

LANGUAGES OF NORTH AND CENTRAL VANUATU: GROUPS, CHAINS, CLUSTERS AND WAVES

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1. INTRODUCTION

Nowhere in Melanesia are more languages spoken by fewer people than in Vanuatu. Tryon (1976) lists 105 languages among a population of little more than 100,000¹. The absolute degree of diversity is not so high as these figures might suggest, however, since all these languages belong to the Oceanic subgroup of Austronesian, and in fact probably to not more than two first-order subgroups of Oceanic. Three clear divisions have generally been recognised by earlier researchers. The Emae, Fila-Mele and Futuna-Aniwa languages are Polynesian. (See Clark 1978 for their position within the Polynesian family.) The eight languages of the southern islands (Eromanga, Tanna and Aneityum) constitute a Southern Vanuatu Subgroup (Lynch 1978), and are not closely related to any of the others. (But cf. section 9.) This leaves 94 languages spoken from the Banks and Torres islands south to Efate, a region which I will refer to as North and Central Vanuatu (NCV). The unity of these languages as a subgroup, and their internal relations, will be the subject of this paper.

Several linguists have proposed classifications of the NCV languages as a part of larger surveys of Oceanic or Austronesian (Capell 1962, Dyen 1965, Grace 1955). The two most important studies, however, have been by Pawley (1972) and Tryon (1976). Pawley studied a large sample of 'Eastern Oceanic' languages, 15 of which were from NCV — mainly those described by Codrington (1885) and Ray (1926) — and applied classical subgrouping arguments based on innovations in phonology, morphology and lexicon. Tryon collected basic word lists from more than 300 localities in every part of Vanuatu, 179 of which are published in his book. His classification is primarily based on cognate percentages calculated on these lists. In section 3 below I compare Pawley's and Tryon's classifications in detail.

The aim of the present paper is to integrate the results of these two very different studies and see whether any further conclusions can be reached. Pawley's subgrouping arguments need to be checked against the much fuller data now available, and Tryon's vocabularies should yield further results from qualitative as well as quantitative methods. While Pawley and Tryon are my main sources, I have made use of many other descriptions of particular languages, a list of which will be found in Appendix 1.

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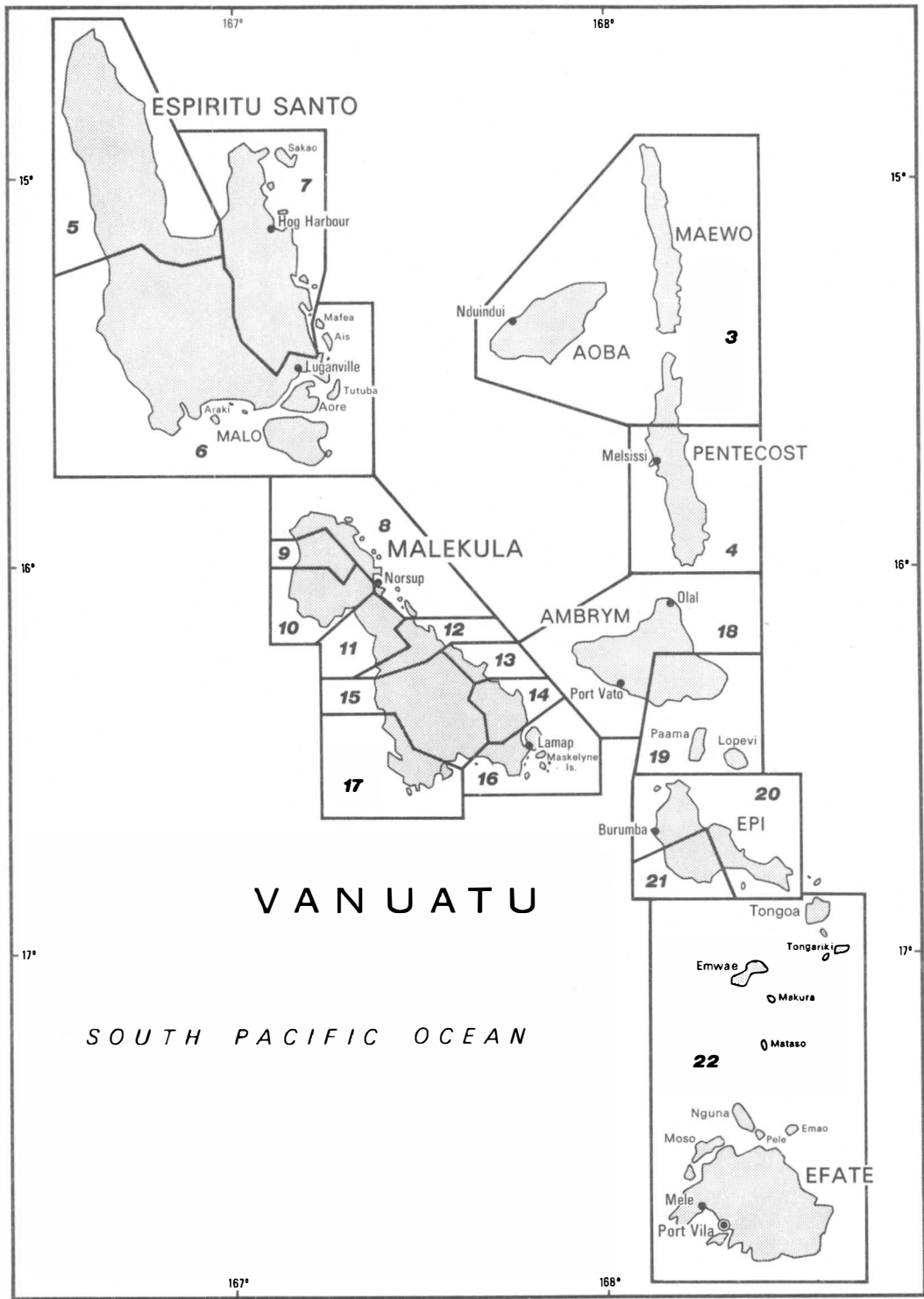


Figure 1 Vanuatu: The 22 local groups

2. THE 22 LOCAL GROUPS

I found it convenient for my own work, and I expect it will also help the reader of this paper, to group 94 languages into a smaller number of working units. Tryon's lexicostatistical figures provided a convenient rough measure of similarity. Tryon considers dialects to belong to the same language if they share more than 80 percent cognates; I therefore chose a figure of 70 percent cognates to define languages which were 'closely related'. A preliminary check showed that several additional connections could be made if this criterial percentage were lowered to 69, so the latter figure is the one used here. Given this criterion, a chain of closely-related languages can be defined as a maximal set of languages, each one of which is connected to every other by a sequence of pairwise closely-related languages (even though pairs of languages at distant points on the chain may not themselves be closely related). This procedure gathered about three quarters of the NCV languages into chains of from two to sixteen languages. The remaining relatively isolated languages (which had no percentage higher than 68 with any other language) were simply grouped with their closest cognate neighbour. The resulting 22 groups are listed in Table 1, and their locations are shown in Fig. 1 (except for groups 1 and 2 which cover, respectively, the Torres and the Banks islands, immediately to the north of the map).²

Although the definition of the groups was made on purely lexicostatistical grounds, all groups are geographically coherent. This is reflected in the names given to them in Table 1. (Some groups with only two members are not named.) The name is followed, in the Table, by a list of those languages, if any, which form a closely-related chain, then by a parenthetical figure which is the minimal connecting percentage within the chain. The relatively isolated languages are then listed (their names being underlined), with their highest cognate percentage. Some groups, such as the Banks (2) thus consist entirely of a chain of closely-related languages; others have in addition an 'outlier' which, though not closely related, has its highest percentage with some language in the chain (e.g. Raga with Baetora in the Aoba-Maewo chain (3)). Still others consist entirely (9-12) or largely (4,7,15) of relatively isolated languages, and might be thought of as 'clusters' rather than chains.

It is interesting to compare these groups with those arrived at by Guy (1982), who applied quite different procedures to the same data. With the following minor exceptions, each one of my local groups corresponds to a node in Guy's dendrogram: (1) Groups 1 and 2 together form a unit in Guy's classification, but the subdivision is different; similarly for groups 11 and 12. (2) Group 8 is divided into a northern and a southern part (see note 2). (3) Tolomako is placed in group 6 rather than group 5, and Labo is an isolate within the Malekula group, whereas I assign it to group 17. See Guy's note on p.314 on the tendency of his procedure to distort the position of isolated languages. (4) Guy's sub-classification of group 6 is somewhat different from mine.

Likewise, in both Pawley's and Tryon's subgroupings, with one exception each of my 22 local groups falls entirely within a lowest-order subgroup. The exception is, again, the very isolated Malekula language Labo. I have assigned it to group 17, along with Southwest Bay and Malfaxal, since its highest cognate percentage (54) is with Southwest Bay. Tryon, however, places Labo in the Malekula Interior Group, while Southwest Bay and Malfaxal are in the Malekula Coastal Subgroup — a very high-level separation.

3. PAWLEY'S AND TRYON'S SUBGROUPINGS COMPARED

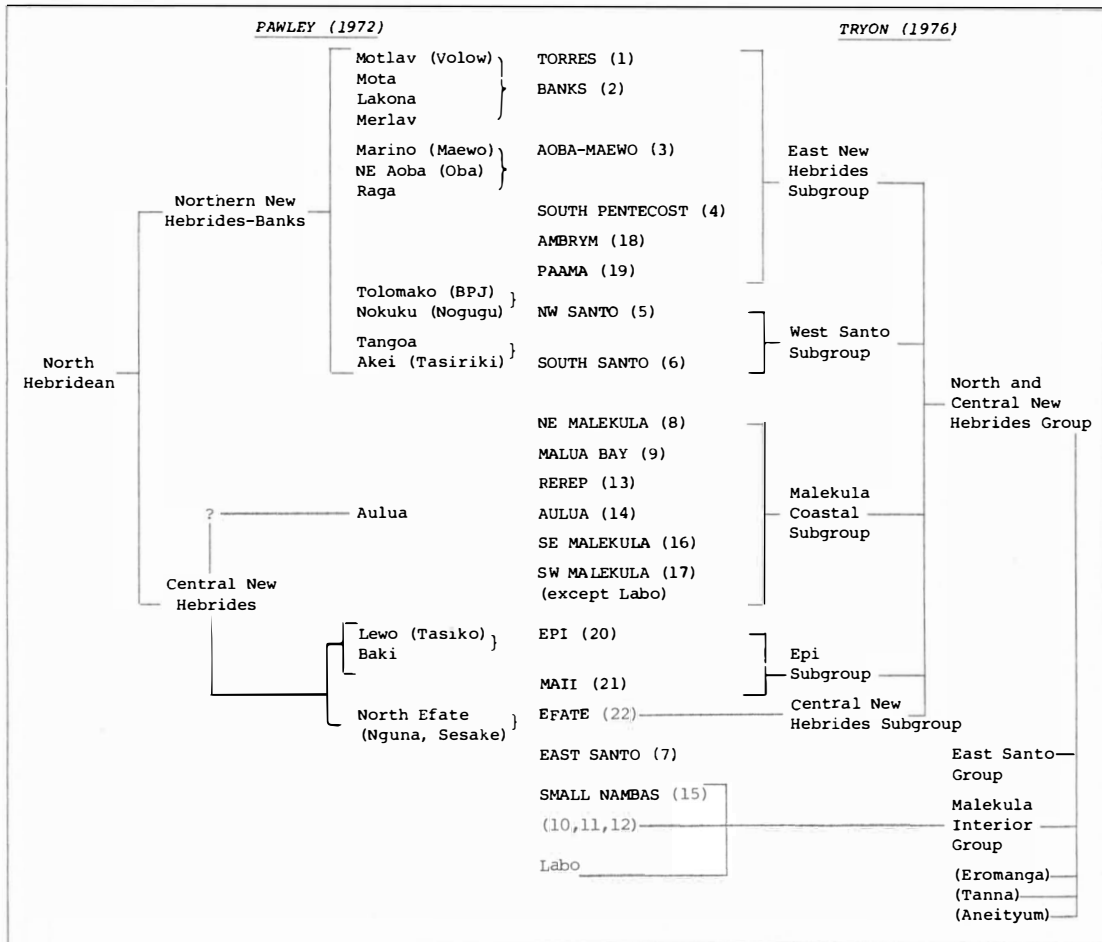


Figure 2. Comparison of Pawley and Tryon classifications

The units just defined make it possible to concisely compare the two earlier classifications of NCV languages. The comparison is shown in Figure 2. Pawley's sample includes languages from only seven of the twenty-two local groups, so that much of what Tryon proposes has no counterpart in Pawley's study. Still, where the two can be compared, they agree more often than not, which is significant when one considers the very different data bases and methods on which their conclusions were based. The following four points are common to Pawley and Tryon:

- There is a single large subgroup (Pawley's North Hebridean, Tryon's North and Central New Hebrides) which includes the great majority of NCV languages and no languages from outside NCV.
- The Torres, Banks and Aoba-Maewo-Raga languages are closely related.
- Most of the languages of Santo are similarly closely related.
- These two groups are separated at a fairly high level from those of Malekula, Epi and Efate.

The only point on which the two subgroupings could actually be said to disagree is that Tryon's NCNH splits into five co-ordinate subgroups, whereas Pawley hypothesises a binary split into Northern New Hebrides-Banks (which is not further divided) and Central New Hebrides, which consists of Epi-Efate and a speculative Malekula group (represented by only one language).

4. NOTES ON THE PRESENT STUDY

My approach in this paper will be similar to Pawley's, in that I look for phonological, lexical and grammatical innovations as evidence of a shared history among languages. I re-examine all of Pawley's subgrouping criteria, confirming some and rejecting or modifying others on the basis of the more abundant data now available, and introduce some new evidence.

The base line for determining what is an 'innovation' at the higher levels, is Proto-Oceanic (PO), for which published sources provide a large number of lexical reconstructions (see Wurm and Wilson 1975) and a fairly clear outline of the grammar (Pawley 1972, 1973). At lower levels, I have used some of my own reconstructions of Proto-North and Central Vanuatu (PNCV). See section 4.2 for more details.

4.1 Diffusion

Tryon claims that in his study "the number of borrowings, by the very nature of the basic wordlists employed, is potentially small and should not have much effect on the subgrouping" (1976:76). I must dissent strongly from this opinion. Although the historical phonology of most NCV languages is not yet well enough known to enable us to detect borrowings, the Polynesian lists show the following (minimum) percentages of words borrowed from their neighbours: Mele-Fila 10%, Emae 7%, Futuna-Aniwa 4-5%. These are basic vocabulary items, so it is not possible to explain them as resulting from cultural or environmental novelties as perceived by Polynesian immigrants. Grammatical influence has also been considerable (Clark 1984). Guy (1982) points out that without the extraneous knowledge of their Polynesian origin, Tryon's data would have led to their classification as a somewhat aberrant group most closely affiliated to the Efate-Shepherds languages (group 22).

Thus lexicostatistical data alone cannot distinguish between a historically intrusive group which has become naturalised through prolonged diffusion (such as the Polynesian outliers) and an autochthonous group which has simply been highly innovative (as is apparently the case with the East Santo cluster). Borrowing of both core vocabulary and grammatical features must be accepted as probably endemic, and capable of distorting the picture of purely genetic affiliations.

4.2 Comparative phonology

In the next section I will present evidence for the existence of a NCV subgroup, and with the reservations explained above I will assume the existence of a corresponding proto-language (PNCV). Forms cited as PNCV are mainly based on my own work (Clark n.d.), and my understanding of the phonological history of these languages is in most cases very sketchy.

The tables given by Tryon (1976:11-50), showing correspondences between PO and his 179 dialects, are useful for an overview, but contain a considerable number of errors in addition to the inevitable uncertainties. A thorough revision would be far beyond the scope of this paper, and probably a waste of time until more and better data become available. However, Table 3 gives what I believe is a more satisfactory list of consonant correspondences between PO, PNCV, and a selected group of languages which will be most frequently referred to below.³

Some general features of the sound correspondences should be noted. PNCV *ʔ is lost in all languages except Namakura (22), hence its presence is often indeterminate if neither a Namakura reflex nor external witnesses are available. I have not indicated this indeterminacy in my reconstructions. The contrast between PNCV *d and *nr is clearly preserved in South Efate (Clark 1985); whether any other languages reflect it is not yet certain. I have used *D for a consonant indeterminate between *d and *nr. Blust (1978) has argued that some Epi languages have distinct reflexes of PO *n and *ñ, but this too will often be indeterminate, and I write *n unless there is positive evidence for *ñ. PNCV *y has few if any overt segmental reflexes, but seems to be reconstructible in a few items on the basis of its effect on surrounding vowels (Clark 1985).

The inclusion of PNCV *R in the table merely points to a complex and still unsolved problem. Pawley (1972:30) noted that PO *R was commonly retained in Mota and other Banks-Torres languages, but lost in NCV languages further south. As *R is also lost in Central Pacific and Nuclear Micronesian languages, he saw this a potential subgrouping diagnostic. However, as Geraghty (1978) has observed, Tryon's data show a much more complex situation in NCV than had previously been apparent. *R appears to be lost in all NCV languages in a final syllable before *a (e.g. PNCV *memea *red* < PO *meRa, *via *taro sp.* < PO *piRa). In other environments, the Banks and Torres languages generally preserve *R; the remaining languages either lose it or preserve it, with no obvious phonological conditioning: compare North Efate nearu *Casuarina* (< PO *yaRu), na-sakau *reef* (< PO *sakaRu).⁴ Although the boundary between zero and non-zero reflexes of *R most typically lies between the Banks-Torres languages and the rest, there are many instances of displacement north or south of this line. For instance, only the Torres group retains *R in *ŋaRi *almond* (Toga ger, but Mota gai), whereas in *paRi *stingray*, non-zero reflexes appear not only throughout Banks-Torres but also in groups 3,4,5 and 18 (Nduindui vare, Seke kofer, Tolomako vari, North Ambrym kenen-ver).

Grace (1976) has observed that some NCV languages show reflexes of PO final consonants, sometimes with a following vowel. Items I have noted with retained final consonants are *uRat *vein* (T31), *kulit *skin* (T39), *qudaŋ *crayfish* (T62), *manuk *bird* (T68), *ñamuk *mosquito* (T69), *kawaR *root* (T105), *pilak *lightning* (T122), *saqat *bad* (T164), *taqun *year* (T209), and *tuqud *stand* (T234). Distribution of retained finals varies greatly from item to item, and does not define a single area, though the concentration is highest in groups 6-10 (Santo and north Malekula). The final in *crayfish*, for example, is retained in only a handful of scattered languages, whereas many reflexes of PNCV *saʔati *bad* occur from the Banks to south Malekula.

Comparative phonology proves to be a disappointment in the search for diagnostic innovations for subgroups of NCV languages. Most of the sound changes apparent on the basis of presently available data are either too commonplace or too restricted in extent to be of interest. For example,

as mentioned above, all NCV languages except Namakura lose PNCV *ʔ (< PO *q), but there is no other reason to place Namakura in a primary subgroup against all the other languages. Glottal stop, as elsewhere, is simply chronically liable to loss. On the other hand, the shifts of PNCV *k > s and *l > c are quite unusual, but are restricted to the Bierebo and Baki languages of Epi (20), and hence of no interest except for the detailed comparative study of the Epi languages. There are a few changes however, that encompass several languages and are phonetically interesting enough to warrant some discussion.

4.2.1 The apico-labial shift

Many languages of Santo and north Malekula show evidence of what I will refer to as the *apico-labial shift* – that is, they reflect the PNCV labial consonants *v, *b and *m either as the corresponding dentals, or as apico-labials (consonants articulated with the tongue between the lips).⁵ The following languages show evidence of this change (those in capitals have the apico-labial articulation):

Group	Languages
5	Tolomako
6 (a)	Roria
6 (b)	TANGOA, ARAKI
6 (d)	MAFEA, AORE, Tambotalo
7	Butmas-Tur, Lore diakarkar/Shark Bay, Sakao
8	VAO, MPOTOVORO, Vovo
9	Mae
10	BIG NAMBAS

This shift is phonetically so unusual, and the languages manifesting it so clearly concentrated in a single area, that we can hardly imagine it not to have had a single origin. Yet it cuts across six different local groups, without including any of them entirely, and thus seems to contradict even our most plausible working assumptions about subgrouping. This is less disturbing, however, if we consider the nature of the change more closely.

The apico-labial shift presumably begins with a shift from labial to apico-labial. This change has two important properties. First, it is reversible (no mergers are involved). Second, it creates a highly-marked type of articulation, very rare in human languages. This means that there will be a high likelihood of subsequent elimination of this series of consonants by further sound change. One possibility is to merge the apico-labials with the other apicals (i.e. dentals). A second is to return them to ordinary labials, thus erasing all evidence of the shift. It is quite possible, then, that all the languages of groups 5-10 originally underwent the apico-labial shift. A majority of languages subsequently reversed the shift and now show no evidence of it (at least from our limited data). The minority listed above either merged the apico-labials with the dentals or preserved the apico-labial articulation.

Does this sound change therefore provide evidence for a large subgroup including all of Santo and northern Malekula? Not necessarily. Camden (1979: 113) makes the interesting observation that in Tangoa apico-labials are a feature of men's speech, whereas women and children use the labials. Apico-labials are a highly salient but very superficial feature of language, and, at least in this case, serve a clear sociolinguistic function. One would expect,

then, that the change could be quite readily borrowed across language boundaries. In the light of this probability, it seems to me that this change, despite its intrinsic interest, is of little value in supporting any subgrouping in this area.

4.2.2 Liquid merger

A distinctive sequence of changes takes place in a considerable number of languages in the central area – south-east Malekula, Ambrym, Paama and Epi. The changes involved are (1) merger of PNCV *r and *l, (2) loss of the resulting liquid in some environments, most commonly before a, and (3) conditional shift of *t to r, which may or may not merge with the liquid. The following chart summarises the participation of various languages in this series of changes:

Group	Language	*r/l merge	liquid lost	*t > r
13	Rerep	+	-	-
	Unua	+	-	-
14	Burmbar	+	-	-
	Aulua	-	-	-
16	Pt Sandwich	+	+	+
	Axamb-1	+	+	+
	Axamb-2	+	()	+
	Maskelynes	+	-	-
18	North Ambrym	-	-	-
	Lonwolwol	-	-	-
	Dakaka	+	+	+
	Port Vato	+	+	+
19	SE Ambrym	+	+	-
	Paama	+	()	-
20	Lewo	+	()	+
	Bierebo	+	()	+
	Baki	+	()	+
21	Maii	+	()	+
	Bieria	+	()	-

Notes: () means that the change takes place in a few items only.

Axamb-1 = Maxbaxo and Avok dialects, Axamb-2 = Axamb dialect. The merged liquid in groups 13 and 14 is r, in groups 18-21 l, and in group 16 r or l according to local phonological conditions.

It will be noted that, like the apico-labial shift, this change cuts through groups of otherwise closely-related languages (groups 14 and 18). The details differ from language to language and even within dialects of the same language, as in the case of Axamb. It does not coincide with any other evidence for a subgroup in the area.

4.2.3 West Santo changes

Two uncommon sound changes are found in a number of West Santo languages of groups 5 and 6. The velar nasal merges with the dental (*g > n), and the prenasalised dental stop *D merges with *q, giving velar or glottal stop reflexes:

Group	Language	*g > n	*d > *q
5	Valpei	-	k
	Nokuku	+	?
	Vunapu	+	?
	Tasmate	+	k
6a	Wusi	±	-
	Malmariv	+	gk
	Navut	+	(g)k
6b	Akei	+	k
	Fortsenal	+	k
	Wailapa	+	-
6c	Morouas	+	-
	Amblong	+	-
	Narango	+	-
6d	Malo	±	-

5. THE NORTH AND CENTRAL VANUATU GROUP

As noted above, Pawley and Tryon agree in assigning the great majority of NCV languages to a single subgroup. In Tryon's study, two small sets of languages — East Santo (ES) and Malekula Interior (MI) — are excluded from the larger group on the basis of low cognate percentages with the other NCV languages. If this classification is interpreted as a family tree, it implies that the remaining languages constituted a subgroup after their separation from East Santo and Malekula Interior. Evidence of such a division would be innovations shared by these majority languages but not by ES or MI languages — to put it in more traditional terms, 'archaic features' in the latter. No such evidence has been found in this study. On the contrary, the ES and MI languages share not only a number of innovations of NCV as a whole, but some restricted to subgroups within NCV, such as Santo or Central Vanuatu. What this suggests is that the deviance of the ES and MI groups results not from an early separation, but from a relatively rapid rate of innovation.

This section, then, presents evidence for a NCV subgroup in the form of innovations putatively shared by all of the 94 languages. Items 1-6 are a review of Pawley's evidence for the North Hebridean subgroup. The remainder of the section presents additional evidence, mainly lexical, from my own work.

5.1 Grammatical evidence

1. PO *-mu, second person singular possessive suffix, becomes PNCV *-mwa.

Mota (2), Lewo (20), North Efate (22) -mwa, Baetora (3) -gwa.

There are two difficulties with this item. First, the two languages of Aoba (3) have -mu, evidently preserving the original form. Second, a majority of the remaining languages have dropped the final vowel of the suffix, leaving simply a nasal consonant. The evidence for the change (or lack of it) is thus reduced to the difference between a labial and a labiovelar nasal, a distinction which has been lost in some languages, and which cannot be reliably extracted from most available descriptions, particularly in final position. Despite these reservations, the wide geographical spread of the clearly

innovative languages listed above suggests that this was indeed a change in progress during the late PNCV period, which failed to establish itself in some of the more conservative dialects.

2. PO *koe, second person singular independent pronoun, becomes PNCV *ni(kq)o

Mota (2) i-niko, Atchin (8) i-nik, North Efate (22) niigo.

Pronouns of this form are by no means universal in NCV, but they are the most widespread type, occurring in all major areas. The innovation consists in the prefixation of *ni- and (possibly) the shift from oral to nasal grade of the stop. Deletion of -e cannot legitimately be included, since *ko forms are as widespread as *koe forms in Oceanic and there is no evidence of a *koe antecedent of the PNCV form.

3. PO *(ŋ)ku, first person singular subject pronoun, is replaced by PNCV *na.

Mota (2), Raga (3), Baki (30) na, Aulua (14) ne.

Pawley notes that *na is evidently a reduced form of the independent pronoun *nau, and that a similar development has taken place in the South-East Solomons. Of the NCV languages for which grammatical data are available, an overwhelming majority have lpsg subject pronouns of the form n(V), na being the most common form. None of the pronoun forms suggest a retention of *(ŋ)ku. This innovation therefore seems quite well supported.

4. PO *i, locative preposition, becomes PNCV *a.

Mota (2), NE Aoba (3), Big Nambas (10) a.

PNCV *a survives as a preposition by itself in only a few languages, such as those mentioned above. In many others, however, it can be found in fossil form, as in the word for *where?* (T203), replacing PO *i-pai: Lo (1) a/ve, Malo (6) a/be, Lingarak (12) a/bi, Port Sandwich (16) a/bi, Baki (20) a/be. A few languages have e or i instead of a, but they are not generally among the more phonologically conservative, so that these forms may well be secondary developments.

5. PO *lalo *inside* becomes PNCV *lolo.

Merlav (2), NE Aoba (3), Tolomako (5), Tangoa (6), Atchin (8), Lonwolwol (18) lolo.

A possible counterexample is Rerep (13) raro-. More importantly, the force of this piece of evidence is weakened by the intrinsic high probability of an assimilation of this sort.

6. PO *i could occur in simple constructions of the form *i NP, with a general locative sense, or in more complex structures involving specific locative nouns such as *lalo *inside*, *papo *under*, etc. (Pawley 1972:33, 37, 43). In PNCV it appears that the originally complex structure *a lolo ... NP with the specific meaning of *inside* may have been tending to be used in a more general sense, with the sequence *a lolo reinterpreted as a simple locative preposition and concomitantly reduced in form to *(a)lo. Thus Mota (2) alo vanua ilone *in that place*, Raga (3) la gatava *at the doorway*, Sakao (7) l-uevyoel *in the men's house*, Big Nambas (10) al pitvet *in the garden*, Lewo (20) lo-yumwa *in the house*. Note however that in some languages *alo coexists with the original *a, and also that a parallel generalisation appears to have taken place in the languages of New Ireland (Malcolm Ross, personal communication).

Pawley mentions two other apparent innovations in NCV: the appearance of a post-verbal particle *qalo/*balo *up*, and the shift of *m to *mw in certain lexical items. Both of these are supported by only fragmentary and inconsistent evidence, so I say no more about them here.

7. Biposed negative constructions (those involving both a prefix or preposed particle and a suffix or postposed particle) are widespread in NCV languages, though rare elsewhere in Oceanic. I find such structures in groups 2, 3, 8, 13, 17, 19, 20, 21 and 22. This is about half of the groups for which grammatical information is available, and covers a wide area of the NCV region. The forms of the negative markers are quite variable, but some recurrent traits suggest possible reconstructions. The pre-verbal marker most often reflects PNCV *(st)a(vb)V: Raga (3) hav, Sa (4) tapo, Nokuku (5) sap, Tangoa (6) sopo, Sakao (7) yav, Port Sandwich (16) sba, South Efate (22) tab. The post-verbal element can probably be reconstructed as PNCV *tea: Motlav (2) te, NE Aoba (3) tea, Atchin (8) te, Paama (19) tei, Lewo (20) re, Bieria (21) se.

We might speculate about the earlier history of this system. PNCV *(st)a(vb)V seems to connect with other Oceanic pre-verbal negative markers of the form *ta-, e.g. PPN *ta'e. *tea, on the other hand, recalls PNCV *tea *one*, and may therefore have been originally an optional emphatic after a negative verb (*not one!*), gradually losing its emphatic force and becoming a routine partner of the original negative marker. Compare the parallel histories of *ne ... pas* in French and *ne ... not* in Middle English.

5.2 Lexical evidence

Apparent lexical innovations of PNCV are listed here in summary form. Items with a T-number in parentheses following the gloss are in Tryon's basic vocabulary, and supporting evidence may be found in Tryon 1976. Data for the other proposed innovations are given in Appendix 2.

1. *NECK* (T14), *THROAT*, *VOICE*: PNCV *Dale'o, from PO *leqo *voice, throat*, with prefix of unknown origin.

2. *RIGHT HAND* (T28): PNCV *matu'a, by metathesis from PO *mataqu.

3. *KNEE* (T33): PNCV *bwau-X replaces PO *tudu. The PNCV form evidently represents a compound meaning *head of leg* – compare PNCV *bwatu *head*, which has irregularly lost its medial consonant in this compound. In some languages it is followed by the word for *leg*, which is here represented by X, since there is some uncertainty about the PNCV form.

4. *FLYING FOX* (T28): PNCV *qarai replaces PO *mpenka. The two languages of group 21, however, appear to retain the PO form.

5. *TURTLE* (T85): PNCV *'avua replaces PO *poñu. North Efate (22) vonu is not a direct retention of the PO form, but a borrowing from Polynesian (Clark 1984).

6. *BREADFRUIT* (T100): PNCV *batavu. PO *kulu is not attested in NCV. However, a number of northern NCV languages reflect a PNCV *baeko, which on the basis of numerous Solomons cognates appears to represent a second PO form for *breadfruit*, *mpaReko. The relation between *mpaReko and *kulu is not clear.

7. *ROOT* (T105): PNCV *kawa(Ri), by metathesis from PO *wakaR.

8. *KNIFE* (T147), *CUT* (T249): PNCV *ziba. cf. PO *pansi *split, cut*, *tampak *cut*.

9. *GIVE* (T222): PNCV *lavi. cf. PO *lapi *take from*, *alap *take, touch*. The PNCV form also occurs widely with the meanings *take, bring, carry*, but the extension to *give* appears to be a unique innovation.

The following innovative forms are widespread enough in NCV that they are unlikely to be assignable to any lower subgroup, but they coexist with reflexes of established PO forms.

10. *COCONUT* (T97, 98): PNCV *matu(ki) alongside *niu (PO *niu).

11. *MOON* (T108): PNCV *kabati(ao) alongside *vula (PO *pulan).

12. *STAR* (T109): PNCV *mwasoyo alongside *vitu?u (PO *pituqu).

A possible earlier sense of this word is suggested by Mota mwasoe *disc, planet, morning or evening star*, and by apparent reflexes of PNCV *mwaso meaning *sun* in various Santo languages.

13. *EARTHQUAKE* (T125): PNCV *muki alongside *ruru. The latter appears to derive from PO *dudu *shake* — cf. also Arosi, Kwaio *nuu*, Yapese *durrug earth-quake*.

The next few items are not on Tryon's lists but can be compared with established PO reconstructions.

14. *EEL*: PNCV *maraya replaces PO *ntuna.

15. *NETTLE TREE*: PNCV *qalato, from PO *(sa)latoŋ, with initial syllable unattested elsewhere.

16. *CORDYLINE SP.*: PNCV *(qk)aria replaces PO *siRi.

17. *KAVA*: PNCV *maloku replaces PO *kawa (Pawley 1977).

18. *CHEW, REFUSE OF CHEWING (KAVA, SUGAR CANE, ETC.)*: PNCV *samwa, irregular from PO *samuk. Compare the change *-mu >> *-mwa in the possessive suffix (section 5.1).

The final group of PNCV lexical items cannot be compared with established PO reconstructions, but are included because they are well attested in NCV languages and have no known cognates elsewhere.

19. *TOMORROW* (T207): PNCV *marani. cf. PO *dani, PNCV *rani *day*.

20. *AGAINST*: PNCV *(qk)oro. This functions as the second element in compound verbs indicating action which obstruct covers, surrounds, prevents, etc. Pawley (1972, 1977) connects this with other Oceanic forms meaning *fence, enclosure, cut around* etc., but the particular use here appears to be restricted to NCV.

21. *LAPLAP (PUDDING)*: PNCV *loqo. The national food of Vanuatu, a baked pudding made of grated starch (yam, manioc, banana, etc.) with coconut cream and other ingredients. cf. PO *loŋku *bend, fold, roll up*.

22. *CYCAS PALM*: PNCV *mwele.

23. *GHOST*: PNCV *(a)tamate. cf. *?ata *person*, *mate *dead*.

24. *PEACE*: PNCV *tamwat(ae).

25. *CHIEF, BIG MAN, GRADED SOCIETY*: PNCV *subwe. Capell has suggested a connection with PAN *sembaq *worship, honour*.

6. THE NORTHERN AREA

6.1 Evidence for a North Vanuatu group

Pawley's proposed "Northern New Hebrides-Banks" subgroup covers all of the Torres and Banks groups, Aoba, Maewo, north Pentecost and Santo, i.e. local groups 1-3 and 5-7 in the present study — though his sample included only eleven languages, representing groups 2, 3, 5 and 6. Pawley's arguments for this subgroup, on re-examination, are promising but not convincing. This area includes some of the most conservative languages in NCV, and much of their similarity appears to be due to common retention rather than innovation.

6.1.1 Grammatical evidence

1. Languages of this area have a possessive classifier of the form *bula-, glossed by Pawley as *animal property* or *household property*, elsewhere as *prized possession*, the prototypical example being a pig. There is a possibly cognate form in Vao (8) tala- "used for general objects ... but less frequently and in a more personal sense" (Layard 1942:760). (See section 4.2 on apico-labial shift.) As will appear below, languages of northern Malekula (groups 8-10) share many features with those of south Santo. Aside from this Vao form, such a classifier is not known elsewhere.

2. *tamwa *how?* is reflected in Mota (2), Nokuku (5), Tangoa and Akei (6).

3. *tari *many, large number*. Pawley gives reflexes from Mota, Merlav, Lakona and Motlav (2), Marino (3), Nokuku and Tolomako (5), Malo and Tangoa (6). There are additional cognates in Sakao (7) ter, and in neighbouring groups outside NV: Sa (4) and Uripiv (8) tar.

4. Words for *today* are etymologically very diverse in NCV languages, but forms reflecting *bwariki occur throughout groups 2 and 3, and in Vao (8) barigh. There are three possible but problematic cognates from group 6: Malo baridi, Tangoa na-kerkerighi, and Akei ereRi?i (*now*).

The remaining grammatical features discussed by Pawley are in fact restricted to the north-eastern area of NV. I return to them in section 6.2.

6.1.2 Lexical evidence

Pawley lists a dozen candidates for NV lexical innovations. His data, however, are drawn almost entirely from the comparative wordlists in Codrington (1885:36-100), which are strongly concentrated in areas where Codrington worked. More than half of the Vanuatu lists are from the Banks and Torres islands (groups 1 and 2); only one Santo language is included, and none from Malekula. With the much more complete data now available, it appears that these innovations by no means define a coherent NV area. In fact hardly any two of them agree in their extent. They range from *lama *sea*, apparently restricted to the Banks, Torres and north Maewo, to *matu(ki) *coconut*, which occurs over most of the NCV area (see section 5.2.) Only *vatali *banana* comes close to exactly covering the proposed NV area. See Appendix 3 for representative data.

6.2 The north-east

Two grammatical innovations may be restricted to the north-eastern area, groups 1-3 (Torres, Banks, Aoba-Maewo-Raga).

1. The 'independent noun' suffix **(k)i* appears on nouns which normally take a possessive suffix, when no possessor is specified. It is well attested in groups 1-3, but, as Pawley notes, no such suffix is mentioned by Ray (1926) for any of the four Santo languages he describes. Pawley cites some possible examples from Tolomako (5): *matu/i coconut*, *teta/i father* and *namu/gi mosquito*. The last is not likely to be a suffixed noun, and *-gi* here clearly represents a retained final consonant with supporting vowel (see section 4.2). Although *tetai* is semantically in the right area, it appears to be a vocative form which coexists with suffixed *tama-* in referential use. Apparent cognates occur outside the NV area, e.g. Labo (17) *tatai*. Finally, *matu-* may well be a suffixed noun, but if so the *-i* could as well be a relic of the possessive connective PO **qi* (Pawley 1972:35).

2. The conjunction *si or* is found in almost all languages of groups 1-3, and possibly in 4 (Apsa sige), but not in Santo. Pawley notes a possible cognate *se* in Fijian.

One further grammatical innovation mentioned by Pawley, the feminine personal article *-ro-*, is restricted to the Banks and Torres languages (groups 1 and 2) and Marino of north Maewo (3).

The only possible lexical innovation I have found in this area is **bwaratu flying fox*, replacing PNCV **qarai*. However, probable cognates occur not only in adjoining group 4, but also in groups 12 and 15 of central Malekula. (Compare the set of innovative faunal terms discussed in section 7.4.)

Evidence of shared innovations in the north-eastern area is thus rather weak. In view of the stronger case for a Santo subgroup, to be discussed in the next section, it may be possible to explain these few features as NV innovations which have subsequently been lost in Santo. The main basis for the perceived close relation of groups 1-3 is clearly a shared conservatism.

6.3 Santo

Several lexical innovations suggest that all the languages of Espiritu Santo (groups 5, 6 and 7) constitute a single subgroup.

1. *TONGUE* (T5): **meme* replaces PNCV **mea*. Also found in several languages of groups 8-11, and surprisingly in Port Sandwich (16).

2. *TOOTH* (T6): PNCV **livo* is replaced in all Santo languages. The most likely Proto-Santo form is **kuDu*, which occurs in almost all of groups 6 and 7 as well as Tolomako (5) and Vao (8). The rest of group 5 reflects **bati*, apparently a PO form for a specific type of tooth, which is also generalised to *tooth* in Nduindui (3) and in the Efate-Shepherds languages (22). cf. Mota *patiu tusk, eye-tooth*.

3. *LEFT HAND* (T29): **marau* replaces PNCV **mawiri*.

4. *SPIDER WEB* (T86): **bwara* replaces PNCV **(tk)alawa*. Also in Atchin (8) and NE Aoba (3).

5. *ROPE* (T144): **asi* replaces PNCV **tali* or **ka(r)o*.

6. RED (T156): *(kq)ara replaces PNCV *memea. Also in Nduindui (3). Tutuba (6d) memea appears to be a relic, but could be re-borrowed from Aoba.

Here and elsewhere, languages of north Malekula share various features with those of Santo. Although it cannot be demonstrated as yet by means of phonological history, as would be ideal, the sporadic distribution of these agreements suggests diffusion rather than common ancestry.

The apico-labial sound shift, discussed in section 4.2 above, is another innovation common to a large area of Santo and northern Malekula. For the reasons explained there, however, it is at best weak evidence for any proposed subgrouping.

6.4 The position of the East Santo cluster

As already noted, there seems to be no evidence which would place the East Santo languages (group 7) outside the NCV group. They positively reflect not only a number of PNCV innovations, but also several assignable to later stages or subgroups within NCV (see for example *EAR*, *TOOTH*, *LEFT HAND* above). The apparently aberrant position of these languages thus appears to result from a high rate of lexical innovation, parallel to the high phonological innovativeness of these languages, especially Sakao (Guy 1978, 1982).

Do the languages of group 7 constitute a subgroup? Polonambauk and Butmas-Tur share about 70% cognates, while Lorediakarkar and Shark Bay (LSB) are, as already noted, essentially the same language. PBT and LSB are connected by percentages from 50 to 65. Sakao is related to both these groups at the 40-50% level; this is high for Sakao, whose percentages with even neighbouring languages are rarely higher than the 30s.

No grammatical information is available for languages of this group other than Sakao, so I can cite only a few possible shared lexical innovations. Group 7 appears to uniquely share the forms *bili *wing* (PNCV *kaba), *vuriti *bite* (PNCV *kati) and *baqari *liver* (PNCV *ʔate). Sakao and LSB also agree in showing reflexes of *bwoe-mate (*dead pig*) for *meat* (PNCV *visiko), where no PBT forms are given by Tryon. There are also some possible innovations shared by PBT and LSB apart from Sakao (cf. Tryon's division into Sakao and South-East Santo, 1976:87). The following seem to be unique to PBT-LSB: *lisu *nose*, *vili *penis*, *voDo *vulva*, *sok *fish/bird*, *makarati *thunder, lightning*, *maDavek *heavy*, *vok *vomit*. However only in the last case (Sakao lu *vomit*) is Sakao clearly conservative.

7. THE CENTRAL AREA

The islands from Malekula and Pentecost south to Efate will be referred to here as Central Vanuatu (CV). It will be seen from Fig.1 that this is an area of greater diversity, lexically at least, than the northern region. 15 of the 22 local groups are in the central area, 10 of them in Malekula alone.

7.1 Evidence for a Central Vanuatu subgroup

Pawley's sample of languages from the CV area was extremely defective, consisting of a single language from Malekula (Aulua of group 14), two from Epi (Lewo and Baki, group 20) and two dialects of North Efate (Nguna and Sesake, group 22). Although much of his argument needs to be modified or discarded in the light of further data, there remains a certain amount of evidence to support the inclusion of at least a large majority of the CV languages in a single subgroup.

7.1.1 Grammatical evidence

1. Many CV languages show a distinctive alternation in the initial consonants of verbs, whereby reflexes of PNCV nasal-grade consonants (*b, *d, *g, *nr) occur in certain syntactic categories and the corresponding oral-grade consonants (*v, *t, *k, *r) in others, e.g. North Efate *e pano he goes, he went, pwa vano go!* Broadly speaking, the nasal grade is associated with 'realis' categories, and the oral with 'irrealis' (conditional, future, imperative, etc.) (See Lynch 1975, Walsh 1981 for fuller discussion.) Systems of this kind are present in all languages of groups 4, 19, 20, 21 and 22 for which grammatical data is available, as well as in Raga (group 3).

These languages form a band along the eastern side of the CV area, with the apparent exception of group 18 (Ambrym). No alternation pattern of this kind has been described for any Malekula language, but there are scattered forms which could be relics of such an alternation. Pawley notes the Aulua numerals:

e-nrua	<i>two</i>	roku-rua	<i>seven</i>
e-ntil	<i>three</i>	rok-til	<i>eight</i>
e-mbis	<i>four</i>	rok-bis	<i>nine</i>

The following forms from Tryon's lists are also suggestive:

	<i>heavy</i> (T170)	<i>light (= not heavy)</i> (T171)
Mae (9)	i-ndrov	i-a-lov
Maragus (10)	i-ndiv	i-ti-tev
Unmet (10)	i-ndəv	i-te-tev

Rerep (13) also shows the following unexplained alternations (Morton 1891):

me buretin	<i>I speak the truth</i>	furetin	<i>he speaks truth</i>
i-borai	<i>he says</i>	hini forai	<i>he says</i>
me buri ju	<i>it is paid for</i>	ma se fuiri rumb	<i>it is not yet paid</i>

An optimistic reading of this fragmentary evidence could lead to the conclusion that a North Efate type consonant alternation was an innovation of Proto-Central Vanuatu which had ceased to be productive in a number of local groups. Indeed one may still hope that such a system will appear alive and well in one of the many undescribed languages of Malekula. On the other hand, as Lynch (1975) has shown, the alternation arises from the fusion of a 'realis' particle of the form *mV with the initial consonant of a following verb. Since such particles are common throughout NCV, it would not be surprising to find alternations of this type arising independently more than once.

2. Pawley observes that the lpsg independent pronoun (PO *inau) has *k-initial forms in many CV languages, e.g. Vovo (8) ghina, Big Nambas (10) kana, Litzlitz (11) xine, Unua (13) xina, Nasarian (15) koenoe, Maskelynes (16) kinau, Lewo (20) kinu, South Efate (22) kineu, all suggesting PCV *(kq)inau.

Nearly as widespread in the CV area are velar-initial second independent pronouns, with forms suggesting PCV *(kq)aiqo, e.g. Apma (4) kik, Unua (13) xai, Maskelynes (16) kaiugku, Malfaxal (17) ghayuqu, Paama (19) keiko, Maii (21) kaikə, South Efate (Eton dialect) (22) kag. (See Tryon's lists 211 and 212 for further examples.) Both of these innovative forms, however, are interdigitated with forms reflecting PNCV *inau and *niqo; compare Burmbar (14) lpsg inau, 2psg xaiugk; North Efate (22) lpsg kinau, 2psg niqo.

Pawley notes the irregular reflection of the postverbal completive particle *tua(i) as sua in Aulua and North Efate. I have not found any other CV languages that share this innovation. Since Paama (19) tuai and Baki (20) rue both reflect the original *t-, it would appear most likely that the Aulua and North Efate forms result from independent developments.

Pawley's other proposed grammatical innovations of CV are actually restricted to the Epi and Efate languages, and will be discussed in section 7.2. Here I add two further innovations which are reflected by most CV languages for which grammatical data are available.

3. There is a copula verb of the form *vei. It is reduced to *ve or *vi in many languages, and *b- and *v-initial forms alternate in languages which have the consonant alternation described above, e.g. Sa (4) e/be, Atchin (8) we, Big Nambas (10) v'i, Rerep (13) fe, Labo (17) vi, Paama (19) hi/vi, Baki (20) ve/mbe, North Efate (22) vej/pei. This verb takes NP complements, and sometimes also possessives and adjectives. The fact that it appears to be in complementary distribution with reflexes of PO *pai *make, do* may suggest its origin. An example cited by Ray (1926:414) shows a use of Tolomako (5) vei in a context which is suggestive of the transition involved: *movei tahonai he becomes well (is made good)*.

4. Plurality in nouns is marked by postposing the third plural independent pronoun, or a form which can plausibly be derived from such a pronoun, e.g., Sa (4) atuntun-er *the men*, Southwest Bay (17) nimorot ar *the men*, Baki (20) veru nalo *stones*. This construction does not seem to occur in groups 10, 21 or 22, though North Efate (22) has a postposed plural marker maaga, apparently of non-pronominal origin. Sakao (7) is the only NV language which has a similar structure, though here the plural marker occurs only as a suffix to certain postposed determiners, e.g. ara mam+tr *these pigs*.

7.1.2 Lexical evidence

See Appendix 4 for supporting data.

1. *PIG* (T59): *b(ou)kasi replaces PNCV *boyo (PO *mpoRo).
2. *GRASS* (T104): *mwana(iu) replaces PNCV *valisi (PO *palisi)
3. *RED* (T156): *miala replaces PNCV *mea (PO *meRa).
4. *DRINK* (T251): *minu, from PNCV *inu (PO *inum), perhaps by accretion of a verbal particle. Also in Raga and some southern Maewo dialects.

5. *SPONDIAS DULCIS*: *mali replaces PNCV *ʔusi (PO *quRi).
6. *PIGEON*: *kuiba replaces PNCV *bune (PO *mpune).

7.2 Epi and Efate

The epi and Efate languages (groups 20-22) share a few innovations:

1. Pawley noted similarities among the third person independent pronouns of his four CV languages which suggested common developments. With the much more complete sample provided by Tryon's lists, we can now see a great diversity of forms. Within this profusion, the Epi and Efate pronouns are similar enough to each other and distinct enough from the rest that they probably have a common origin:

Group	3SG	3PL
20 Lewo	naga	nagala
Bierebo	naga(na)	nal, lala
Baki	nai	nalo
21 Maii	ganə	galə
Bieria	gana	niga
22 Namakura	-nini	-niar
North Efate	naae	naara
South Efate	nega	neger

These forms could be plausibly derived from hypothetical Proto-Epi-Efate forms *nagaya *third person singular* and *nagara *third person plural*.

The other grammatical innovations suggested by Pawley are of less value:

2. Both Epi and Efate languages have lost dual and trial independent pronouns. But this seems to have happened also in various other NCV languages, e.g. Marino (3), Sowa (4), Wusi and Malo (6), Big Nambas (10). In fact, as Grace (1976:111-112) implies, repeated abolition and reconstruction of dual and trial pronouns may be endemic in Oceanic languages.

3. The second person plural subject pronoun (PO *(ka)muyu) is reduced to the form *kV. But there is a tendency everywhere to reduce such particles to CV shape. Again, several other NCV languages have followed a parallel path, e.g. Raga (3) ghi, Apma (4) ka, Tangoa (6) ka, Sakao (7) ghi, Atchin (8) ka.

4. The reciprocal prefix, PO *paRi-, reduces to *bi-/vi-. But loss of *R is expected here (see section 4.2), and the further reduction of CVV to CV is hardly unusual; in fact the same reduction has taken place in Wayan and Gilbertese as shown in Pawley's data.

Although none of these innovations in itself is particularly good evidence the conjunction of the three does tend to add some support to the hypothesis of an Epi-Efate subgroup.

Pawley mentions three lexical items which in Codrington's lists seem to be uniquely shared by the Epi and Efate languages: rarua *canoe*, goroi *woman*, and tamoli *man*. These now appear to have been a philological will-o'-the-wisp. They are North Efate words, but do not appear in any of Tryon's 15 Epi dialects. Probably they are contaminations in Codrington's sources, originating from the now extinct Livara dialect of North Efate which was spoken at the south-east end of Epi (Ray 1926:198).

There are, however, at least two clear lexical innovations of Epi-Efate:

1. *TONGUE* (T5): PNCV *mea changes irregularly to *mena, perhaps by accretion of the third person singular possessive suffix.
2. *TEN* (T196): PNCV *sagavulu is replaced by *rua-lima (*two-five*). This innovation is also found in neighbouring Paama (19).

7.3 Central Central

The remaining area of Central Vanuatu — Malekula, South Pentecost, Ambrym and Paama (groups 4 and 8-19) has three conspicuous uniquely shared lexical items, though only the first can be shown to replace a known reconstructed form. See Appendix 5 for data.

1. *HAND/ARM* (T12): PNCV *lima is replaced by *vara (cf. PO *qapaRa *shoulder*). But *lima is retained in group 10.
2. *PUT, PLACE, LEAVE*: *linji. cf. PO *linji *pour, spill, shed, exude*.
3. *PLACE* (n): *uta, probably from PO *quta *land, bush, interior*.

7.4 Ambrym and Pentecost

The close cultural and linguistic connections between South Pentecost and North Ambrym are reflected in a number of local innovations shared by groups 4 and 18. The largest number of these are animal names: *simo(lr)i *crayfish*, *taliteli *snake*, *bwaseli *bird*, *tabwaqan *mosquito*, *masalo *fish*, *riri *squid*, *tomo *rat*, *buli *butterfly*, *marit *eel*. Note also *kul *coconut* and *visavine *woman* with a unique infix. These innovations sometimes fail to encompass all of groups 4 and 19, and often extend to neighbouring languages as well: the Paama group, Raga and NE Aoba, and various languages of the east coast of Malekula. The confused pattern of isoglosses suggests cross-language and cross-group diffusion.

7.5 West Malekulan

As with the East Santo languages (see section 6.4), there is no evidence that the 'Malekula Interior Group' of Tryon's classification should be separated from the rest of NCV. The languages of this group share many of the innovations of Central Vanuatu just discussed. Their unity within themselves is less clear than in the case of the East Santo cluster. However, there is a group of lexical innovations which are restricted to Malekula and which occur most frequently in groups 10, 11, 12, 15 and 17. Among the innovative forms are *bulaqu *bone*, *bwaka *turtle*, *livakat *night*, *labut *rat*, *libak *dog* and *nitukas *mosquito*. In addition this group of languages has a unique base *izau- from which the numerals six-nine are formed. Both the semantic range of the items and their variable distributions are similar to those of the Ambrym-Pentecost area discussed in the preceding section.

This group, which we might term 'West Malekulan', differs from Tryon's 'Malekula Interior' in that it also includes Southwest Bay and Malfaxal of group 17. More importantly, it is seen not as a high-level separate group, but as a focus of a series of innovations.

8. SOME DISTRIBUTIONAL PROBLEMS

Several lexical innovations in the NCV area have clear distribution patterns which are nevertheless difficult to reconcile with the subgrouping picture developed in the preceding sections.

The first group cover a majority of NCV languages in both northern and central Vanuatu, but leave a relic area in the south :

YAM (T91, cf. also T211 *year*): PO *qupi is retained in groups 20-22 and in Paama (19). Most other languages reflect PNCV *Damu.

TARO (T92): PO *talo is retained only in North and South Efate (22) na-tale (with unexplained final vowel). The NV area, as well as South Pentecost and Ambrym, has *bweta, while the remainder of the CV languages have *buaqa.

BANANA (T99): PO *punti is retained only in Marino and Central Maewo (3) and in North and South Efate (22) (North Efate naadi, cf. naasu *bow* < PO *pusu). Most other CV languages reflect *vizi, while NV has *vatali.

SAIL (T142): PO *layaR is retained in groups 19-22, while most other languages reflect PNCV *kabani.

An opposite geographical configuration appears with the items for *FIRE* (T117) and *FIREWOOD* (T134). Groups 1 and 2 (Banks and Torres) preserve the PO forms *api *fire*, *lito *firewood*. Almost all other NCV languages have a single form with both meanings. This common form is *api in a few NV languages (Maewo and NE Aoba (3), Valpei (5), Wusi (6)), but elsewhere it is replaced by *kabu (cf. PO *kampu *burn*). The Banks and Torres appear as a relic area here as they did in the treatment of *R (section 4.2).

8.1 Numerals

A majority of NCV languages have replaced the Proto-Oceanic forms for the numerals from six to nine with morphologically complex additive structures, consisting of a base followed by the numerals from one to four. e.g., Mota *levea-tea six*, *levea-rua seven*, *levea-tol eight*, *levea-vat nine*. The forms of the base are so similar as to suggest strongly that a single innovation was involved, though it is hard to reconstruct a precise PNCV shape for the base. A majority of both NV and CV languages have been affected, but the following languages preserve the PO numerals:

- Group 3: Nduindui, NE Aoba and Raga
- 5: All languages except Tolomako
- 6: Tutuba, Aore, Malo
- 8: All languages
- 9: All languages

Geographically, there is an isolated relic area in north-west Santo, and a larger one comprising facing areas of Malekula, Santo (offshore islands only), Aoba and Pentecost. Recall that the two Aoba languages were likewise a relic area in retaining the possessive suffix *-mu (section 5.1).

8.1 Pronouns

Walsh (1982) has called attention to a widespread pattern in the first and second person non-singular pronouns (T214-216). All three plural pronouns are reconstructed with PO initial *k (PO *kami *first person plural exclusive*, *kinta *first person plural inclusive*, *kamuyu *second person plural*). In many NCV languages, however the inclusive pronoun has the regular reflex of PO/PNCV *k, while the other two have a different consonant, which in general is the reflex of PO *ŋg/PNCV *q.⁶ This is illustrated by Raga kamai (*exclusive*) gida (*inclusive*), kimiū (*second person plural*).

The Raga pattern (Nasal-Oral-Nasal), is reflected in most languages of groups 1-7 and group 18, as well as in Vao (8) and Paama (19). Elsewhere, almost every other possible combination of oral and nasal grades can be found. Walsh interprets these facts as evidence of an innovation shared by Tryon's East New Hebrides and West Santo groups. It seems to me, however, that it could as well as be a retention from PNCV. Suppose that at a pre-PNCV stage, all three pronouns have their initial consonants prenasalised (PNCV *qami *qida, *qamuyu), after which *qida reverts to oral grade, perhaps by dissimilation of two successive prenasalised stops. This gives the Raga pattern, which is retained by quite a few languages. However, pressure of analogy is always strong within pronominal systems. Some languages generalise the nasal grade (e.g. groups 8-11), others the oral (Lakona (2), Aoba (3), SE Ambrym (19), Maii (21)), others produce yet other inconsistencies.

9. NCV AND SOUTH VANUATU

Lynch (1978) argues that the eight languages of Eromanga, Tanna and Aneityum comprise a South Vanuatu (SV) subgroup, and speculates that it may be a first-order subgroup of Oceanic. The latter possibility, of course, can only be established by failure to find evidence for subgrouping SV with any other languages below the Oceanic level. The following resemblances between innovative lexical forms in NCV and SV are given as material for further research into the relationship between these two groups. SV forms are either Proto-SV reconstructions from Lynch 1978, or forms from Sie (Eromanga), Lenakel and Kwamera (Tanna) and Aneityum.

RIGHT HAND (T28): PNCV *matu?a, PSV *mwatu-.

FLYING FOX (T79): PNCV *qarai, PSV *(g)kidai.

TURTLE (T85): PNCV *?avua. SIE na-vu, LEN ia-u, ANT na-hou. Lynch derives these forms from PO *ponu, but I believe a form cognate with *?avua will do at least as well.

ROOT (T105): PNCV *kawa(Ri). ANT ne-cvan, showing the same metathesis from PO *wakaR.

STAR (T109): *mwasoyo. SIE mosi, LEN mahau, ANT in-mojev.

EARTHQUAKE: PNCV *muki, SIE no-miux, LEN mwig, ANT no-moi.

CYCAS PALM: PNCV *mwele. LEN n+-m+l.

GHOST: PNCV *(?a)tamate. LEN iarm+ts, ANT natmas.

TOMORROW: PNCV *marani. SIE mran, ANT imrany.

Grammatically, the NCV innovations in locative prepositions may be compared with SIE ra, LEN le. Note also the biposed negative in LEN is-V-aan.

The final group of lexical items are reconstructed only for subgroups of NCV, but have resemblances in one or more SV languages:

LIVER (T20): *mwabwe, occurring widely in Santo and Malekula. Sie mou, LEN nakan-mop, ANT in-mopo-k. cf. PO *maŋpe *chestnut*.

PIG (T59): PCV *b(ou)kasi. SIE no-mpxahi, LEN pukas, ANT pikad.

FIRE (T117): PNCV(?) *kabu. KWM n-ap, ANT in-xab.

TEN (T196): Epi-Efate *ruaIima. SIE naruolem. Like most NCV languages, the SV languages have re-formed the numerals six to nine as additives on a base of five, but there is no apparent formal agreement.

DRINK (T251): PCV *minu. LEN amnuumw, ANT amony, amnyii.

TONGUE (T5): *lua-mea, found in Merlav, Maewo and several central Malekula languages. Sie ne-luam-, KMW ne-ram.

FINGER: PNV *bisu. LEN p+sp+s, ANT nu-ps. Lynch reconstructs PSV *pot(ie), but as in the case of *TURTLE*, the NV form might do just as well.

10. CONCLUSIONS

Pawley's hypothesis of a North Hebridean subgroup appears supported by additional evidence now available. This group, now called North and Central Vanuatu, comprises all non-Polynesian languages from the Banks and Torres to Efate including the East Santo and Malekula Interior groups. The latter languages, which appeared highly deviant in Tryon's survey, now seem to be innovative local groups, but not separated at a high level from their neighbours.

A relatively gradual differentiation of NCV into regional dialects is suggested by the existence of sub-NCV innovations (section 8) which leave relic areas in the north (Banks and Torres), the south (Efate-Shepherds-Epi) and the centre (Aoba and neighbouring islands). Compare the comments by Pawley (1981) on the NCV area as a sort of hyper-Fiji, where regional languages have further split into chains of closely-related languages.

The major division within NCV appears to be between a northern and a central part, with the boundary running between Santo and Malekula and between Raga and the remainder of Pentecost. This corresponds approximately with the north being of a matrilineal, 'dual organisation' social structure, in which the graded society is generally referred to as *subwe, while in the patrilineal area to the south (Malekula, Ambrym, Epi) it is called *maqi. Peter Crowe (personal communication) has also drawn my attention to a musicological boundary at approximately the same place, with horizontal slit-gongs in the north, upright gongs in the south, and a transitional zone where gongs are set in the ground at a 45-degree angle.

The position of some languages lying near this boundary is still somewhat doubtful. North Malekula languages, particularly groups 8-10, show some anomalous features for members of the Central group, as do those of South Pentecost (group 4). Even Raga (3) is in some ways not at home in the northern region. All that is clear at this stage is that no theory which assumes diffusion to be of negligible importance (section 4.1) is likely to succeed in clarifying their position.

The languages of Santo probably comprise a genetic unit. The remaining NV languages seem to be unified mainly by retentions rather than innovations, though obviously the Banks-Torres group has innovated a good deal, with some influence beyond its boundaries. (See *pei *water*, Tlll, for a particularly clear example.)

Within Central Vanuatu, the major split appears to be between Epi-Efate and the rest. Group 19 (Paama and South-East Ambrym) appears somewhat uncertain in its affinities between these two. Epi and Efate may constitute a subgroup, but the evidence is not very strong. The remaining CV area (Malekula, Ambrym and South Pentecost) shows a number of areas of clear shared innovation, probably at a relatively late (cross-language or cross-group) stage.

There are significant shared lexical innovations between NCV and South Vanuatu. In fact, it is hard to find a clear instance of SV preserving an original feature lost by NCV. We must seriously consider the possibility of a larger Vanuatu subgroup, which splits into NCV and SV; or perhaps even a more intimate relation, considering that SV seems to uniquely share a few innovations with sub-sets of NCV languages.

Table 1: the 22 local groups

1. Torres: Hiw, Toga (69)
2. Banks: Lehali, Lehalurup, Motlav, Mota, Vatrata, Mosina, Koro, Wetamut, Lakona, Merlav (72)
3. Aoba-Maewo: Marino, Central Maewo, Baetora, Northeast Aoba, Nduindui (69), Raga (62)
4. South Pentecost: Sowa, Seke (77), Apma (65), Sa (61)
5. Northwest Santo: Valpei, Nokuku, Tasmate, Vunapu, Piamatsina (74), Tolomakó (68)
6. South Santo: (a) Western: Wusi, Malmariv, Lametin, Navut (74), Roria (60)
(b) Southwestern: Akei, Fortsenal, Wailapa, Araki, Tangoa (74)
(c) South Central: Morouas, Amblong, Narango (76)
(d) Southeastern: Mafea, Tutuba, Aore, Malo (73), Tambotalo (64)
7. East Santo: Polonambauk, Butmas-Tur (75), Lorediakarkar/Shark Bay (65), Sakao (50)
8. Northeast Malekula: Vovo, Vao, Atchin, Uripiv-Wala-Rano (71), Mpotovoro (65)
9. Malua Bay, Mae (68)
10. Big Nambas, Maragus (58)
11. Larevat, Vinmavis, Litzlitz (57)
12. Lingarak, Katbol (59)
13. Rerep, Unua (76)
14. Aulua, Burmbar (72)
15. Small Nambas: Letemboi, Repanbitip (69), Dixon Reef (64), Nasarian (?)
16. Southeast Malekula: Port Sandwich, Axamb, Maskelynes (69)
17. Southwest Malekula: Southwest Bay, Malfaxal (71), Labo (54)
18. Ambrym: North Ambrym, Lonwolwol, Dakaka, Port Vato (73)
19. Paama: Southeast Ambrym, Paama (71)
20. Epi: Lewo, Bierebo, Baki (74)
21. Maii, Bieria (71)
22. Efate-Shepherds: North Efate, South Efate (70), Namakura (60)

Note: Group 6 is a single chain of 16 closely-related languages with two outliers. For convenience it has been broken into four subsets with still closer relations among themselves.

Table 2: Consonant correspondences for representative NCV languages

For multiple reflexes, the following notations are used: X/Y means the reflexes are phonologically conditioned, X-Y means the reflexes occur in different dialects; X=Y means that both reflexes are given in sources but I suspect they are not phonemically distinct; and X,Y means that the basis for the multiple reflexes is not known.

PO	*p	*mp	*ŋp	*t	*nt	*k	*ŋk	*q
PNCV	*v	*b	*bw	*t	*d	*k	*q	*?
1. Hiw	v/w	p	kw	t	t	gh	k	0
2. Mota	v/w	p	pw	t/s	n	gh	k	0
3. Nduindui	v	b	qw	t	d	k	q	0
4. Sa	0	b/p	bw	t/c	d/t	0,k	g/k	0
5. Nokuku	v/w	p	pw/p	t	?	k	?	0
6. Malo	v	b	bw	t	d	x,gh	k	0
Fortsenal	v	p=b	p=b	t	k	0	k	0
7. Sakao	y/0	v/dh	v	dh	r	0	gh	0
8. Atchin	v=w	b=p	bw/p(w)	t/ts=c	r/ts=c	0	k	0
Vao	v/v"	p/p"	b	t/h	r	gh	k	0
9. Malua Bay	v	b/p	b	t/s	r	gh/x	q/k	0
10. Big Nambas	v/v"	p/p"	p	t,0	d(r)	x/0	k	0
11. Vinmavis	v	b/m	b	t/h/s	nt	?,x	q/g	0
12. Lingarak	v	b/mp	b(w)	t/s	d/ns	gh	gk	0
13. Rerep	v	b/mp	bw	t/c	r	x/gh	g/gk	0
14. Aulua	v	b/mp	b	t/s	d/s	x-gh	q/gk	0
15. Dixon Reef	v/p	b/mp	b	t/s	d	k,0	q/gk	0
16. Pt Sandwich	v	b	b	r/ts-c	dr	gh	g/q	0
17. SW Bay	v	mp,b	b	t/s	d	?	gk,q	0
Labo	v/w/p	b	b	t/s	d	0,?,k	q	0
18. Lonwolwol	v/w	b,p	p	t/r,c	n/d	h	k	0
19. SE Ambrym	h	v,w	v	t	r	0	k	0
20. Lewo	v/w/0	p	pw,p	t,s/r	t,s/r	k,0	k	0
Baki	v	b	bw	t/r	t/r	k,s	k,s	0
21. Bieria	v	b,p	b	t,s	t,s,d	k	q	0
22. North Efate	v/w	p	pw	t	d	k	g	0
Namakura	v/w	b	bw	t	d	k	q/g	?

PO	*s	*ns	*m	*ŋm	*n	*n	*ŋ
PNCV	*s	*z	*m	*mw	*n	*ny	*g
1. Hiw	s, t, 0	s	m	mw	n	n	g
2. Mta	s	s	m	mw	n	n	g
3. Ndd	h	s	m	gw	n	n	g
4. Sa	s	s	m	mw	n	n	g
5. Nok	s	ts	m	m	n	n	n
6. Mlo	s	nc	m	m	n	n	g
Fts	s	ts	m	m	n	n	n
7. Sak	h	h	m/n	m/n	n	n	g
8. Atc	s	c-ts	m	mw	n	n	g
Vao	h	s	m/m''	mw	n	n	g
9. Mlb	s	c-ts	m	mw	n	n	g
10. Bgn	0	s	m/m''	m/m''	n	n	n
11. Vmv	s/h	nts	m	m	n	n	g
12. Lgk	s	(n)s	m	mw	n	n	g
13. Rep	s	c	m	mw	n	n	g
14. Aul	s	s	m	m(w)	n	n	g
15. Dxr	s	s	m	mw	n	n	g
16. Psw	s	c	m	m(w)	n	n	g
17. Swb	h	s	m	m	n	n	g
Lab	s, 0	s, 0	m	m(w)	n	n	g
18. Lww	s	s, 0	m	mw	n	n	g/n
19. Sea	s	h	m	m	n	n	g
20. Lew	0	0	m	mw	n	n	g
21. Bie	h	h	m	mw	n	n(y)	g
22. Nef	s	s	m	mw	n	n	g
Nmk	h, s	h, s	m	mw	n	n	g

PO	*d,*R	*nd	*R	*l	*w,*p	*y
PNCV	*r	*nr	*R	*l	*w	*y
1. Hiw	gh	t	gh	y	w	0
2. Mta	r	n	r	l	w	0
3. Ndd	r	d	0	l	kw	0
4. Sa	r	d	0	l	w	0
5. Nok	r	?	0	l	0/w	0
6. Mlo	r	d	0	l	w	0
Fts	r	k	0	l	0	0
7. Sak	r	r	0	l	w	0
8. Atc	r	r	0	l	w/0	0
Vao	r	r	0	l	w	0
9. Mlb	r	r	0	l	w	0
10. Bgn	r	d	0	l	w	0
11. Vmv	r	nr	0	l	w	0
12. Lgk	r	dr	0	l	w	0
13. Rep	r	r	0	l	w	0
14. Aul	r	dr	0	l	w	0
15. Dxr	r	dr	0	l	w	0
16. Psw	0/r/l	dr	0	0/r/l	w	0
17. Swb	r	d	0	l	w	0
Lab	x	r	0	l,dh	w	0
18. Lww	r	d	0	l	w	0
19. Sea	l	r	0	l,0	0	0
20. Lew	l	nd,s	0	l	w	0
Bak	c/l	t/r	0	c/l	w	0
21. Bie	l	t,s,nd	0	l	w	0
22. Nef	r	d	0	l	(w)	0
Nmk	r	d	0	l	0	0

Appendix 1: Sources of data

The lists in Tryon 1976 cover all NCV languages mentioned in this paper. Other sources of data are listed in this appendix. Pawley 1972 draws his data from published sources listed below, chiefly Codrington 1885 (C) and Ray 1926 (R). Two other works which cover a number of languages are Charpentier 1982, which gives lexical data on Rerep (13) and all languages of groups 14-17, and Gowers 1976, which has tree names from throughout Vanuatu. Languages names in parentheses below are those used by the source which differ from Tryon's. Sources preceded by + are scripture translations; full references for these are not given, but most may be found in O'Reilly 1958.

Group

1	Toga	C (Lo)
2	Lehali	C (Norbarbar)
	Motlav	C (also Volow)
	Mota	C Codrington and Palmer 1896, +Bible 1912.
	Vatrata	C (Leon and Sasar, Pak)
	Mosina	C (also Vuras)
	Nume	C (Gog)
	Lakona	C (Lakon)
	Merlav	C
3	Marino	C (Maewo), Ivens 1940-2b (Lotor)
	Baetora	Peter Crowe (field notes)
	NE Aoba	C (Oba, Walurigi), Ivens 1940-2a (Lobaha), Suas
	Nduindui	+Matthew and Mark 1973
	Raga	C (Arag), Ivens 1937-1939 (Lamalanga), Walsh 1966
4	Apma	+Mark and John 1977
	Sa	Tattevin 1929, Elliot 1976
5	Nokuku	R (Nogugu), +John 1946
	Tolomako	C (Marina), R (Bay of Sts Philip and James)
6	Akei	R (Tasiriki), +John 1909, Genesis and Jonah 1912
	Fortsenal	Thomas Ludvigson (field notes)
	Tangoa	R, Annand in Macdonald 1889-1891, Camden 1979
	Malo	Landels in Macdonald 1889-1891, +Selections 1954
7	Sakao	Guy 1974, +Psalms 1949, NT Selections 1959
8	Vao	Layard 1942
	Atchin	Capell and Layard 1980
9	U-W-R	R (Uripiv), +Mark, Luke and Acts 1893-1905
10	Big Nambas	Fox 1979a, b, Corlette 1947
11	Larevat	Deacon 1924
	Vinmavis	Deacon 1924 (Lambumbu)
	Litzlitz	Deacon 1924 (Lagalaga)
13	Rerep	Morton in Macdonald 1889-1891 (Pangkumu)
14	Aulua	R
16	Pt Sandwich	Charpentier 1979
	Maskelynes	R (Kuliviu), +Mark 1906

Group

- 17 SW Bay R (Sinesip), Deacon 1924 (Seniang)
Labo R (Meaun), Deacon 1924 (Mewun)
- 18 N Ambrym C (Ambrym)
Lonwolwol R (Ambrim), Paton 1971, 1973, +Acts 1949
- 19 SE Ambrym Parker 1968, 1970
Paama R, Crowley 1982, +New Testament 1944
- 20 Lewo R (Tasiko), Early MS.
Baki R, Fraser in Macdonald 1889-1891, +Matthew and Mark 1911
Philippians and Thessalonians 1914, Psalms 1914
- 21 Bieria Fraser in Macdonald 1889-1891, Luke 1914
- 22 Namakura Field notes
North Efate C (Fate), R (Nguna), Schütz 1969a, b (Nguna), +Bible
1972, field notes by A.J. Schütz, Ellen Facey and
myself
South Efate Field notes, +Mark 1866, Genesis 1874

Appendix 2: Lexical innovations of PNCV: supporting evidence

14. *EEL*: PNCV *maraya: (2) MTA marea (3) NDD marai (5) TMK narae (6) FTS marai (8) ATC mara (22) NMK mara NEF marae. cf. also (16) PSW marir (18) LWW maret (19) SEA melit, though these may be from PNCV *marita *rope*.
15. *NETTLE TREE*: PNCV *qalato: (2) MTA kalato (3) NEA galato NDD qelato (5) NOK elat (7) SAK gholadh (8) ATC kalat VAO -kalat (15) DXR -qalate (16) MSK -qalat (17) SWB -qalat (18) LWW gelar, gelat.
16. *CORDYLINAE SP.*: PNCV *(qk)aria: (2) MTA karia (6) FTS karia (8) ATC kari (15) DXR -karie (16) PSW kari (17) SWB -ari (22) NMK kari NEF -karie.
17. *KAVA*: PNCV *maloku: (6) FTS maloo (8) VAO maloghe (10) BGN m'aləx (13) REP merox (16) PSW maix (17) MFX -malu (19) PAA malou (22) NMK malok NEF -maloku.
18. *CHEW, REFUSE OF CHEWING*: PNCV *samwa: (2) MTA samwai (7) SAK sama- (10) (10) BGN sama- (13) REP jama- (17) LAB samwe (22) NMK humwa- NEF -samwa.
20. *AGAINST*: PNCV *(qk)oro: (2) MTA ghorō (3) NDD koro BAE ghorō (4) PSA goro (5) NOK -kor TMK goro (6) AKE ?oro- TNG ghorō- (7) SAK ghor (8) VAO ghorō ATC hore (16) MSK kokol (17) SWB qor LAB qoxo (18) LWW goro (19) SEA xole (22) NEF koro.
21. *LAPLAP (PUDDING)*: PNCV *loqo: (2) MTA loko (3) BAE logko NDD -loqo (8) VAO -lok ATC lok (15) LET -laqa (16) MSK -logk (17) MFX -loq (18) LWW lok (19) SEA e-ok PAA -loko (22) NMK log.
22. *CYCAS PALM*: PNCV *mwele: (2) MTA mwele (3) NDD gwele (6) FTS mele (7) SAK oemaol (8) VAO mel ATC mwel (11) VMV -mule (17) SWB mweil- (22) NMK mwai NEF -mwele.

23. *GHOST*: PNCV *(a)tamate: (2) MTA tamate (3) NDD tamate (4) PSA atmat (5) NOK temat (6) FTS tamate (7) SAK edhenm (8) ATC ta-mats (10) BGN tam"a (11) VMV -temah (16) PSW ramac (17) SWB temes (18) LWW temar (19) SEA temaet (22) NEF -atamate.
24. *PEACE*: PNCV *tamwate: (2) MTA tamwata (3) NDD tagwata (6) AKE tamata (8) ATC tamat (13) REP damat (16) PSW ramar *neutral place* (17) SWB -tamate LAB -tamate (18) LWW tamar (*sleep*) *deeply, soundly* (19) SEA tamat PAA tomato (22) NEF tamwate.
25. *CHIEF, BIG MAN, GRADED SOCIETY*: PNCV *subwe: (3) MTA supwe *the club, society* (3) NDD huqwe (8) ATC sup *old man* VAO -hube *title for old man* (16) PSW -sub *high man* (19) SEA sup *chief* PAA asuvo *chief* (20) LEW supwe *king* (22) NEF supwe *image of ancestor, god*.

Appendix 3: Northern innovations proposed by Pawley

These tables show the distribution, by local groups, of 12 NV lexical innovations suggested by Pawley (1972:116-117). For each group, the innovative form cited is from the representative language listed at the left, unless otherwise specified. X means that a conservative form occurs in the group, while - indicates either a lack of data, a third form (i.e. one which is equivocal as to the innovation), or cases where the original form is unknown (e.g. *finger*).

	*vatali <i>banana</i>	*bisu <i>finger</i>	*bw(eo) ro <i>ear</i>
1. HIW	votoi	pus-	X
2. MTA	vetal	pisi-u	pworo-/X
3. NDD	fatali/x	bihu	qwero-
5. NOK	vetoli	-	X
6. MLO	vetai	FTS pisi-	pwero-/X
7. SAK	idhel	-	oevaor-
4. PSA	-	-	X
8. ATC	-	buesh	pora-
9. MLB	-	mbis	mboro-/X
10. BGN	-	pise-n [?]	X
11. VMV	-	-	X
12. LGK	-	KTB soemboe-	X
13. REP	-	mbusumbs umb	X
14. AUL	-	BBR na-mboesmboe-	-
15. DXR	-	-	X
16. PSW	-	mbus-	X
17. SWB	-	-	X
18. LWW	-	-	X
19. SEA	-	PAA haasua- [?]	X
20. LEW	-	pasu <i>thumb</i>	X
21. BIE	-	-	X
22. NEF	X	-	X

	*vi(nrl)u skin	*mazi fish	*karivi rat
1. HIW	X	X	X
2. MTA	vini-/X	VTR mes/X	X
3. NDD	vinu-	BAE mas/X	karivi
5. NOK	X	VNP matsi/X	keriv
6. MLO	WUS vinu-/X	manci	xarivi
7. SAK	SKB viri-	enes	SKB ive [?]
4. PSA	SOW vinu-	X	-
8. ATC	vuelvuelu-	VAO na-m"as	n-ariv
9. MLB	no-vlo	nə-mats	na-gharip
10. BGN	n-il	MGS nə-mets	-
11. VMV	ni-vini-	LVT nə-ments/X	-
12. LGK	-	X	-
13. REP	viri-	X	X
14. AUL	-	X	X
15. DXR	X	X	X
16. PSW	X	X	X
17. SWB	X	-	X
18. LWW	X	-	-
19. SEA	X	X	X
20. LEW	X	X	X
21. BIE	X	X	X
22. NEF	X	X	X

	*sari spear	*l(oi)(dt)o spit	*turi/ai body
1. HIW	-	-	-
2. MTA	isar	MRL lot/X	turiai
3. NDD	hari	lito	turegi
5. NOK	-	lotou	-
6. MLO	sari	lito/X	-
7. SAK	eher	X	-
4. PSA	-	X	-
8. ATC	ne-sar	lutou	-
9. MLB	n-sar	-	-
10. BGN	MGS sar	-	-
11. VMV	-	-	-
12. LGK	-	-	-
13. REP	UNA ne-ser	rut	-
14. AUL	BBR -ser	-	-
15. DXR	-	-	-
16. PSW	-	-	-
17. SWB	-	-	-
18. LWW	-	X	-
19. SEA	-	X	-
20. LEW	-	-	-
21. BIE	-	-	-
22. NEF	-	-	-

		*matu/gi <i>coconut</i>	*taDun <i>person</i>	*lama <i>sea</i>
1.	HIW	matu/gi	-	yamə
2.	MTA	matigh	tanun	lama
3.	NDD	matui	RAG atatu	MNO lama/X
5.	NOK	VLP matui	-	X
6.	MLO	MAF m"atiu	FTS takun	X
7.	SAK	SKB netsi	-	X
4.	PSA	-	atuntun	X
8.	ATC	-	-	X
9.	MLB	-	-	X
10.	BGN	m"etu	-	X
11.	VMV	-	-	X
12.	LGK	-	-	X [?]
13.	REP	-metmet	-	X
14.	AUL	-	-	X
15.	DXR	-mat	-	X
16.	PSW	-maru	-	X
17.	SWB	-metu	-	X
18.	LWW	-	-	X
19.	SEA	maetu	-	X
20.	LEW	maru	-	X
21.	BIE	metoma [?]	-	X
22.	NEF	mwaritou [?]	-	X

Appendix 4: Lexical evidence for Central Vanuatu

These tables follow the same conventions as in Appendix 3, with the addition that in the items not on Tryon's lists, conservative forms are cited in square brackets rather than represented by X.

		*bukasi <i>pig</i>	*mwana(iu) <i>grass</i>	*miala <i>red</i>
1.	HIW	-	X	X
2.	MTA	X	X	X
3.	NDD	X	-	X
5.	NOK	X	X	-
6.	MLO	X	X	-
7.	SAK	X	-	-
4.	PSA	X	X	X
8.	ATC	pua	-	MPT -nial
9.	MLB	bukəs	-	i-mel
10.	BGN	pua	-	i-m"ial
11.	VMV	nu-buah	ni-mwini	i-miali
12.	LGK	-	TBB a-mwanai	i-mial
13.	REP	bue	-	-
14.	AUL	bue	na-məne	miel
15.	DXR	buas	LTB monai	i-miemial
16.	PSW	buas	-	-
17.	SWB	ni-buwes	ni-mwenei	ti-memal
18.	LWW	-	PVO bor/minye	-
19.	SEA	PAA fuas	hus/mwənai	-
20.	LEW	pui	ma/mwini	-
21.	BIE	bukah	lu/mwona	-
22.	NEF	NMK -mbokah	-mwənau	miala

	* <i>minu drink</i>	* <i>mali Spondias</i>	* <i>kuiba pigeon</i>
1. HIW	X	-	-
2. MTA	X	[us]	[pwona]
3. NDD	X/RAG <i>mwinu</i>	[RAG <i>uhi/gai</i>]	
5. NOK	X	[ousi]	-
6. MLO	X	-	-
7. SAK	-	[noe]	-
4. PSA	- <i>mini</i>	-	up
8. ATC	- <i>mini</i>	[UWR <i>na-us</i>]	-
9. MLB	- <i>min</i>	-	-
10. BGN	- <i>m"ene</i>	-	ghup"
11. VMV	- <i>min</i>	-	-
12. LGK	- <i>minio</i>	-	-
13. REP	- <i>min</i>	-	-
14. AUL	- <i>migna</i>	-	-
15. DXR	- <i>mən</i>	-	-
16. PSW	MSK - <i>mueni</i>	mar/kokoc	na-xumb
17. SWB	- <i>min</i>	MFX <i>na-van/mal</i>	no-oimb
18. LWW	- <i>minu</i>	mel	um
19. SEA	- <i>muni</i>	mael	uip
20. LEW	- <i>muni</i>	melmel	kupa
21. BIE	- <i>mun</i>	-	-
22. NEF	<i>munugi</i>	na-mali	wiipa, NMK kiim

Appendix 5: Three Central-Central innovations

1. *HAND/ARM*: **vara*: (4) PSA *ra-* (8) ATC *wera-* (9) MLB *-vəra-* (11) VMV *-vera-* (12) LGK *-vra-* (13) REP *veru-* (14) AUL *vari-* (15) DXR *-vari* (16) PSW *vea-* (17) SWB *-vara-* (18) LWW *wera-* (19) SEA *heo-*.
2. *PUT, PLACE, LEAVE*: **ligi*: (4) PSA *ligi place* (8) VAO *ligi lead, conduct, accompany* ATC *ligi conduct, ferry* (14) AUL *ligi allow* (16) MSK PSW *rigi put* (18) LWW *ligi put, place, let go* (19) PAA *ligi leave, put*.
3. *PLACE (N)*: **uta*: (8) ATC *ut place, time* UWR *nutu place* (10) BGN *nut place* (14) AUL *nuta place, country* (16) MSK *naut-place* (17) SWB *ne-wut space period, part* (18) LWW *or place, weather* (19) SEA *ut place, area, land* PAA *out place*.

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NOTES

1. The grouping of lists into languages and the language and place names used by Tryon (1976) will be followed in this paper, except that 'Vanuatu' is used for 'New Hebrides'. Thus some more recent toponymic reforms are not reflected here; e.g. 'Aoba' is now officially known as 'Ambae'.
2. I work with Tryon's figures rounded to the nearest one percent. On this basis, Lorediakarkar and Shark Bay (group 7) are dialects of the same language, having a shared cognate percentage of 80.5, rounded to 81. On Tryon's own criteria, Lamenu ought to be separated from the rest of Lewo (20), with which it shares no more than 78.8%; and Lelepa (22) ought to be a separate language from both North Efate (78.9%) and South Efate (72.0%). Nevertheless I continue to work with the dialects as grouped in Tryon's table (1976:87-93).

For simplicity's sake, I have also not taken into account the fact that many of the cognate percentages are based on fewer than 200 comparisons, and clearly inflated as a result. This appears to be important only in the case of group 8, which forms a chain only by virtue of the percentage Rano-Vao 71.1%. If we eliminate this (all of Rano's percentages being inflated), group 8 falls into a northern part (Vao, Vovo, Mpotovoro) and a southern (Atchin, Uripiv-Wala-Rano).

3. With the exception of Proto-Oceanic forms, for which I use the standard orthography, all other forms cited in this paper are in a consistent broad transcription with a minimum of special phonetic symbols. The occasional resulting ambiguity seems acceptable at this stage and level of investigation. *In addition to their normal phonetic values*, letters are used as follows:

b = [mb]	ae = [æ]
d = [nd]	oe = [ö, œ]
q = [ŋg]	ue = [ü]
c = [č]	ao = [ɔ]
j = [j]	e = [ɛ]
v = [β]	o = [ɔ]
th = [θ]	a = [ʌ]
dh = [ð]	pw, mw etc. are labiovelar consonants
sh = [ʃ]	p", m" etc. are apico-labial consonants
z = [ts]	
gh = [ɣ]	
g = [ŋ]	
ny = [ñ]	

4. The non-zero reflex of *R is the same as that of PO *d in all NCV languages.
5. All the languages in question have shifted *m, but a few have not shifted *b or *v.
6. Raga is unusual in that PNCV *q has split, being reflected as q in most lexical items, but as k in a few grammatical phonemes.

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