumps at another. At present he assigns the Austronesian languages of New Britain to two different 'clusters', the North New Guinea and the Meso-Melanesian, with sub-divisions within them. Of the languages with which I have worked, Lakalai (his and Johnston's Nakanai) is assigned to the Willaumez chain of Meso-Melanesian. Kove and Sengseng are both assigned to the Ngero-Vitiaz Family of the North New Guinea cluster, but to different divisions: Kove to the Ngero family and Sengseng to the Southwest New Britain network (Ross 1988:121, 160-162).

Here I shall be concerned almost wholly with West New Britain, and so I shall not deal in any detail with those East New Britain languages that, according to Ross, reached their present locations through back-migrations from New Ireland (but see below). As regards West New Britain, Ross seems to assume that the Austronesian languages of the French Islands, the Willaumez Peninsula, and the 'Nakanai coast' to the east are the direct descendants of languages of the first Austronesian speakers to settle in that region. Related languages spread east to New Ireland and to the North Solomons (Ross 1988:261-262). I, on the other hand, had proposed that the languages of Ross's Willaumez chain came to that region from the east (Chowning 1973:224). I did not think that they had been there for a long time for the following reasons:

- (a) active vulcanism in the region has led to many shifts of population in historic times;
- (b) the restriction of most of these languages to narrow coastal bands, in notable contrast to those Austronesian languages which extend right across New Britain, suggests that the former are comparative latecomers (see Thurston 1987:19-22);
- (c) the languages of the Willaumez chain, from Bulu to Meramera, seem to me more similar to each other than I would expect if their common ancestor had reached New Britain as long ago as Ross's scheme demands.

Ross and I agree on two major points: the separation between the languages of the Willaumez chain and those to the west of them, such as Kove, and the importance of volcanic activity in explaining the settlement of the whole north coast of New Britain (Ross 1988:261, 386-387). It may be that reconciliation of our views requires only that the ancestor of the Willaumez chain is to be sought at a later period in time. I nevertheless think that Ross's classifications sometimes rely on so few criteria that his conclusions may fail to convince. An example is

⁶ Ross is mistaken in thinking that he was the first to discover Bilur or to consider it a separate language (see Chowning 1976b:366), though I was one of those who thought it only a dialect of Tolai.

the case of Tomoip.

Ross agrees with me (Chowning 1969) that this is not closely related to any other New Britain Oceanic language. He proposes that like Tolai, it is to be derived from New Ireland, his reasons being primarily morphosyntactic but partly lexical. Doing this, however, involves him in only comparing Tomoip with the geographically nearest Oceanic language, Mengen, while ignoring other New Britain languages. For example, the deictic system is one of the criteria linking Tomoip to New Ireland, yet Ross himself attributes the same system to Meramera (Ross 1988:275, 292). When he says that Tomoip "retains a few items of basic Proto Oceanic lexicon which are lost in the New Britain languages of the North New Guinea cluster but retained on New Ireland", and cites only reflexes of POc **boRok* 'pig' and **buaq* 'areca nut', he is ignoring the fact that both of these are reflected in Willaumez languages (Lak *bolo* and *bua*). Furthermore, reflexes of **buaq* are found in Maleu and Bariai languages (Kove *vua*). Even the 'innovative' *lo* locative preposition, shared by Tomoip with New Ireland languages, is a bit suspect because a locative *lo* postposition is so widely distributed, occurring certainly in Arawe and possibly in Mengen (Capell 1971:268, 333; Chowning 1978a:1114). Ross does refer to the possibility of influence from South West New Britain languages as regards the personal article (1988:293). Tomoip may be a case, and perhaps not the only one, in which it is difficult to decide where the closest relatives of a language are to be found. Furthermore, it might be worth considering the possibility that Tomoip is a remnant of the Meso-Melanesian languages that originally occupied parts of the Gazelle Peninsula before they spread to New Ireland. The ancestor of Tomoip may once have occupied a much larger, or different, area, and its ties to New Ireland may only reflect common ancestry at a higher level.

5. MIXED LANGUAGES AND THE SUBSTRATUM HYPOTHESIS

In recent years, the idea that many languages of Melanesia represent a mixture of Austronesian and non-Austronesian has been particularly identified with Capell. He not only insisted that languages could be so thoroughly mixed that they were not clearly assignable to the groupings occupied by either of their ancestors, but also thought that many languages of Melanesia considered by others to be Austronesian "are only NAN [non-Austronesian] languages overlaid with a veneer of AN [Austronesian]" (Capell 1962:375). In this case he was referring to "all of the languages of the southwest coast" of New Britain, including Sengseng.

More recently, Thurston has suggested, following his work on interaction between Lusi and the non-Austronesian Anêm language, the "possibility of a pre-Anêm substratum in the Bibling and Whiteman languages" (1987:92). I should note that by condensing a quotation from Chowning (1969) on the same page, Thurston presents my position as being that in New Britain, no non-Austronesian languages have "greatly influenced any of the neighbouring Austronesian languages". In fact in the full passage I cited Tomoip and Mengen as examples of such influence, and simply argued that I found no evidence for such influence in Whiteman languages. Furthermore, one of my main reasons for rejecting the hypothesis of strong non-Austronesian influence on Sengseng is precisely that it did not seem to me an example of "languages that are Austronesian almost exclusively in lexical form alone" (Thurston 1987:92). On the contrary, I have argued that it was its grammar that helped persuade me, in the face of the apparently low Oceanic content in the lexicon, that Sengseng was Austronesian (Chowning

1985:173-175; Throop and Ross 1994). I do not reject the possibilities either of mixed languages or of substratum influences; the question is simply whether Sengseng is an example, and if so, of what sort of non-Austronesian influence. The possibility of Anêm influence on Sengseng will be examined below.

6. VULCANISM

Virtually the whole of the Willaumez Peninsula is composed of volcanoes, with the last eruption dated to the late nineteenth century. Although my sources (Lowder and Carmichael 1970) give no dates for earlier eruptions, it seems unlikely that they failed to disrupt occupation of the peninsula. The situation in the Lakalai region is somewhat clearer. Again, much of the Hoskins Peninsula (sometimes equated with Cape Hoskins) is occupied by volcanoes. The caldera of one of these, Vitore (officially 'Witori') covers "over half of the Cape Hoskins area" and was thought to have been formed in a "major catastrophic eruption" about 2,600 years ago. Another volcano, Buru, is represented by features that "probably occurred during a major catastrophic eruption after the caldera eruption of Witori" (Blake and McDougall 1973:202-203). Underlying the deposits produced by the last major eruption of Vitore are obsidian chips that are stated to be artifacts (Blake 1976:193). The date for the eruption of Vitore is approximately the same as that for Lapita sites on Watom, in Kove, and in the Siassi Islands (Lilley 1988),⁷ so that it is quite likely that this region would have been occupied by Austronesian speakers at the time of the eruption(s). In addition, the extremely heavy tephra deposits found throughout the Hoskins region, which are up to 7m deep, are thought to have come from volcanoes located either to the east (Lolobau) or the west, on the Willaumez (Blake and McDougall 1973:203), and are younger than Vitore. Given that the much less devastating eruptions of Pago, the sole remaining active volcano on the Hoskins Peninsula earlier in this century, still damaged the gardens so badly that some Lakalai moved either to the Willaumez or to Central Nakanai, it seems safe to assume that the earlier events had much more drastic effects on the population; few if any of the possible survivors are likely to have stayed there. (See §7 for discussion of the effects of Vitore eruptions on the region now occupied by speakers of Sengseng.)

Ross is quite aware of the vulcanological situation in New Britain. He suggests that it accounts for the separation between his Ngero languages (Kove and its relatives) and the Willaumez languages (1988:261). Nevertheless, he constantly gives the impression of seeing the old Oceanic settlement area in New Britain as one that coincides with the present distribution of Oceanic languages from the Vitiaz Straits to Lolobau Island (Ross 1988:386-387), with the implication that the present occupants are direct descendants of the first settlers. Even when he cites Lilley's data on presumed changes in trading patterns across the Vitiaz Straits, he suggests that the second occupation, about 400-900 AD, "was perhaps associated with the dispersion of speakers of ... the Vitiaz linkage", while the last, suggested by Lilley to be less than 400 years old, "may be associated with the dispersion of Proto Ngero speakers" (1988:426). But where were they dispersing from? Were they living in New Britain all this time, just west of the Willaumez Peninsula! Prehistory does not support such a scenario.

⁷ According to Pavlides and Gosden (1994:607), the last eruption of Vitore was 1320 BP. Gosden (1994:28) assumes all the Lapita finds in New Britain date from around 3500 BP.

7. ARCHAEOLOGICAL EVIDENCE

Archaeological investigations within New Britain and on its offshore islands have been few, and dates are not yet available for some recently discovered sites. Nevertheless, one significant pattern has emerged in a number of areas. This is the cultural discontinuity between earlier and later occupations of the same site, often with a gap suggesting lengthy abandonment. Furthermore, the cultural continuities between the societies which were described following European contact, and archaeological remains in the same area, are few. The prevalent picture is one of change, including movements of populations.

The prehistoric materials are of several kinds. First, there are several sets of remains that are presumably early but that have not yet been dated. The longest known of these are stone mortars and pestles, similar to those found on the mainland of New Guinea and in Bougainville, for which there is no local tradition of human manufacture (for a survey, see Bulmer 1982:180). These remains come from both the north and south sides of West New Britain, and are generally considered to antedate the arrival of Austronesian speakers in these islands. At least one was collected in the present interior Sengseng-speaking region (Specht 1980). The pierced stone discs used as wealth by the Sengseng and Kaulong are also of unknown origin.

It has recently been established that an obsidian source, Mopir (otherwise Mopili or Mopril), well inland from Cape Hoskins, was exploited during the Pleistocene. According to Gosden, material from there was traded beyond New Britain by 20,000 BP (1994:25).

The longest sequence centres on the interior Sengseng region, where flaked chert implements were discovered in 1963 but not recognised as artefacts by the local people (Chowning and Goodale 1966). Several archaeologists have attempted to find these in stratified and dateable contexts. The earliest tools, along with evidence of local quarrying, of the chert sealed under tephra from an early eruption of Vitore, and surrounded by charcoal, are now dated to approximately 35,000 BP. Later tools in a different style, mixed with obsidian imported both from Talasea and from Mopir on Cape Hoskins, date to about 4,000-3,500 BP. "At approximately 3300 b.p. the interior areas of West New Britain were smothered by tephra from the greatest Holocene eruption of Mount Witori, WK2" (Pavlidis and Gosden 1994:609). Later occupants of the region no longer quarried chert, though they continued to manufacture tools, and obsidian was no longer imported from Mopir (Pavlidis 1993:58). Specht found that a nearby area in which he had excavated seemed to have been abandoned after one eruption until it was re-occupied "just before 2575 $\pm$ 110 years ago". Specht assumes that occupation after that was continuous, but there is no actual evidence that the people who used the site over the ensuing years were the same (Specht 1980). Interestingly, the present-day Sengseng said that they found their stone adze blades (made of a foreign material) lying on the ground, and simply resharpened and hafted them.

Only in the interior Sengseng region, at Lolmo cave in the Arawe Islands (Gosden et al. 1994:109) and on the Willaumez Peninsula (Specht et al. 1991:282) has excavation reached preceramic levels. Pottery was not manufactured in New Britain in recent times, if ever. It may also never have been traded into certain parts of the island. Consequently it is not rare for a site to lack pottery, but in this case the Pleistocene dates from deep in what is now Sengseng territory, together with the Mopir data, suggest settlement of the interior of New Britain before pottery was made anywhere in the New Guinea region. On the other hand, the discovery at the same levels of obsidian from the Willaumez Peninsula suggests that cross-island trade was already established by this period (Specht 1980:5).

The elaborate flaked and stemmed obsidian tools found on the Willaumez Peninsula are unlike anything known to have been used by recent occupants of that region, and were no longer made after the Lapita period, though they antedate it (Specht et al. 1991:286-287).

All those interested in the prehistory of New Britain have taken it for granted that the island was originally settled by speakers of non-Austronesian languages, and these dates make it clear that they were correct. Although the non-Austronesian language of Umboi Island, Kovai, is "distantly related" to some of those spoken on the Huon Peninsula of New Guinea (McElhanon 1975:529), no such links have been found between any non-Austronesian languages of the mainland of New Britain and those of the mainland of New Guinea. The Sengseng dates indicate that New Britain was occupied earlier than 35,000 years ago, if we allow a minimum amount of time for people to have reached the interior and to have established trade links with the north coast, or even to have reached there and discovered the obsidian deposits. The actual date of initial settlement may have been considerably earlier. (A recently discovered occupation date of 33,000 BP on Buka Island has led Wickler and Spriggs (1988:703-706) to the reasonable conclusion that New Britain and New Ireland must have been occupied even before than that.) 33,000 B.P. is also the date for the earliest known site in New Ireland (Allen et al. 1989). Presumably the areas around the obsidian deposits on the north coast were also occupied by speakers of non-Austronesian languages, since the Whiteman Mountains make it impossible for those living in the present Sengseng area to travel directly to the north coast to exploit the resources available there. (I am doubtful about Specht's suggestion, cited in Spriggs 1985:181, that the trip was made by sea.)

It has become standard to assume first that the bearers of Lapita culture, who also exploited the Willaumez obsidian deposits, were Austronesian speakers, and second that Lapita represented the first movement of Austronesian speakers into much of Oceania. From that, it seems to follow that Austronesian speakers in areas where Lapita remains have been found are descendants of these first settlers. Yet it has long been known that this is not necessarily the case. The first Lapita site to be discovered in New Britain is on Watom Island, off the Gazelle Peninsula. At the time of European contact Watom was occupied by Tolai speakers, and as was noted above, they are agreed to be late migrants to New Britain. Therefore a hiatus existed between the original settlement, if that was represented by the Lapita remains, and the Tolai occupation (Ross 1988:386-387). Recent excavations in West New Britain and on the Siassi Islands have also indicated a break between Lapita levels and later ones, with strong suggestions of discontinuous occupation (Lilley 1987, 1988). In Kove Lilley found two types of prehistoric pottery, both Lapita and his Type X, identified in excavations in the Siassi Islands. He suggests that the latter may be no more than 1,100 years old, but after it was deposited there was no more evidence of occupation until about 350 years ago (Lilley 1980). Swadling, excavating further west, with particular attention to artificial mounds just inland from their putative ancestral site, found that charcoal, mixed with obsidian in soil under the mounds, was dated to 660 ± 140 BP, and a midden at the ancestral site to 550 ± 95 , whereas debris from the offshore islands was modern (Swadling in press). The Kove attribute the mounds to the activities of a supernatural culture hero, not to those of their ancestors. The data from both Swadling's and Lilley's excavations points to considerable breaks in occupation and in cultural continuity within the Kove region. They support Kove oral tradition, according to which the unoccupied islands were all settled only a few generations ago from the single traditional origin site on the mainland. Too few sites have been explored for it to be safe to believe that the whole coast was unoccupied, as Lilley seems to assume when he puzzles about the fact that obsidian continued to be brought to the

Siassi Islands throughout this period. But I see no reason why Siassi sailors could not have proceeded directly to the Willaumez Peninsula, possibly with stops on the unoccupied offshore islands whether or not the coast was occupied by people who from all accounts were not such accomplished seafarers as they themselves were. Elaborate trade networks, after all, partly function to reduce the difficulties of passing through enemy territory.

For Kove and Sengseng, then, the archaeological data point to two or more discontinuous occupations. The earliest ones located in Sengseng territory may well have been by non-Austronesian speakers, but the earliest ones so far located in Kove territory were probably not. On the Willaumez Peninsula early obsidian tools are separated from Lapita deposits by tephtras from a major eruption of Vitore (Specht et al. 1991:282). For Lakalai there is no archaeological evidence, apart from obsidian chips, because of the volcanic activity described above. The Mopir site is inland from the strip occupied by the Lakalai.⁸ Like the Sengseng and the Kove, the Lakalai have no tradition of coming from far away (§8.2.4). Nevertheless, there is no reason to believe that any of these people are descendants of the first settlers of the regions they now occupy. For the present, it is simply necessary to keep in mind that nowhere in New Britain is there archaeological support for the assumption of continuous occupation by the descendants of bearers of the Lapita culture. Furthermore, the discovery of Lapita sherds on the south coast of New Britain indicates that Austronesian speakers arrived there as early as on the north coast. The last eruption of a north coast volcano that spread a great deal of debris far to the south seems to have antedated, if by very little, the first Lapita settlements. (Gosden believes – 1994:28 – that Lapita remains throughout New Britain date from about 3500 BP.) This may lend some support to my assumption that OC languages that are on or near to the south coast represent early settlements in New Britain, as early as any represented by north coast languages. However bad the effects of the deposits from north coast volcanoes on the south side of the Whiteman range (Pavlidis and Gosden 1994:606), they were presumably much more devastating on the north coast.

8. THE AUSTRONESIAN LANGUAGES

Here I intend to discuss only the languages with which I have worked, and those that I consider to be their closest relatives. Table 1 indicates the type and degree of lexical similarity between Lakalai, Sengseng, and Kove.⁹ At first glance, it is evident that Kove and Lakalai resemble each other, and differ from Sengseng, in having reflexes of many Proto Oceanic forms. In only a few cases (numbers 32, 34, 40, 42, 45, 60, 137, 150, 177) do they all clearly reflect the same Proto Oceanic lexeme, and in some cases, notably that of the words for 'drink', only prior knowledge of the existence of POc **inum* (with evidence for an

⁸ In recent times the Mopir site has been owned by Bebeli speakers from Mosa village (Fullagar, Summerhayes, Ivuyo, and Specht 1991:110). In 1956, however, Charles Valentine was told that the region was once occupied by Mangseng speakers.

⁹ I have chosen to retain my own phonemicisation of Kove, with *u* and *w* for the sound that Goulden (1989) writes as *o*, and *r* for the sound that Ross writes as a dental fricative. In the former case, I had no opportunity to check my data in the field; in the latter, the differences are dialectal. Ross's data are drawn from two communalects: Kapo village, where this sound was [ɹ], and Moputu, where it varied between [z] and [ð]. These are evidently dialectal variants of the consonant which Goulden, this volume, writes as *z* and describes as an apico-alveolar slit fricative). Sengseng words are written with what may be a prefixed article, but it is omitted in Lakalai.

alternative form with *u-) makes it possible to be sure that the terms in all these languages are indeed cognate. Several other forms are possibilities, such as the word for 'liver' (17), if metathesis was involved in Sengseng. I have explained in Chowning (1985) why I think that Sengseng is so 'aberrant'. It should be noted that in some cases the Sengseng lexeme, even when differing from those in Lakalai and Kove, is still derived from Proto Oceanic. Examples are words for 'nose', 'vomit', 'dig', and 'burn'. There are also several cases of words not on this list which are shared by all three languages. In addition to those discussed elsewhere, they include Sengseng *mal*, Lak *malelei*, Kove *mahani* 'to watch performers', which may be a word attributable at least to Ross's Proto Western Oceanic (Chowning 1973:213); Sng *masi-ŋin* 'salty, tasty', Lak *mamasi* and Kove *madimasi* 'salty', all of which derive from POc **maqasi*, and probably also Lak *malala*, Kove *melemele* 'plaza', Sng *-mla* 'open space', probably from POc **m^walala*. My general impression, however, is that if words in the 'married' vocabulary, devised to avoid name taboos and so likely to involve borrowing, are excepted, Sengseng has many fewer reflexes of Proto Oceanic forms than do Lakalai and Kove.

8.1 BARIAI LANGUAGES

Kove is the easternmost of three very closely related languages: Kove (Kombe), Lusi (Kaliai), and Kabana (Bariai proper). Here I shall adopt Goulden's suggestion (this volume) that Bariai be used to designate these three languages together, and Kabana for Friederici's Bariai. Kove and Lusi are so similar in basic vocabulary that Counts (1969) and I have spoken of them as dialects of a single language. Goulden, like Thurston, points out that Lusi speakers consider that theirs is a separate language, and that their attitude should be respected. While I agree with this stance, I should note that the Kove speak of Lusi as only a dialect of Kove. Nevertheless, it is certainly true that the languages diverge considerably outside the area of basic vocabulary, and I am perfectly willing to call them separate languages. It should however be kept in mind that they are very much more similar to each other than either is to Kabana. The similarity, particularly as regards basic vocabulary, is almost surely not the result of mutual influence between Kove and Lusi, strong though this has been, but the result of their having diverged from a lower level common ancestor after the split separating that ancestor from Kabana.

There is no need to repeat the data that are presented by Goulden. It is clear that each language has been affected by contact with a rather different group of neighbours. In the case of Kove, there has been some direct borrowing from Bola, immediately to the east. Some Kove lineages derive from Bola, many present-day Kove claim to speak Bola, and Kandoka, on the Kove-Bola border at the foot of the Willaumez, is a village which, though classified by the Kove as Bola, is said to contain many Kove speakers. While the discernible influence from Bola and perhaps Bali, where the Kove have a tiny colony, is not so great as Thurston suggests (1988), it does account for a number of irregular reflexes of Proto Oceanic consonants, for many doublets, and for some lexemes that are not found in Kabana or, in some cases, in Lusi. Because in a number of cases Bali and Bola share a form, the place of origin is rarely clear. For example, Goulden lists sources in Bali, Vitu, and Bola (Bakovi) for some Kove and Lusi lexemes, without ever giving more than one source, but Bola as well as Bali has *barema* 'sago palm' (Lusi *barema*, but cf. Kove *valevalema* 'nipa palm' and Lak *barema* 'nipa palm'), *bubu* 'cloud', and *mariaba* 'storm'. In these cases, the borrowing is indicated both by the voiced stops and in the case of 'cloud' by a doublet (Kove *vuvuhi*), but

the source is not certain.

Kove has also borrowed a little from Bibling languages, having one village that is said to incorporate speakers of Aria, and in areas having to do with ritual as well as sailing, has borrowed a considerable number of lexemes from Kilenge. The major influences on Lusi are assumed to be Bibling, Anêm (Thurston 1982), and Kilenge in the same areas of lexicon as Kove, with other influences coming via Kove (Goulden, this volume). For Kabana, I must rely on Goulden; clearly there has been some influence from Kilenge even in this basic vocabulary.

Goulden documents the recent phonological changes taking place in Kabana, and it is obviously impossible to make any assumptions about how long such changes may take. Nevertheless, I assume that Kove has had a fairly lengthy time in New Britain, encompassing a shift from what I assume were voiced stops in Proto Bariai to fricatives in an early form of Kove, followed by the re-introduction of voiced stops in many words, both in basic vocabulary and in that part of the lexicon that refers to the maritime environment. Goulden has noted a similar situation in Kalai.

The Bariai languages do not seem to offer problems as regards external connections. If we do not accept Thurston's (1982) hypothesis that some or all of them resulted from non-Austronesian speakers learning very different languages, any uncertainty about their affiliations seems to be only the result of inadequate data. (I suspect that I was influenced into over-estimating the strength of ties with Maleu languages by the relative uniformity of the culture area that extends from Kove to the Siassi Islands; Chowning 1978b:297) The closest relatives of Bariai lie outside the island of New Britain, both in the Siassi Islands and in New Guinea. The area occupied by Proto Bariai may once have extended further west into the Cape Gloucester region; if so, the evidence was presumably eliminated by the tidal wave following the eruption of Ritter, or by earlier catastrophes (Chowning 1976b). It is difficult to correlate the present linguistic situation with the oral traditions that derive the Lusi from a recent migration from the Siassi Islands while the linguistically similar Kove think that the single ancestral village that broke up such a short time ago was 'always' there. I would expect the Kove and Lusi to have originated in a single settlement or group of neighbouring settlements that were physically a little distant from those occupied by the ancestors of the Kabana.

As regards hypotheses about the coming of Oceanic languages to New Britain, or the development of Oceanic languages on New Britain, the proofs that Bariai is not closely related to Maleu strengthens my original belief that all the Bariai languages descend from a relatively late migration. Despite the effects of borrowing from their neighbours, they seem too much alike to have been separated very long, and their position in tiny narrow coastal enclaves also points to an arrival later than that of the other Austronesian languages in the vicinity: Maleu, Bibling, and probably Amara, together with the non-Austronesian Anêm. Despite their maritime orientation, the Kove (with a particularly strong reputation for seafaring) never approached the prowess of those who speak related languages and live around the Vitiaz Straits. Contrary to Thurston's assumptions (1987:20-21), their present way of life is said to post-date pacification, and they do not normally rely on trade for subsistence (Chowning 1978b:205). Consequently it seems more likely that the ancestors of the Bariai speakers came to New Britain from the west, rather than sending branches to the west. I still believe that the branch of Ngero-Vitiaz that includes Bariai reached New Britain after the speakers of other Oceanic languages of northwest New Britain.

8.2 WILLAUMEZ LANGUAGES

I have explained elsewhere why I choose to call the westernmost dialect of Nakanai 'Lakalai' (otherwise Bileki) (Chowning 1976b). Here my usage is contrary to that of Johnston and Ross. Apart from the fact that Lakalai contains no /n/, the use of the term to designate only one set of languages or dialects seems objectionable on two grounds. First, it excludes Meramera, the language called Nakanai in all the earlier literature. Ross at least seems to agree with me that Meramera subgroups with Lakalai (1988:258). I prefer to use Nakanai to designate the languages from Lakalai to Meramera, distinguishing the latter as East Nakanai, and referring to the rest as the western 'branches', in order to avoid questions about dialect/language boundaries. If all of these latter are treated as a single language 'Nakanai', as in Johnston and Ross, then the fact that all of them do not have the same reflexes of Proto Oceanic consonants is ignored. For example, one dialect of Vele contains no /r/ (see also §8.2.1).

The closest relatives of my Nakanai are unquestionably Bola (Bakovi) and Bulu of the Willaumez Peninsula together with Harua (Xarua), traditionally said to be settled by migration from Garua Island just off the Willaumez. Goodenough called these three languages 'Willaumez', and used 'Kimbe' as a term to include both Willaumez and Nakanai languages. Unfortunately, I extended 'Kimbe' to include Bali-Vitu, and Johnston followed me. Now that Ross has demonstrated that Bali-Vitu does not subgroup with these others, he has used 'Willaumez chain' to include Goodenough's Willaumez and Nakanai, though because of Johnston's cognate counts he regards Harua as only a dialect of Bola. (This grouping, and term, reflects Dyen's 1965 'Willaumez Linkage'.) There is now no term for Goodenough's Willaumez languages. I propose to refer to them as 'Willaumez Peninsula' languages, which occupy the westernmost part of Ross's Willaumez chain.

At the beginning of the century Ross's Willaumez chain was broken physically only by a small Bebeli-speaking enclave located just to the west of Nakanai. Two of the western Nakanai branches, Ubai and Loso, did not reach the coast (nor did the non-Willaumez Mangseng; the maps in Johnston 1980b and Ross 1988 are misleading¹⁰). The speakers of all of these languages, including Bebeli, seem to have been culturally very much alike. The close resemblances between Meramera and Lakalai culture are evident in the writings of Hees (1915-16), and reportedly the people of the Willaumez Peninsula were once much more like the Lakalai than is now the case, when their culture has been strongly influenced by the Kove.

In an unpublished paper dealing with the reconstruction of Proto Nakanai Goodenough (n.d.) notes that the many irregular correspondences and doublets point to considerable interaction among the speakers of the daughter languages (or dialects) even after differentiation took place. Certainly such interaction has been common recently. More interesting, perhaps, is the fact that the linguistic divisions do not correspond closely with physical proximity. For the western division, which includes everything but Meramera, there seems to be an obvious continuum along the coast from Lakalai to Maututu. The two languages spoken wholly in the interior depart from this pattern. These are Ubai and Loso.

¹⁰ *Editor's note:* Ross's map was based in this regard on Johnston's, which shows Kukula village, three or four kilometres inland in the late 1970s, as Mangseng speaking.

8.2.1 UBAE

Lakalai is spoken just to the northwest of Ubae, and Mangseng, very different though Oceanic, in the surrounding hinterland. Ubae differs from Lakalai in several significant respects, particularly in phonology. One is the substitution of /r/ in a great many words (but not all) which have /g/ in Lakalai. Lakalai /g/ reflects several different Proto Oceanic (or Proto Willaumez) phonemes, from *d to *ŋ (Chowning 1973:198-200), and the data suggest that Ubae is particularly likely to reflect *d, *dr as /r/. Also, as in Lakalai, within one word *l tends to shift to /r/ under the influence of another /r/, so that Ubae has *roro* 'night' beside Lak *logo*. Ubae also tends to reduce *ai to /i/, even across the morpheme boundary between the *la* noun marker and the following noun. A similar tendency, not so strongly manifested, reduces *au to /u/. The consequence is that we find in Ubae *livu* 'hair', *lisa* 'name', *lutu* 'louse', beside Lak *la ivu*, *la isa*, *la utu*. A combination of these shifts explains Ubae *miri* 'cold' beside Lak *maigi*. A third distinctive feature of Ubae is the existence of an initial syllable, usually *ha-*, in a number of nouns and predicates which in Lakalai either contain partial reduplication of the root (which also occurs in Ubae) or a shorter form. Examples include Ubae *hatarā*, Lak *taga* 'dream'; Ubae *hakoma*, Lak *kokoma* 'feather'; Ubae *haburo* Lak *buburo* 'ashes'.

These features of Ubae are not recorded for other branches of Nakanai. In addition, Ubae resembles Meramera in frequently having /s/ rather than /r/ as a reflex of POc *s, *c. On the other hand, Ubae is like other western Nakanai dialects in usually reflecting POc *q as /h/ and *a- as /ha-/. For both of these, see Lak *ere(i)*, Ubae *esei*, Mer *sei* 'who?'; Lak *harua*, Ubae *hasua*, Mer *sua* 'husband'; Lak *hare* 'mouth', Ubae *hase* 'lip', Mer *oase/ase* 'mouth' (but Ubae *lusa* beside Lak *la hura* 'rain'). An additional point of interest is that Ubae reflects POc *kusupe 'rat' as *kusuve*, whereas Lakalai and other coastal western dialects, like a scattering of languages farther west such as Kove, have an unexpected third consonant that produces Lak *kusuke* (Chowning 1973:205). Another difference between Ubae and neighbouring branches of Nakanai is that all of the pronouns take an *e-* prefix. Ubae is like Maututu in this but unlike Lakalai (or Vele), where the first and second persons dual and plural all begin with *a-* (see §9), presumably as a result of levelling. (Valentine also records an alternative Ubae third person plural *esou* along with *egiteu*, the former being like Meramera and the latter like Lakalai, whereas Grace, in a very short word list, recorded only *egiteu*.)

There are a number of lexical items that link Ubae with the east (Maututu or Meramera). They include, for example, Ubae *tavula*, Mer *tabu* 'nose', beside Lak *maisū*; Ubae *malolou*, Mer *malou* 'thirsty', where all the rest including Lakalai have *malehu* (but see Bola *malou*); and the lack of metathesis in the word for 'how many?': Ubae, Mer *i-visa*, beside Lakalai and other *i-riva*.

Of the Ubae words that do not have cognates in other branches of Nakanai, I have been able to identify probable Mangseng loans for only two: Ubae *kamukeli*, Mangseng *mikeli* 'guts' (Lak *tamusi*) and Ubae *lumu*, Mangseng *um* 'stone' (Lak *uati*). Goodenough (n.d.) had also pointed to the resemblance between Ubae *miri* and Mangseng *merir* 'cold', but since, as I noted above, the Ubae term is fully cognate with Lak *maigi*, the case for this one is not strong. Even two loans in basic vocabulary, however, suggest that more would be found in the larger lexicon.

8.2.2 LOSO

The reason that I did not identify this as a dialect separate from Vele was that the word list collected by Valentine from speakers from that region did not show the distinctive features cited by Johnston (1980a:17). One of the problems may have been that Valentine decided to treat /l/, /n/, and /r/ as allomorphs of a single phoneme. That he was wrong is certainly indicated by a word list later filled out by Pius Soisi, a student from Lotou village (his spelling). Valentine did not notice the use of the noun marker *a* in place of Lakalai *la*, and the student records it in only one word *aleavala* 'year' (Lak *la leavala*). The only appearance of *la* is in *laia* 'fish' – Lak *la ia*, but it should be noted that Loso is not far from the Mamusi-speaking region, where the word for 'fish' is *lia*; there are clearly problems in interpreting this case, particularly because other languages, including Bebeli, have forms like *lia*. Loso has not undergone the phonological changes that characterise Ubai. Johnston tends to contradict himself on whether Ubai or Loso is the more different from Lakalai (1980a:16,17). By my reckoning, judging only from the Lotou list, Loso does have fewer cognates (80 per cent for a 205-word list, compared with 84 per cent for Valentine's 215-word list). Loso looks less different, however, both because of the aforementioned failure to undergo particular phonological changes, and because a number of the words in its basic vocabulary also appear in Lakalai, but with different meanings. Examples are *timu*: Loso 'suck', Lakalai 'smack the lips'; *sosobu*: Loso 'fog', Lakalai 'smoke'; *vulai*: Loso 'work', Lakalai 'clear gardens'. The only word lacking cognates in Lakalai that seems to unite Ubai and Loso is the one for 'bad': Loso *baugu*, Ubai *bugu*. Apart from the possible case of the word for 'fish', I have not identified the sources of any of the aberrant (as compared with other Nakanai languages) Loso lexicon. The neighbouring non-Austronesian language Wasi also has *timu* 'suck', but in view of the Lakalai word, is probably not the source for Loso. I have found no evidence of borrowing from Mamusi into Loso.

8.2.3 LAKALAI

Johnston states that 'Nakanai' is the most 'mutated' of the languages that he derives from his 'Proto Kimbe' (which include Bali and Vitu). I am doubtful about the accuracy of this statement as regards Lakalai proper, but it is worth noting that in a few respects, Meramera is more like the languages of the Willaumez Peninsula than it is like Lakalai. In lexicon, if we disregard cases in which these other languages reflect POc forms and Lakalai does not, we find such examples as words for 'fat' (*vi*, versus Lak *molamola*, from Proto Oceanic); 'rain' (Bula *kadavu*, Mer *gadavu*, Lak *hura*); perhaps 'wind' Bulu *vini*, Mer *vili* (if these do not derive from Tok Pisin), Lak *lolovi*; and 'tongue' (*tabele*, as opposed to Lak *kalamea*, from Proto Oceanic). The *na*, rather than *a*, article, is also peculiar to Lakalai and its closest kin; although Johnston lists *na* for Meramera (1982:80), this is presumably a misprint, since it is contradicted by all his examples. Johnston himself has pointed to a link in the cardinal numerals which group Bola, Harua and Meramera with *polo-* prefixes, versus the others which have regular reflexes of the Proto Oceanic system (1982:86). In fact, however, Meramera has *pan-* rather than *polo-* and only as a reflex of numbers 6-8 (Johnston 1982:87), so the resemblance may be accidental. Furthermore, Valentine recorded a full decimal system for Harua.¹¹

¹¹ It is not borrowed from Lakalai; compare Lakalai *-uolo*, Harua *-ono* '6'; Lakalai *ualasiu*, Harua *-tio* '9', Lakalai *savulu*, Harua *-rajavulu* '10'.

8.2.4 THE POSITION OF UBAE AND LOSO

The impression given by Ubae and Loso are that either the coastal varieties of western Nakanai, from Lakalai to Maututu, are descended from a lower-level common ancestor than the one that produced the ancestor of Ubae, or that the coastal varieties stayed in closer contact with each other after the split, or both. The phonological differences between Ubae and the others suggest a period of separate development, whereas Loso may simply not have participated in levelling resulting both from trade and actual movements of peoples. As has been noted, some shifted because of volcanic activity on Cape Hoskins, and some because of quarrels, which reputedly led to the founding of two originally Lakalai villages in what is now central Nakanai. Recent eruptions of Pago might account for the separation of Ubae, which could have been cut off from easy access to the coast. Furthermore, it is likely that at certain periods, the coastal areas nearest Ubae were unoccupied.

It is possible that after, according to Ross's scenario, Willaumez languages spread throughout the region that is now Nakanai-speaking, the branch which occupied the Cape Hoskins region was displaced from these by volcanic activity, any survivors moving west along the shores of Kimbe Bay or east to what is now Central Nakanai. When volcanic activity died down, Cape Hoskins would then have been resettled – primarily from the east, in view of the close linguistic links in that direction, but perhaps with some input from the west. For what it is worth, the one Lakalai myth that deals with migrations has them moving from Vulai Island, just to the north of Cape Hoskins, to the empty mainland. I do not, however, suggest that present-day Lakalai derived wholly from a branch that moved directly to what is now the Vele-speaking region without spending time near or on Cape Hoskins. The reason is that of lexical links between Lakalai and a Pasismanua-like language. There is no reason to think that such languages ever extended east of their present boundaries, in the Psohoh-speaking area.

8.3 WHITEMAN LANGUAGES

8.3.1 PASISMANUA LANGUAGES

Because there is disagreement among myself, Johnston, and Ross about the grouping of the Pasismanua chain and its connections with other languages in West New Britain, some clarification of the reasons for my stance is necessary. Ross considers Psohoh, spoken to the east of Sengseng and deep into the interior, a co-ordinate member of the chain, which otherwise contains, as a single subgroup, Miu, Kaulong, and Sengseng. He also, like Johnston, ignores my mention of Karore as the easternmost language in the chain as I originally set it up (Chowning 1976b), presumably because the Throops misidentified it as a dialect of Arawe, which was based on incomplete and erroneous information. I corrected their omission for Karore (Chowning 1985:192), but Ross's map still leaves a large and I suggest non-existent gap,¹² presumably uninhabited, between the Sengseng and Psohoh regions (Ross 1988:161). In Throop and Ross (1994), however, Karore and Psohoh are part of the 'Pasismanua dialect chain', but apparently they viewed the latter languages as more distinct than the other three.

¹² This gap, marked '?', is tentatively filled on the map on page ix.

8.3.1.1 PSOH OH

Judging from the lexical data, however, Psohoh seems as similar to Sengseng as Miu is (Table 2). I have chosen my principal Psohoh data from lists supplied by Ray Johnston, including part of one from an unpublished paper on these languages (Johnston 1981). Unfortunately poor photocopying makes part of this last list illegible. Some words on Johnston's list are omitted for that reason, some because I do not have comparable data from other languages. To minimise the effects of borrowing, and because Johnston's data are fullest for it, I have used the word lists from Bao, the northernmost dialect of Psohoh, spoken a short distance inland from the north coast (and so relatively close to Bebeli). I have written only five vowels for all languages concerned, though there is reason to believe that they contain more.¹³ I have also omitted the masculine prefix (*ve-* in both Bao and Sengseng) from parts of the body. Where the Sengseng and Bao forms are clearly cognate, I have not bothered to indicate cognates in other western Pasismanua or Psohoh languages, except when they clarify the presumption of cognacy. Where the Bao forms seem to include the third person singular suffixed possessive *-n*, I have included it with the Sengseng forms.

Despite the lexical resemblances, there are ways in which the Bao dialect of Psohoh does differ from Sengseng. Johnston's description of Bao is only partial, and is certainly incorrect in one respect. He has frequently analysed an initial syllable, or just an initial vowel, as a noun marker, when the comparative evidence makes it clear that it is part of the root. Examples include his *i uŋ* 'NM pig' and *ma saŋ* 'NM house' (Johnston 1981:4, 6) beside *Sng yu*, *masaŋ*. I suspect that other morpheme boundaries given for Bao are erroneous, and consequently the glosses are misleading. This said, it seems that the major grammatical differences between Bao and Sengseng are the following. Bao has two sets of separable possessives, one marking 'edible' possession with *a-* and the other 'general' possession with a root *niji* or *nini*, preceded in the examples given by the *ve-* marker for third person singular masculine. Neither of these possessives contains the *ta-* prefix which marks the single set of separable possessives in Sengseng, though *ta* appears as a 'beneficiary/locative' preposition (Johnston 1981:6). (This difference not only supports Lichtenberk's assertion – 1985:121 – that POc **ta* usually marks "spatial relations, most notably location or place of origin" rather than possession, but also suggests that Sengseng and Lakalai may have developed the possessive function of this preposition independently of each other.) Bao does, however, agree with Sengseng (and Lakalai) in that separable possessives follow the head noun, whereas in Bebeli and Mangsang they precede.

Johnston also identifies several particles designating modality and aspect for which I have not identified anything similar, or cognate, in Sengseng, though it is possible that I may have missed or misinterpreted comparable particles. For Bao, these are a 'dubitative' *ver* which ends the sentence; an 'incompletive' with *loh* preceding and *in* following the verb; and a 'habituate' *ha* which precedes the verb. Both languages employ *tio* 'self' but otherwise reflexive constructions differ, Bao using *lo* 'again' (cf. Lak *lou*, from Proto Oceanic). Bao and Sengseng are, however, alike, and the terms are cognate, in expressing negation, the perfective, and reciprocal action.

Phonologically, Bao differs from Sengseng particularly in apparently having a phonemic

¹³ Throop and Ross (1994), however, identify only five vowel phonemes for Kaulong.

TABLE 2: PSOHOH (BAO) WORDLIST WITH EQUIVALENTS IN OTHER WESTERN NEW BRITAIN LANGUAGES AND DIALECTS

	Psohoh: Bao dialect	Psohoh: other dialects	Sengseng	Other west Pasismanua languages	Other western New Britain languages
1. hair	<i>ki</i>	...	...	Krr <i>iki</i>	...
2. head	<i>po</i>	...	<i>po</i>	...	...
3. mouth	<i>lito</i>	...	...	...	...
4. nose	<i>ɲori</i>	...	...	...	...
5. eye	<i>mata</i>	...	<i>mata</i>	...	...
6. belly	<i>kapi</i>	Aigon <i>kope</i>	...	...	Bbl <i>kapa, kepe</i> ; Mgs <i>opo, hopo</i>
7. neck	<i>luɲu</i>	Aigon <i>hot</i>	<i>hot</i>	...	...
8. skin	<i>yo</i>	Aigon <i>lut</i>	<i>lit; ho</i> ('body')	...	...
9. knee	<i>posut</i>	...	<i>posut</i>	...	...
10. man	<i>pa-masaɲ</i> <i>pa-toyo</i>	...	<i>pomasaya</i> (<i>masaya</i> 'men's house'), <i>po-tuhu</i> (<i>'human being'</i>)	...	...
11. woman	<i>pa-noyo</i>	...	...	...	...
12. bird	<i>e-kiɲ</i>	...	<i>e-ki</i>	Klg <i>e-gin</i>	...
13. wing	<i>i-mbrit</i>	...	<i>mihit</i>	Krr <i>mirit</i>	...
14. tail	<i>pokut</i>	...	<i>kut</i>	...	...
15. egg	<i>i kulue</i>	...	...	...	Bbl <i>i kutel</i>
16. rat	<i>tansu</i>	...	...	...	...
17. louse	<i>ɲut</i>	...	<i>mut</i>	Krr <i>nut</i>	Mgs <i>ɲut</i>
18. snake	<i>i-moto</i>	...	<i>amat</i>	...	...
19. mosquito	<i>rumuk</i>	...	<i>humuk-akenken</i>	...	...
20. ear	<i>tiɲi</i>	...	<i>kliɲa</i>	...	...
21. tongue	<i>mamai</i>	...	<i>mamai</i>	...	...
22. tooth	<i>eɲi</i>	...	<i>ɲi</i>	...	...
23. breast	<i>susu</i>	...	<i>susu</i>	...	...
24. hand	<i>komleɲ</i>	Aigon <i>vilin</i>	<i>vili-</i>	...	...
25. back	<i>ɲgimon</i>	...	...	...	...
26. leg	<i>kebe</i>	...	<i>kive</i>	...	...
27. bone	<i>embru</i>	...	...	...	...
28. blood	<i>eɲriken</i>	...	<i>eɲhik</i>	Krr <i>ɲrik</i>	...
29. liver	<i>atan</i>	...	<i>eta-n</i>	...	...
30. shoulder	<i>sivia</i>	...	...	...	...
31. forehead	<i>mlaɲa</i>	...	<i>miaɲa</i>	...	...
32. meat	<i>i-malen</i>	...	<i>mali-n</i>	Krr <i>emalin</i>	...
33. fat	<i>ikamar</i>	...	...	...	Rauto <i>kamar</i> , Pililo <i>kmar</i>

TABLE 2 (continued)

	Psohoh: Bao dialect	Psohoh: other dialects	Sengseng	Other west Pasismanua languages	Other western New Britain languages
34. fish	<i>esmaŋ</i>	...	<i>esma</i>	...	...
35. father	<i>tama</i>	...	<i>ve-tama</i>	...	Bbl <i>pu-tama</i>
36. mother	<i>tina</i>	...	<i>totni</i> (reference), <i>tina</i> (address)	...	...
37. sister	<i>e-lut</i>	...	<i>et-lut</i>	...	Mgs <i>i-lu</i>
38. name	<i>e-a</i>	...	<i>iya, ya</i>	...	...
39. what?	<i>e-leŋ</i>	...	<i>ele</i>	...	...
40. who?	<i>vanume</i> ('who comes?')	...	<i>a-no</i> (F), <i>e-no</i> (F)	...	...
41. when?	<i>teles</i>	...	...	...	...
42. stone	<i>wat</i>	...	<i>umat</i>	...	Bbl <i>i-kum</i>
43. tree	<i>zaŋ</i>	...	<i>sa</i>	...	...
44. root	<i>kumut</i>	...	<i>kumut</i>	...	...
45. leaf	<i>i-ki-, kizaŋ</i>	<i>kin, kisaŋ</i>	...	...	...
46. seed	<i>i-ugu</i>	...	<i>yihun, yuhun</i>	...	...
47. earth	<i>pluk</i>	...	<i>pluk</i>	...	...
48. mountai	<i>kalapen</i>	...	...	...	...
49. water	<i>i-ki</i>	...	<i>e-ki</i>	...	...
50. ocean	<i>isiy</i>	...	<i>hisik</i>	...	...
51. sun	<i>nelak</i>	...	...	Kɿɿ <i>nehelak</i>	...
52. moon	<i>nam</i>	...	<i>namih</i>	...	...
53. star	<i>kirap</i>	...	<i>kihap</i>	...	...
54. cloud	<i>riŋis</i>	...	<i>hiŋis</i>	...	...
55. rain	<i>e kus</i>	...	...	...	...
56. night	<i>i-vus</i>	...	<i>i vus</i> 'out, of fire'	...	...
57. path	<i>giso</i>	...	<i>hiso</i>	...	...
58. fire	<i>kela</i>	...	(<i>yau</i>)	...	...
59. smoke	<i>i-kiŋ</i>	...	<i>yau-kun</i>	...	...
60. ashes	<i>kau</i>	...	<i>kau</i>	...	...
61. big	<i>ɣoloŋ</i>	...	<i>holoŋ</i> (of cucumber)	...	...
62. small	<i>tutu-ŋ</i>	...	<i>tuntun</i>	...	...
63. red	<i>ŋyrekŋyrek</i>	...	<i>-ŋeheŋe</i>	Kɿɿ <i>-ŋetŋet</i>	...
64. white	<i>volvol</i>	...	<i>volvol</i> 'dry'?	...	...
65. black	<i>gopgop</i>	...	<i>akop</i> 'dark blue (of sky)'	...	Bbl <i>gopgop</i> , Mgs <i>poŋ -kokop-ŋa</i>
66. yellow	<i>iɣomuk</i>	...	...	...	...
67. green	<i>ɣo-kirkir</i>	...	<i>keheŋ, kehes</i>	...	...

contrast between voiced and unvoiced stops,¹⁴ as well as a voiced flap which contrasts with both of these, and a set of fricatives as well. Sengseng has only a bilabial fricative (my /v/), which in the interior dialect has an allophone [w] before back vowels. Since Johnston also identifies a /w/ phoneme for Bao, it has six or seven more consonant phonemes than does Sengseng, a difference of some significance when borrowings are considered. For all of these differences, evidence is lacking to show that they are shared by all the divisions of Psohoh. Getmatta may be much more like Sengseng.

Despite differences between Bao and Sengseng, this material seems to me to demonstrate that languages very similar to Sengseng are still spoken in a region physically close to Lakalai, and it is not implausible to suggest that they once extended further east. When I point to some of the lexical resemblances between Sengseng and Lakalai, I assume that they would be found in Psohoh as well.

8.3.2 BEBELI (BANAULE, KAPORE)

The position of this language, spoken on the north coast of New Britain immediately to the west of Lakalai, is disputed. I put it into the Whiteman group along with the Pasismanua languages and Mangseng. Johnston divided the Whiteman languages into Eastern and Western, putting the Pasismanua group, including Psohoh but with no mention of Karore, into the Western Division, together with Uvol. (I had put this last with Mengen, as does Ross.) Johnston's Eastern Whiteman contains Bebeli and Mangseng; he says that "the two languages are more similar to each other than either is to the Pasismanua group" (Johnston 1980b:122). His reason is lexicon, and he does point out that the differences in phonology and particularly in the pronouns make him uncertain about the relation between Bebeli and Mangseng (Johnston 1980b:124-126). I still think that Bebeli is somewhat closer to Pasismanua languages than to Mangseng (Chowning 1976b:371). Ross, however, presents new data which throws doubt on the boundaries of my Whiteman group. He assigns Bebeli to an East Arawe chain which contains some of the Arawe languages as well; the other members of his Arawe chain are the western Arawe languages and, separately, Mangseng. All of these are then grouped with Pasismanua as being derived from Proto Arawe/Pasismanua (Ross 1988:162). This grouping is actually in close agreement with my original suggestion, based on lexicon alone, that Arawe is most closely related to the Whiteman languages, so that "it may eventually be possible to put the two together", and that I was particularly struck by the relatively high number of shared cognates between Bebeli ('Kapore') and a dialect of Arawe, even though the one I cited is put by Ross in his Western Arawe chain (Chowning 1969:30).

Nevertheless, Ross admits to difficulties with Bebeli. His reason for separating Pasismanua from Mangseng is that "the Pasismanua communalects have undergone changes which have increased their level of morphological complexity ... (These are notably) the creation of dual and trial pronoun forms which have no obvious Oceanic forebears, and the innovation of a masculine/feminine/neuter distinction which affects both third person singular pronouns and the articles which occur before human nouns". But he notes that Bebeli also has the gender

¹⁴ This is, however, a feature of Kaulong (Throop and Ross 1994). In Sengseng I considered it more parsimonious to assume that some words contained a nasal plus stop, rather than to postulate the existence of a separate series of pre-nasalized unvoiced stops.

TABLE 3: SENSGENG AND BEBELI PRONOUN PARADIGMS

		Sengseng		Bebeli	
		Subject	Object	Subject	Object
Singular	1	<i>ŋa</i>	<i>ŋo</i>	<i>ka (alö)</i>	<i>(a)lo</i>
	2	<i>o, a</i>	<i>ŋon</i>	<i>ö (ino)</i>	<i>nö</i>
	3M	<i>vi</i>	<i>vi</i>	<i>pu</i>	<i>pu</i>
	3F	<i>et</i>	<i>et</i>	<i>ti</i>	<i>ti</i>
	3N	<i>i, li</i>	<i>i, li</i>	<i>ε</i>	<i>i</i>
Dual	1I	<i>taŋa, toŋ</i>	...	<i>su</i>	<i>susum</i>
	1E	<i>toha</i>	...	<i>mese</i>	<i>mesek</i>
	2	<i>mom</i>	...	<i>musu</i>	<i>musum</i>
	3	<i>hiloŋ</i>	...	<i>su</i>	<i>su</i>
Trial	1I	<i>souk(a)</i>	...	...	...
	1E	<i>piok</i>	...	...	...
	2	<i>miok</i>	...	...	...
	3	<i>hilok</i>	...	...	...
Plural	1I	<i>ita</i>	<i>it</i>	<i>to</i>	<i>tokua, totok (G), sumuk (J)^a</i>
	1E	<i>pima</i>	<i>pim</i>	<i>me</i>	<i>memek</i>
	2	<i>om, ami</i>	<i>om</i>	<i>mo</i>	<i>momok</i>
	3	<i>po</i>	<i>po, hi</i>	<i>si</i>	<i>si</i>

^a Forms marked (G) were recorded by Ward Goodenough, (J) by Raymond Johnston.

distinction (Ross 1988: 183). What he does not discuss are Bebeli pronouns. Bebeli has singular, dual, and plural sets, and I would argue that (a) the dual looks fully as aberrant as the Sengseng dual (that is, not clearly derived from Proto Oceanic), and (b) that some of the forms in the plural resemble the Sengseng trial/paucal. In the latter case, there may be an influence from the word for '3', *miok* in both languages (Table 3). In Sengseng, both the dual and the trial pronouns are related to their words for '2' and '3' (one of these words for '2', *vuon*). It may be worth noting that in the Kimbe languages, which flank Bebeli, "the triple set of pronouns has become the set for all numbers beyond 2" (Johnston 1980b:116). Since, however, in Kimbe languages the words for '2' and '3' are clearly derived from Proto Oceanic, the dual and plural forms, which include these, differ from those in Pasismanua. Bebeli has *lu* '2', but no trace of it in the dual pronouns. Finally, as regards the question of complexity, too little material is available on Bebeli to judge the matter fully, but it can be said that the possessive system is considerably more complex in Bebeli than in Sengseng, with

its single set of separable possessive markers. As will be seen, Bebeli, like Bao, in this respect is more like some other West New Britain languages (and admittedly like the system that has been reconstructed for Proto Oceanic). I would, then, deny that Sengseng is as morphologically complex as Bebeli. Like all languages, it has its peculiarities,¹⁵ but when I was learning the language, it struck me as no more complex than Lakalai, which Johnston (1982) regards as simple compared with other Willaumez languages.

At this point it is pertinent to examine the question of ties between Bebeli and the Arawe languages, located along the south coast of New Britain. Ross's convincing reason for grouping Bebeli with Eastern Arawe is that not only do those Arawe languages have sex gender in singular pronouns, but in the case of the Avau division of Arawe, use the same forms as the Bebeli ones. These are *pu* (m.), *ti* (f.), and *e* 'neuter'. (Ross writes the Bebeli neuter as *i* and suggests – 1988:183) that it is "apparently only used as object, not as subject". Goodenough's fieldnotes, however, make clear that Bebeli has a neuter subject pronoun which he writes *ā*, whereas literate Bebeli write this as *e*.)

Within Pasismanua languages, there is considerable variation in the shape of the third person singular pronouns (see discussion below). Sengseng seems to be virtually unique in using the same forms for 'he', 'husband', and as a masculine prefix to kinship terms, and for 'she', 'wife', and as a feminine prefix to kinship terms. In Kaulong, by contrast, the prefixes to kinship terms are cognate with the Sengseng ones, but the independent pronouns differ from these and from Sengseng.¹⁶ The Karore word for 'she' *tot* differs completely from the third person singular feminine pronoun in other Pasismanua languages but is the first syllable of the reference term for 'mother' in Sengseng. In the Getmatta dialect the personal noun markers are used before kinship terms as well (Chinnery n.d.:14). My data for Miu and Psohoh are incomplete, but it is worth recording that Miu has a masculine prefix for at least one kinship term (the word for 'son') that is *pu*-. Otherwise the precise forms seem to link Avau and Bebeli as against all the other languages of West New Britain.

It must be noted, however, that linguists have often failed to note gender distinctions in the course of making surveys of these languages. I recorded at least a he/she distinction for the Palik division of Arawe (assigned by Ross to Western Arawe). The terms bear no resemblance to those in Avau. For the same languages, Hoopert and Wakefield record a distinction between the possessive pronouns used for women's and men's houses, though in the first person singular (1980:14). The failure to record gender distinctions in other Western Arawe languages does not mean that they do not exist. If they are indeed confined to the eastern end of the Arawe-speaking region, it is difficult not to suspect some influence from Pasismanua languages, but that leaves unexplained the detailed resemblance between the Bebeli and Avau forms.

Other links between Bebeli and some Arawe languages include the preposition *ki* 'to' and the use of postpositions rather than prepositions for 'in' and 'under' (examples from Arawe in Hoopert and Wakefield 1980:20-21). In the latter case, the forms differ, but the use of

¹⁵ See Chowning (1978). These include a special pronoun, *sun*, the so-called obviative (Bloomfield 1933:193), used when the object of a verb differs from the subject.

¹⁶ For one dialect of Kaulong, Goodale (unpublished field notes) recorded a variant (*wi*) used only when a woman is speaking of a man. That independent pronoun is the same as the masculine prefix to her kinship terms. Confusingly, the Kaulong data in Throop and Throop (1980:230, 237) disagree with Goodale's (from two widely separated Kaulong villages); their kinship terms are prefixed with *yan* ('he').

postpositions contrasts with Sengseng, which uses only prepositions for 'in' and 'under'. The possessive systems of Arawe and Bebeli also resemble each other in several respects. (1) They contain two sets of separable possessives, along with one that is suffixed. (2) The separable possessives precede the noun. (3) Some parts of the body take the separable possessives. (4) When the possessives are suffixed, in some cases the vowels of the noun shift according to the person and number of the suffix. (Presumably the shift reflects the original vowel in the suffix; however, in the singular the suffixes have all been reduced to a single consonant.) (5) In some cases, the actual shapes of the possessives are the same or very similar; compare Bbl *kok, lok* 'my' with Avau *kok, luk*. The resemblances are not so close as regards the internal vowel shifts in roots; in Arawe languages /a/ tends to become /o/ in first person singular, but /e/ in Bebeli: Arawe *moto-k*, Bbl *mete-k* 'my eye' (with both having *mata* in the third person singular).

The Arawe languages, however, vary greatly among themselves in this regard, as the paradigms in Hoopert and Wakefield (1980:15) demonstrate (though the morpheme boundaries are often erroneous). Nevertheless, in all of these respects Bebeli and Arawe contrast with Sengseng and its nearest neighbours. (Hoopert and Wakefield 1980:11 do describe vowel changes in the word for 'mouth' in a coastal Kaulong dialect that sounds like the Arawe situation.)

Lexically, there seems to be only a handful of items that unite Bebeli and Arawe to the exclusion of Pasismanua. My lists are unsatisfactory for detailed comparisons, consisting only of basic vocabulary for two Western Arawe languages, supplemented by the brief lists in Hoopert and Wakefield, and a much longer word list for Bebeli complicated by the fact that it has borrowed heavily from Lakalai (and possibly from other north coast languages). Some of the shared items are derived from Proto Oceanic but differ in shape from the Pasismanua forms. They include cognates of the following Bebeli terms: *ken* 'eat' (Sng *i*); *in* 'drink' (Sng *num*); *kon* 'lie down, sleep' (Sng *nok* possibly a methathesised version of the same); *kum* 'stone' (Sng *umat*); *kei* 'tree' (Sng *sa*); *kon* 'fire' (Sng *you*); *rumit* 'stand' (Sng *si-pit*, possibly cognate; compare Avau *ramit*); *rehin* 'sit' (Sng *si-on, uŋ*); *mi* 'breast' (Sng *susu*); *mini* 'hand' (Sng *vili*); *biti* 'rain' (Sng *-yuy*); *sele* 'root' (Sng *umut*); *huhul* 'flower' (assuming that Palik *kurkur* is cognate; Sng *yihu-n*); *pesik* 'wet' (Sng *vug*); *lemigilik* 'night' (Sng *pe-luvok*, but see Sng *-glik* 'cold'). Another possible case is *le* 'fish' beside Pililo *eli/eheli*, (Sng *esma*), but the Bebeli form could come from Lak *la-ia* (but see §8.2.2). A few of these forms have cognates in Mangseng, a point to which I shall return below. In Karore a derivation of *ken* 'eat' appears in a word for 'food' (*keniŋin*, with the noun-formative suffix), and both Karore and Sengseng also have *keniŋ* 'food, meat' but otherwise these words are not attested in my Pasismanua data except as 'married' alternatives to tabooed words (Chowning 1985).

The features that unite Bebeli, Arawe, and the Pasismanua languages are, on the evidence available to me, very few. One is the use of a marker for completed action cognate with Sng *kut*.¹⁷ Another is the use of a verbal suffix indicating reciprocity that is cognate with Sng *val/al*. As Ross notes, this device is also found in other languages in southwest New Britain (1988:180). Lexically, only a few items are attested for all three languages. They include a general word for 'work' *kum* (possibly from POC **quma* 'garden'); 'leg' (Bbl *keve*, Sng *kive*,

¹⁷ Throop and Ross (1994) agree with my suggestion (Chowning 1985:174) that this derives from POC **qoti*. If so, the fact that these languages share it may be meaningless. Ross (1988:103) gives an example containing *ket* in Mangap which may be cognate.

TABLE 4: WORDS SHARED BY SENSGENG AND VARIOUS BRANCHES OF ARAWE

English	Sengseng	Arawe	comments
sun	<i>sinəŋ</i>	<i>sinəŋ, naŋ</i>	Final consonant unexpected if from Proto Oceanic
work	<i>kum</i>	<i>kum</i>	
three	<i>miok</i>	<i>moiok, miok</i>	
come	<i>me(i)</i>	<i>me</i>	
liver	<i>kakat</i> (of pig only)	<i>kakat</i>	Widespread in New Britain; cf <i>Kovɤala</i>
go	<i>li</i>	<i>le</i>	
rope, vine	<i>elik</i>	<i>alik</i>	
hunt	<i>hip</i>	<i>rip</i>	
split	<i>pal</i>	<i>pal</i>	
snake	<i>amat</i>	<i>amat</i>	
pull	<i>nak</i>	<i>nak</i>	
cloud	<i>avat</i>	<i>avat</i>	
ashes	<i>pokas</i> ('charcoal')	<i>pukas</i>	
long	<i>malak</i>	<i>malak</i>	
near	<i>tikayun</i>	<i>dakaiunjun</i>	From POc? See <i>Lakalai malau</i> , <i>Bola malaku</i>

Atui/Lesing *keve*; 'bite' (Bbl *kolo*, Sng *koho*, Arawe *kor*); and '3', cognate with Sng *miok*, but again attested well beyond this region.

Despite the longer word lists, the lexical items shared only between Bebeli and the Pasismanua languages, to the exclusion of all the Arawe languages, are not numerous. They include words for 'water' (Bbl *neki*, Sng *eki*); 'wrap' (Bbl *suk*, Sng *sukh*); 'star' (Bbl *kirap*, Sng *kihap*); 'butterfly' (Bbl *bavop*, Sng *evup*); 'coconut' (Bbl, Sng *niom* – though not the most common word in Sengseng; 'MB/ZC' (Bbl *hevek*, Sng *veheŋ*); and perhaps 'big' (Bbl *hebuk*, Sng *apluk*). The pronouns, although dissimilar, seem more similar to each other than to Arawe.

As I have noted elsewhere (Chowning 1969, 1985), the number of lexemes shared between Sengseng and Arawe is also very small. This is true even as regards the division of Arawe that Hoopert and Wakefield call Palik (1980:7), spoken adjacent to Sengseng and involved in trade and intermarriage with Sengseng speakers. Only 22 out of 210 Palik words were cognate with Sengseng ones; furthermore two of these are rare in Sengseng, compared with their synonyms, and two belong to the 'married' vocabulary. Some of the remainder, though derived from a single protoform, reflect very different developments. Examples are Sng *num*, Palik *in* 'drink' from POc **inum*, and note that Ross also derived Sng *nal*, Palik *pen* '4' from a single protoform. Words shared by Sengseng and various branches of Arawe are shown in Table 4. If we ignore reflexes of POc forms that show no distinctive developments, such as *malak* 'long, far', and look at branches of Arawe that are not adjacent to Sengseng, the lexical resemblances between the languages are so few as to suggest either borrowing or common ancestry followed by a long history of separate development. The latter possibility is hard to envisage given the present geographical distribution of the languages, and the fact that the south coast lacks volcanoes which might have separated people. It should be noted, however, that Arawe speakers like the Sengseng and Kaulong practice word tabooing (Chinnery

n.d., Chowning 1985), a practice that is likely to reduce the number of directly inherited reflexes while increasing the amount of borrowing.

8.3.3 MANGSENG

My information on this language is derived from Coombs' sketch of the grammar and word lists collected by C.A. Valentine and others. The language resembles Psohoh in extending from the south coast of New Britain to a short distance from the north coast. The language is divided into several dialects, the northernmost nearest to Ubae. To the west, it borders Mengen languages, and to the south, Arawe.

The grammar seems to contain none of the features that have led some to postulate non-Austronesian influence on Pasismanua languages to the west, and on Mengen to the east. It differs from the former, and from Bebeli, in lacking sex gender distinctions, and it also seems to lack articles or noun markers of any kind. A slightly unexpected feature, though Oceanic, is the use of the pluralising suffix *-ri* for inanimate objects as well as people and animals. (Lakalai also pluralises all of these, but by reduplication.) The possessives are, however, very similar to those of both Bebeli and Arawe, consisting of a three-way distinction, with the two sets of separable possessives prefixed, and with one of those sets used for some parts of the body. Also like these two languages, Mangseng contains suffixed locatives, one for 'in' and one for 'in the middle', together with prepositions. The marker of completed action is not cognate with the *kut*-like lexeme used in these languages and in Pasismanua. Coombs does not mention a reciprocal marker.

Comparative data available are too scanty for me to judge how distinctive some features of Mangseng are, such as the future marker *aro*, which precedes the subject, and what Coombs calls a 'punctiliar' verbal suffix *-ul*. Only two features remind me of Sengseng. One is the frequent use of words derived from 'come' and 'go' as verbal suffixes to indicate motion to and from an object, and a numerical prefix *or-*, which resembles Sng *kahot* and *eut*. Coombs calls the Mangseng terms a cardinal marker, whereas I had not really known how to define the latter, which I had recorded with such a disparate collection, from men to months, that I suggested they might just be glossed as 'item'. Overall, the impression given of Mangseng is of simplicity, like one of Thurston's pidgins (1982), though there is no reason to think that Mangseng has served as a lingua franca recently. As regards subgrouping, I still feel that its closest relative, though not a very close one, is Bebeli (Chowning 1969), but I simply lack the evidence that would subgroup it with Arawe.

9. ROSS'S CLASSIFICATIONS

On lexical grounds alone, there is no doubt that Lakalai belongs with the other Willaumez languages, and Sengseng, perhaps less securely, with other languages in southwest New Britain, plus Bebeli. With considerable justification, however, Ross does not like to rely upon lexicon for sub-grouping (Ross 1988:11-12). Consequently the criteria that he does use merit examination as regards the placement of these two languages. If we look at the distinctions that separate Lakalai, as a Meso-Melanesian language, from Sengseng, as a Vitiaz one (Ross 1988:164-173, 177-183, 264-280), we find that several of the innovations characteristic of one division or the other either do not have identifiable reflexes in these languages, or

show irregular ones. As regards Meso-Melanesian, Lakalai, with or without its closest kin, is specifically said not to share some of the innovations. One example is in reflexes of POc **k*. Of the others: as regards the merger of POc **r* and **R* in Meso-Melanesian, both Lakalai and Sengseng show irregular reflexes of both protophonemes (see Chowning 1973 for Lakalai, 1985 for Sengseng). It is nevertheless true that the usual reflex of both in Lakalai is /l/; many examples, such as *bolo* 'pig', could be added to those cited by Ross. Apparently this merger also characterises all Vitiaz languages as well, with the reflex for all of Ross's Arawe/Pasmanua languages being /r/ except in Sengseng and Kaulong, where it is /h/. No reflex is recorded for Mangseng. Since the languages of the Willaumez Peninsula also reflect these protophonemes as /r/, the merger and one of its most common reflexes do not separate the groups to which Lakalai and Sengseng belong, but they themselves differ in the specific reflexes.

The second Meso-Melanesian innovation, the merger of **dr* and **d* as Proto Meso-Melanesian **d*, is again one for which Lakalai, in which the reflex is /g/, can provide many more examples than Ross gives. Ross illustrates the same merger for part of the Vitiaz linkage, but not for his Proto Arawe/Pasmanua, in which the reflex is **r*, again reflected as /h/ in Sengseng and Kaulong. This reflex separates Proto Arawe/Pasmanua from several other branches of Proto Vitiaz, in which the merger does produce /d/. Of the innovations in reflexes of **p* in Meso-Melanesian, comparative data are very scanty in Sengseng. Ross records no reflexes for Sengseng or Kaulong of the lenis grade of **p* either medially or finally, and indicates that otherwise POc **p* is reflected only as /p/ in these languages. In Chowning 1985 I had mentioned two possible exceptions (apart from the suffix indicating mutuality, which I had derived from Proto Oceanic): Sng *a-val* 'garden hut', possibly from **pale*, and Sng *yau* 'fire', very much like the word in some Vitiaz languages of New Guinea (Ross 1988:52-53). But if these do reflect the Proto Oceanic forms, there is no obvious source from which they might have been borrowed.

Ross's morphosyntactic innovations for Meso-Melanesian are three. One is the structure of the possessive, but Lakalai lacks the innovation, forming possessives exactly like Sengseng. Ross points out that these latter structures, based on the use of the **ta* preposition, are "attested in the North New Guinea cluster," as well as in some Meso-Melanesian groups and in the Admiralties" (1988:274).

As regards the innovation in the direction marking morphemes, there is certainly nothing comparable to the 'locative adverbs' derived from **mai* and **ua* in Sengseng, but I also wonder whether the Meramera case has been correctly interpreted. Ross mentions as a peculiarity of New Britain languages not thought to represent a back-migration from New Ireland that "the verbs **ua* 'to to' and **mai* 'come from' ... were cliticised to form locative adverbs", though he does mention the "phonological oddity" of the derived forms, *maq* and *u* alternating with *us* in Meramera (Ross 1988:275). Although he does not mention it, all the *us*-forms occur before suffixes beginning with a vowel. He may be right about the derivations, but the Meramera forms surely should have been discussed in connection with the similar constructions in Lakalai, which have been so fully described by Johnston (1980a:209ff.). Most of the Meramera and Lakalai locative suffixes are cognate, partly because many derive from POc. For one that does not, the evidence suggests that Ross is incorrect in analysing a form meaning 'inland' as *us-ivo*. Even if we did know of Lak *-rivo* 'bush, gardens', Valentine recorded the Meramera phrase *tau ma-sivo* 'bush spirit', lit. 'man from the bush', which is analogous to Lak *tahalo lo-rivo*, with the same meaning (Johnston 1980a:213). Furthermore, Valentine's data suggest that the *u*-forms do not distinguish 'motion to' but are more similar to the Lakalai *o*-forms, indicating 'in, at'. Compare (Valentine's

examples and spelling): *ma 'asi 'u-sala* 'bring it out', *gu'ale 'u-sale* 'take it out' (and many other examples). The Lakalai equivalent is *o-gala*, 'outside'. In any case, Lakalai locatives do not show reflexes of the prefixes that are identified by Ross as the innovation. In Lakalai, **mai* is not reflected by a 'full verb', but it forms the suffix rather than the prefix in locatives: *o-mai* 'here', *go-mai* 'come here', etc.

Ross's third Meso-Melanesian morphosyntactic innovation concerns the personal pronouns: "non-singular disjunctive pronouns were replaced by forms from the possessive pronominal paradigm" (1988:277). Lakalai is said to offer an example, but there are two errors in the data that Ross offers. One is that he has substituted the 3P for the 2P forms, and the other is that he has stated flatly that in these forms, "the initial morpheme is *e* personal article". He also omits the disjunctive 1EP. The mistake about the first morpheme is understandable, because Johnston says as much more than once (e.g. 1980a:180). Nevertheless, the full and correct forms are published in Johnston (1980a:181, 1980b:116, 1982). They are *amiteu* 'D:1EP', *amutou* 'D:2P', and also *amulua* 'D:2D'. It seems to me that only the retention of **a* from the POc **kami* and **kamu* forms explains the variation in the initial syllables of the Lakalai pronouns. Note also that the contrast between Lak *etatou* 'D:1IP' and *-gatou* 'P:1IP' indicates that the first consonant in the former reflects POc **kita* while that in the possessive reflects **-da*. I cannot see that the evidence presented by Ross indicates that Lakalai shared this innovation, and he notes that Meramera did not.

Sengseng pronouns reflect Proto Oceanic forms much more rarely than Lakalai ones do, but in general it seems that the possessives are derived from the disjunctive forms (e.g. *ita*, *-it* '1IP') rather than vice-versa, though there are a few exceptions such as in *i*, *-n* '3S' in which the forms are unrelated, though sometimes both are from Proto Oceanic.

If we consider Sengseng as a Ngero-Vitiaz language, the following points can be made. Before returning to the question of links between Sengseng and Meso-Melanesian languages, it is necessary to consider its relation to other Ngero/Vitiaz languages. Ross says that "no phonological innovations" link all of these languages, but three morphological features do. One of these is that "probably no language of the family reflects the Proto Oceanic disjunctive forms **[i]ko[e]* D:2S" (1988:164).¹⁸ Instead, they are said to reflect Proto Ngero/Vitiaz **kom(u)*. Yet on the same page he correctly lists the Sengseng form as *o*, putatively derived from Proto Southwest New Britain **wom*. Why not from **[i]ko[e]*? (There is some confusion in the list of forms, since Klg (*ŋ*)*on* is not the usual predicate marker but Sengseng *o* is. The Sengseng emphatic/interrogative *ŋon* is cognate with Klg *ŋon*.)

The second innovation is that "the reflexes of POc **dria* P:3P ... collectively manifest the correspondence set not of POc **dr* but of POc **j*" (1988:172). The Sengseng reflex of **dria* is *-hi*, but it is often replaced for people by *-po*, the same as the plural disjunctive; *-hi* also acts as a pluraliser on kinship terms: *tina-hi* 'mothers!'. I do not have enough data on Miu and Karore to know if they distinguish reflexes of **dr* and **j*. In Sengseng they both seem to be reflected, most often, as /h/. Ross gives no Sengseng reflexes of **j*, but I suggest that they include *hom* 'lick' (and see *homŋin*, 'lime spatula', with the noun-formative suffix), from POc **jamu*; Sng *hah* 'crawl', from POc **jaRa* 'move, creep'; and perhaps the second part of Sng *ya-hoŋ* 'curved pig's tusk', from POc **joŋ(o,a)* 'boar's tusk'. If I am right, it is impossible to detect this innovation in Sengseng.

¹⁸ As Ross recognises, some of the forms are "not diagnostic of the difference" between POc **[i]ko[e]* and PNgVz **kom(u)*.

The third innovation, S:1S **ŋa*, does indeed characterise Sengseng, along with Kove (though it is not recorded for Arawe). It is, however, found elsewhere in Oceania, according to Lincoln (1978:940), who records apparent cognates for Santa Cruz and Marshallese.

In addition, a feature that ties Sengseng and the rest of the Southwest New Britain network to most other Ngero/Vitiaz languages is loss of **k-* only in disjunctive pronouns (Ross 1988:172; also Chowning 1985). Lakalai, which has also lost **k-* in disjunctive pronouns, retains it in some but not all other environments. According to Ross (1988:268), Lakalai is the only Willaumez language that sometimes loses fortis **k*, so that in this respect it differs from Sengseng.

One lexical item is noted as tying together some languages in Ngero/Vitiaz: the substitution of one of two (related?) new words for '4' in place of POc **pati*. One is reflected by Kove *paje*, the other by Sng *nal*. (Most Sengseng numerals are not derived from Proto Oceanic. The only one that probably is from Proto Oceanic is one of three words for '2', *huo*. I assume that *ta* '1' is a contraction of *tahin* and so not to be derived from **ta*, although Ross (1988:358) does so interpret Klg and Psohoh *ta-*).

Ross identifies four features "common to the South-West New Britain network" (1988:181). They are the prefixing of the 'common article' to the noun so that "in many languages [it] seems to have become a fossilised part of many nouns"; a common article Proto Southwest New Britain **e/*ne*, a personal article Proto Southwest New Britain **a*, and place names "treated as personal nouns". He also notes that "Pasismanua languages make a gender distinction between masculine and feminine nouns, marking masculine with *a*, feminine with *e*" (1988:182). This statement, while not incorrect, is misleading as it stands. First, many common nouns take no such prefix. Second, where it occurs on common nouns, it does not mark gender; only people and some anthropomorphic spirits have gender, as indicated by the use of special third person singular pronouns in referring to them.

Furthermore, when common nouns do take such prefixes, the Sengseng treat them as separable, as they do what they interpret as similar prefixes in borrowings (Chowning 1983, 1985). (*ne* 'prefixes', however, are not treated as separable, and also do not function as articles. I had previously argued (Chowning 1985) that at least for Sengseng, the words that took a *ne*- prefix seemed to be borrowings. Not only are some of the sound shifts shown in roots derived from Proto Oceanic aberrant for Sengseng, but words almost all referred to coastal phenomena: *nepah* 'edible beach pandanus', *nepui* 'paddle', *nekoit* 'octopus', *nemah* 'sand', *nemsiy* 'mangrove', *nemkal* 'pig net' (not used in the interior). While the source is unknown to me (and may have been a now-vanished Oceanic language with a *ne* article), I feel that it is confusing the picture to lump together nouns reconstructed with **ne-* with those reconstructed with **e-*. I am also uncertain about two Proto Southwest New Britain lexemes used as examples: **e-kutu/*e-ŋutu* 'louse' and **-manuk* 'bird'. The evidence also suggests that the appearance of a nasal stop in the word for 'louse' also has a limited distribution, and perhaps these two forms should not be put together. (Also in Ross's examples, reflexes of **e-manuk* either lack the initial vowel or lack the final syllable, so again one might wonder whether a single Proto Southwest New Britain form is reflected.)

Ross noted that Mengen also treats place names as personal nouns, but so does Lakalai (Johnston 1980a:166). Contrary to Ross's example, the article before place names is usually *a* in both Kaulong and Sengseng, as maps of the region testify.

I find this list of features unpersuasive, though I am not adverse to the idea that Sengseng belongs to a network in Ross's terms (1988:8), along with its neighbours. The problem is to

define its boundaries, which of course involves choosing the criteria that will separate one network from the next one. I am not actually arguing that Sengseng and Lakalai subgroup with each other, but simply pointing to some of the problems of assigning particular languages to particular groups when the criteria are innovations that are not shared by all members of the group. Sometimes when a wider context is considered, the tenuousness of such assignments is clear.

Although it may be that some of the features shared by Lakalai and Sengseng are the result of parallel innovations, such as the form of the separable possessives based on **ta*, while others may simply be retentions from Proto Oceanic, as with Sng *ma*, Lak *me* 'and'¹⁹ (as opposed to the North New Guinea forms *be* and *ga* cited in Ross 1988:180; cf. Kove *ya*), there is lexical evidence for contact between an ancestor of Lakalai and a Pasismanua language, as well as evidence that suggests links with other Willaumez languages. (The question of lexical links to the west will be discussed below.)

10. LEXICAL INTERCHANGE

In recent years, Lakalai has been, as the numerically dominant language in the Cape Hoskins region, the donor of lexemes to its neighbours, particularly Bebeli but also Harua. The evidence of earlier contact with other languages lies in the following isoglosses linking Lakalai and Sengseng, and so presumably Karore and Psohoh as well. The words fall into several categories. One consists of names of bush plants and animals. The animals include a small marsupial (Lak *misiki*, Sng *esmik*), an edible phasmid insect (Lak *komaga*, Sng *makah*), and also a general term for game (Lak *basi*, Sng *pasi*).²⁰ In Lakalai this is a term for small game, and more narrowly specifically for the phalanger. In Sengseng it designates large game (cassowary, wild pig, wallaby, and again especially the phalanger. It is also, however, a 'married' term for domestic pig, used by those who must avoid the usual term. The trees are wild areca nut (Lak, Sng *koi*); *Pometia pinnata* (Lak *ropa*, Sng *lop*); *Canarium* almond (Lak *uele*, Sng *e-vel*); perhaps *Parartocarpus venenosus* (Lak *geo*, Sng *hiko*); and probably a word designating a particularly large tree (Lak *salumu*, Sng *sa-nuhum*), since the Sengseng term literally means 'big tree'.²¹ The second category, artefacts, has only one example Lak *lipi*, Sng *lip* 'wooden club'. The third consists of verbs and other nouns. They include Lak *koko*, Sng *ko* 'defecate'; Lak, Sng *mahela* 'shame'; Lak *patu*, Sng *patuk* 'to feed or rear an orphan, human or animal'; perhaps Lak *pigi* 'throw', Sng *psik-i* 'throw it'; and perhaps the words for 'south-east wind' (Lak *hipu*, Sng *eip*). The fourth, and perhaps most interesting, category includes three words that seem less likely to be borrowed than the others: Lak, Sng *so* 'yet, still', Lak *gai* 'soon', Sng *akai* 'now, at once'; and Lak *lalai*, Sng *lai* 'tentatively'.

In making this list, I have of course excluded all terms attributable to Proto Oceanic, except the word for 'defecate', which Ross has suggested is also Proto Oceanic (pers. comm.).

¹⁹ Ross derives Lakalai *me* from **mai* rather than from **ma*, but derives Lakalai *te* from **ta* without concern about the vowel shift (1988:110, 263).

²⁰ Some names of birds are also cognate, but either they may be onomatopoeic, as in the case of the cuckoo (Sengseng *toktok*, Lakalai *totoko*), or they probably reflect POc forms, as in the case of the wagtail (Sengseng *pooti*, Lakalai *pote*; compare Sa'a *pote*).

²¹ The actual trees so labelled are not the same, however.

Four of the other words are also found in Kove, and so presumably are widespread in West New Britain. These are the words for game (Kove *basi*, which designates particularly wild pig and phalanger); wooden club (Kove *lipi*); *Pometia pinnata* (Kove *lopi*); and *Parartocarpus* (Kove *reo*, certainly cognate with the Lakalai term). It is worth noting, however, that of the bush plants listed by Thurston in languages of northwest New Britain, cognates for these terms for *Pometia* and wild areca nut do not occur (but see Mengen *koe* 'betelnut'). (The other words are not on Thurston's list.)

In some cases phonological evidence indicates the probable direction of borrowing. *mahela* is an unlikely shape for a Sengseng term, and there is another word, *manjin*, which is more expectable. Words containing voiced stops in Kove are assumed to be borrowed; Kove *basi* probably comes from Bola, which is closely related to Lakalai. The case of Lak *patu*, Sng *patuk*, suggests that Lakalai borrowed from a Whiteman language, like Psohoh, which contains unvoiced medial consonants (if Lakalai were the source, the final consonant in Sengseng would be absent). Because I do not have comparable data for Willaumez Peninsula languages, except to know that the word for *Paratocarpus* is *deko* in Bola, I cannot say whether some of these forms may have spread into the Pasismanua from Willaumez Peninsula languages rather than from Nakanai ones. It is also impossible to detect the direction of transmission for words like *so*, though it does seem unlikely that they would have been borrowed without close contact between speakers of the different languages. As regards the plant and animal names, however, the possibility of an ultimate origin in a non-Austronesian language once spoken in the region between the Whiteman and Nakanai languages seems strong (§10.3). Alternatively, if I am right to think that Whiteman languages have been the general region of Cape Hoskins longer than Nakanai ones, then it seems most likely that the ancestors of the Lakalai learned these names from speakers of a Whiteman language who were already resident in this part of New Britain, and familiar with the local flora and fauna, before the ancestors of the Lakalai arrived.

On the other hand, there are two links between Sengseng and Willaumez languages that are not purely lexical. One is the fact, mentioned above, that in both languages the separable possessives are formed from POC **ta* plus suffix. The possessives do not resemble each other in detail,²² however, and I have suggested that the gap in distribution of similar constructions may point to independent invention. The other link is more problematical. This is the resemblance in future/irrealis markers between Sengseng and Willaumez languages, particularly Bola. Sengseng is more like Bola than Lakalai is, in having *ka* for first person pronouns and *ko* for all others; Bola has *ga* 'S:1S', *go* 'S:2S' and *ge* 'S:3S' (Johnston 1980b:119), whereas Lakalai has *ge* throughout. This brings Sengseng closer to a system of distinctions that seem to be widespread outside New Britain, and one in which Bola is the most conservative, although differences between markers for singular and plural have disappeared. (Compare the forms used in Central Papua – Ray 1907:455.) The resemblance may result from differential retention of constructions found in an Oceanic protolanguage, rather than the kind of innovation involved in the reciprocal suffix represented by Sng *-val/-al* (Ross 1988:180). Nevertheless, the fact that the intervening languages lack any similar constructions may indicate that some contacts of peoples were once involved.

²² I do not, however agree with Ross that in Sengseng, the pronominal endings are not actually suffixed to the *ta-* prefix. The pronunciation of /a/ in *ta-it* 'our pl. inc.' for example, is affected by the following /i/ in a way that does not occur across lexical boundaries. See Ross (1988:106); Chowning (1985:180).

11. SENSGENG AND NON-AUSTRONESIAN LANGUAGES

Another question that needs to be dealt with as regards Pasismanua and other Whiteman languages is whether they in particular have been affected by contact with non-Austronesian languages, or indirectly, by contact with other languages that had been so affected. Thurston has proposed that they were influenced by a language related to Anêm, so that possibility will be considered first, with phonology, lexicon, and grammar, discussed separately. In making this suggestion, I suspect that Thurston was influenced by his assumption that Amara, a language that he discovered just to the east of Anêm, belonged to the Whiteman group. Apparently he has changed his mind since 1989, and now (like me) considers it an isolate (this volume). If Amara belongs with any other New Britain languages, they seem to me more likely to be those of the Bibling group (my Lamogai) than Whiteman. Lying to the west of the Whiteman range, between Pasismanua languages and Anêm, Bibling languages extend the width of New Britain, and one of the cross-island trading routes goes through their territory. If Ross is correct in subgrouping Pasismanua languages with Arawe ones, then my Whiteman (his Pasismanua/Arawe) languages extend farther west in New Britain than I had assumed, and are both closer to the region in which Anêm is now spoken and also in more direct contact with Bibling languages (the southern dialects of Lamogai) than is true for the Pasismanua dialect chain. Since it is possible that Pasismanua languages received the postulated non-Austronesian influence by way of Bibling languages, some data from there will be considered as well.

11.1 PHONOLOGY

As regards phonology, Sengseng, in contrast to most Austronesian languages (and to Kove and Lakalai), contains many initial consonant clusters. Presumably the aberrant appearance of Sengseng lexemes was a major reason for its being considered non-Austronesian by Capell. Although I have shown that some of the words with initial consonant clusters can be derived from Proto Oceanic, many cannot. I have described elsewhere both the consonant phonemes of Sengseng and my uncertainty about the number of vowels (Chowning 1985:174). If Sengseng has more than five vowel phonemes, the additional ones are not unrounded back vowels like those of Anêm. As regards consonants, the principal difference between Sengseng and the northwest New Britain languages discussed by Thurston (1982, 1987), is the reduced number of stops (or, in the cases of Lusi and Kove, fricatives derived from stops). In Sengseng there are only three stops, which in words of Proto Oceanic origin represent **p*, **t*, and **k*, hence my decision to write them as voiceless stops. They are, however, voiced, and in the case of /t/ sometimes trilled, except word-finally (Chowning 1985:176-177, 192). I do not know, however, that all Pasismanua languages have so few consonants; Psohoh certainly seems to have more and so apparently does Kaulong (Throop and Ross 1994).²³ There are differences between Anêm and Sengseng regarding the consonants that can co-occur word initially. In Anêm an initial stop can be followed by any resonant or trill (*m*, *n*, *ŋ*, *l*, *r*, *x*) (Thurston 1982:92). In Sengseng the fricatives (*h*, *s*) may be followed only by resonants. (The only trill is the allophone of /t/ mentioned above, and it is recorded after a fricative only in *stu*, pronounced [sru], from Pidgin *tru*.) Stops may be followed by fricatives but not by resonants. As was mentioned, [r] is an allophone of /t/, and accounts for the single case of what I write as an initial cluster of two stops: *ptekptek*, pronounced (*brekbrek*) 'sound of

²³ Their analysis naturally raises questions about the accuracy of my phonemicisation of Sengseng.

insect chewing wood, tick of clock' (a second example, spelled by me with the same initial consonants, derives from Pidgin *brum* 'sweep').

Between the Pasismanua languages, vowels tend to be very stable; the majority of the apparent shifts probably reflect recorder's uncertainty about particular vowels, so that cognate terms may be recorded with either /e/ or /i/ (or some other similar vowel), and with either /o/ or /u/. (See, for example, Johnston's four versions of the Bao third person singular masculine pronoun, with which I had similar difficulties in Sengseng.) A rare exception is the word for 'she': Miu *wid*, Klg *wud*, Sng *et* (this last again containing a vowel sometimes recorded as higher). Alternative forms of certain kinship terms are also exceptions; for example, in Sengseng the words for 'mother' may be *tina*, *tino*, *ina*, and *ino*. In general, however, apart from cases in which vowel harmony or umlauting has affected the vowel in an initial syllable (Chowning 1985:179), the vowels in words derived from Proto Oceanic show little change from the protoforms. In this respect Pasismanua languages differ from Bibling ones, as recorded in Thurston 1987 (Table 5). The general stability of vowels in Pasismanua seems to reduce the likelihood that, for example, Sng *miŋe* 'crazy' was derived directly from a form like the *mayamaya* of northwest New Britain, or that Sng *kut* 'tail' is cognate with Bibling *giŋo*, etc. (Table 5). But I am only arguing that Sengseng did not borrow directly from a Bibling language or from one much like present-day Anêm. That these other languages borrowed from one related to Sengseng cannot be ruled out. Such cases as Mouk *mtoko*, Aria, Tourai *mteke* 'vomit' (Sng *mutwok*), and Aria, Tourai, Lamogai *tin* 'burn' (Sng *tun*) certainly increase the plausibility of a link between say Sng *sup* and Bibling *sep* 'enter', or Sng *toŋ* 'drip' and Anêm *têŋ*. (Note that in these cases the Pasismanua forms are closer to Proto Oceanic, though I suspect that Sng *mutwok*, from POc **mutaq*, has been reanalysed to reflect Sng *mut* 'reject food' and *wok* 'spill'.)

Consonants vary more widely among the Pasismanua languages. There are certain regular shifts, as when Karore /r/ = Sng /h/ initially and medially, but Sng /-h/ = Klg /-k/, while Miu initial and medial /h/ = Klg /p/ (/b/ in Goodale's transcription). Other shifts are less predictable. Just between Kaulong and Sengseng, they include such variations as Klg *maŋ*, Sng *masaŋ* 'men's house'; Klg *ekin*, Sng *e-ki* 'bird'; and various others. (See list in Throop and Throop 1980; almost all the Sengseng data, apart from the numerals, are mine, with my phonemicisation, taken from a list I supplied to SIL.) Sometimes the cognate form in another language reduces the likelihood of cognacy between Sengseng and words in languages of northwest New Britain. For example, the fact that the Karore cognate of Sng *hiis* 'rotten' is *hiris* reduces the likelihood that the Sengseng word is cognate with Anêm *êkîs*. It may, however, be significant that these irregular correspondences are not found in words that can be traced to Proto Oceanic. But a number of the forms attributed to Anêm and Bibling begin with consonant clusters that cannot be derived directly from Proto Oceanic. In the apparently cognate Sengseng words, some but not all of these, in slow speech, may be pronounced with a vowel between the first two consonants. This phenomenon is not reported to occur in Anêm and Bibling, but elision is a common feature of both languages (Thurston 1987:60). (It should be noted that the other non-Austronesian language in West New Britain, Wasi, apparently lacks initial consonant clusters; see list in Johnston 1980b.)

11.2 LEXICAL LINKS TO BIBLING AND ANÊM

As regards lexicon, it is necessary to take into account the Bibling evidence (which is also pertinent to the question of whether Pasismanua and Bibling languages really belong to different subgroups). Adequate lexical data are available only for the northern branches of Bibling: Mouk, Aria, Tourai, and Lamogai proper. According to an SIL survey, however, the southernmost branches are only dialects of Lamogai (Allen, Rath, and Johnston 1980:185). Mouk and Aria are adjacent to Anêm and Lusi, while Lamogai is, at present, the most isolated, and so perhaps least affected by recent borrowing (Thurston 1987:vii).

Thurston's wordlists are of particular interest in two respects, compared with Sengseng (Table 5). They demonstrate a number of ties between Sengseng and Bibling languages, and in a few cases they point to possible ties between Sengseng and Anêm. In my appended list of possible cognates, based on Thurston's lists, I have of course ignored shared items that can be derived from Proto Oceanic, such as Anêm *lanlano*, Sng *e-lan* 'fly (N)', unless there is something distinctive about the reflexes of the protoforms. The Bibling languages are indicated, as in Thurston's wordlist, by their first two letters. "Bibling" indicates that the form is the same in all the Bibling languages. The symbols *ê* and *î* represent unrounded back vowels in Thurston's orthography. Alternative, presumably non-cognate, terms are in brackets.

Thurston's wordlist, although it contains a number of cultural items such as 'men's lodge', does not differ radically from some other lists that purportedly focus on basic vocabulary. By contrast, what he calls 'sound and motion words' (a somewhat misleading label) fall into a different category. Only a few of these words (such as 'level' and 'straight') are likely to appear in basic wordlists, and even much more extensive lexicons may not record equivalents for some of them, such as 'squish' and 'tinkle'. Thurston has found a number of such words in Anêm, Lusi, and the Bibling languages, and as his list makes clear (Thurston 1989), the forms are cognate across these languages. They are distinguished as a subset by characteristic prefixes which differ from language to language: *gê-* in Anêm, *ka-* in Lusi, and *nV-* (the vowel varying with that in the root) in Bibling. Two points struck me about the list. First, none of the 22 Lusi words on it have equivalents in my Kove lexicon (and all contain consonant clusters or final consonants that are atypical in Kove). Second, at least a few of the words have apparent cognates in Sengseng, although there they lack a prefix. In Sengseng, in contrast to the other three Melanesian languages I have studied, I recorded a considerable number of words for specific sounds. Only one of these Sengseng words was cognate with one in Lakalai or Kove: Sng *tok*, Lak *toko* 'to click in the throat'; cf. Sng *toktok*, Lak *totoko* 'giant forest cuckoo'. This presumably derives from POc **toko*. The Lakalai term contrasts with *taka* 'to click the tongue in the front of the mouth'. (Kove *daka* means the same but the voiced stop suggests a borrowing, possibly from Bola, whereas the Kove equivalent of Lak *toko* is *tuku*).

Although onomatopoeia is a source of obvious problems in comparative linguistics, it is worth noting the following Sengseng terms that may be cognate with those on Thurston's list (with the Anêm and Bibling prefixes omitted):

'squish': Anêm, Bibling *blak*; compare Sng *plak*, 'break off the fall down, as a piece of food being eaten'.

'pant, wheeze': Anêm, Bibling *nasnas*. Compare Sng *nosnos*; 'to breathe heavily, be out of breath, sigh'.

'firm': Anêm, *biŋ*, Bibling *biŋ*. Compare Sng *penpen* 'very strong or hard'.

TABLE 5: COMPARISON OF SENSGENG, BIBLING AND ANÊM WORDS

English	Sengseng	Bibling	Anêm	Comments, other cognates
two	<i>huo (ponuwal, wuon)</i>	Aria, Tou <i>oruo</i>	...	If derived from POC, the final vowel is unexpected.
three	<i>miok</i>	...	<i>bîk</i>	See Thurston (1987:89).
four	<i>nal</i>	Aria, Tou, Mouk <i>apanal</i>	<i>tanol</i>	...
five	<i>esip</i>	...	<i>êsi</i>	...
bamboo	<i>esu</i>	Mouk <i>oxsu</i>	<i>osu</i>	...
bandicoot	<i>maom, milim</i>	Bibling <i>melim</i>	<i>moum</i>	Kove, Lusi <i>maumu</i>
bat	<i>piyanpiyan (yungul)</i>	...	<i>abian</i>	Kove, Lusi <i>viana</i>
bathe	<i>vis</i>	Mouk <i>xis</i> , Aria <i>ris</i>	...	...
big	<i>ampip (apluk)</i>	Bibling <i>omba</i>	<i>omba</i>	...
bird	<i>eki</i>	...	<i>êknin</i>	See Thurston (1987:89).
canoe	<i>luk, kok</i>	Tou <i>kakuk</i> , Mouk <i>kakluk</i>	...	...
carry on head	<i>sun</i>	Mouk, Lmg <i>sun</i>	...	...
comb (V)	<i>sehe po-n</i>	Mouk <i>sex</i> , Tou, Lmg <i>ser</i>	...	See Thurston (1987:89).
come	<i>me(i), moi (2P)</i>	Aria, Tou, Lmg <i>me</i>	<i>men</i>	Probably from POC.
copulate	<i>isi-wal (et-wal)</i>	Mouk, Aria, Tou <i>isu</i> , Lmg <i>is</i>	...	-wal indicates mutuality.
count	<i>tik</i>	Bibling <i>tik</i>	<i>tik</i>	...
crab	<i>kahe, kahkah</i>	...	<i>kṇaxe</i> (<i>klakix</i>)	...
crawl	<i>hah</i>	Mouk <i>xaxai</i>	<i>xaxai</i>	Kove <i>haha, hahai</i> , Lusi <i>hahai</i>
crazy	<i>miŋe</i>	Mouk, Aria <i>maŋamaŋa</i>	<i>maŋamaŋa</i>	Kove, Lusi <i>maŋamaŋa</i>
crow	(<i>ŋo</i>) <i>hoŋ</i>	...	...	...
down	<i>ko(h)</i>	...	<i>gêx-îl</i>	...
enter	<i>sup</i>	Bibling <i>sep</i>	...	...
fear	<i>lem</i>	Aria, Tou, Lmg <i>lim</i>	...	...
fire	<i>yau</i>	Mouk, Aria, Tou <i>eiou</i>	...	...
float	<i>plot (ŋli)</i>	Mouk, Lmg <i>ples</i>	...	...
frog	<i>kahok</i>	Tou <i>kala</i>	<i>kalo</i>	Kove, Lusi <i>kalo</i>
fuzz	<i>kikis (sihu)</i>	Lmg <i>kisisleŋ</i>	<i>emkis</i>	...
hair, leaf, feather	<i>ki-</i> (leaf only)	...	<i>ki-</i>	See Thurston (1987).
hard	<i>po-kokloŋ</i>	Lmg <i>kokloŋ</i> (<i>kairok</i>)	...	Borrowing into Lamogai?
hide	<i>kek</i>	...	<i>ki-</i>	...
hit	<i>lek (vi, wok, wa)</i>	Bibling <i>mluk</i>	...	...

TABLE 5 (continued)

English	Sengseng	Bibling	Anêm	Comments, other cognates
hurt	<i>nīs</i> (lit. 'hot')	Mouk <i>nīsī</i>	...	The Sengseng term is used for headache attributed to fever.
intestines	<i>muhulu-</i>	Bibling <i>mogolu</i>	...	Kove, Lusi <i>mogali</i>
itchy	<i>kalakan</i>	Bibling <i>kaklak</i>	...	...
lime powder	<i>alemiyo (siton)</i>	Lmg <i>oglum</i>	<i>glīm</i>	Both Sengseng terms also mean 'limestone'.
Malay apple	<i>lahup</i>	Lmg <i>iarup</i>	...	Borrowing into Lamogai?
monitor lizard	<i>apahiya</i>	Mouk <i>paxia</i> , Aria, Tou, Lmg <i>paria</i>	<i>paxia</i>	Lusi <i>paria</i> , Kove <i>pahia</i>
mosquito	<i>humuk a-kenken</i>	Mouk <i>lomuk</i> , Aria, Tou, Lmg <i>nomuk</i>	...	Probably from POc.
moss	<i>mumut, lumlum</i>	Mouk, Lmg <i>olmut</i>	<i>gulumu</i>	Kove, Lusi <i>gulumu</i> , Kilenge <i>lumlum</i> (from POc).
mountain	<i>photpi (posakai)</i>	Mouk <i>ebet</i>	<i>êbêt</i>	...
net	<i>nemkal</i>	Lmg <i>aŋkal</i>	...	Borrowing into Sengseng?
penis	<i>-si-</i>	Lmg <i>is-</i>	...	...
plant (V)	<i>hwa (phai, ya)</i>	Mouk <i>uasak</i> , Lmg	...	...
Pometia	<i>elop</i>	Lmg <i>aulopo</i>	...	See Lakalai <i>ropa</i> , Kove <i>lopi</i>
pull	<i>nak</i>	Lmg <i>nak (riri)</i>	...	Borrowing into Lamogai?
python	<i>amat</i>	Lmg <i>amat</i>	...	Also 'snake (generic)'.
rotten	<i>hiis</i> ('stinking') (<i>hwok, lug</i>)	...	<i>êkīs</i> ('wet')	...
sew	<i>sihit</i>	Lmg <i>sisir</i>		Arawe <i>siririŋe</i>
short	<i>pat (hut-yes)</i>	...	<i>pîtik</i>	...
sibling	<i>-lut-</i>	Mouk, Aria, Tou <i>lutno</i>	...	...
sit	<i>si-oŋ</i>	Mouk, Aria, Tou <i>doŋ</i>	...	...
skinny	<i>tohos (atitun)</i>	Mouk <i>toxtox</i>	<i>toxtox</i>	...
smell (N)	<i>man</i> ('odoriferous')	Mouk <i>mna</i> , Aria, Tou <i>amna</i>	...	Lakalai <i>mali-</i> ('odoriferous').
sneeze	<i>isŋi, kisiŋi (kisiyo, mahiksi)</i>	Mouk, Aria <i>gisŋi</i> , Tou, Lmg <i>kisŋi</i>	...	...
spear (N)	<i>pali (sa 'wood')</i>	Lmg <i>beliŋ, biliŋ</i>	...	...
stab	<i>tak (nin)</i>	Mouk <i>mtex</i> , Aria, Lmg <i>mte</i>	...	...
stick	(<i>t</i>) <i>sihin</i>	Bibling <i>sigi</i>	<i>sigi</i>	Kove, Lusi <i>sigi</i>
sweet potato	<i>kihimpak (nowiswis)</i>	Lmg <i>kirimpak</i>	...	Very recent introduction into Sengseng.
tail	<i>kut</i>	Mouk, Aria, Tou <i>gitno</i> , Lmg <i>gito</i>	<i>git-lêx (taba-)</i>	...

TABLE 5 (continued)

English	Sengseng	Bibling	Anêm	Comments, other cognates
tobacco	<i>embos</i>	Lmg <i>ombox</i> (<i>usai</i>)	...	
vomit	<i>mutwok</i>	Mouk <i>mtoko</i> , Aria, Tou <i>mtō</i>	...	...
water	<i>eki</i>	Mouk, Aria, Tou <i>aki</i>	...	...
weep	<i>tinis</i> (<i>hau</i>)	Tou <i>tjis</i>		POc, with unexpected <i>n</i> for <i>ŋ</i> in Sengseng.

'flash': Anêm *blîk*, Bibling *blik*. Compare Sng *m(e)lek* 'to light, to flame, as a fire, lightning, fireflies'. (See also Kove *pelaka*, POc **pilak* 'lightning'.)

'rattle': Anêm *gxongxon*, Mouk *gxengxen*, Aria/Tourai *grengren*. Compare Sng *kloŋ* 'sound of hitting head on a rafter'; also perhaps cf. *kokloŋ* 'to fell a tree'; *k(u)luŋ* 'to thunder'.

'tinkle': Anêm, Bibling *klen*. Compare Sng *kliŋ* 'sound of water dropping into water'.

'move': Anêm, Bibling *mil*. Compare Sng *mili* 'to go by, to go in any direction'.

'drip': Anêm *dtêntên*, Bibling *tenŋen*. Sng *toŋ* 'drip'; *e-toŋ* 'drop of liquid'.

The cognacy of all of these is not certain, but several look very likely. As far as I know, only two words on this list might possibly be derived from Proto Oceanic: those for 'flash'²⁴ and for 'tinkle, etc.' from POc **giriŋ* 'ring bell, strike slit gong'.²⁵ This is not to say that Proto Oceanic and Proto Austronesian forms descriptive of sounds are rare. Blust in particular (1980) has reconstructed a large number for Proto Austronesian. Furthermore, some of the other sound words in Sengseng can convincingly be derived from these protoforms; examples include Proto Austronesian **ŋaŋ* 'inarticulate sound', Sng *ŋaŋ* 'to cry, of person, bird, pig'; Proto Austronesian **ŋek* 'grunt', Sng *ŋokŋok* 'to snort, of pig bitten by dog'; and perhaps **ŋiŋ* 'buzz, hum', Sng *ŋiŋ-hik* 'to snore'. Nevertheless, this list at least suggests some sharing of non-Austronesian forms.

Another feature which according to Thurston unites non-Austronesian and Austronesian languages of northwest New Britain, and which he ascribes to contact between such non-Austronesian and Austronesian, needs examination. This is what he calls 'semantic convergence'. Thurston's basic assertion is as follows. The "various languages" of northwest New Britain "tend to segment the same cultural universe according to the same principles", and these principles derive "to a certain degree" from "the cultures of the people whose languages are ancestral to the modern Anêm". He uses terms for body parts to illustrate two associated points: that the "body is divided according to the same pattern in all the languages of the area", and that "terms for parts of the body are extended to other situations which are

²⁴ I had earlier suggested that Sengseng *m(e)lek* derived from POc **maiRaw*. There are, however, recent cases in which Sengseng has transformed a bilabial stop in a borrowed term into a nasal, as in *motel* 'bottle'.

²⁵ Ross has suggested (pers. comm.) that Sengseng *k(u)luŋ* 'thunder' derives from POc **guRuq*, but derivation does not accord with what I know of Sengseng reflexes of POc phonemes (Chowning 1985:176-177).

neither expected nor transparent" (1987:81). Consequently, he believes, these terms reflect a culturally distinctive way of categorising. Before the applicability of these data to Sengseng is considered, several points need to be made. First, Thurston is apparently unaware of the existence of POc **m^wata* 'point, edge, sharp' as a lexeme different from **mata* 'eye', and so interprets 'blade of knife' as literally meaning 'eye of knife' (1987:82). Second, in some cases the "extension" may simply reflect a misapprehension on the part of the local people; I have certainly received the impression that lateral fins of fish are actually thought to be ears. Third, some of the 'extensions' are made to look odd because of Thurston's choice of glosses: 'hand' and 'foot' rather than 'arm' and 'leg', 'claw' rather than 'nail', even though the English word 'nail' has both meanings. (This last one is changed in the 1989 paper.) Fourth, in one case the gloss shifts on adjacent pages; *lolo* in Kove and its close relatives is first translated as 'guts' but then more accurately, as 'interior' (1987:84-85). Fifth, there is no discussion of the cases which do not confirm the assertion that these languages are uniform: for example, Kove *guvi* means only 'heel', not 'base of foot', and *goga* designates only 'thumb, big toe, crab claw' (1987:85-86). Finally, it is by no means clear that similar metaphors are involved in such cases as calling the 'calf' either the 'meat', 'fruit', or 'belly' of the leg, or digits either 'digit' or 'children' of the limb (pp.83,85).²⁶ (It should be added that Kove *riki* 'digit' means only that, not 'child', even if Thurston is correct in deriving it from POc **(rl)iki*. If the only point being made is that "these are polymorphemic lexemes" (1987:86), then they hardly illustrate a single distinctive world view; after all, English 'fingernail', 'sole of the foot', and 'calf of the leg' are equally polymorphemic. Thurston is, however, making another point about the existence of such complex terms.

There are few specific correspondences between the sorts of anatomical terms which Thurston says are typical of northwest New Britain, and those of the Sengseng. Admittedly the lateral fin of an eel is called by the word for 'ear' (but see above). Also, the same word is sometimes applied to both heart and lungs. According to Thurston, in northwest New Britain lungs are often confused with liver, or called 'the second liver' (1987:126). My experience is rather that heart and liver tend to be confused elsewhere, though not in Sengseng. There are separate words in Sengseng for 'knee' and 'elbow', though the latter, with part of the body specified, is also used for 'heel'. The same word is used for finger/toenail and for a pig's hoof, but usually a different one for a bat's claw. Although a word exists for digits, it is not uncommon to hear them referred to as the 'end' (= 'nose') of the limbs, and both digits and nails may be called by this term. (I have also heard the general term for hand/arm used for fingers, in describing someone with six fingers.) The word for 'tooth' is the same as the word for 'thorn' but is a single lexeme. So is a word that means only palm (of hand)/sole (of foot). All of these contrast with what is said to be the northwest New Britain pattern.

The Sengseng do, however, say that they 'comb the head', and the forms strongly resemble the Bibling ones: Lamogai *ga ser apuŋu*, Sng *ga sehe po-ŋo*. (On the other hand, contrary to what Thurston reports as a similar usage in Kove, what I recorded there means literally 'I comb myself'.) The Sengseng also use the same terms for parts of the body and parts of trees (compare English 'limb' and 'trunk'), but in contrast to what is said to be the universal pattern in northwest New Britain (Thurston 1987:81), use words for 'leaf' that are different from the word that denotes hair and plumage. (These are, however, the same in some others of the languages I have called Whiteman.) Although Sengseng does not have as many separate

²⁶ In Malay, 'calf' is also 'fruit' of the leg.

words for body parts as does Lakalai (or I did not record as many), the Sengseng pattern is much closer to the Lakalai one than to that described for northwest New Britain.

Thurston's argument is that the "relative lack of monomorphemic lexemes ... suggest(s) that metaphors have been lexicalized to supply words not available after the initial process of exoteric speciation" (1989). This is his term for a process in which in contact situations, speakers of one language borrow only items of basic vocabulary from another. Many Sengseng terms are complex and metaphorical, but these are typically synonyms of monolexemes that may well have developed in reaction to word taboos (Chowning 1985:185). They do not seem to me to indicate that in these respects, Sengseng is like the Bibling languages, and perhaps Lusi, in reflecting interaction with Anêm. The best evidence for sharing, then, seems to lie in a few lexical items, notably those with initial consonant clusters in both languages, that cannot (at present) be derived from Proto Oceanic.

As Table 5 indicates, Sengseng is united by a number of isoglosses with Bibling languages, but only a tiny handful suggest links with Anêm alone, exclusive of Bibling. As regards the Bibling connection, I have generally assumed that when a shared form is attested only for Lamogai, that it is likely to be a borrowing into Bibling; if it were only attested for Miu, I would assume that Miu had borrowed. The question remains of whether the lexical evidence points to a close genetic connection between Pasismanua and Bibling languages. That a number of items are shared is clear from Table 5. Interestingly, however, relatively few of them come from basic vocabulary, but I am not prepared to argue that words for 'sneeze', 'copulate' (obscene in Sengseng), or 'carry on the head' are more or less likely to be borrowed than words on the usual 'basic vocabulary' lists. Of lexemes shared between Pasismanua and Arawe, several are shared only with Lamogai among the Bibling languages, and so presumably borrowed from Pasismanua (Table 5). The *me* form for 'come' (from POc **mai*) is found in all Bibling languages, but is of doubtful significance, given the widespread tendency in Oceanic languages for /a/ to be fronted when followed by /i/. Amara also has *melak* 'long' and *katkate* 'liver', both probably from Proto Oceanic. If we do not accept Thurston's suggestion that *miok* '3' is related to Anêm *bîk*, then there are very few lexemes that unite Pasismanua, Arawe, and Bibling languages, and they are not the same as those that point to connections between Pasismanua and Bibling alone. If we ignore reflexes of Proto Oceanic forms that show no distinctive developments, and look at branches of Arawe that are not adjacent to Sengseng, the lexical resemblances between the languages are so few as to suggest either borrowing or common ancestry followed by a long history of separate development.

Grammatically Sengseng is wholly unlike Bibling languages as described by Thurston, and apart from consonant clusters, also differs from them phonologically. The case for a close genetic relation, as opposed to extensive borrowing, has to remain not proven for the present.

11.3 NON-AUSTRONESIAN INFLUENCE IN GENERAL

As regards grammar, the principal characteristic of Sengseng that looks non-Austronesian is the marking of gender distinctions. The nearest non-Austronesian language now spoken to the east of this region, Wasi, is not recorded as distinguishing gender distinctions (Johnston 1980b:122), but Kol and Baining of East New Britain distinguish masculine and feminine in the third person singular (Lindrud 1980:164), and Taulil distinguishes a neuter as well (Moore and Moore 1980:811). Although Anêm has a masculine/feminine distinction, it is very different from that of Sengseng in that all nouns are classified as either masculine or

feminine, and furthermore "first and second person pronouns are feminine in the singular but masculine in the plural regardless of the sex of the referent" (Thurston 1982:45). This last point of course raises questions about whether the distinctions are labelled correctly; Thurston, as he says, was influenced by the way an informant described them. In Sengseng, the gender distinctions in pronouns might be thought to be echoed in the difference between nouns that take *a-* and *e-* prefixes and those lacking either, particularly because the same prefixes respectively precede masculine and feminine proper names. But as was pointed out above, in Sengseng only human beings and some anthropomorphic spirits are masculine or feminine; everything else is neuter. Neither do the terms with prefixes agree with Anêm categories, in which, for example, axes are masculine and houses feminine. Sengseng has both *eyah* and *atut* 'axe' (the latter contrasting with *etut* 'Job's tears'), and the words for 'house' are simply *masaŋ* and *mok*, without prefix.

It should be noted that all of these non-Austronesian pronominal systems differ from those in the Austronesian languages, including Sengseng, in lacking an inclusive/exclusive distinction in first person plural pronouns. Further, none of the precise forms used in the non-Austronesian third person singular resemble those recorded for the Austronesian languages, but as has been mentioned, there is also much variability in these last. But even if people speaking an non-Austronesian language which distinguished gender applied this distinction when they learned Austronesian languages, they seem otherwise to have taken everything else that was typically Austronesian in the systems. (I know of no non-Austronesian source for the Sengseng obviative.)

The phonemic systems of the languages being discussed here are too poorly described for it to be possible to assert that the existence of more than five vowels in Pasismanua, Bebeli, and Mangseng can even be derived from a single source, much less from a particular non-Austronesian language. Other Oceanic languages have more than five vowels; for example, Muyuw of Milne Bay (Lithgow and Lithgow 1974:8). For the present, non-Austronesian influence in this respect can only be called a possibility.

As regards lexicon, I mentioned above the existence of certain isoglosses that connect Sengseng and Lakalai. Table 1 makes it clear that on lexical grounds alone, these languages are fundamentally very unlike each other. Even though I have pointed out that Sengseng and Lakalai are not so different as some of Ross's criteria suggest, I agree with him that they should be assigned to different subgroups. If the ancestors of both the Lakalai and the Sengseng acquired these terms from another, very possibly non-Austronesian language, that was once spoken in the region between the Whiteman and Nakanai ranges, it does not seem to have been very similar to Anêm.

Whether or not Sengseng is more complex than some of its neighbours, it lacks any of the complexities that Thurston describes for Anêm or for the Bibling languages. If Sengseng has been influenced by contact with an non-Austronesian language, presumably that language was not much like present-day Anêm. Sengseng does not seem to show the complexities to be expected if speakers of an Anêm-like language had been learning an Austronesian one. Of course, if Thurston is correct (1987, 1988) in suggesting that the ancestors of the Anêm deliberately made their language more difficult in order to prevent outsiders from learning it, then it is impossible to know how complex that earlier language was.

12. CONCLUSIONS

My interpretation of the archaeological, linguistic, and distributional evidence produces the following possibilities. If the non-Austronesian languages of New Britain were originally one, its descendants differentiated to such a degree that the only widespread features are the following:

- (a) SVO order;
- (b) an elaborate system of noun classes;
- (c) a distinction between masculine and feminine in third person singular pronouns;
- (d) at least seven vowel phonemes.

Since most linguists (apart from Thurston) seem to agree that Proto Oceanic had SVO order, this feature is useless as an indication of non-Austronesian influence. Of the New Britain Austronesian languages, only Mengen shows any indication of true noun classes, though several use different possessive pronouns for different parts of the body. Sengseng does not; Arawe, Bebeli, and some Bibling languages (Thurston 1988) do.

As regards gender, a tiny scattering of Oceanic languages, including Tolai, use proper noun markers that distinguish the gender of the person named (Codrington 1885:258, Ray 1907:427), but this is so rare that it seems unlikely to have been the source of gender distinctions in pronouns in Oceanic languages. It therefore seems probable that the existence of gender distinctions in a small number of Austronesian languages in West New Britain reflects influence, possibly in the form of a substratum, from an non-Austronesian language. Given that all of the Austronesian languages known to have gender distinctions are physically close to each other, in a region that extends from the southern side of the Whiteman range to the region to the east of it, it seems highly probable that the language that contributed the distinction was located somewhere in this region. It must also be noted that there is great variation in the forms, especially for the feminine, and for the ways in which terms marking gender vary between personal articles, personal pronouns, and prefixes to kinship terms. This conveys the impression that various languages (Pasismanua, Arawe, Bebeli) only acquired the gender-marking *distinction* in pronouns but applied it in different ways. Even Kaulong, Sengseng, Karore, and Getmatta differ from each other in these matters. This interpretation indicates borrowing ("stimulus diffusion" in anthropological terms) rather than a substratum.

It may be that we need to examine the supposed integrity of a Southwest New Britain network in the light of the possibility that the western languages were affected by an non-Austronesian language similar to Anêm, and the eastern ones (Bibling, perhaps Eastern Arawe) by a very different non-Austronesian language, which also had different words for the local flora and fauna. Note that if pre-Lakalai did not acquire some of these terms directly from an non-Austronesian language, the lexical evidence suggests that languages related to Sengseng have been located near, or on, the north coast of New Britain as long as the ancestors of the Willaumez languages. My examination of the data suggest to me that at least when we consider the languages located east of the Whiteman range, lexical items point in different directions. Some are quite unexpected, such as the fact that the Psohoh *kalango* 'betelnut' has its nearest known relation in Kove *kalago* 'wild betelnut'. The problem of discontinuous distributions leads back to earlier comments about the danger of assuming that people have not moved around a great deal since they came to New Britain. The Bebeli oral tradition of migration from the western side of the Willaumez Peninsula does not accord with any linguistic evidence. Here I am excluding the few isoglosses that link Bebeli with Harua

(Xarua), located just to the east. Some of these isoglosses are problematical: for example, Bebeli and Harua have *ga* 'pig', clearly cognate with Kove *yaia* and not with Lak *bolo* and Psohoh *yuy*, Sng *yu*. But forms cognate with *ga* are so widely distributed in New Britain that Ross reconstructs **gaya* for both Proto Mengen and, tentatively, for Proto Southwest New Britain (1988:465), while ignoring its distribution elsewhere in his Ngero/Vitiaz region (Chowning 1973:209). A few items, found not only in Bebeli but also in Sengseng, connect with languages of the Willaumez Peninsula. Examples include the reduced (from Proto Oceanic) form **tu* 'child', and *ɲi* 'tooth', both identical in Sengseng and Bola. Sengseng, Bebeli, and Willaumez Peninsula languages also have *tu* 'child', presumably a reduction of POC **natu*, but so does Kilenge, and Mengen has *ɲiji* 'tooth'. By contrast, Lakalai and Kove both reflect POC **natu* as well as **lipon* 'tooth'.

To the extent that the Southwest New Britain network depends on lexicon alone (as is very much more the case for Johnston's version than for Ross's), it is very hard to know how and where to draw the boundaries. When data are inadequate, the problem of distinguishing borrowing from genetic relationship can be insuperable. For that reason, I understand why Johnston consider Uvol a Whiteman language, since I too had noticed some interesting apparent cognates with Bebeli which Uvol does not share with other Mengen languages (Chowning 1969:32). I feel that the weight of the evidence puts it with Mengen, but perhaps this evidence is no stronger than that which links Bebeli with Eastern Arawe.

This last is the most interesting of the cases in which lexical links are completely unexpected in view of both the present location of the languages and, at least in the case of Bebeli, oral tradition. (I should add that I am sceptical about depending heavily on oral tradition.) At the very least, this link indicates that more population movements have taken place east of the Whitemans than might be expected, given the relatively continuous distribution of closely related languages that we find if we look at the south coast alone. (In general, except where there are traditions of very recent movements, the closest relatives are also contiguous.) The frequent reports of as yet uncontacted people living inland from the Willaumez Peninsula, and in the hinterland behind Kove, suggest that there may still be languages as yet undescribed that may help clarify the picture of the distribution of subgroups in West New Britain. On the other hand, they may complicate it still further.

In any case, the archaeological and vulcanological evidence, showing temporal gaps in occupation of particular regions, repeated volcanic devastation of many areas, and discontinuity between the NAN languages undoubtedly spoken in earlier times and the OC ones found later, offer enough complications in their own right. It is impossible to assume that any of the speakers of OC languages in West New Britain are simply the direct descendents of the first settlers of the region they now occupy.

At present, the picture seems to be one in which certain languages, such as Eastern Arawe, Psohoh, and Bibling, have one set of ties that extend in one direction, and one or more that extend in others. The term network is appropriate, but I suspect that it is too early to draw the boundaries of it, or even, perhaps, to exclude some of the languages that are at present assigned to Meso-Melanesian. Whether any of the complexity can be ascribed to influence from non-Austronesian languages, except in the clear case of the neighbours of Anêm, remains as uncertain as before Thurston made his original suggestions. Until many more detailed descriptions of a number of New Britain languages are available, we are likely to attach too much weight to bits of evidence that may be outweighed – depending, of course, on our individual criteria – by that which is not yet available.

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