Southern Oceanic linguistic history

John Lynch
Linguist

Introduction

Recent research suggests the following interrelationships between the non-Polynesian languages of what I will refer to as *Southern Oceania* (i.e. Vanuatu and New Caledonia)[1]:

(a) the languages of Southern Vanuatu and New Caledonia form a single subgroup of Oceanic – the *Southern Melanesian* family;

(b) these Southern Melanesian languages and the languages of north and central Vanuatu form a higher-level grouping – the *Southern Oceanic* linkage[2]; and

(c) within Southern Oceanic, the Southern Melanesian languages are most closely related to the languages of Central Vanuatu, as members of a *Nuclear Southern Oceanic* linkage; specifically, their closest relative is the South Efate language.

These interrelationships are set out diagrammatically in (31) below.

---

[1] The terms "family" and "linkage" will be explained in §3. Much of §2 of this paper is based on Lynch (f/c). I am grateful to Ross Clark, Terry Crowley, Paul Geraghty, Jeff Marck, Françoise Ozanne-Rivierre, Andrew Pawley, Malcolm Ross and Darrell Tryon for comments on that paper, and to Robert Early and Matthew Spriggs for comments on an earlier draft of this paper.

---

[2] The term "Southern Oceanic" has previously been used to refer to only the New Caledonian languages, and then only by Geraghty (1989). It seems to me that "New Caledonian" is a perfectly adequate name for this group, and that "Southern Oceanic" should be reserved for a geographically more widespread subgroup – like the one proposed here.

In this paper, I will (i) briefly discuss the evidence for these hypotheses, (ii) make some reference to the external connections of these subgroups (particularly in the southeastern Solomon Islands and in Fiji/Polynesia), and (iii) summarise recent research on Polynesian-Melanesian contact in Southern Oceania. In each case, I will also look at the implications that the linguistic data may have for reconstructing the history of this region.

▌The Southern Oceanic hypothesis

The evidence for the hypotheses presented briefly above is mainly of a phonological and morpho-syntactic nature: innovations in the development of Proto Oceanic (POc) phonemes or irregular developments of reconstructed lexical items, and innovations in the development or in the syntactic behaviour of morphemes. There may also be lexical evidence – such as lexical replacement innovations – in support of these hypotheses, but to date there has been insufficient work done on most of these languages (and indeed on most other Oceanic languages) to allow lexical innovations to be proposed with any certainty. The evidence I present here does not always include full supporting details; those may be found in Lynch (f/c).

Evidence for the Southern melanesian subgroup

The following exclusively shared innovations support the view that the Southern Vanuatu (SV) and New Caledonian (NC) languages belong to a single Southern Melanesian (SM) subgroup, and derive from a single interstage language which I call Proto Southern Melanesian (PSM)[3].

---

[3] Language names are given in full; note that the name of the main language of Erromango was written as Sie but is now Sye (Terry Crowley p.c.). Subgroup names and names of proto-languages, however, are often abbreviated; these abbreviations are:

CV	Central Vanuatu	PNC	Proto New Caledonian
NC	New Caledonian	PNCV	Proto North-Central Vanuatu
NCV	North-Central Vanuatu	POc	Proto Oceanic
NV	Northern Vanuatu	PSM	Proto Southern Melanesian
SM	Southern Melanesian	PSO	Proto Southern Oceanic
SO	Southern Oceanic		
SV	Southern Vanuatu		

Poc *ma 'and' > PSM *ma 'same-subject marker'

The Proto Oceanic coordinating conjunction *ma 'and' was apparently reinterpreted in putative Proto Southern Melanesian as a preverbal marker indicating that the subject of the clause it occurs in is the same as the subject of the preceding clause. In the Southern Vanuatu languages, this subsequently became an enclitic m- to the verb phrase; compare:

(1) Anejom̃[4]

(a) *Et   awod   Pil   a   Jon   am̃   lep   et   aha   aen.*

3SG:AOR hit   Bill S   John and   then   3SG:AOR   run:away   he

'John hit Bill and he (Bill) ran away.'

(b) *Et   awod Pil   a   Jon   lep   m-aha   aen.*

3SG:AOR   hit   Bill S   John then   SS-run:away he

"John hit Bill and he (John) ran away."

The same development appears to have taken place in at least some New Caledonian languages, although the form remained a free particle rather than becoming a clitic: compare the use of the Drehu conjunctions *nge* "and (different subject)" and *me* "and (same subject)" in (2) below:

(2) Drehu

(a) *Angaatr palahi   a   hnyima   nge   angeic la   a   treij.*

They   always PRES   laugh   and:DS   he   this   PRES   cry

"They are still laughing and he is crying."

(b) *Angaatr   a   i-aba   me   i-hnyima.*

they   PRES DETR-embrace   and:SS   DETR-laugh

"They embraced each other and laughed together."

---

[4] Orthography usually follows that of the sources, though I occasionally use a more strictly phonemic orthography when discussing phonological issues. Abbreviations used in citing grammatical data are:

1,2,3	first, second, third person	AOR	aorist	DETR	detransitiviser
DS	different-subject	EXC	exclusive	INC	inclusive
PL	plural	PRES	present	S	subject-marker
SG	singular	SS	same-subject		

Some New Caledonian languages do not reflect *ma with this function; the assumption here is that they have made subsequent morpho-syntactic changes.

Irregular developments in the non-singular pronouns

The Proto Oceanic independent or disjunctive first and second person plural pronouns were probably:

(3) Proto Oceanic

*kita	1INC:PL
*ka[ma]mi	1EXC:PL
*kam(i)u	2PL

Proto Southern Vanuatu (PSV) made one innovation in this pronoun system, and two others were working their way through the system when PSV began to break up. The innovation shared by all SV languages is a change from *t to *d and metathesis of the vowels of the 1INC form, POc *kita becoming something like *kadi:[5]

(4)   Sye *koh*, Ura *qis*

North Tanna, Whitesands *kit-*, Lenakel kat-, Southwest Tanna *kat-*, Kwamera *kət-* Anejoñ *a/kaj-*.

The forms *kami 1EXC:PL and *kamiu 2PL are retained in Erromango and in western and southern Tanna; e.g.:

(5)   Sye   Lenakel Kwamera

kam	kam-	kəm-	1EXC:PL
kimi	kami-	kəmi-	2PL

However, in north-eastern Tanna (North Tanna and Whitesands) and in Anejoñ, the *k in these forms was replaced by the reflex of *d (with the two Tanna languages accreting initial i, also found in singular pronouns). Anejoñ subsequently went further and lost the *m in the second person form.

(6)   North Tanna   Whitesands   Anejoñ

i/tm-	*i/təm-*	*a/ɉam-*	1EXC:PL
i/təm-	*i/təmw-*	*a/jou-*	2PL

---

[5] Tanna t and Anejoñ ɉ are the regular reflexes of POc *d (the regular reflex of non-initial *t being, e.g., Lenakel r, Anejoñ t); POc *d undergoes palatalisation before *i in the languages of Erromango (Sye h deriving from earlier s).

Thus the Proto Southern Vanuatu first and second person non-singular independent pronouns were developing as follows (with the arrow meaning "in the process of changing to"):

(7)   POc   Proto Southern Vanuatu

*kita	*kadi			1INC:PL
*ka[ma]mi	*kami	➤ *dami		1EXC:PL
*kam(i)u	*kamiu	➤ *damu	➤ *dau	2PL

There is evidence that the same developments took place in at least some New Caledonian languages. In the languages of the Hienghène area (Haudricourt & Ozanne-Rivierre 1982:246), for example, the pronouns corresponding to those discussed above are:

(8)   Pije   Fwâi   Nemi   Jawe

nai	nei	nei	deye	1INC:PL
nabe	nemi	nemi	deve	1EXC:PL
dawe	dawe	daa	jaa	2PL

Given what we know of the phonological history of these languages, the original forms would have been something like:

(9)   Pre-Pije-Fwâi-Nemi   Pre-Jawe

*(ln)ai	*(dr, c)atV	1INC:PL
*(ln)a(bm)V	*(dr, c)apV	1EXC:PL
*dawV	*daa	2PL

Note that the first vowel in the 1INC form is a, not i, suggesting the same metathesis as in PSV, and that the 2PL form has a reflex of *d in initial position. This suggests that the metathesis in the inclusive form and the replacement of *k by *d in at least one of the other two forms was probably also occurring in a language ancestral to those of the Hienghène area. In addition, the loss of *m in the 2PL forms which took place in Anejoñ also occurred in these languages. (The change from initial *k to *n or *l in Pije, Fwâi and Nemi, however, does not bear any resemblance to SV forms[6].

---

[6] I have attempted, without much success, to examine whether the pronouns in Kumak, Ajië, Xârâcùù, Cèmuhî, Iaai and Drehu either participate in this innovation or continue the Proto Oceanic *k-initial forms. It looks as if Cèmuhî wö/game 1EXC:PL and wö/gawé 2PL may continue the original POc pronouns, though wö/ganye 1INC:PL seems more problematical. However, in none of the other languages I have looked at does there appear (to me, at least) to be evidence for either retention of initial *k or replacement of *k with *d. The only suggestive set of data is the different initial consonant in Kumak hâák 1INC:PL as opposed to yavaak 1EXC:PL and yawaak 2PL.
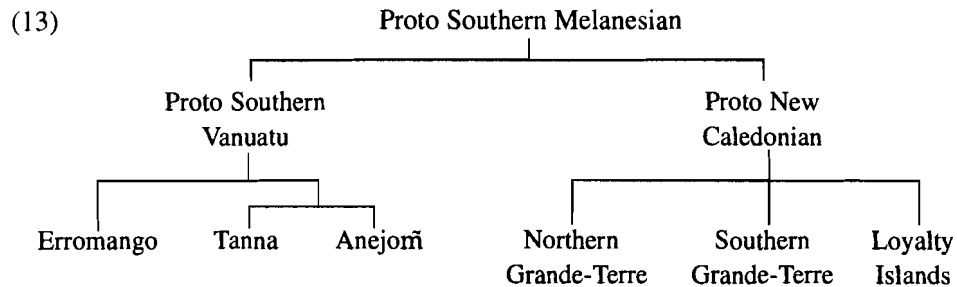
Irregular phonological developments

Languages of the putative Southern Melanesian subgroup apparently share the following irregular phonological developments exclusive of any other Oceanic languages (cf. Geraghty 1989):

(10) POc *pisiko* 'flesh' changes irregularly to *pisako* in both SV and NC languages (cf. Lenakel *nu/vhak-*, Kumak *perak*.[7]

(11) POc *paRaRa* 'handle' is replaced by *umwa* (cf. Lenakel *n/imwa-*, Kumak *mwa/t*).

(12) Geraghty (1989:153) suggests that the metathesis of POc *puŋa-* 'flower' > *paŋu-* is an innovation of Proto New Caledonian. However, this innovation also occurs in Southern Vanuatu (where orthographic *g* represents /ŋ/): Sye *no/vgu/n* 'fruit', Ura *ne/vgu/n*, North Tanna *n/agu-* show this clearly, while Whitesands and Lenakel *no/ug-* are ambiguous (since u derives both from *u and, in some environments, from *p*).

▌Conclusions

What has been presented above suggests the interrelationships as laid out in (13) below. The internal subgrouping of Southern Vanuatu and New Caledonian (NC) languages is not a major issue as far as this paper is concerned, but the interrelationships between SV languages is included for completeness. (The internal subgrouping of the NC subgroup, which may be a family or a linkage (see §3), is still being researched.) Note also that Southern Melanesian is classed as a family: i.e., there appears to have been a single ancestral language, which underwent a split presumably as a result of migration from the Southern Vanuatu area into New Caledonia (see §3).

---

[7] However, Françoise Ozanne-Rivierre informs me that Iaai vii- 'flesh' derives regularly from *pisiko.

(13)

```
                              Proto Southern Melanesian
                    ┌──────────────────┴──────────────────┐
            Proto Southern                          Proto New
              Vanuatu                               Caledonian
        ┌────────┼────────┐              ┌──────────────┼──────────────┐
   Erromango   Tanna   Anejoñ        Northern       Southern      Loyalty
                                    Grande-Terre   Grande-Terre    Islands
```

Evidence for the Southern oceanic linkage

Building on earlier work (e.g. Pawley 1972, Tryon 1976), Ross Clark (1985b) set out evidence showing the close relationship between the languages of northern and central Vanuatu: his putative North-Central Vanuatu (NCV) group consists of a Northern Vanuatu (NV) subgroup and a Central Vanuatu (CV) subgroup. He also noted that the relationship between NCV and SV needed further consideration. The results of this further consideration suggest that there is a close relationship between the Southern Melanesian subgroup and the languages of the rest of Vanuatu, in particular with Clark's CV subgroup. I will discuss this evidence briefly here.

Article accretion

Central Vanuatu and Southern Melanesian languages show widespread accretion of the POc article *na to the noun: for example, the original two-morpheme sequence *na baga (ART banyan) remained morphologically unchanged in Fijian (na baka), but has become a single mono-morphemic word in Kwamera (napek). In CV and SV languages, this accreted article is usually quite transparent, normally having the form nV-:

(14)   Proto Oceanic   Nakanamanga   Kwamera

    *yaRu   'casuarina'   nearu   niér

    *taqe   'excrement'   natae   nihi-

    *Rumwaq   'house'   nasuña   nimwa

In NC languages, this accretion is less transparent: prefixed n- has usually coalesced with the following consonant, producing a (synchronically or diachronically) prenasalised stop:

(15)   Proto Oceanic   Jawe

    taku   'back'   /ⁿjai-/

    tali   'rope'   /ⁿjan/

    qauR   'bamboo'   /ŋgo/

There are only a couple of NV languages in which article accretion occurs with any frequency – Mwotlap and Wetamut (Dorig) in the Banks. It seems that this innovation is one shared by the CV and SM groups only, and that the Mwotlap-Wetamut development is an independent innovation.

Development of the locative preposition

Clark (1985b:208) noted two related PNCV innovations connected with the locative preposition: the POc preposition **i* became PNCV **a*, and POc **i lalo* ('LOC inside') fused as PNCV **(a)lo* 'in, inside'.

In New Caledonia, the Hienghène languages generally have a as the locative preposition. Ajië *na* 'to, towards' and Iaai *hnyi* 'in, on, at' (< **la* ?) also appear to confirm that the NCV innovation occurred in Proto New Caledonian, though further data are needed. In Southern Vanuatu languages, the form of the locative/oblique preposition which governs nouns and noun phrases differs from that which governs pronouns (which occur as possessive suffixes); we can reconstruct PSV **ra* before a noun phrase and **ira-* before a pronoun, which suggest similarities with the NCV and NC data, but no identical development.

Irregular development of the nominalising suffix

Proto Oceanic had a nominalising suffix **-aŋ(a)*. A number of NV and some CV languages reflect a form **-an(a)*, whose distribution outside this area is not clear at this stage of research. Irrespective of this, there appears to be an Nuclear Southern Oceanic innovation, shared by CV and SV languages, by which **-an(a)* was replaced by **-iana*. In Central Vanuatu, note the following: Vinmavis *-ian*, Southeast Ambrym, Paamese and Lewo *-en*. In Southern Vanuatu, most Tanna languages have *-ien*. (The form was subsequently lost in other SV languages and apparently also in New Caledonia.)

Irregular phonological developments

A number of words have developed irregularly, but in the same way, in NCV and SM languages (though the NC data are sparse). For example[8]:

(16) POc *inum 'drink'   > PSO *mun(iu)m

                                             PNCV *muni, PSV *a-mwoNumw

     POc *asa 'scrape'   > PSO *rasa

                                             PNCV *rasa, PSV *a-(rR)as-i

     POc *tokon 'crutch'   > PSO *tikon

                                             PNCV *tiko, PSV *a-ci(kγ) ən, Jawe jek, jexe-

     POc *katama 'outside'   > PSO *(k)atava

                                             PNCV *katava, PSV *i-a(dD)v[au]

     POc *kalo 'ant, spider'   > PSO *makal(ai)

                                             PNCV *makala, PSV *makaLi

     POc *kaNaRi 'canarium'   > PSO *qaŋaRi

                                               PNCV *qaŋaRi, PSV *n-aNai

     POc *kapat(ao) 'wood-
grub'   > PSO *avato

                                             PNCV *avato, PSV *n-avat, Nemi havo

     POc *Rumwaq 'house' >   > PSO *yumwa

                                             PNCV *yumwa, PSV *n-i(u)mwa

     POc *kumi 'chin, beard'>   > PSO *kumwi

                                             PNCV *kumwi, PSV na-kumw-

     POc *wakaR 'root'   > PSO *kawa[ ]

                                             PNCV *kawa-ri, PSV *ne-γwa-

---

[8] PNCV forms are from Clark (n.d.) and PSV forms from Lynch (n.d.). The Proto Southern Oceanic (PSO) protoforms are suggestive only at this stage; they are based heavily on the PNCV forms, since PSV is less phonologically conservative. Although I will later question the validity of NCV as a coherent subgroup, this makes no difference to the validity of the PSO reconstructions.

South Efate and Southern Melanesian

There is a good body of evidence which specifically links the South Efate language and no other Central Vanuatu language with the Southern Melanesian family.

Final vowel loss

Word-final vowel loss is not a strikingly unusual innovation; indeed, it seems to have occurred independently in a number of Oceanic subgroups. The interesting point here, however, is that final vowel loss has occurred in the Southern Melanesian languages and in South Efate, but not in South Efates's immediate relatives in the CV subgroup (Nakanamanga/North Efate and Namakira).

In South Efate, "final short vowels are lost unless immediately preceded by a lower vowel (i.e. part of a rising diphthong)" (Clark 1985a:19). Thus word-final vowels are lost in the forms in (17a) below, but not those in (17b). This vowel loss does not take place, however, in Nakanamanga, as the data in (17) show.

(17)	Proto Efate	South Efate	Nakanamanga
(a)	*nayaru 'casuarina'*	naar	nearu
	mauri 'live'	mour	mauri
	naika 'fish'	neik	naika
	nrua 'two'	nru	duua
(b)	*natae* 'excrement'	ntae	natae
	natau 'year'	ntou	natau
	(u)mai 'come'	mei	umai

A basically identical statement can be made for Southern Vanuatu languages (represented here by Kwamera). Single short vowels are lost, as are vowels in falling diphthongs, as in (18)[9].

---

[9] There are almost no examples of word-final rising diphthongs in my data, since protoforms ending in such diphthongs either take a transitive or possessive suffix or have accreted some other material to make these diphthongs non-final. Note, however, Kwamera *nai* 'tree, wood', ultimately from POc *na-kayu* but probably more immediately from a PSV form *n-yai*; and *nui* 'water' from PSV *n-u(a)i* (though ultimately from POc *waiR*). These forms show retention of the final vowel in a rising diphthong.

(18)   Proto Oceanic   Kwamera

*rani	'(be) day'	ran
*kabu	'fire'	n/apw
*kutu	'louse'	ur
*qupi	'yam'	n/uk
*panua	'village'	ru/kwanu
*rua	'two'	kə/ru

In northern New Caledonia at least, vowels in absolute final position (i.e. unprotected by a suffix) are also lost (Haudricourt & Ozanne-Rivierre 1982:55). Compare the Pije forms in (19a), which show such loss, with those in (19b) which contain a suffix or some other material:

(19)   Proto Oceanic   Pije

(a)   *-gu   'my'   -ŋ
          *mate   'die, dead'   mac
          *qate   'liver'   kec
          *qone   'sand'   kon
          *maqati   'reef'   maac

(b)   *kani   'eat'   cani   [FUSED TRANSITIVE SUFFIX]
          *taci-   'younger sibling' tali-   [POSSESSIVE SUFFIXES]
          *kutu   'louse'   cii/k   [ACCRETION]

Dissimilation of *a

Clark (1985a:19) describes a process of vowel dissimilation in South Efate (but not its close relative Nakanamanga) whereby original *aCa sequences dissimilated to eCa. This rule clearly applied before the final vowel loss rule, as illustrated in (20):

(20)   Proto Efate   South Efaate   Nakanamanga

*miala	'red'	miel	miala
*na-sama	'outrigger'	n-sem	na-sama
*sara	'flow'	ser	sara

A very similar development has taken place in Southern Vanuatu languages, though perhaps not quite as comprehensively as in South Efate. The exact details still need to be worked out, and the situation is complicated somewhat by the development of a sixth vowel /ə/ in the Tanna languages, and by various assimilatory rules (e.g. *aCi > eCi, *aCu > oCu). However, the following Kwamera examples are illustrative of this process:

(21)   Proto Oceanic   Kwamera

marama	'<moon> shine'	*mer*
mataq	'raw'	*a/mera*
tama	'father'	*remu-*
baga	'banyan'	*nə/pek*
draRaq	'blood'	*nə/te-*
mata	'eye'	*neni/me-*
paRaq	'sprouting coconut'	*nu/vera*
paŋan	'eat (intr.)'	*a/vegən*

The situation in New Caledonian languages is less clear: I have been unable to locate any detailed treatment of the development of POc vowels in NC languages as a whole, and have had to rely on superficial observation. That observation presents a confusing picture. Consider the following examples, in which the first set of reflexes in each case appears to show dissimilation but the second set does not:

(22)   Proto Oceanic

jalan	'road'	Drehu *ðɛ-*, *go/ðeñ*; Nengone *len*
		but Kumak *ndaan*, Pwapwâ *ndan*
rani	'daytime'	Yuanga *tɛɛn*
		but Kumak *taan*
mata	'eye'	Ajië *-mɛ-*, Iaai *-mɛka*
		but Nemi *maa-*
papa	'carry'	Kumak *phe*, Nemi *fe*, Cèmuhî *pé*
		but Nyelâyu *pha*, Paicî *pá*

We cannot discount the hypothesis that dissimilation of **a* also took place in Proto NC. However, further investigation is needed to establish the development of **aCa* sequences in PNC.

Word-medial vowel loss

The Southern Melanesian languages and South Efate also show a process of word-medial vowel loss which is partly connected to the two process I have just described (word-final vowel loss and dissimilation of **a*).

I will deal with South Efate first. The following set of rules applied in the order given below and account for examples like those in (24):

(23)   (a) Dissimilation of **a* (as in 2.3.2).

           (b) Article reduction: the vowel of the accreted article was deleted (unless it was *a*).

(c) Pretonic vowel loss: the vowel in the syllable before the stressed syllable was deleted. (Note that this apparently did not apply if the pretonic vowel was *a*).

(d) Final short vowel loss (as in 2.3.1).

The data below show the application of these rules:

(24) Proto Efate	*nasúm̃ a	*nasáma	*napati-gu	*nakini-gu
DISSIMILATION	—	neséma	nepati-gu	—
ART. REDUCTION	—	nséma	npati-gu	—
MEDIAL V LOSS	—	—	—	nakni-gu
FINAL V LOSS	nasum̃	nsem	npati-g	nakni-g
S. Efate	nasum̃	nsem	npati-k	nakni-k
	'house'	'outrigger'	'my tooth'	'my finger'

Cognates in Nakanamanga, in which these rules do not operate, are:

(25) Proto Efate		Nakanamanga
*nasum̃ a	'house'	nasum̃ a
*nasama	outrigger'	nasama
*napati-gu	'my tooth'	napati-Nu
*nakini-gu	'my finger'	nakini-Nu

An almost identical set of rules applied in SV languages. The data below are from Sye; the only difference is that there were also some assimilatory rules which applied to vowels in these languages.

(26) Proto Oceanic	*na-pátu	*na-kútu	*na-kuRát	*na-taliŋá-na
DISSIMILATION	ne-patu	—	—	ne-taliŋé-na
ART. REDUCTION	n-patu	—	—	n-taliŋé-na
ASSIMILATION	—	no-kut	no-kuRat	n-teliŋé-na
PRETONIC V LOSS	—	—	no-kRat	n-telŋé-na
FINAL V LOSS	n-pat	no-kut	—	n-telŋe-n
Sye	nvat	nocut	no-crat	ntelge-n
	'stone'	'louse'	'Morinda sp.'	'his ear'

A similar set of rules also operated in New Caledonian languages. Geraghty (1989:149) says that pretonic vowel loss only operated between identical consonants, producing geminates which then became aspirated (if stops) or voiceless (if sonorants) – known as "hard" consonants in the NC literature. The examples in (27a) show the regular development of *k, *p and *n in Nemi (representing New Caledonian languages), while

those in (27b) show the development of "hard" consonants through vowel loss and gemination (Haudricourt & Ozanne-Rivierre 1982):

(27)	Pre-PNC	Nemi		
(a)	*kuli (t)-na*	'his/her skin'	*cii-n*	
	pátu	'stone'	*paik*	
	natú-na	'his/her child'	*nai-n*	
(b)	*kuki-na*	'his/her finger(nail)'	*hi-n*	
	papá-na	'his/her mouth'	*hwa-n*	
	naná(q)-na	'his/her pus, snot'	*hnaa-n*	

However, there is evidence that this rule also applied to pretonic vowels between non-identical consonants – especially to a vowel between a stop and a nasal; e.g.:

(28)	Pre-PNC		Nemi
	qenó	'laid down'	*kno-*
	tamá-na	'his/her father'	*tnau-n*
	tiná-na	'his/her mother'	*tne-n*

South Efate and Erromango

There is one piece of morpho-syntactic evidence which suggests that South Efate and other Central Vanuatu languages are more closely linked to Erromangan than to other Southern Melanesian languages. (There is also some apparent lexical evidence, which I will ignore here).

Clark (1985b) noted the following innovations in NCV languages:

(29)   (a) POc *koe* 2SG independent pronoun was replaced by PNCV *ni(kg)o*.

      (b)PNCV *ni(kg)o* 2SG independent pronoun was replaced by PCV *(kg)aigo*.

Erromango appears to be alone among SM subgroups in sharing the CV innovation: e.g. Sye *kik*. Other SV languages reflect *i-ko(e)* (Lenakel *iik*, Anejoñ *a/ek*). However, they do have forms possibly derivable from *ni(kg)o* as 2SG subject markers: all Tanna languages except Kwamera have *n-* marking second person subject, and Anejoñ has *na(i)* (2SG aorist). NC languages do not reflect the n-initial form in independent pronouns, nor do those that I have looked at have *nV* as a 2SG subject marker.

The evidence is not all that clear, but does show some links between Erromangan and CV languages.

# ▌Implications For The History of Southern Oceania

Families and linkages

In discussing the internal relationships of the non-Polynesian languages of Vanuatu and New Caledonia, we need to distinguish two types of language diversification, and thus two types of subgroups which, following Ross (f/c), I will call "families" and "linkages":

(a) The term FAMILY refers to an innovation-defined group of languages, the product of language fissure. That is, there was a single ancestral language which split into two or more descendants, as a result of sudden geographic dislocation. All of these descendants share certain innovations in common exclusive of other languages, these innovations having occurred in the proto-language.

(b) The term LINKAGE, on the other hand, refers to an innovation-linked group of languages, the product of lectal differentiation. That is, there was an original chain of dialects, presumably mutually intelligible, which became more and more dispersed geographically, though in the initial stages they still remained in contact to some degree. Each of these dialects gave rise to a number of modern languages. There are probably no innovations uniquely shared by all daughter-languages of a linkage, but the pattern of innovations is an overlapping one, with some being quite widespread within the linkage, but others more narrowly defined; the sum of all these innovations links all members of the linkage.

The term SUBGROUP will be used when it is not important to distinguish between a family or a linkage, or when the exact nature of the relationship has not been fully established.

In schematic illustrations, families are indicated by the conventional family tree, while linkages are represented by multi-branching nodes from a double-underlined proto-dialect chain; thus:

(30)   Family   Linkage

        PROTO-LANGUAGE   PROTO-DIALECT CHAIN

    L1   L2   L3   L4   L1   L2   L3   L4
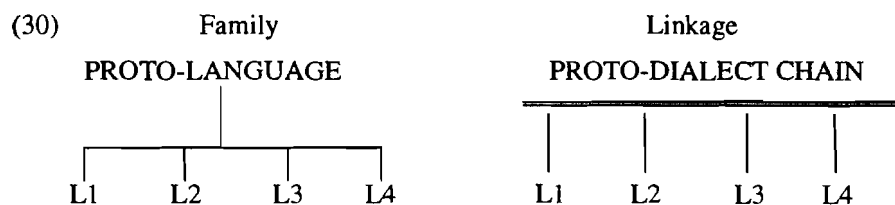
In the family in (30), the proto-language split into four daughter-languages, which all share a set of innovations exclusive of other languages in the family. In the linkage, the original dialect chain slowly differentiated into what are now four languages; L1, L2 and L3 may share some innovations; L2, L3 and L4 may share others; L3 and L4 may share still others; and so on. (Both a family and a linkage, of course, may have constituent subgroups some of which are themselves families and some of which are linkages: for example, the Southern Oceanic linkage diagrammed in (31) contains both a number of constituent linkages as well as a number of families.)
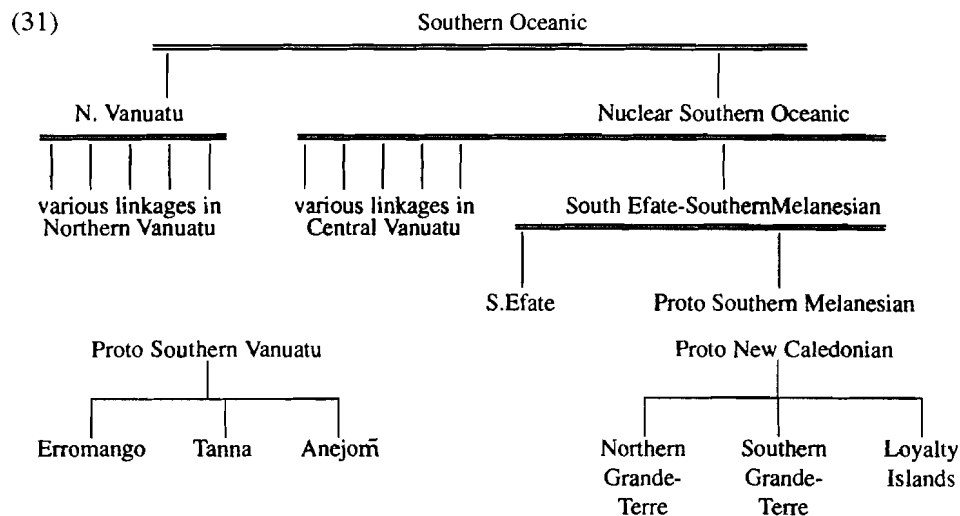
The settlement of Southern Oceania

As far as the languages I have been dealing with are concerned, the following statements are probably justified:

(i) There is evidence, in the form of a number of shared innovations, supporting the existence of a Southern Melanesian family, consisting of the Southern Vanuatu and New Caledonian families (see §2.1).

(ii) There is evidence supporting the existence of what I will refer to as the South Efate-Southern Melanesian linkage (see §2.3), consisting of the South Efate language and Proto Southern Melanesian. This is defined as a linkage, because it appears (a) that South Efate may share a number of innovations with Erromangan but not other Southern Melanesian languages, (b) that South Efate shares a number of innovations with all Southern Melanesian languages exclusive of other Central Vanuatu languages, but (c) South Efate (but not Southern Melanesian) remained in contact with other Central Vanuatu languages after Proto Southern Melanesian split off, and apparently participated in some later CV innovations.

(iii) There is evidence supporting the existence of the Southern Oceanic linkage, consisting of all the non-Polynesian languages of Vanuatu and New Caledonia. Within this linkage, there is also a considerable body of evidence supporting the existence of the Nuclear Southern Oceanic linkage, consisting of the Central Vanuatu and Southern Melanesian groups (see §2.2). This in turn means that there was no such language as Proto North-Central Vanuatu; however, many of Clark's statements about PNCV would simply be "upgradable" to PSO.

These relationships are diagrammed below, and incoprorate the Proto Southern Melanesian family tree given above in(13).

(31)

```
                          Southern Oceanic
          |                                    |
      N. Vanuatu                       Nuclear Southern Oceanic
  | | | | |        | | | | |                    |
various linkages in   various linkages in   South Efate-SouthernMelanesian
Northern Vanuatu      Central Vanuatu
                              |                         |
                          S.Efate              Proto Southern Melanesian

      Proto Southern Vanuatu                  Proto New Caledonian
            |                                        |
   Erromango  Tanna  Anejom̃           Northern   Southern    Loyalty
                                       Grande-    Grande-     Islands
                                       Terre      Terre
```

The rightward-branching tree in (31) corresponds with a hypothesis of north-to-south settlement. That is, Proto Southern Oceanic was probably spoken somewhere in northern Vanuatu, and probably spread across a number of the northern islands fairly rapidly – Banks, Torres, Maewo, Ambae, Santo and north Pentecost. At some stage, speakers of one or more of these dialects moved further south, where again dialect differentiation took place, developing eventually into various Central Vanuatu linkages (spoken in central and south Pentecost, Malakula, Ambrym, Paama, Epi, the Shepherds and Efate).

The settlement of Efate probably predated the settlement of Southern Vanuatu by quite some time – enough time at least for the language spoken in South Efate to diverge significantly from its close relative in the north. South Efate was the springboard for the settlement of the south and once again the sequence was probably north-to-south – i.e. Erromango was settled first, Tanna was settled from Erromango, and Aneityum was settled from Tanna. (There is not a great deal of evidence for this view, though there are bits and pieces of data which would tend to support it: e.g. there are some features shared by the Erromangan languages and South Efate but not by the Tanna languages and Anejom̃, and similarly some features apparently exclusively shared by the Tanna languages and Anejom̃. In particular, there are some unique innovations apparently shared between Kwamera in south Tanna and Anejom̃.)
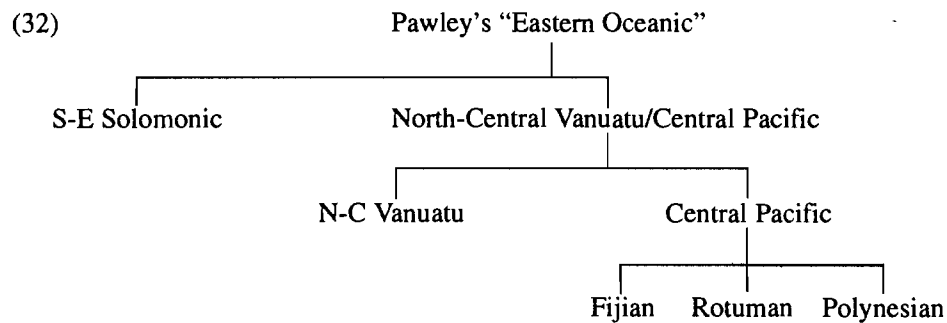
New Caledonia would probably have been settled from Southern Vanuatu. Since Lifu in the Loyalties is visible on a clear day from Aneityum, and since there are traditions of contact between these two islands, the sequence was probably Aneityum > Loyalty Islands > northern Grande-Terre > central and southern Grande-Terre.

Some remaining questions

Two questions concerning the external relationships of the Southern Oceanic linkage need to be briefly raised here, though I have no good answers to them at this stage.

Southern Oceanic and Central Pacific

Pawley's (1972) study of the languages of this general region proposed the following family tree[10]:

(32)   Pawley's "Eastern Oceanic"

```
                    ┌──────────────────────┴──────────┐
            S-E Solomonic              North-Central Vanuatu/Central Pacific
                                      ┌──────────────┴──────────────┐
                                N-C Vanuatu                   Central Pacific
                                                        ┌──────────┼──────────┐
                                                     Fijian    Rotuman   Polynesian
```
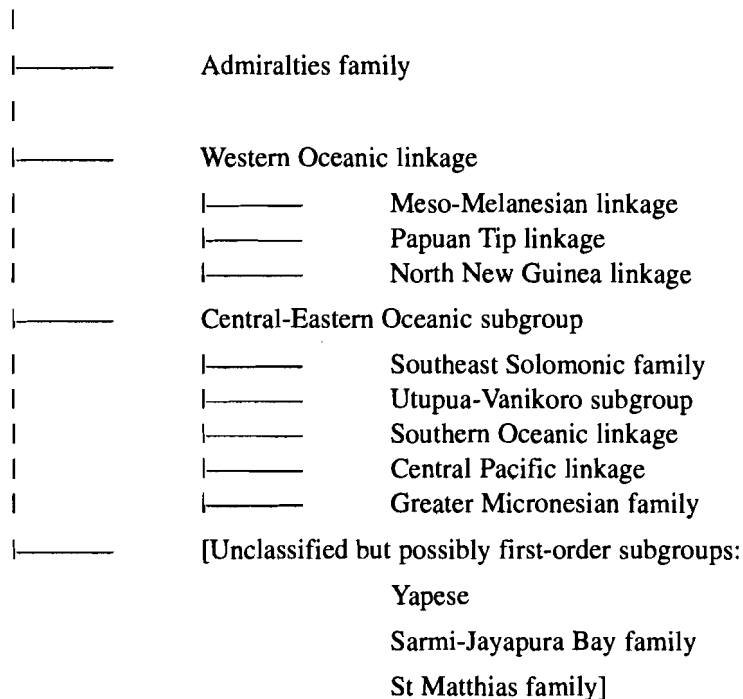
This classification implied that the closest relatives of the North-Central Vanuatu group were the Central Pacific languages – the Fijian languages/dialects, Rotuman and Proto Polynesian – and that the Fiji-Polynesia area was settled from somewhere in northern or central Vanuatu, which is certainly geographically plausible.

The Eastern Oceanic hypothesis, at least as it was formulated in 1972, has come in for criticism. On the basis of more recent research, Lynch, Ross & Crowley (f/c) propose the following tentative classification of Oceanic languages; subgroups in bold italics are first-order subgroups, those in normal font are second-order groups.

---

[10] I have changed some of the names slightly to reflect current usage (especially replacing "New Hebridean" with "Vanuatu"), and have added Rotuman which was classified as a Central Pacific language post-1972. Note parenthetically that Pawley did not consider that the Southern Vanuatu and New Caledonian languages belonged to his Eastern Oceanic subgroup.

(33)   PROTO OCEANIC

```
|
|————        Admiralties family
|
|————        Western Oceanic linkage
|            |————        Meso-Melanesian linkage
|            |————        Papuan Tip linkage
|            |————        North New Guinea linkage
|————        Central-Eastern Oceanic subgroup
|            |————        Southeast Solomonic family
|            |————        Utupua-Vanikoro subgroup
|            |————        Southern Oceanic linkage
|            |————        Central Pacific linkage
|            |————        Greater Micronesian family
|————        [Unclassified but possibly first-order subgroups:
                          Yapese
                          Sarmi-Jayapura Bay family
                          St Matthias family]
```

Central-Eastern Oceanic is labelled as a "subgroup" because its status is still unclear: there are no phonological innovations uniquely defining the group as a whole, but there are overlapping sets of innovations shared by various combinations of two or more constituent subgroups, suggesting that it may be a linkage.

The exact nature of the relationship between the Central Pacific linkage and the various constituents of the Southern Oceanic linkage therefore needs to be further investigated. Three possibilities suggest themselves:

(i) Central Pacific is one of the "various linkages in Northern Vanuatu" in the Southern Oceanic family tree in (31); or

(ii) Central Pacific is one of the "various linkages in Central Vanuatu" in the Southern Oceanic family tree in (31); or

(iii) Central Pacific is a sister-language rather than a constituent of Southern Oceanic.

At this stage of research, I incline slightly to the first of these, and suggest further that the hypothesis that Central Pacific may prove to be more closely related to the languages of Ambae than to other Northern or Central Vanuatu languages is worth pursuing. Northern Vanuatu languages and Fijian, for example, share the change POc *na-

'general possessive marker' > *no-*, though this remains as na- in most Central Vanuatu languages. West Ambae (apparently alone among NV languages) and Fijian share the change **ma-* 'drink possessive marker' > *me-*. Obviously, further detailed research is needed here before this connection can be substantiated.

Southern Oceanic and the southeastern Solomon Islands

Given the north-to-south settlement pattern implied by the classification of Southern Oceanic languages, it seems logical to infer that the first settlers of the SO-speaking area came from the north – i.e. from the southeastern part of Solomon Islands. Earlier studies, like that of Pawley (1972) diagrammed in (32) above, proposed a wider Eastern Oceanic subgroup in which North-Central Vanuatu/Central Pacific's closest relatives were the Southeast Solomonic languages (mainly those spoken on and around Guadalcanal, Malaita and Makira), though this view fell out of favour in the 1980s and 1990s. As shown in (33), linguistic research has not yet conclusively demonstrated that Southern Oceanic is more closely related to Southeast Solomonic than to any other Central-Eastern Oceanic subgroup.

Indeed, there are at least two distinct subgroups located in the southeastern part of Solomon Islands: the Southeast Solomonic family and the Utupua-Vanikoro subgroup, the latter geographically closer than the former to northern Vanuatu. In fact, Utupua and Vanikoro may themselves constitute two distinct families:

Utupua and Vanikoro each have three Oceanic languages... the six languages show an unexpected measure of diversity for their [small] size and proximity of the islands and, although we can recognise an Utupua family and a Vanikoro family, there are seemingly no innovations which allow us to attribute all six languages to a single group, let alone to relate them to the Southeast Solomonic family or to the Southern Oceanic linkage. (Lynch, Ross & Crowley f/c).

Clearly, geographical considerations would suggest the southeastern Solomon Islands as the logical dispersal point for the settlement of Vanuatu. However, no firm conclusions can yet be drawn from the linguistic evidence as to exactly which of the subgroups located there is most closely related to Southern Oceanic. Thus the route of migration may have been:

(i) from Guadalcanal-Malaita-Makira direct to northern Vanuatu, or

(ii) from Guadalcanal-Malaita-Makira > northern Vanuatu via Utupua-Vanikoro, or just possibly

(iii) from some area outside Southeast Solomonic > Utupua-Vanikoro > northern Vanuatu.

▌Southern oceanic-polynesian contact

Four Polynesian Outlier languages are spoken in the Southern Oceanic area: Emae in the Shepherds and Ifira-Mele on and near Efate, both of which are spoken very close to Central Vanuatu languages; Futuna-Aniwa in southern Vanuatu; and Fagauvea (sometimes called West Uvea) on Ouvéa in the Loyalties. Their interrelationships, and their relationships with other Polynesian languages, are not very clear, though there have been suggestions that these "Southern Outliers" derive from East Futuna. Clark suggests that, while Ifira-Mele is most closely related to Futuna-Aniwa, "there are only suggestive and inconsistent innovations to suggest a link with Fagauvea, Emae, or the central Outliers [in Solomon Islands], or with East Futuna" (Clark 1994:111).

There have been a number of studies on the contact between speakers of these Polynesian Outlier languages and neighbouring non-Polynesian populations[11]. Although there have been grammatical and phonological changes resulting from this contact, I will be concerned here with lexical changes, since they more directly illustrate the nature of cultural and social change.

Polynesian influence on Southern oceanic languages

I will begin this discussion with an examination of Polynesian loanwords in the non-Polynesian languages of Southern Vanuatu, since that is the area I know best, and will then briefly mention the other areas[12].

The languages of Tanna and Aneityum particularly (Erromango less so) have borrowed quite heavily from Futuna-Aniwa in a number of semantic fields. The lists below are particularly interesting in outlining the wholesale importation of cultural complexes. In these lists, I have not quoted the forms themselves, for reasons of space; nor have I indicated which languages have borrowed these words. In many cases, all or most SV languages have made the same borrowing, though in others rather fewer have borrowed the word: I have not discriminated between these here.

---

[11] See Clark (1994) for a general study, Clark (1986) for Emae and Ifira-Mele, Lynch (1994, 1996) and Lynch & Fakamuria (1994) for Futuna-Aniwa, and Ozanne-Rivierre (1994) for Fagauvea.

[12] Much of the Polynesian influence that I am going to discuss here must have been quite ancient. However, one cannot discount the possibility that some words were introduced by the early Polynesian missionaries who began the christianisation of southern Melanesia.

Land fauna

dog	snake

Marine environment

bay, passage	<sea> be calm	a wave	whirlwind
wind (generic) (?)	prevailing wind	northeast wind	north wind
west wind	cloud		

Marine life

whale	flying-fish	boxfish	coral trout
surgeonfish	soldierfish	barracuda	triggerfish
eel	sea-snake	brain coral	giant clam
bêche-de-mer	slipper lobster	trochus	grouper

Canoes and fishing

mast	outrigger-boom	fish-hook	to paddle

Kava-drinking

kava	kind(s) of kava	kava-bowl	kava-strainer
ritual spitting	food eaten with kava	drunk, poisoned	

Other artefacts

bow	bed, platform	rafter	tattoo
rope	coconut-leaf basket		

Similar lists can be drawn up showing borrowings from Emae into the languages of the Shepherds and from Ifira-Mele into the languages of Efate. In particular, they show a significant number of words to do with canoes, fishing and the names of (deep-sea?) fish, rather less with other aspects of material culture, like mats and baskets (Clark 1994). This suggests that the Melanesians in this area, though originally a maritime people, may at least in some places have abandoned the sea to a great extent and become gardeners instead. The arrival of the Polynesians re-introduced them to maritime exploitation. In addition, in Southern (though not in Central) Vanuatu, there is clear evidence that kava (*Piper methysticum*, as opposed to P. *wichmannii* "wild" kava) and kava-drinking behaviour was introduced from a Polynesian source, almost certainly Futuna; and this ties in with botanical and other evidence on the origins and spread of kava (Lynch 1996).

The only information I have on Polynesian loanwords in Iaai, the non-Polynesian language which shares the island of Ouvéa with Fagauvea, is that given by Clark (1994:128), which suggests rather different conclusions. There is very little evidence of Polynesian influence in maritime vocabulary; the influence seems to be in other areas of material culture (arrow, tongs, saw, knife, spade, cloth), and in fauna (pig, dog) and flora (sweet potato and Cordyline).

Southern oceanic influence on polynesian languages

Although the influence of Fagauvea on Iaai is fairly slight, Iaai influence on Fagauvea is much greater. Ozanne-Rivierre (1994) has identified almost 500 loanwords, mainly from Iaai, in Fagauvea, fully 35 % of which are in the field of fauna and flora. Other semantic fields include:

Gardening and hunting

yam stake	dig up yams	yam mound	taro cutting
kind of snare	mend <net>		

Building

rope for binding	thatch	ridge beam	flat-roofed shelter
kind of beam	door lintel		

Faults, qualities and defects

lazy	arrogant	annoyed	coquettish
shameful	hesitant	wrath	crafty
skilful	miserly	one-armed	dumb
blind	deaf	goitre	scar
limp			

Kinship and social relations

brother-in-law	maternal parents	ancestors	marriage proposal
lineage	allies	enemies	tribute

+ many address terms

The Fagauvea case is parallelled in many ways by the two Outliers in Central Vanuatu. Just as speakers of Fagauvea share the same island with Iaai speakers, so speakers of Emae share their island with speakers of Namakira and Nakanamanga, while Ifira-Mele was originally spoken on two islands just a few hundred metres off the main island of Efate. As Clark (1994:113) remarks in his study of language contact in the Efate area, Ifira-Mele "showed unmistakable symptoms of intimate borrowing, whereas the effects on Efate seemed to be relatively slight and purely cultural"[13].

---

[13] Intimate borrowing, according to Clark (1994:113), "requires prolonged intimacy between the two communities (such as frequent intermarriage over generations), affects all parts of linguistic structure, and in particular its lexical effects will not be localised but should pervade the lexicon as a whole".

An examination of non-Polynesian loans in Ifira-Mele shows patterns similar to that of Fagauvea above, with vocabulary items not only in a wide variety of "cultural" semantic fields, but also in what linguists refer to as "basic vocabulary" – terms which we would expect every language to have irrespective of its ecology or culture. While Emae and Futuna-Aniwa show about 7 % borrowing on a basic 300-word list, Ifira-Mele shows a staggering 33 %, having borrowed words like the following from Efate: many, and, back, belly, egg, knee, meat/flesh, tail, tongue, breathe, smell, spit, suck, yellow, big, all, (and so on).

Aniwa and especially Futuna are further away geographically from their non-Polynesian neighbours than are speakers of the other Southern Outliers, and have not been so drastically influenced by them. However, they seem to have got the pig from a Melanesian source, as well as a number of terms for varieties of food plants. They have also adopted the Tannese moiety names, though apparently the moiety system was first introduced to Tanna by Futuna-speakers, who subsequently lost it, only to borrow it back later (Lynch & Fakamuria 1994).

Of particular interest in the Futuna-Aniwa situation is the fact that quite a few of the non-Polynesian loanwords are of Efate rather than Southern Vanuatu origin, providing some substance to the view that Futuna-Aniwa's nearest relative is Ifira-Mele. This also suggests that there was some influence by Efate languages on the language ancestral to both Ifira-Mele and Futuna-Aniwa, which in turn suggests that Futuna and Aniwa were settled from Ifira-Mele.

▌Summary

Reasonably firm conclusions.

The linguistic evidence presented above (and elsewhere) leads to the following conclusions:

(a) There is no evidence of a pre-Oceanic-speaking population in the Southern Oceanic area[14].

---

[14] The nearest non-Austronesian languages are Santa Cruz (or Nendö) and Nanggu on Santa Cruz Island and Ayiwo in the Reef Islands, both in the Temotu Province of Solomon Islands 50 or so kilometres northwest of Utupua. Whether these represent the original southern limit of pre-Oceanic settlement or a post-Oceanic intrusion is not clear from the linguistic data.

(b) The first settlers arrived from the north – specifically from somewhere in the sou-theastern part of the Solomon Islands – speaking dialects of Proto Central-Eastern Oceanic or some fairly early descendant of that language. These people probably spread fairly rapidly through the northern islands of the Vanuatu group: the Banks and Torres Is., Santo, Ambae and Maewo; at some stage they also reached northern Pentecost.

(c) There was probably a migration to Fiji from this area at an early stage – just possi-bly from Ambae.

(d) One or more of these northern Vanuatu groups then moved further south, settling the central islands of Vanuatu: Pentecost, Malakula, Ambrym, Paama, Epi, the Shepherds and Efate. There is no reason to suggest any hypothesis other than that of a gradual north-to-south movement of people.

(e) The settlement of Efate antedated the settlement of Southern Vanuatu by a period sufficient for significant changes to occur in the South Efate dialect chain which made it quite different in many ways from its closest relative and nearest neighbour, Nakanamanga.

(f) Speakers of part of the South Efate dialect-chain moved further south again. There is no evidence contradicting the hypothesis that they settled Erromango first, Tanna from Erromango, and Aneityum from Tanna.

(g) It is possible that New Caledonia was also settled directly from South Efate. However, it is more likely that it was settled from somewhere in Southern Vanuatu. Aneityum is geographically the logical source of Proto-New Caledonian, though there is little linguistic evidence to support this hypothesis as against any other, at least at this stage of research.

(h) At some stage after the settlement of at least the central and southern islands of Vanuatu, people turned away from the sea and towards the land as the major source of food.

(i) Later migrations of Polynesians saw (at least) three colonies established on small off-shore islands. In Central Vanuatu, these Polynesians lived in intimate contact with their presumably more numerous Melanesian neighbours, though they did re-introduce them to exploitation of the marine environment, brought (back?) the dog, and in the south introduced kava and kava-drinking. Pigs seem to have been (re-)introduced to New Caledonia by Polynesians (*puaka), whereas the word for 'pig' in the Outliers in Vanuatu (pakasi) has a Southern Oceanic source (Lynch 1991).

Questions for further research

This paper has also raised a number of questions, and I will raise one more here – (d) – which I have not mentioned thus far. More research is needed before we have satisfac-tory answers to these questions, which are briefly noted below.

(a) The internal relationships of Southern Oceanic and its various subgroups need to be worked out in more detail. This will enable us to refine the picture of the settlement of the Southern Oceanic-speaking area.

(b) Further research is also needed to pinpoint Proto Southern Oceanic's closest external relative(s) to the north, which would indicate the starting-point for the settlement of Vanuatu and New Caledonia. (The main candidates for this at present are Proto Southeast Solomonic, Proto Utupua and Proto Vanikoro.)

(c) Assuming that Proto Central Pacific's closest relative is to be found within the Southern Oceanic linkage, we need to be able to clearly demonstrate which SO subgroup that is. This will allow us to make a clearer hypothesis about the origin of the Fijian and Polynesian laanguages.

(d) There have been various theories which have attempted to pinpoint the closest external relatives of the languages of the Greater Micronesian family (which excludes Yapese). While the view that the Admiralty Islands languages are Micronesian's closest relatives has been refuted (Ross 1988:326-329), other candidates which have been proposed include Malaita (i.e. Southeast Solomonic) and Northern Vanuatu (i.e. Southern Oceanic). This latter connection requires further work.
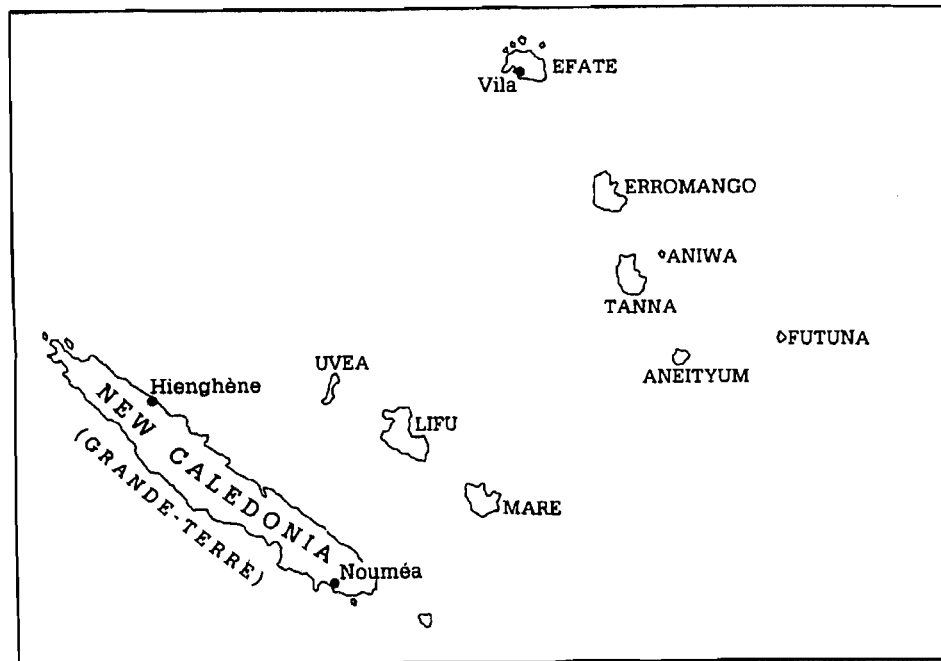
Bibliographie

Clark (R.), 1985 a —
The Efate dialects. *Te Reo* 28: 3-35.

Clark (R.), 1985b —
"Languages of north and central Vanuatu: groups, chains, clusters and waves". *In* Pawley (A.), Carrington (L.) eds: Austronesian linguistics at the 15th Pacific Science Congress. Canberra, *Pacific Linguistics* C-88: 199-236.

Clark (R.), 1986 —
"Linguistic convergence in Central Vanuatu". *In* Geraghty (P.), Carrington (L.), Wurm (A.) eds: FOCAL II: Papers from the Fourth International Conference on Austronesian Linguistics, Canberra, Pacific Linguistics: 333-342. C-94.

Clark (R.), 1994 —
"The Polynesian Outliers as a locus of language contact". *In* Dutton (T.), Tryon (D. T.) eds: *Language contact and change in the Austronesian world* Berlin, Walter de Gruyter. Trends in Linguistics Studies and Monographs 77: 109-139.

n.d. *Proto North-Central Vanuatu reconstructions.* Computer printout.

Geraghty (P.), 1989 —
"The reconstruction of Proto-Southern Oceanic". *In* Harlow (R.), Hooper (R.) eds: *VICAL 1 - Oceanic Languages: Papers from the Fifth International Conference on Austronesian Linguistics.* Auckland, Linguistic Society of New Zealand, 141-156.

Lynch (J.), 1991 —
"Pigs and dogs in Island Melanesia". *In* Andrew (P.) ed.: *Man and a half: Essays in Pacific anthropology and ethnobiology in honour of Ralph Bulmer,* Auckland: Polynesian Society: 421-432.

Lynch (J.), 1994 —
"Melanesian sailors on a Polynesian sea: maritime vocabulary in Southern Vanuatu". *In* Pawley (A.), Ross (M.) eds: Austronesian Terminologies: Continuity and Change. Canberra, *Pacific Linguistics* C-127: 289-300.

Lynch (J.), 1996 —
Kava drinking in southern Vanuatu: Melanesian drinkers, Polynesian roots. *Journal of the Polynesian Society* 105 (1): 27-40.

Lynch (J.), In Press —
"Linguistic subgrouping in Vanuatu and New Caledonia". *In* Geraghty (P.) ed.: *Proceedings of the Second International Conference on Oceanic Linguistics.*

n.d. *Proto Southern Vanuatu recons-tructions.* Computer printout.

Lynch (J.), Fakamuria (F.), 1994 —
Borrowed moieties, borrowed names: Sociolinguistic contact between Tanna and Futuna-Aniwa, Vanuatu. *Pacific Studies* 17 (1): 79-91.

Lynch (J.), Ross (M.), Crowley (T.), f/c —

The Oceanic languages. Edinburgh, Edinburgh University Press.

Ozanne-Rivierre (F.), 1994 —
"Iaai loanwords and phonemic changes in Fagauvea". *In* Dutton (T.) and Tryon (D. T.) eds.: *Language contact and change in the Austronesian world.* Berlin, Walter de Gruyter, Trends in Linguistics Studies and Monographs N° 77: 523-549.

Pawley (A.), 1972 —
"On the internal relationships of the Eastern Oceanic languages". *In* Roger (C.) Green (M. K.), Kelly (M.) eds: *Studies in Oceanic culture history,* Honolulu, Bernice Pauahi Bishop Museum. Pacific Anthropological Records (13): 1-142.

Ross (M. D.), 1988 —
Proto Oceanic and the Austronesian languages of western Melanesia. Canberra: *Pacific Linguistics* C-98.

Ross (M. D.), In Press —
"Social networks and kinds of speech community event". *In* Roger (C.) Blench (M.), Spriggs (M.) eds: *Archaeology and language, vol. 1: Theoretical and methodological considerations.* London, Routledge.

Tryon (D.T.), 1976 —
New Hebrides languages: an internal classification. Canberra, *Pacific Linguistics* C-33.