

# Final Consonants in Remote Oceanic

John Lynch

UNIVERSITY OF THE SOUTH PACIFIC

This paper examines retention and loss of Proto-Oceanic final consonants in three different groups of Remote Oceanic languages in the light of Blevins's recent discussion in this journal of the unnaturalness of final C-loss within the wider Austronesian family. Languages of (i) northwest Malakula, (ii) southern Vanuatu, and (iii) the Loyalty Islands and northern New Caledonia do not experience the total or near-total loss of final consonants that is commonplace elsewhere within Remote Oceanic. Each group shows partially different patterns of retention and loss from the others, and there are also some differences between members of the same group; but in no case was there a rule deleting all final consonants. There were, however, rules deleting all final vowels, and this V-deletion process may have created a situation in which final consonants were more resistant to loss than in languages with predominantly open final syllables. I will suggest that in each of these three areas consonants were lost by means of natural rules, and that a series of natural rules, rather than a single unnatural rule, *may* be the explanation for cases in other subgroups where all final consonants have been lost.

**1. INTRODUCTION** In a recent contribution to this journal, Juliette Blevins (2004) discusses Austronesian final consonant loss from the perspective of Evolutionary Phonology. Her main thesis is that "final consonant loss ... is a recurrent sound change within the Austronesian language family that appears to lack phonetic motivation" (Blevins 2004:212). It is recurrent because it occurs in a number of distinct and genetically discrete languages or subgroups (while not occurring in other fairly closely related languages or subgroups). And unlike other sound changes that are phonetically motivated because they are restricted to natural classes of sounds—for example, neutralization of final oral stops to *ʔ*, weakening of final nasal consonants to nasalization of the preceding vowel, and so forth—a single rule deleting all final consonants, she says, is not phonetically natural.<sup>1</sup>

One subgroup of Oceanic within which final C-loss is fairly widespread is Remote Oceanic, which consists of three families: Southern Oceanic (Vanuatu and New Cale-

1. My thanks to Juliette Blevins, Bethwyn Evans, Paul Geraghty, Andrew Pawley, Ken Rehg, and Malcolm Ross for discussion of some of the issues involved and/or comments on an earlier version of this paper. Data sources are as follows: for North-Central Malakula, unpublished data supplied by Terry Crowley; for Southern Vanuatu, Crowley (1999, 2000), Lindstrom (1986), Lynch (1977, 2001), Lynch and Tepahae (2001); for the Loyalty Islands, Ozanne-Rivierre (1984), Sam (1995), Tryon and Dubois (1969, 1971); and for Northern New Caledonia, Bril (2000), Haudricourt and Ozanne-Rivierre (1982), Ozanne-Rivierre (1998), and Rivierre (1991, 1994). Data on the Banks Islands languages in section 2 were kindly supplied by Alexandre François.

donia), Central Pacific (Fijian, Rotuman, and Polynesian), and Micronesian. In Central Pacific and Micronesian, final C-loss is universal. Historical final consonants are only retained as “thematic” consonants, and then only in some languages, when roots are followed by certain suffixes that were vowel-initial in Proto-Oceanic (POC), like the transitive suffix \*-i: for example, POC \*taŋis ‘cry’ > Fijian *taŋi* (INTR), *taŋi-ði* (TR before pronoun/proper noun), or \*matakut ‘fear’ > Samoan *matalu* (INTR), *matalu-tia* (TR). Neither Blevins nor I treat this as final consonant retention, because the consonant in the modern languages forms part of the suffix, not of the root. “Retention” in the context of her paper and mine is taken to mean retention of a POC root-final consonant in absolute final position.<sup>2</sup>

The third Remote Oceanic family, however, is quite interesting, in that there is some final C-loss but there are also cases of final C-retention. It has been known for some time that the languages of Southern Vanuatu and parts of New Caledonia do not participate in any wholesale loss of final consonants (see, for example, Lynch 1978, Ozanne-Rivierre 1982). And although Blevins lists North-Central Vanuatu (NCV) as one of her 14 languages/subgroups that show final C-loss, there are in fact a few NCV languages spoken in Northwest Malakula that retain final consonants on a more than sporadic basis (and which, to be fair to Blevins, she would not have been aware of, as the data are unpublished). After examining retention and loss of final consonants in these languages, I will attempt to apply the conclusions I reach to the wider Austronesian situation.

In discussing final C-loss, I ignore any C-final transitive verbs and directly possessed nouns, because this root-final C was never, or only rarely, word-final. I also ignore apparent compounds, like POC \*ku(r,R)iap ‘dolphin’ > Sye *so/yurwaw/oh*, Ura *so/yurwaw/os*, or \*p<sup>w</sup>atik ‘*Dioscorea bulbifera*’ > Sye *tai/poty/o-nei* ‘k.o. wild yam’, Ura *dai/bory/e-ni*, in which the root-final consonant was not in absolute final position.

I should also note here that, in all the languages that I am investigating, word-final vowels are regularly lost. These examples are given in table 1, which is arranged by geographic area: northwest Malakula, Southern Vanuatu, and Northern New Caledonia and the Loyalties.<sup>3</sup>

**2. NORTHWEST MALAKULA** The North-Central Vanuatu (NCV) languages generally lose final consonants in unsuffixed words, although there are a few apparent exceptions. Some languages in the Banks Islands sporadically retain final consonants, as in (1).<sup>4</sup>

2. Not all Proto-Oceanic consonants could occur finally. Those that could not are the voiced obstruents \*b<sup>w</sup>, \*b, \*d, \*j, \*g, and \*dr; the palatal nasal \*ñ; the semivowels \*w and \*y; and, apparently, the labiovelars \*p<sup>w</sup> and \*m<sup>w</sup>.
3. Apico-labials occur in V’ënen Taut and Nese, and are represented as *ɸ*, *ɣ*, etc. In Nese, some apico-labials have further changed to alveolars: e.g., POC \*mate ‘die, dead’ > *nas* (via earlier *mas*), Proto-NCV \*baig(a,e) ‘green-snail, *Turbo* sp.’ > *na/daike* (via earlier *naɸaike*), etc.
4. The sporadic nature of final C-retention can be illustrated with a few examples: languages that retain the final \*-n of \*tawan ‘*Pometia pinnata*’ lose it in \*putun ‘*Barringtonia asiatica*’, \*mapuqan ‘*Securinega flexuosa*’, and \*padran ‘pandanus’; final \*-k is retained in a number of languages in \*ñamuk ‘mosquito’ but lost in a very similar environment in \*manuk ‘bird’; and so on. Note also that in two cases in (1), \*rarap and \*quRis, Mota has two forms, one retaining the final consonant and one losing it.

(1)	*tawan	' <i>Pometia pinnata</i> '	Mwotlap na-twen; Vera'a, Lemerig ʔewen; Vurès, Mwesen tewen; Lakon tæn; Mota tawan
	*quraŋ	'prawn, crayfish'	Olrat nurin men li pi; Lakon uræŋ
	*ñamuk	'mosquito'	Dorig d/muy; Koro muy; Lakon namuy
	*rarap	' <i>Erythrina</i> sp.'	Mota rarav, rara; Vera'a rarav; Vurès rerev; Dorig rraav; Lakon ræræv; Mwerlap na-rerev
	*quRis	' <i>Spondias dulcis</i> '	Mwerlap ne-weas; Mota us, ur

There are also a few isolated instances of final consonant retention in some other NCV languages, but they seem to involve an additional vowel, usually \*i, as in (2).

(2)	*kurat	' <i>Morinda citrifolia</i> '	Raga yurasi
	*jajal	'croton, <i>Codiaeum</i> '	Raga hahali
	*ñamuk	'mosquito'	Nokuku moki; Tamambo mohi

However, there are three languages that apparently do preserve (some) final consonants with more consistency than the NCV languages mentioned above and with no evidence of a following vowel. These languages are spoken in northwest Malakula: apart from V'ënen Taut (also known as Big Nambas), the other two—Tape and Nese—are moribund languages pretty much unknown in the published literature. Most of my data on these languages were kindly supplied by Terry Crowley via prepublication drafts based on quite recent fieldwork. Final consonants are retained in at least one of these languages in about one-third of the examples I have. This does not appear to be nearly as sporadic or occasional as the instances mentioned above, and so requires investigation.

We have fewer data for these languages than we do for the others I will be examining, but nevertheless some general statements can be made. First, it appears that final nasals and \*R are lost as in (3) (although I have no data for final \*-m).<sup>5</sup>

**TABLE 1. LANGUAGES IN WHICH WORD-FINAL VOWELS ARE LOST**

NORTHWEST MALAKULA LANGUAGES

*mate	'die, dead'	Tape mes; V'ënen Taut ma; Nese nas
*kutu	'louse'	Tape na/ʔət; V'ënen Taut na/ʔət; Nese na/ʔut
*tolu	'three'	Tape i/təl; V'ënen Taut tl; Nese til
*lajo	'a fly'	Tape laŋ; V'ënen Taut na/lan; Nese na/laŋ
*yaRu	' <i>Casuarina</i> '	Tape, Nese n/iar
*Rapi	'evening'	Tape riv-rip; V'ënen Taut kəna/raŋ; Nese rev-rav

SOUTHERN VANUATU LANGUAGES

*pano	'go'	Sye a/van; Lenakel vən; Anejoŋ han
*baga	'banyan'	Sye n/paŋ; Lenakel ne/pək; Anejoŋ n/pak
*kutu	'louse'	Sye no/ʔut; Lenakel kur; Anejoŋ ne/ʔet
*mate	'die'	Sye mah; Lenakel məs; Anejoŋ mas

LANGUAGES OF NORTHERN NEW CALEDONIA AND THE LOYALTIES

*maqati	'reef'	Nyelâyü ku/maac 'low tide'; Nêlêmwa mat; Pije, Fwâi, Nemi, Jawe maac; Iaaï hme; Drehu hmej; Nengone hmed
*qone	'sand'	Nyelâyü, Nêlêmwa on; Pije, Fwâi, Nemi, Jawe kon; Cêmuhi ōn; Iaaï əñ
*tali	'rope'	Nyelâyü jan; Pije, Fwâi, Nemi dan; Cêmuhi táí; Iaaï tæ; Nengone wa/cen (?)
*qata	'person'	Nêlêmwa ak 'man'; Nemi, Jawe kac 'man'; Iaaï at; Drehu aʔ
*tolu	'three'	Nyelâyü -cen; Nêlêmwa -xan; Pije h/ien; Fwâi, Nemi he/yen; Jawe se/en; Cêmuhi cí; Iaaï kun; Nengone ten
*poñu	'turtle'	Nyelâyü, Nêlêmwa wan; Pije, Fwâi, Nemi, Jawe pwen; Cêmuhi p*ēn; Iaaï uñ; Drehu se/wen; Nengone ce/wen

5. Nonfinal \*R, however, is retained in at least some items: e.g., rows 5 and 6 of table 1.

(3)	*pican	'how many?'	Tape i/vəs; Nese vise
	*pulan	'moon'	Tape n/il; V'ënen Taut n/al; Nese na/vle
	*qusan	'rain'	Tape i/ul; V'ënen Taut u
	*salan	'road'	Tape sel; V'ënen Taut navan/el (?); Nese na/sal
	*saman	'outrigger'	Nese na/cam
	*tawan	' <i>Pometia pinnata</i> '	Nese na/ra
	*tokon	'staff, crutch'	Nese ciyciy 'limp'
	*jalatorj	' <i>Dendrocnide</i> '	Nese noro/kalat
	*quraŋ	'prawn'	Tape n/uir; V'ënen Taut n/ur; Nese na/ure
	*niuR	'coconut'	Nese na/ni
	*toŋoR	'mangrove'	Nese na/roŋ

Reflexes of forms with other final consonants are listed in table 2. In this, as in other tables of this nature, forms that show retention are in roman font, while forms that show loss are in italics; forms that also lose the vowel that preceded the final C are in bold italics. (Some instances of retention of final \*-k in Nese seem to show metathesis of the final VC, as in \*ñamuk 'mosquito' > *namyo*, for example.)

Apart from the regular loss of final \*-R, \*-n and \*-ŋ in all three languages, it seems that final stops and \*-s are retained in about 50 percent of cases in Tape and V'ënen Taut, though I have no data on final \*-p in V'ënen Taut. Nese is slightly different: \*-q is also regularly lost, \*-k is regularly retained, while \*-p, \*-t, and \*-s are retained in about 50 percent of the cases.

TABLE 2. FINAL CONSONANTS IN NORTHWEST MALAKULA

	POC		Tape	V'ënen Taut	Nese
*-p	*ku(r,R)iap	'dolphin'			<i>na/ku</i>
	*maquirip	'alive'			norwo
	*qatop	'sago palm'	<i>n/iet</i>		<i>n/iat</i>
	*rarap	' <i>Erythrina</i> '			na/aray
*-t	*lapuat	'big'			<i>lab</i>
	*limut	'moss, algae'	<i>lumlum</i>		<i>na/lum</i>
	*masakit	'sick'	məsit		
	*Runut	'coconut sheath'	<i>n/un</i>		<i>na/un</i>
	*saqat	'bad'	set	stu (?)	sat
*-k	*manuk	'bird'	<i>na/man</i>	<i>manəy</i>	na/nanyo
	*ma-osak	'cooked'			nasye
	*ñamuk	'mosquito'	nəymay (intrusive -y-)	namay	namyo
	*p <sup>w</sup> ilak	'lightning'	<i>ne/vəl</i>	<i>na/vəl</i>	ne/vilay
	*tašik	'sea'	<i>tes</i>	<i>na/ta</i>	<i>na/taš</i>
*-q	*lawaq	'spider(web)'	<i>ni/lo</i>		<i>ne/la</i>
	*luaq	'vomit'	luay	<i>lulu</i>	<i>lulu</i>
	*mataq	'raw'		məday	
	*nanaq	'pus'			<i>na/nen</i>
	*ñatuq	' <i>Burckella obovata</i> '		<i>na/net</i>	
	*piRaq	' <i>Alocasia</i> '	viay ' <i>Cyrtosperma</i> '	viah	<i>na/yi</i>
	*ponuq	'full'	<i>wun</i>		<i>vun</i>
	*Rum <sup>w</sup> aq	'house'	n/ə <sup>w</sup> m <sup>w</sup> ay	n/əmay	<i>na/ine</i>
	*saŋapuluq	'ten'	<i>i/sŋel</i>	<i>nal</i>	<i>saŋavil</i>
	*tanoq	'earth'			<i>na/tan</i>
*-s	*molis	' <i>Citrus</i> sp.'	m <sup>w</sup> ələs		<i>na/mul</i>
	*pekas	'defecate'		<i>ta/pəy</i>	
	*quRis	' <i>Spondias dulcis</i> '			na/us

**3. SOUTHERN VANUATU** Although Southern Vanuatu is an area known for a considerable amount of final C-retention (Lynch 1978, 2001), we can *not* say that final consonants were universally retained; moreover, retention patterns vary from language to language. I will discuss each of the three islands in turn, beginning with the Tanna languages, which are the most conservative in terms of final C-retention; and I will also comment on retention and loss in Proto-Southern Vanuatu (PSV).

In addition to final V-loss, a POC medial unstressed vowel occurring in the pretonic syllable was deleted. (This did not occur in an initial syllable in Tanna languages, because this would produce initial CCV, which is not permissible, but it did seem to occur in Erromangan languages and Anejoñ.) Because stress occurred in POC and PSV on the penult if the ultima was light and on the ultima if it was heavy (Lynch 2000), the medial vowel deletion rule applied to the antepenult in the former case and the penult in the latter; as in (4).<sup>6</sup>

(4)	*na-li'ma-ñā	'his hand'	Sye nelman 'outrigger'; Lenakel nelmən; Anejoñ nijman
	*e-ta'ma-ñā	'his father'	Sye etmen; Anejoñ etman
	*na-ma'ta-gu	'my eye'	Sye nimtuj; Lenakel nəmrok; Anejoñ nemtak
	*a-li'kos	'hang'	Sye elki; SW Tanna əlkəs; Anejoñ ajyei
	*a-bu'lut	'sticky'	Sye amplet; Lenakel ap'iit (first <i>i</i> < *1)
	*a-pe'kas	'defecate'	Sye evyah; SW Tanna əvkāa

POC \*R is retained, at least in nonfinal position, in quite a number of etyma, as in (5) (although, as with \*R in some other parts of Remote Oceanic, it is somewhat unstable).

(5)	*Rapi	'evening'	Sye pwa/rap; Kwamera na/ruv-a/ruv; Anejoñ njup-u/ra
	*kaRaka	'creep, crawl'	Sye n/aray-aray 'k.o. ground plant, <i>Cupaniopsis leptobotrys</i> '; Anejoñ a/ɣray
	*maRi	'breadfruit'	Sye nə/mar; Kwamera ne/mer; Anejoñ n/mar- (in compounds)
	*paRi	'stingray'	Sye u/var; Anejoñ n/har
	*yaRu	' <i>Casuarina</i> '	Sye n/yar-yar; Kwamera n/ier

**3.1 TANNA.** Some of the languages of Tanna seem to be the most conservative in the Southern Vanuatu family as regards final-consonant retention. Only two consonants are regularly lost in final position, the postvelars \*R and \*q.<sup>7</sup> The retention of the preceding vowel in all of the reflexes below (with the exception of \*tanoq > Lenakel *tən*) suggests that final \*-R and \*-q were lost only after final V-loss had ceased operating.

(6)	*toŋoR	'mangrove'	Kwamera tomu 'mangrove' ( <i>m</i> unexpl.)
	*qauR	'bamboo'	Whitesands, Lenakel, SW Tanna, Kwamera n/au
	*paraq	'sprouting coconut'	Lenakel nien-u/via; Kwamera nu/vera
	*piRaq	' <i>Alocasia</i> '	Lenakel, Kwamera nu/via

6. All modern Southern Vanuatu languages, however, have regular stress on the penult, regardless of the weight of the final syllable.

7. There is one possible case of retention of \*R: \*mimiR 'urinate' > Whitesands *a/mialili*, Lenakel *a/miamiil*, Southwest Tanna *a/mialil*. These forms, however, occur alongside Whitesands, Lenakel *a/mi*, Southwest Tanna *aa/m*, *a/mi*. I suspect that the former may have been transitive ('urinate on') and the latter intransitive, and that \*R is retained because of the erstwhile following transitive suffix \*-i (which appears to have been retained in Whitesands). However, this is only an assumption; in modern Lenakel, *amiamiil* is, in fact, intransitive (my data for Whitesands and Southwest Tanna are insufficient for me to be able to comment on those forms).

*luaq	'vomit'	N Tanna eoa; Whitesands, Lenakel eua; SW Tanna lua
*Rum <sup>w</sup> aq	'house'	N Tanna, Whitesands, Lenakel, SW Tanna, Kwamera n/im <sup>w</sup> a
*tanoq	'earth'	Whitesands naf <sup>w</sup> u-tāni; Lenakel tən; SW Tanna nəmop-tana; Kwamera tana
*tubuq	'swell'	Kwamera rupu

Data for other consonants are given in table 3. The three northern languages show very few cases of final C-loss, with the rate of retention being around 80 percent. In table 3, there are four C-deletions out of 19 in North Tanna, five out of 20 in Whitesands, and seven out of 35 in Lenakel. In nearly all of these cases, the preceding vowel is also lost. In the two southern languages, the retention rate is rather lower, around 65 per cent: there are seven cases of C-deletion out of 19 in Southwest Tanna, and 11 out of 31 in Kwamera. In quite a number of these cases, the preceding vowel is retained (suggesting possibly more recent loss of the final C?).

An examination of these cases of loss shows two fairly strong tendencies. One is that POc \*-k tends to be lost in Southwest Tanna and especially Kwamera, which does not show a single case of retention of \*-k. The other is that a final consonant is likely to be lost in any Tanna language if the vowel preceding it was \*i. This is summarized in (7) for the relevant forms in table 3: Ø = loss of the consonant, RET = retention.

(7) POc	N Tanna	Whitesands	Lenakel	SW Tanna	Kwamera
*irp	Ø	Ø	Ø	Ø	Ø
*maqurp					Ø
*masakit		Ø	Ø	Ø	Ø
*pitik	Ø				Ø
*tasik	Ø	Ø	Ø	RET	Ø
*molis			RET	RET	RET
*ŋiŋis			RET		
*quRis			Ø		Ø

These two processes between them account for *every* case of final C-deletion in table 3 except (a) loss of the final \*t of \*saqat in Southwest Tanna; (b) loss of the final \*c of \*waroc in Lenakel; (c) loss of the final \*s of \*pekas in Southwest Tanna; (d) loss of the final \*n of \*m<sup>w</sup>aruqen in Lenakel; and (e) loss of the final \*n of \*pican in all languages. No Southern Oceanic language (as far as I am aware) reflects the final \*-n in the last-mentioned etymon (e), and it may be that the form had already lost the \*-n in pre-Proto-Southern Oceanic times.

The order in which the relevant rules applied in Tanna seems to have been as follows:

1. \*V > Ø / \_\_\_ #
2. \*C > Ø / \*i \_\_\_ #
3. \*R, \*q > Ø / \_\_\_ #
4. \*k > Ø / \_\_\_ # in Southern Tanna.

There may have been some overlap between the first two rules, because in some cases the \*i was deleted along with the consonant following it, but in others it was retained.

TABLE 3. FINAL CONSONANTS IN TANNA LANGUAGES

	POc		N Tanna	Whitesands	Lenakel	SW Tanna	Kwamera	
*p	*irip	'fan'	<i>k-el-el</i>	<i>k-eil-eil</i>	<i>k-il-il</i>	<i>k-il-il</i>	<i>eri-eri</i>	
	*maquirip	'alive'					<i>muri</i>	
	*rarap	' <i>Erythrina</i> sp.'			<i>n/aiəv</i>			
	*Ruap	'high tide'			<i>elu-elu (?)</i> <sup>†</sup>		<i>a/rəruk*</i>	
*t	*buRat	' <i>Fagraea</i> sp.'			<i>nə/poas</i>			
	*kurat	' <i>Morinda</i> sp.'			<i>nə/uias</i>		<i>nə/ueis</i>	
	*lapuat	'big'	<i>eb*ət</i>	<i>ep*ət</i>	<i>ip*ər</i>			
	*limut	'moss'		<i>ləməs</i>	<i>ləmus</i>	<i>ləmus</i>	<i>iamha (?)</i>	
	*masakit	'sick'		<i>a/mha</i>	<i>a/mha</i>	<i>ə/mha</i>	<i>a/misa</i>	
	*pat	'four'	<i>ku/vət</i>	<i>ku/vət</i>	<i>ku/vər</i>			
	*Runut	'coconut sheath'			<i>n/iŋəs</i>		<i>n/enha</i>	
	*saqat	'bad'	<i>a/raat</i>	<i>ə/rah</i>	<i>taat</i>	<i>ha</i>	<i>e/rahas</i>	
*r	*si(n,ŋ)ar	'sun, shine'	<i>mət-ŋar</i>	<i>mət-əŋar</i>				
	*tuqur	'stand'	<i>a/tul</i>	<i>e/tuul</i>		<i>a/lel</i>	<i>a/rer</i>	
*c	*quloc	'maggot'				<i>n/ilah</i>		
	*waroc	'vine'			<i>n/ul</i> 'rope'			
*k	*manuk	'bird'	<i>meniŋ</i>	<i>meŋəŋ</i>	<i>menuk</i>	<i>mana</i>	<i>menu</i>	
	*ma-osak	'cooked'			<i>matak (?)</i>			
	*fiamuk	'mosquito'	<i>kə/məŋ</i>	<i>mu/m*əŋ</i>	<i>mu/muk</i>	<i>mu/muk</i> <sup>‡</sup>	<i>m*ɪ</i>	
	*pitik	'lightning'	<i>ə/bat</i>				<i>oə/pər</i>	
	*qutok	'brain'			<i>neno/urək</i>		<i>k*era</i>	
	*Ropok	'to fly'	<i>iŋ</i>	<i>iviŋ</i>	<i>ivək</i>	<i>iva</i>	<i>iva</i>	
	*tasik	'sea'	<i>n/tehi</i>	<i>nə/tehi</i>	<i>tehe</i>	<i>təhik</i>	<i>təsi</i>	
*s	*molis	' <i>Citrus</i> sp.'			<i>nə/məlɬ</i>	<i>k*a-n/məlɬ</i>	<i>nə/mərɬi</i>	
	*ŋiŋis	'smile'			<i>iŋɬ</i>			
	*pekas	'defecate'			<i>a/vhe</i>	<i>ə/vkaa</i>		
	*qaRus	'flow'			<i>aih</i>		<i>arəs</i>	
	*quRis	' <i>Spondias</i> '			<i>nə/vul (?)</i>		<i>nə/kori</i>	
*m	*kafu(m,ŋ)	'basket'	<i>katəm</i>	<i>katəm</i>	<i>karəm</i>			
*n	*bayan	'bait'			<i>nə/pien</i>		<i>nə/pien</i>	
	*m*aruŋen	'wild yam'			<i>nə/manru</i>			
	*padran	'pandanus'					<i>nə/fara</i>	
	*paŋan	'eat (INTR)'	<i>a/ŋuən</i>	<i>a/uŋən</i>	<i>a/uŋən</i>	<i>ə/vŋən</i>	<i>a/veŋən</i>	
	*pican	'how many?'	<i>k/uah</i>	<i>ku/vah</i>	<i>k/uhu</i>	<i>k/uhu</i>	<i>ke/va</i>	
	*putun	' <i>Barringtonia asiatica</i> '					<i>nə/k*erəŋ</i>	
	*qumun	'earth oven'	<i>nəa-n/um*ən</i>	<i>nəua-n/um*ən</i>	<i>nəua-n/um*ən</i>	<i>k*a-n/em*ən</i>	<i>nəa-n/umun</i>	
	*qusan	'rain'	<i>n/uɦuən</i>	<i>n/uɦuan</i>	<i>n/iɦin</i>	<i>n/eɦen</i>	<i>n/esən</i>	
	*tawan	' <i>Pometia</i> '			<i>nə/təm (?)</i> <sup>††</sup>		<i>nə/tum*ɪ (?)</i> <sup>††</sup>	
	*tokon	'crutch, staff'	<i>k-a/skən</i>	<i>k-a/skən</i>	<i>k-a/skən</i>	<i>k-a/skən</i>	<i>k-a/skən</i>	
	*ŋaicən	'when?'	<i>nə/ŋhan</i>	<i>nə/ŋhən</i>	<i>n/ahan</i>	<i>nə/ŋhən</i>	<i>n/esən</i>	
	*ŋ	*dəRuŋ	' <i>Trema</i> '			<i>nɪ/tiŋ</i>		
		*ŋ(ŋ)awaŋ	'be open'	<i>oəŋ</i>	<i>ouəŋ</i>	<i>owaŋ</i>	<i>ok*əŋ</i>	<i>ak*əŋ</i>
*qaca(n,ŋ)		'name'					<i>n/ahaŋ</i>	

† Lenakel *u* is one of the reflexes of \*p, and thus it is unclear if the *u* in this form reflects \*u, or \*p, or both.

‡ I suspect that this form is not inherited but is a loan from Lenakel.

†† The labial reflex of \*n is unexpected.

**3.2 ERROMANGO.** In the languages of Erromango, POC final \*-n is regularly lost, along with the preceding vowel.

(8)	*m <sup>w</sup> aruqen	'wild yam'	Sye nuv-mori; Ura nup-mori
	*putun	' <i>Barringtonia asiatica</i> '	Sye no/vont, u/vit
	*tawan	' <i>Pometia pinnata</i> '	Sye n/tau; Ura dau
	*ŋaican	'when?'	Sye ni/ŋoi; Ura ni/ŋei
	*qumun	'earth oven'	Sye nompompu/num; Ura niveri/num
	*pican	'how many?'	Sye nr/ve; Ura gi/va

POc \*-R and \*-q are also lost finally, though with the preceding vowel being normally retained.

(9)	*tojoR	'mangrove'	Sye ne/tuŋo
	*qauR	'bamboo'	Sye n/au; Ura le/nau
	*paraq	'sprouting coconut'	Sye ne/vre; Ura ne/vla
	*piRaŋ	' <i>Alocasia</i> '	Sye ne/vye
	*luaq	'vomit'	Sye e/lwo; Ura e/lwa
	*Rum <sup>w</sup> aq	'house'	Sye n/imo
	*tanoq	'earth'	Ura dena
	*tubuq	'swell'	Sye a/tpo/nr

Data for other consonants are given in table 4, in which the same conventions are used as in tables 2 and 3.

**TABLE 4. FINAL CONSONANTS IN ERROMANGAN LANGUAGES**

	POC		SYE	URA
*-p	*maquirip	'be alive'	o/murep	o/morop
	*rarap	' <i>Erythrina</i> sp.'	n/arap	dev/arap
*-t	*buRat	' <i>Fagraea berteriana</i> '	<b>no/mpyor</b> ' <i>F. indica</i> '	
	*kurat	' <i>Morinda citrifolia</i> '	no/yrat	
	*matakut	'fear (INTR)'	e/metet	e/metet
	*pat	'four'	nr/vat	
	*Runut	'coconut sheath'	n/uŋat	
	*saqat	'bad'	sat	ar-w/at
*-r	*tuqur	'stand'	e/tur	
*-c	*quloc	'maggot'	n/ilah	ila
*-k	*manuk	'bird'	menuy	<b>u/man-at</b> ' <i>Myzomela cardinalis</i> ' (at = 'bad')
	*ñamuk	'mosquito'	(u)/yomoy	u/youmu
	*pilak	'flash, lightning'	na/velay 'shining white stone formerly used as a medium of exchange'	
	*pitik	'lightning'	<b>tor/pis</b>	<b>dor/pis</b>
	*tasik	'sea'	n/toy	a/tok 'salty', but <i>de</i> 'sea'
*-s	*molis	' <i>Citrus</i> sp.'	ne/mli	
	*pekas	'defecate'	e/vyah	<b>i/vek</b>
	*qaRus	'flow'	orari (?)	
	*quRis	' <i>Spondias dulcis</i> '		va/sele (metathesis)
	*taŋis	'cry'	toŋi	<b>e/reŋ</b>
*-m	*(q)añam	'woven, braided'	n/anom 'coconut mat'	
	*qasam	'fern used for tying and binding'	<b>n/os</b> 'vine (generic)'	
*-ŋ	*butoŋ	'navel'	<b>yo/mput</b>	<b>yo/but</b>
	*doRuŋ	' <i>Trema orientalis</i> '	ne/nroŋ	
	*jalatoŋ	' <i>Dendrocnide</i> '	<b>ne/lyat</b>	
	*(ŋ)awaŋ	'be open'	ovaŋ	avaŋ

There are rather fewer data for Ura than for Sye, but what are available show that Ura is more prone to final C-deletion than is Sye. In Sye, at least, final stops (apart from \*q) tend to be quite stable, with thirteen cases of retention and only two of loss; however, with \*-s, \*-m, and \*-ŋ, loss is slightly more frequent than retention. I see no conditioning patterns in the limited amount of data available that might account for loss in some items but not others; in particular, there does not seem to be any evidence that a preceding \*i conditioned final C-loss, as seems to have occurred in Tanna. This suggests the following rule order:

1. \*n > Ø / \_\_\_ #
2. \*V > Ø / \_\_\_ #
3. \*R, \*q > Ø / \_\_\_ #
4. Partial loss of final \*-s, \*-m, and \*-ŋ

**3.3 ANEITYUM.** In Anejoĩm, we find rather more attrition of final consonants than in the other two islands. Final \*R and \*q are lost, and here in a number of cases the preceding vowel is also lost (unlike in Erromango and Tanna, where it is retained).

(10)	*toŋoR	'mangrove'	Anejoĩm ne/jeŋ 'Bruguiera gymnorhiza'
	*qauR	'bamboo'	Anejoĩm n/au
	*lawaq	'spiderweb'	Anejoĩm ni/lva
	*lisaq	'nit'	Anejoĩm na/laθ
	*tanoq	'earth'	Anejoĩm n/tan
	*Rum <sup>w</sup> aq	'house'	Anejoĩm n/iom <sup>w</sup>
	*tubuq	'swell'	Anejoĩm a/top <sup>w</sup>

POC \*-k is also regularly lost, along with the preceding vowel.

(11)	*manuk	'bird'	Anejoĩm n/man
	*Ropok	'to fly'	Anejoĩm a/e
	*ñamuk	'mosquito'	Anejoĩm n/yam <sup>w</sup>
	*pitik	'lightning'	Anejoĩm nowai-na/pet

Data for the other consonants are in table 5, where bold type indicates that the vowel that preceded the lost final C was also lost.

Despite a relatively small amount of data, it is fairly clear that Anejoĩm shows a much higher rate of loss than the other Southern Vanuatu languages. I am not at all sure if *n/jap<sup>w</sup>* 'sea' derives from \*Ruap 'high tide', because \*R > j is not a regular correspondence; if it is not a reflex, then we can say that all stops except \*t are lost in final position. However, \*-s, \*-n, and \*-ŋ show variable retention. The vowel preceding a lost final consonant is lost more often than it is retained, something I will discuss later.

**3.4 DISCUSSION.** Final C-loss seems to have proceeded at different rates and in different directions in the three subgroups, as shown in table 6. Points to note are:

- POC \*-q and \*-R are lost in all subgroups. However, this may have been three separate changes: they seem to have been retained in final position in Proto-Southern Vanuatu for at least some time, until the (or a) final vowel deletion rule had ceased operating.
- POC \*-k is lost in the southern part of the subgroup but not in the north.
- POC \*-s and the nasals are susceptible to loss in Erromango and Aneityum, though not in Tanna.

There is another issue that needs raising here, and that concerns unexpected reflexes of final consonants. Consider first the following:

(12)	*bayan	'bait'	Anejoṃ	ne/pyaṃ†
	*salan	'road'	Anejoṃ	n/alaṃ
	*tawan	' <i>Pometia pinnata</i> '	Lenakel	na/təm; Kwamera na/tum*/i
	*putun	' <i>Barringtonia asiatica</i> '	Kwamera	nə/kwerəŋ; Anejoṃ n/eteŋ
	*qum*əŋ	'hermit-crab'	Anejoṃ	n/um*əŋ 'k.o. small hermit-crab'

† But cf. Lenakel *nəpien*, Kwamera *nəpiien*, which reflect \*-n regularly.

The expected reflexes would be *n* < \*n and *ŋ* < \*ŋ in all languages. Anejoṃ final *ṃ* normally derives from \*n or \*ŋ before a front vowel, and the Anejoṃ reflexes of \*bayan and \*salan suggest the possibility of \*i added to the root, though the other cases do not; note also that Kwamera has final *i* in the reflex of \*tawan. In the case of \*tawan, \*putun, and \*qum\*əŋ, a different nasal occurs unexpectedly.

Final \*t poses another set of problems. Consider the reflexes shown in (13) (cases of loss are not given).

TABLE 5. FINAL CONSONANTS IN ANEITYUM

FINAL C RETAINED			FINAL C LOST				
*-p	*Ruap	'high tide'	n/jap*	'sea' (?)	*irip	'to fan'	ererei
					*maqunp	'alive'	u/mu
					*rarap	' <i>Erythrina</i> sp.'	n/ara
*-t	*kurat	' <i>Morinda</i> sp.'	no/uras		*buRat	' <i>Fagraea</i> sp.'	no/p*oi
	*lapuat	'big'	a/lp*as		*limut	'moss'	ne/lom*
	*Runut	'coconut sheath'	n/enes		*masakit	'sick'	e/mθa
	*saqat	'bad'	has		*matakut	'be afraid'	e/mtay
*-t					*si(n,ŋ)ar	'sun, shine'	aŋe/sja (?)
*-c					*quloc	'maggot'	n/ija
					*waroc	'vine'	n/wau
*-s	*molis	' <i>Citrus</i> sp.'	ne/pjeθ	(p unexpl.)	*taŋis	'cry'	taṃ
	*qaRus	'flow'	areθ				
*-m					*katu(m,ŋ)	'basket'	n/yat
*-n	*bayan	'bait'	ne/pyaṃ		*ŋaicān	'when?'	i/niθ
	*putun	' <i>Barringtonia asiatica</i> '	n/eteŋ		*paŋan	'eat (INTR)'	haŋ
	*salan	'road'	n/alaṃ		*pican	'how many?'	e/heθ
					*qumun	'earth oven'	um*a-n/um*
					*qusan	'rain'	nyop-θa
					*tawan	' <i>Pometia</i> '	ne/tva
					*tokon	'crutch, staff'	n-i/sey
*-ŋ	*qum*əŋ	'hermit-crab'	n/um*əŋ		*jalatoŋ	' <i>Dendrocnide</i> '	n/elyat

TABLE 6. PATTERNS OF LOSS AND RETENTION IN SOUTHERN VANUATU

	Always/usually lost	Around 50/50 loss/retention	Always/usually retained
Erromango	*q, *R, *n	*s, *m, *ŋ	*p, *t, *k (*r, *c?)
Tanna			
Northern	*q, *R, *C/i __ #		*p, *t, *k, *s, *n, *ŋ, (*r, *c, *m?)
Southern	*q, *R, *k, *C/i __ #		*p, *t, *s, *n, *ŋ, (*r, *c, *m?)
Aneityum	*q, *R, *p, *k, (*r, *c, *m?)	*t, *s, *n, *ŋ	

(13)	*kurat	' <i>Morinda citrifolia</i> '	Sye no/ɣrat; Lenakel na/uias; Kwamera no/ueis; Anejoĩm no/uras
	*buRat	' <i>Fagraea</i> sp.'	Lenakel na/poas
	*limut	'moss, algae'	Whitesands læmæs; Lenakel læmus; SW Tanna læmus; Kwamera iamha ( <i>i unexpl.</i> )
	*Runut	'coconut sheath'	Sye n/uŋat; Lenakel n/iŋæs; Kwamera n/enha; Anejoĩm n/enes
	*saqat	'bad'	Sye sat; Ura ar-w/at; N Tanna a/raat; Whitesands ə/rah; Lenakel taat; Kwamera era/has; Anejoĩm has
	*lapuat	'big'	N Tanna eb*æt; Whitesands ep*æt; Lenakel ip*ər; Anejoĩm a/lp*as
	*matakut	'be afraid'	Sye, Ura e/metet

In all of these languages, \*t palatalized (as *s*, sometimes further changing to *h*) when it occurred before a front vowel. The Erromangan languages clearly reflect \*-t as *t*, and so pose no problems. However, all Anejoĩm reflexes and a majority of Tanna reflexes of \*-t are *s* (or *h*), not *t* or *r* (the normal nonfinal reflexes depending on the language). It is possible that these might be due to an additional final \*i although, given the Erromangan cases, I feel that it is far more likely that \*t lenited to *s* in final position.

Loss of the postvelars may well have occurred in very early post-Proto-Southern Vanuatu. In nearly all other cases of final C-loss, it seems (i) that each subgroup behaved differently, and (ii) that a particular change may have taken place in particular lexical items but not in others—that is, it spread by lexical diffusion in a rather irregular fashion.

**4. NEW CALEDONIA** In New Caledonia, final consonants are generally lost in the Southern Mainland subgroup. However, this is not nearly so true of the Loyalties and the Northern Mainland subgroups. Before proceeding to discuss these two subgroups, I should mention that it is generally held that POC \*R was completely lost in New Caledonian languages (though there does appear to be a small number of possible exceptions that need investigation.) Instances of loss of final \*R, then, like those in (14), really tell us nothing about what happened to final consonants.

(14)	*kuluR	'breadfruit'	Nyelâyü yen; Nêlêmwa cen; Pije, Fwâi, Jawe cin; Nemi cin cani, cin pereup; Cêmuhî in; Iaii i/oun; Drehu ən
	*toŋoR	'mangrove'	Nyelâyü jan; Nêlêmwa kan ' <i>Bruguiera gymnorhiza</i> '; Nemi, Jawe jen; Cêmuhî jën; Iaii -ciŋ
	*mimiR	'urine, urinate'	Nyelâyü ne/ma; Nêlêmwa ima; Pije, Fwâi, Nemi, Jawe ñi/ma—all 'urinate'; Cêmuhî imê; Iaii hi/mæ; Drehu hma

Note also in the examples in (15) that the vowel preceding final \*R is also deleted.

**4.1 LOYALTY ISLANDS.** Blevins (2004:209) lists the Loyalty Islands language Iaii as one of her fourteen languages/subgroups in which there is wholesale final C-loss. In fact, in the three Loyalty languages, there are some instances of final C-retention.

Ungeminated \*q and \*k are lost in all positions in all three languages (though there are some instances of \*k > ɣ in Nengone, for which I have the least amount of data), and thus loss of final \*q and \*k are part of a more general pattern. POC \*p is also lost in all positions in Drehu and Nengone, though in Iaii it is lost before back vowels but retained as *v* before front vowels. However, in the few cases of etyma containing final \*-p, given in (15), I find no case of retention.

- (15) \*maqurip 'be alive'      Iaaï m<sup>w</sup>æʔ; Drehu mel; Nengone hmor  
 \*Ruap 'high tide'      Iaaï uoʔi; Drehu i/wæ; Nengone ue  
 \*qatop 'thatch'      Iaaï ot

It appears as if all final nasals were also lost, although nasals are retained in other positions (\*m > m, \*n and \*ñ > n, and \*ŋ > ŋ):

- (16) \*-m \*qañam 'woven, braided' Iaaï w/aan; Drehu eno  
 \*-n \*qusan 'rain'      Iaaï we; Nengone el  
 \*pican 'how many'      Iaaï ve; Drehu iðe/ʔe; Nengone ha/el  
 \*pituqun 'star'      Iaaï o/vuu  
 \*salan 'road'      Iaaï ge/ʔen; Drehu go/ðen; Nengone len  
 \*bayan 'bait'      Iaaï o/bæ  
 \*kuron 'pot'      Iaaï sʔ; Drehu əl; Nengone ore  
 \*tokon 'crutch'      Drehu tə; Nengone tu  
 \*qutan 'bush'      Iaaï hoot; Nengone etc  
 \*-ŋ \*quraŋ 'prawn'      Iaaï oʔ  
 \*qacaŋ 'name'      Iaaï iie (?); Drehu eð; Nengone y/el  
 \*manaŋ 'spiritual power' Iaaï mæn; Drehu mene; Nengone nene

The only possible exceptions to this generalization are \*ŋawaŋ 'be open' > Iaaï xæŋ (but initial x is unexplained), and \*monoŋ 'stay' > Nengone *meneŋ* (but cf. Drehu *munε*).

However, there is fairly good evidence that coronal obstruents were retained. Consider the following data:

- (17) \*-t \*kuRat '*Morinda citrifolia*' Iaaï hulak  
 \*buRat '*Fagraea* sp.' Iaaï poʔ  
 \*pat 'four'      Iaaï væk; Drehu ek/eʔe; Nengone ec/e  
 \*pukot 'net'      Iaaï eet; Drehu eəʔ; Nengone eoc  
 \*lumut 'moss, algae' Iaaï ɔemət  
 \*masakit 'sick'      Iaaï mək  
 \*-r \*tuqur 'stand'      Iaaï teʔ; Drehu cil  
 \*-s \*pekas 'defecate' Iaaï vii; Drehu xoð; Nengone kol  
 \*taŋis 'cry'      Iaaï teŋe; Drehu ʔeið

Two comments are necessary here. First, the reflexes of \*t involve complex conditioning in these languages; the most common reflexes are *t*, *c*, *ʔ*, and *k*, and which one occurs depends both on the nature of neighboring vowels and whether or not an adjacent syllable contained a velar or post-velar consonant. Second, the noninitial reflex of \*s in Iaaï is *i*, and it seems probable that final \*-s is retained in Iaaï in the two examples above.

Thus, in terms of consonants that do not undergo loss in all environments, we appear to be able to say the following about the Loyalty languages: \*-p and final nasals are lost; \*-t, \*-r, and \*-s are retained.

**4.2 NORTHERN NEW CALEDONIA.** In this section, I concentrate on the languages of the northern mainland.

**4.2.1 Far North and Hienghène.** Among these northern languages, those spoken in the area of Hienghène (Pije, Fwâi, Nemi, and Jawe) are described by Ozanne-Rivierre as being "particularly conservative" in terms of final C-retention (1995:46). Much of what I have to say in these two sections summarizes Ozanne-Rivierre (1982, 1995) and Rivierre (1991), with some additional examples.

POc nonfinal \*n and \*ŋ merge as *n* in these languages. However, final \*n and \*ŋ are regularly lost, as shown below.<sup>8</sup> These examples are subgrouped according to the fate of the preceding vowel, which will be discussed later in this section: (18a) are instances in which that vowel is retained in all languages that reflect the etymon, (18b) shows retention in some and loss in others, and (18c) loss in all.

(18) a.	*apon	'fishing line'	Pije, Nemi yawo
	*raun	'leaf'	Nyelayu dao; Pije, Fwâi, Nemi, Jawe do
	*qum <sup>a</sup> (n,ŋ)	'hermit crab'	Nêlêmwa om <sup>a</sup> ; Pije, Fwâi, Nemi, Jawe kum <sup>a</sup>
	*quraj	'prawn'	Nyelâyû ola; Nêlêmwa kola; Pije, Fwâi, Nemi, Jawe kula
b.	*putun	' <i>Barringtonia asiatica</i> '	Nyelâyû piyu; Pije ce-piuk; Fwâi, Nemi, Jawe ce-viuk
	*qusan	'rain'	Nyelâyû ora; Nêlêmwa kot; Pije, Fwâi, Nemi, Jawe kut
	*taqun	'year'	Nyelâyû jao; Pije, Fwâi tok; Nemi dak, tok; Jawe jak
c.	*pican	'how many?'	Pije, Fwâi, Nemi ni/vit
	*pituqun	'star'	Nyelâyû piyu; Nêlêmwa piguk ( <i>g</i> unexpl.); Nemi, Jawe piuk
	*qutan	'bush'	Pije, Fwâi, Nemi, Jawe kuc
	*salan	'road'	Nyelâyû, Nêlêmwa daan; Pije, Fwâi sêê/dan; Nemi cnee/dan; Jawe h <sup>aa</sup> /dan
	*tokon	'staff, crutch'	Jawe jek
	*qaca(n,ŋ)	'name'	Nêlêmwa yaat; Pije, Fwâi, Nemi, Jawe yat

Previous writers have said that other final consonants are "generally retained" (e.g., Ozanne-Rivierre 1995:46). One or two examples of the retention of each of final \*p, \*t, \*r, \*k, \*q, \*s, and \*m are given in (19); italics indicate loss.

(19)	*maquirip	'sleep'	Pije motip; Fwâi marip; Nemi matip
	*Rup	'high or rising tide'	Nyelâyû, Nêlêmwa wap; Pije, Fwâi, Nemi, Jawe wop
	*kurat	' <i>Morinda citrifolia</i> '	Nyelâyû yelac; Nêlêmwa celak; Pije, Fwâi, Nemi, Jawe hilec
	*buRat	' <i>Fagraea</i> sp.'	Nyelâyû buac; Nêlêmwa buak; Pije, Fwâi, Nemi, Jawe guac
	*tuqur	'stand'	Nyelâyû cur; Nêlêmwa kuut; Pije, Fwâi, Nemi tuut; Jawe cut
	*manuk	'bird'	<i>Nyelâyû mâli</i> ; Nêlêmwa maalîc; Pije, Fwâi, Nemi, Jawe manik
	*ñamuk	'mosquito'	<i>Nyelâyû nab<sup>i</sup></i> ; Nêlêmwa naabuc; Pije, Fwâi, Nemi, Jawe naaguk <sup>†</sup>
	*ponuq	'full'	<i>Nyelâyû nu</i> ; Nêlêmwa pôlök; Pije, Fwâi, Nemi, Jawe punuk
	*tubuq	'swell'	<i>Nyelâyû c<sup>i</sup>ibu</i> ; Pije, Fwâi, Nemi, Jawe higuk
	*pekas	'defecate'	Nêlêmwa faxat; Pije, Fwâi paat
	*qaRus	'flow, current'	Pije, Fwâi, Nemi, Jawe koot
	*(q)añam	'woven, braided'	Pije, Fwâi, Jawe khãm; Nemi knam
	*tiRom	'oyster'	Nyelâyû degam ( <i>g</i> unexpl.); Pije diam; Fwâi, Jawe diem; Nemi jiem, diem

† It seems that, in this item, medial \*m changed irregularly to \*b, which is then regularly reflected as *g* before \*u in the Hienghène languages.

8. In the case of \*raun 'leaf', \*tokon 'staff, crutch', and \*qaca(n,ŋ) 'name', there are also reflexes that take possessive suffixes (for example, Nêlêmwa *yaara-*, Pije *yala-*, Fwâi, Nemi, Jawe *yale-* 'name'). The final *n* in reflexes of \*salan 'road' is the regular reflex of \*l (which merges with \*n) and not a retained final \*n.

In this connection, note that nonetymological consonants seem to have been *added* to some roots that all evidence suggests were vowel-final (Ozanne-Rivierre 1982:58–59, 1995:47–48). Examples are given in (20).

(20)	*qupi	'yam'	Nêlêmwa kuci/c; Pije, Fwâi, Nemi kuu/k; Jawe küi/c
	*kayu	'tree'	Nyelâyü yee/k; Nêlêmwa cii/c; Pije, Fwâi, Nemi, Jawe cee/k
	*kutu	'louse'	Nêlêmwa cixi/c; Pije, Fwâi, Nemi, Jawe cii/k
	*patu	'stone'	Pije, Fwâi, Nemi, Jawe pai/k
	*api	'fire'	Nêlêmwa y/aavi/c; Pije, Fwâi, Nemi, Jawe y/aa/k
	*goti	'finished'	Nyelâyü oji/n ~ oji/ŋ; Nêlêmwa ogi/n; Pije, Fwâi, Nemi, Jawe koi/n
	*pudi	'banana'	Pije, Fwâi, Nemi, Jawe piji/ŋ
	*ka(o,u)	'swim'	Pije, Fwâi, Nemi, Jawe hyoo/m

In Nyelâyü, POC \*q is lost in all environments, not just finally. Nonfinal \*k is retained, but it appears that final \*-k was lost—see the reflexes of \*manuk and \*ñamuk in (19) above, plus \*ma-osak 'cooked' > *meede*—although there is at least one instance of retention, \*moñak 'grease' > *m<sup>w</sup>alāk*.

As far as the other languages are concerned, in unsuffixed forms I have found 100 percent retention of \*-p, \*-t, \*-r, \*-k, \*-s, and \*-m (although the data for \*-r and \*-m are especially scant), with thus far only two apparent exceptions:<sup>9</sup>

(21)	*Runut	'coconut sheath'	Nêlêmwa uŋ; Pije uñ; Fwâi, Nemi, Jawe buli-uñ
	*kiRam	'axe'	Nêlêmwa giwa; Pije, Fwâi, Nemi, Jawe gi

The situation with final \*-q is slightly different. Apart from Nyelâyü, \*q is normally retained as *k* in these languages, as a number of examples above illustrate. In addition to its retention in \*ponuq and \*tubuq in (19) above, we also find \*-q retained in the examples in (22).

(22)	*lawaq	'fishnet'	Nêlêmwa nok; Pije, Fwâi, Nemi, Jawe nuk—all 'fish'
	*(n,ñ)opuq	'stonefish'	Pije, Fwâi, Nemi, Jawe neuk
	*sisiq	'shellfish'	Pije, Fwâi, Nemi, Jawe tʰik 'trochus; generic for gastropods'

However, \*-q is lost in all these languages in the following unsuffixed etyma:

(23)	*lisaq	'nit'	Pije, Fwâi, Nemi hñida; Jawe hñida, hñida
	*mataq	'raw'	Nêlêmwa maaxa; Jawe ŋak
	*mutaq	'vomit'	Pije, Fwâi, Nemi da; Jawe ja
	*nanaq	'pus'	Pije, Fwâi, Nemi, Jawe hna 'snot, nasal mucus'
	*paraq	'sprouting coconut'	Fwâi, Nemi doo/vala; Jawe sep vala
	*piRaq	' <i>Alocasia</i> '	Nêlêmwa, Pije, Fwâi, Nemi, Jawe pia
	*Rum <sup>w</sup> aq	'house'	Nêlêmwa m <sup>w</sup> a; Pije, Fwâi, Nemi, Jawe ŋa

The pattern seems to be that \*-q was lost after \*a but retained elsewhere; the one apparent exception, the reflexes of \*lawaq in (22), can probably be explained as reflecting an intermediate form \*lauq.

The fact that the vowel preceding final \*-R was also lost while the vowel preceding \*-q was normally retained suggests that the final V-loss rule occurred between \*R-loss and \*final \*q-loss. The relative ordering of the loss of final \*n and \*ŋ is more complex.

9. There is one other possible instance. Haudricourt and Ozanne-Rivierre (1982:80) give the following reflexes of \*qenop 'sleep, lie down', all of which mean 'to be lying down': Pije, Fwâi *kʰōna* ~ *kʰōnap*; Nemi *knona* ~ *knonap*. Note also Nyelâyü *ālāp*, which has an abbreviated form *an-* in compounds, and Nêlêmwa *kālap* with a compound form *kā-*. It appears that \*-p was somewhat unstable in this etymon.

Example (18) shows retention of the vowel in some items and loss in others, with no apparent conditioning. The data in (18b) suggest that this vowel was slightly more likely to be retained in Nyelâyu than in the other languages. I suggest, then, the following ordered sequence:

1. \*R > Ø
  2. 

$*V > \emptyset / \_ \#$ $*n, *ŋ > \emptyset / \_ \#$	
--	--
  3.  $*q > \emptyset / a \_ \#$
  4.  $*k > \emptyset / \_ \#$
- These two rules must have been at least partly contemporaneous, because some (but not all) cases of  $*V(n,ŋ)\# > \emptyset$ .  
 This was later generalized to  $*q > \emptyset$  in Nyelâyu.  
 In Nyelâyu only.

**4.2.2 Cèmuḥî and neighboring languages.** Cèmuḥî and Paicî are not only the two southernmost languages of the Northern Mainland subgroup, but are also the only two members of that subgroup to have developed phonemic tone. Paicî, like all languages of the Southern Mainland subgroup, has lost all final consonants, and this may well have been due at least in part to contact with southern languages (Rivierre 1991). Although it has also experienced such contact, there is no wholesale loss of final Cs in Cèmuḥî.

As with the Loyalties languages,  $*q$  and  $*k$  have been lost in all positions in Cèmuḥî, as, of course, has  $*R$ . I have very few examples of final nasals, but those I do have (see 24) suggest that, as in languages further north, they were lost.

(24)	$*kiRam$	'axe'	Cèmuḥî gî
	$*qusan$	'rain'	Cèmuḥî ūtē
	$*taqun$	'year'	Cèmuḥî jō
	$*pican$	'how many?'	Cèmuḥî nīit
	$*salan$	'road'	Cèmuḥî p <sup>w</sup> áá/dén
	$*qumwa(n,ŋ)$	'hermit crab'	Cèmuḥî ùm <sup>w</sup> ō

It also appears that  $*-t$  was lost:

(25)	$*saqat$	'bad'	Cèmuḥî tà
	$*pat$	'four'	Cèmuḥî tá
	$*pukot$	'net'	Cèmuḥî pūā

However, there is some evidence suggesting that other final consonants were retained, and although the data are not plentiful I have no counterexamples.

(26)	$*maqurip$	'sleep'	Cèmuḥî mūlip
	$*rarap$	' <i>Erythrina</i> sp.'	Cèmuḥî dēlūp
	$*tuqur$	'stand'	Cèmuḥî cūūt
	$*pekas$	'defecate'	Cèmuḥî pāāt
	$*qaRus$	'flow, current'	Cèmuḥî ōōt

Neighboring Cèmuḥî to the north and Paicî to the northwest are dialects spoken in the area of Voh and Koné, and referred to in the literature as the Voh-Koné dialects. These are nontonal, and "represent an intermediate stage ... between the conservative northern languages and the open-syllable languages" like Paicî and those of the southern subgroup (Rivierre 1991:423). Rivierre conducted comparative studies across these dialects, and also longitudinal studies of transcriptions of the same lexical items by different linguists between 1939 and 1971. It is interesting to note that final C-loss in these dialects has been a change in process during that time: many forms recorded by Leenhardt in 1939 as always or often ending a consonant had lost that consonant by

the time Rivierre was conducting fieldwork in 1971. He also noted that back consonants tended to disappear before front ones, with the order being *-k*, then *-c*, then *-p*, then *-t*. (These derive respectively as follows: *\*q > k*, *\*k > c*, *\*t, \*r > t*, *\*p > p*.)

**5. HOW DID FINAL C-LOSS OPERATE?** In the three geographical areas I have been considering, final consonants do not undergo wholesale loss, although they seem to do so in all or most of the rest of the Remote Oceanic subgroup.<sup>10</sup> However, the patterns seem to be different in each area, and even between different languages in the same subgroup. In this section, I try to draw some tentative conclusions about the various processes involved.

**5.1 FINAL C-LOSS RULES.** Table 7 summarizes the discussion so far (ignoring the truly sporadic cases of final C-retention in the Banks and other areas in NCV). A shaded square indicates that that phoneme was lost in all positions. Other symbols refer only to final consonants:  $\emptyset$  = close to 100 percent loss, x = loss in about 50 percent of the etyma, a dash = inadequate data, while a blank = a high retention rate.<sup>11</sup>

The languages under investigation here seem to be exceptions to Blevins's statement that "there is ... very little evidence that [final C-loss] is the result of tandem gradual processes of natural segmental weakening processes that are widely attested cross-linguistically" (2004:210–11). In the languages I have been investigating, there

TABLE 7. PATTERNS OF FINAL C-LOSS†

	*p	*t	*r	*c	*k	*q	*s	*m	*n	*ŋ	*R
NW Malakula											
Tape	x	x	—	—	x	x	x	—	$\emptyset$	$\emptyset$	$\emptyset$
V'ënen Taut	—	x	—	—	x	x	x	—	$\emptyset$	$\emptyset$	$\emptyset$
Nese	x	x	—	—		$\emptyset$	x	—	$\emptyset$	$\emptyset$	$\emptyset$
S. Vanuatu											
Erromango							x	x	$\emptyset$	x	$\emptyset$
Northern Tanna											$\emptyset$
Southern Tanna					$\emptyset$						$\emptyset$
Anejom̃	$\emptyset$	x	$\emptyset$	$\emptyset$	$\emptyset$		x	$\emptyset$	x	x	$\emptyset$
Loyalty Is.											
Iaai	$\emptyset$			—				$\emptyset$	$\emptyset$	$\emptyset$	
Drehu, Nengone				—				$\emptyset$	$\emptyset$	$\emptyset$	
N. New Caledonia											
Nyelâyü					x				$\emptyset$	$\emptyset$	
Hienghène area						/a _			$\emptyset$	$\emptyset$	
Cèmuhî		$\emptyset$		—				$\emptyset$	$\emptyset$	$\emptyset$	

†Note: \*q was not lost in Proto-Southern Vanuatu. In Tanna, any final consonant was lost after \*i.

10. I say "all or *most* of the rest" because there may be other languages, especially in Malakula and Santo, that reasonably regularly retain (some) final consonants, but for which we have minimal or no data at this stage of research.

11. In examining table 7, the reader needs to keep in mind the relatively small database available for at least some of the languages under discussion, and the fact that there are very few examples indeed of particular final consonants (especially \*-l, and also to some extent \*-r, \*-c, and \*-m).

do seem to be at least some clear rules by which natural classes of sounds are lost. I begin with the most conservative languages.

- (a) In Tanna, there was regular loss of the postvelars \*-q and \*-R, with later loss of \*-k in the southern languages. There was also regular loss of any final consonant when the immediately preceding vowel was \*i.
- (b) In Erromango, there was also regular loss of \*-q and \*-R, along with \*-n. There has been partial, and probably more recent, loss of all other nonstops.
- (c) Ignoring Cèmuhi, in Northern New Caledonia the only widespread rule was loss of final nonlabial nasals. Later rules applied to \*-q and, in Nyelâyu, \*-k.

Just why velars and postvelars should delete before nasals, and why nasals should delete before nonback stops, is a matter that requires further research.

In the case of the remaining languages, it would appear to me that total loss indicates an earlier rule and partial loss a somewhat later change. The Northwest Malakula languages seem to have lost final nasals and \*-R early on. This may have put pressure on other final consonants, nearly all of which seem to have begun to be lost. The retention of \*-k in Nese, however, indicates that the loss of at least \*-k in the other languages was probably much more recent than the loss of, say, \*-R. In Cèmuhi, final nasals were also lost, as was \*-t.<sup>12</sup> Finally, Anejoñ shows partial loss of \*-t, \*-s, \*-n, and \*-ŋ, and complete loss of all other consonants.

**5.2 FINAL V-LOSS AND C-LOSS.** As mentioned in section 1, in all of these languages there was a rule deleting word-final vowels. In order to decide the ordering relationship between the final V-loss and C-loss rules, we need to examine the fate of the vowel that preceded a lost final consonant. I start with cases where the rule ordering seems to be V-loss followed by C-loss.

- (a) Tanna languages generally retain the vowel after final C-loss, suggesting that V-loss preceded any C-loss rules.
- (b) Erromangan languages appear to have lost \*-n before the V-loss rules, but other final consonants were lost later, again because the preceding vowel is usually retained.
- (c) In Northern New Caledonia, relevant examples can be found in (18) and (23) above. It seems that V-loss took place at about the same time that final \*-n and \*-ŋ were lost, but that the loss of final \*-q after \*a occurred later than this, because \*a is retained in such cases. Loss of final \*-k in Nyelâyu also postdated final V-loss.

On the other hand,

- (d) In Anejoñ and the Loyalties languages, the vowel was sometimes retained but probably more frequently lost. The ordering of final segment deletion rules in Proto-Southern Vanuatu at least must have been (1) V-loss, (2) C-loss, to account for the Tanna data. A *second*, and later, V-loss rule must have then developed in Anejoñ (and, in a less thoroughgoing way, in the Erromangan languages) *after* these languages had separated from the Tanna languages. This may well have been true for the Loyalties as well.

---

12. Interestingly, Cèmuhi is the only language among all those considered in this paper that shows regular loss of \*-t.

- (e) In Northwest Malakula, when the final consonant was lost, the preceding vowel was almost always lost as well. There are two possible explanations here: V-loss followed C-loss, or else the same situation obtained as in Anejoñ, with two different V-loss rules, one before and one after C-loss.

It seems likely that, in all of these instances, final V-loss preceded any rules deleting any final consonants, although in some languages a second final V-loss rule came into operation some time later. Recall also that in Southern Vanuatu at least, medial V-loss preceded final V-loss. The result of the operation of these rules would have been to produce a preponderance of final closed syllables. I have not seen any statistical data on the nature of final segments in these languages. However, a search of every tenth page of the Lenakel and Sye dictionaries shows that 65 percent of Lenakel unsuffixed forms and 50 percent of such forms in Sye are consonant-final; and I imagine similar figures would apply to the other languages investigated here.

There may, as I mentioned above, have been two final V-loss rules in some of the languages I have been considering: that is, (i) final vowels were lost, (ii) certain final consonants were lost, and (iii) the vowel that came to be final as a result of (ii) was then lost in some instances. A number of examples of  $*-VC\# > \emptyset$  in Anejoñ, for example, were mentioned above, among them, those in (27).

(27)	*toŋoR	'mangrove'	ne/jeŋ	' <i>Bruguiera gymnorhiza</i> '
	*lisaq	'nit'	na/laθ	
	*tanoq	'earth'	n/tan	
	*Rum <sup>w</sup> aq	'house'	n/iom <sup>w</sup>	
	*tubuq	'swell'	a/top <sup>w</sup>	
	*manuk	'bird'	n/man	
	*ñamuk	'mosquito'	n/yam <sup>w</sup>	
	*taŋis	'cry'	tañ	
	*paŋan	'eat'	haŋ	
	*jalatoŋ	' <i>Dendrocnide</i> '	n/elyat	

There appears to have been even further erosion from the right in Anejoñ: in (28a) we see examples of final  $*-CV > \emptyset$ , and in (28b) of final  $*-CVC > \emptyset$ .

(28)	a.	*qupi 'yam'	n/u
		*sipo 'go down'	a/θe
	b.	*(n,ñ)opuq 'stonefish'	ne/no
		*masakit 'sick'	e/mθa
		*Ropok 'to fly'	a/e
		*maqurip 'alive'	u/mu

This is reminiscent of the "erosion from the right" in some Micronesian languages, a term first used by Bender (1969:43). In those cases, however, the erosion was total: that is, all occurrences of final  $*-C$  were lost, and then all occurrences of final  $*-V$  were lost in absolute final position. In the case of Anejoñ (and, it appears, some of the Malakula and Loyalty Island languages), however, it seems that this erosion—like much about final C-loss itself—was much more of a sporadic process.

Now in trying to come up with some kind of explanation for final C-loss, possibly as a drift phenomenon, Blevins (2004:212) muses as follows: "Could it be that in languages where *nearly* all syllables are open, there is a tendency to treat all syllables as

open? In other words, could the preponderance of open syllables in the stage prior to the sound change [ $*C > \emptyset / \_ \#$ ] ... itself play a role in instigating the change?" Possible support for this tendency comes from Proto-Oceanic itself. Most medial syllables in Proto-Malayo-Polynesian were open, but some were closed (often as a result of reduplication). However, Proto-Malayo-Polynesian medial consonant clusters reduced in Proto-Oceanic to single consonants by deleting the first member of the cluster, and thus all closed nonfinal syllables became open, as in the examples in (29) (see also the discussion in Blust 1977).

(29) PMP *beŋi	'night'	POc *boŋi	'night, day of twenty-four hours'
PMP *dem-dem	'be dark'	POc *rodrom	'be dark, be night'
PMP *duŋduŋ	'sheltered'	POc *ruru	'calm, sheltered'
PMP *gagap	'stammer'	POc *kaka(p)	'stammer'

However, perhaps the reverse tendency might be true of the three groups of languages I have been investigating. All of them show regular final V-loss, and thus they became, in the stage prior to any final C-loss rule, languages with a preponderance of *closed* final syllables. Did this contribute in some way to their resistance to loss?

This, it seems to me, might explain the situation in the fairly conservative cases—Tanna, Erromango, Loyalties and northern New Caledonia—where final C-loss was restricted to just one or a few consonants or classes of consonants. In the case of north-west Malakula and Anejoñ, however, it seems that Blevins's explanation may be appropriate: certain (classes of) consonants were lost finally, and as a result other (classes of) consonants became more susceptible to loss.

**5.3 SUMMARY.** A number of tentative conclusions emerge from an examination of the loss and retention of final consonants in the three groups of languages I have been examining here.

- (a) There is evidence that final C-loss applied to certain classes of consonants but not to others. That is to say, we can observe a number of natural rules of final C-loss.
- (b) There is some evidence that some final C-loss rules may have applied earlier than others.
- (c) Although there are some common rules of C-loss, there is also evidence that different rules applied in each of the three subgroups of languages discussed here, and there are even some differences between different languages in the same subgroup.
- (d) There is evidence from Vanuatu at least that rules deleting some final consonants may have been lexically diffused. That is, there are a number of cases where the same phoneme is retained in some words but lost in others in the same language, and where there is no evidence of phonological conditioning.

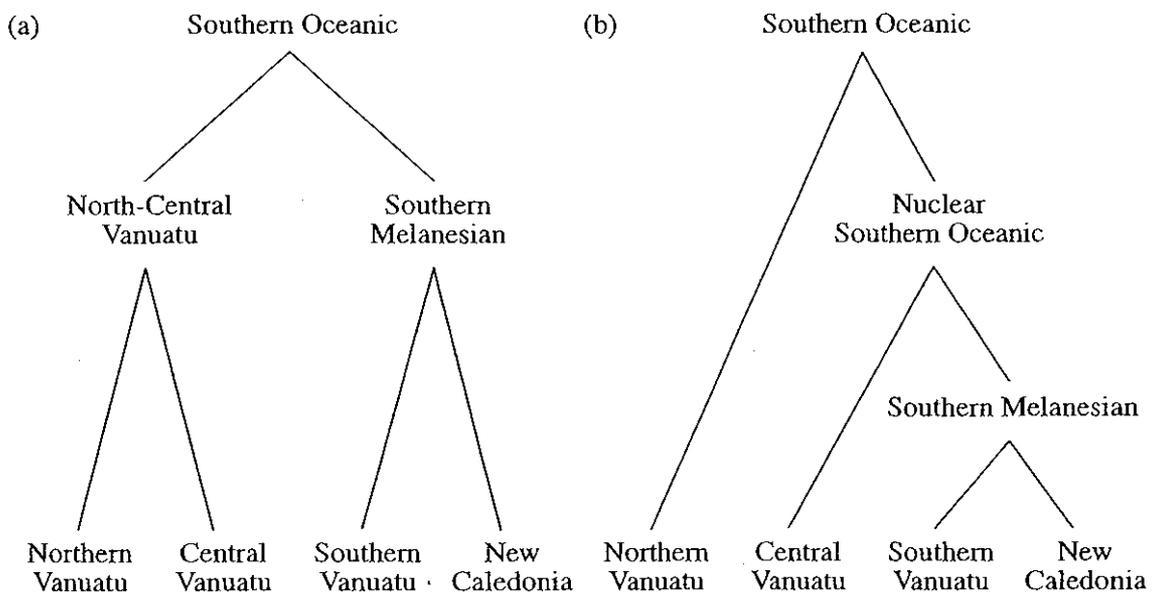
The internal subgrouping of Remote Oceanic still needs further research, and it is not clear whether either or both of Central Pacific and Micronesian are sister-languages of Southern Oceanic or of some northern Vanuatu subgroup. Two possible family trees of Southern Oceanic are given in figure 1, tree (a) proposed by Clark in various publications (at least as far as NCV is concerned), and (b) by me. The early branching in each case is still under investigation. However, neither the disagree-

ment between (a) and (b) nor the uncertainty about the early branching is relevant to the argument in the next paragraph.

The Northwest Malakula languages discussed here belong to the Central Vanuatu subgroup. This means that wholesale final C-loss does *not* occur in at least some members of three *lower-order* subgroups of Remote Oceanic, which implies that final consonants must have been regularly retained in Proto-Remote Oceanic and Proto-Southern Oceanic. This further implies that the wholesale loss of final consonants must have been even more recurrent in the Remote Oceanic subgroup than Blevins suggested. It must have occurred at least once in the Northern Vanuatu group, at least once in the Central Vanuatu group (and separate and distinct from Northern Vanuatu final C-deletion), and at least once in New Caledonia—as well, of course, as occurring, presumably as separate processes again, in Central Pacific and Micronesian.

**6. IMPLICATIONS** What can this discussion tell us about final C-loss patterns within the wider Austronesian context? Although I believe Blevins to be largely correct in suggesting that there was structural pressure to create open syllables in those languages/subgroups that show wholesale final C-loss, this does not necessarily mean that there was one monolithic final C-loss rule deleting all final consonants almost simultaneously. It is just as likely that certain classes of final consonants were lost before others. The data discussed here suggest, for example, that velars, postvelars, and nasals were more susceptible to loss than consonants of other classes. Could we be dealing with a situation where some sets of final consonants were lost, where this loss created even more open final syllables than there were before, and where this in turn created pressure for other classes of final consonants to undergo deletion? That is, although the *cumulative* effect of a series of rules may be  $*C > \emptyset \_ \#$ , this may have come about in stages; for example, (1) velars and postvelars  $> \emptyset$ ; (2) nasals  $> \emptyset$ ; (3) obstruents  $> \emptyset$ .

**FIGURE 1. SCHEMATIC REMOTE OCEANIC SUBGROUPING**



An examination of the situation in Anejoñ is instructive in this regard. Like its other relatives in Southern Vanuatu, it has lost \*q and \*R. Unlike most of them, it also shows fairly widespread loss of the stops \*p, \*r, and \*k, and the nasals. The only consonants that are retained with anything like 50 percent regularity are \*t and \*s. This suggests to me:

- (a) a series of rules weakening and then finally deleting different classes of final consonants;
- (b) a situation where the same change did not occur in all etyma at the same time (note here also the Banks and northwest Malakula data in section 2); and
- (c) the distinct possibility that the loss of one set of consonants, which expanded the tendency towards open syllables, applied pressure on other sets of final consonants.

An examination of the languages I have been discussing here, then, suggests that some classes of consonants were lost while others were retained, and that loss of certain (classes of) consonants may have been lexically diffused. This suggests in turn that C-loss in these languages did occur through a series of natural rules, and that these rules may have been ordered. This does not imply that similar processes *must* have also occurred in languages or subgroups that have ended up losing all final consonants, but nor does it rule this option out. That is, there may *not* have been a rule \*C > Ø / \_\_ #, as Blevins states, but rather a sequence of rules each deleting a class of final consonants. I am not at all sure how one might set out to establish which of these hypotheses is correct.

An additional factor that may need to be taken into account is stress. In an earlier paper, I showed that Proto-Oceanic probably “had a system based on right-aligned moraic trochees with primary stress assigned to the rightmost foot” (Lynch 2000:76). Put simply, primary stress was assigned to the penultimate syllable if the final syllable was open, but to the final syllable if it was closed. An identical system has to be reconstructed for Proto-Southern Vanuatu; and, given the position of this language on the Southern Oceanic family tree, it would seem that the same system would have to be reconstructed for Proto-Southern Oceanic and, more specifically, for the languages ancestral to the New Caledonian and Malakula languages discussed above. Despite this, the modern Southern Vanuatu and northwest Malakula languages discussed here have regular penultimate stress regardless of the weight of the final syllable,<sup>13</sup> while the New Caledonian languages have regular initial stress.

In all of these (apart from the New Caledonia cases), stress has shifted leftwards, even though the final syllable is closed. Did this stress shift predate final C-loss? If so, did it have some effect on the process of lenition of final consonants? It is relatively easy to imagine that a final consonant in a word of the form <sup>1</sup>CVCVC would receive rather less prominence than in CV<sup>1</sup>CVC, and that this would increase its susceptibility to lenition or outright loss.

---

13. This is not apparently true of V'ënen Taut, however. It is a little difficult to follow Fox's description (1979:7-9) but, although penultimate stress seems to be the most common pattern, stress does seem to be phonemic. There seems to be no correlation, however, between the nature of the final syllable and the position of stress: compare *ipáli* 'he will burn it' and *yápat* 'chief', both showing penultimate stress, with final-stressed *ipali* 'he will tie it to ...' and *nəmáy* 'house'.

**7. CONCLUSION** I believe I have shown that in some Remote Oceanic languages final C-loss applied to certain consonants—or classes of consonants—and not others, but that the loss of some final consonants may have put others under threat. I have suggested that, in those languages where all final consonants have been lost, it is distinctly possible that this was not by a single unnatural rule but by a series of natural rules; but this question needs to be further addressed. I feel that I should end by repeating Blevins's final sentence (2004:212): "Perhaps by simply asking this question, we are one small step closer to answering it."

## REFERENCES

- Bender, Byron W. 1969. The other orthographic principle. Address to the May 6 meeting of the Linguistic Society of Hawai'i.
- Blevins, Juliette. 2004. The mystery of Austronesian final consonant loss. *Oceanic Linguistics* 43:208–13.
- Blust, Robert A. 1977. A rediscovered Austronesian comparative paradigm. *Oceanic Linguistics* 16:1–51.
- Bril, Isabelle. 2000. *Dictionnaire nêlêmwa–nixumwak–français–anglais (Nouvelle-Calédonie)*. Collection Langues et Cultures du Pacifique, no. 14. SELAF 383. Paris: Peeters.
- Crowley, Terry. 1999. *Ura: A disappearing language of southern Vanuatu*. Canberra: Pacific Linguistics.
- . 2000. *An Erromangan (Sye) dictionary*. Canberra: Pacific Linguistics.
- Fox, G. J. 1979. *Big Nambas grammar*. Canberra: Pacific Linguistics.
- Haudricourt, André-G., and Françoise Ozanne-Rivierre. 1982. *Dictionnaire thématique des langues de la région de Hienghène: Pije, Fwâi, Nemi, Jawe (Nouvelle-Calédonie)*. Paris: SELAF.
- Lindstrom, Lamont. 1986. *Kwamera dictionary/Nikukua sai nagkiariien Nininiŋe*. Series C-95. Canberra: Pacific Linguistics.
- Lynch, John. 1977. *Lenakel dictionary*. Canberra: Pacific Linguistics.
- . 1978. Proto-South Hebridean and Proto-Oceanic. In *Second International Conference on Austronesian Linguistics: Proceedings* (fasc. 2), ed. by S. A. Wurm and Lois Carrington, 717–79. Canberra: Pacific Linguistics.
- . 2000. Reconstructing Proto-Oceanic stress. *Oceanic Linguistics* 39:53–82.
- . 2001. *The linguistic history of Southern Vanuatu*. Canberra: Pacific Linguistics.
- Lynch, John, and Philip Tepakae. 2001. *Anejoñ dictionary/Diksonari blong Anejoñ/Nitasviitai a nijitas antas Anejoñ*. Canberra: Pacific Linguistics.
- Ozanne-Rivierre, Françoise. 1982. Langues de Hienghène et proto-océanien: Phonologie comparée. In *Dictionnaire thématique des langues de la région de Hienghène: Pije, Fwâi, Nemi, Jawe (Nouvelle-Calédonie)*, by André-G. Haudricourt and Françoise Ozanne-Rivierre, 9–61. Paris: SELAF.
- . 1984. *Dictionnaire iaai-français (Ouvéa, Nouvelle-Calédonie)*. Paris: SELAF.
- . 1995. Structural changes in the languages of northern New Caledonia. *Oceanic Linguistics* 34:45–72.
- . 1998. *Le nyelâyu de Balade (Nouvelle-Calédonie)*. Paris: Peeters.
- Rivierre, Jean-Claude. 1991. Loss of final consonants in the north of New Caledonia. In *Currents in Pacific linguistics: Papers on Austronesian languages and ethnolinguistics in honour of George W. Grace*, ed. by Robert Blust, 415–32. Canberra: Pacific Linguistics.
- . 1994. *Dictionnaire Cèmuhi–français*. SELAF No. 345. Paris: Peeters.

- Ross, Malcolm, Ross Clark, and Meredith Osmond. 1998. Acts of impact, force and change of state. In *The lexicon of Proto Oceanic: The culture and environment of ancestral Oceanic society*, vol. 1, *Material culture*, ed. by Malcolm Ross, Andrew Pawley, and Meredith Osmond, 233–95. Canberra: Pacific Linguistics.
- Sam, Léonard Drilé. 1995. *Dictionnaire drehu-français (Lifou, Nouvelle-Calédonie)*. Nouméa: Centre territorial de recherche et de documentation pédagogiques.
- Tryon, D. T., and M.-J. Dubois. 1969. *Nengone dictionary*, pt. 1, *Nengone-English*. Canberra: Pacific Linguistics.
- . 1971. *Nengone dictionary*, pt. 2, *English–Nengone*. Canberra: Pacific Linguistics.

Emalus Campus  
University of the South Pacific  
PMB 072  
Port Vila  
Vanuatu  
lynch\_j@vanuatu.usp.ac.fj