

THE POSITION OF EAST 'UVEAN AND ANUTAN IN THE POLYNESIAN LANGUAGE FAMILY

Bruce Biggs
(University of Auckland)

It has seemed to me for some time that any idea of our basing the settlement of Polynesia on some principle of parsimony that sees each island being settled only once as the ancestral Polynesians pressed ever onwards to the east just has to be wrong. Whatever the details of man's occupation of Polynesia may have been we may be sure that it does not conform to any model based on the least number of moves.

Archaeological evidence has made it certain that Polynesia was settled from the west in the first instance. But we know from historical records that in the past century or so there have been many more voyages from east to west, drift or otherwise, than there have been voyages from west to east.¹ We also know that the last surviving navigators to use indigenous methods of navigation, the Micronesians of the Central Carolines, never make a long voyage if there are two or more short voyages that will get them to the same destination.² From such evidence we may conclude that many Polynesian islands have been settled more than once and many Polynesian cultures contain more than one component.

Archaeology has, to date, been rather disappointing in failing to find stratified cultural differences that prove this point, but it must surely do so ultimately. In the meantime there is linguistic evidence available that a number of islands of Eastern Oceania, including some in Polynesia, have been settled at least twice. Examples are Rennell Island, Rotuma, and Rurutu in the Austral Islands.³ In what follows I will demonstrate in some detail that two other Polynesian Islands have been settled more than once as is shown by the presence of more than one stratum in each of the languages concerned.

The following paper consists of two parts: in the first I show that East 'Uvean (EUV), the language of Wallis Island, which has been suspected of being a third Tongic language, is

in fact a Nuclear Polynesian language that has borrowed very heavily from Tongan (TON); in the second, while arguing for the importance of confining the use of linguistic evidence to the solution of linguistic problems, I show that Anutan (ANU) the language of Cherry Island, is also a Nuclear Polynesian language that has borrowed heavily both from Tongan and from another Nuclear Polynesian language, probably Tikopian. The Tongan borrowing into Anutan has been via East 'Uvean almost certainly but it cannot be shown that ANU is a sister language of EUV. Therefore ANU is to be regarded as a Nuclear Polynesian language whose nearest relative is at present unknown.

Some years ago I wrote a short paper (Biggs 1972) that examined the value of linguistic evidence in the elucidation of the history of human settlement of Polynesia. In that paper I suggested that there were dangers facing the specialist in one field, archaeology for example, who attempted to draw conclusions on the basis of evidence from another field of study, linguistics for example. Recently there have been interesting instances of scholarly cooperation which might be supposed to have overcome the kind of difficulties that I noted. Combinations of linguist and geographer, geographer and computer programmer, linguist and mathematician, come to mind. Such an approach may solve the problem of universal expertise but there are still good reasons why certain questions should first be tackled within a single discipline. What follows, though primarily an exercise in determining the position of two languages in the Polynesian language family will conclude by showing why I think this to be so. The linguistic argument assumes that the theory of Polynesian internal relationships first set out by Pawley (1966) is essentially correct. Proto-Polynesian split into Tongic and Nuclear-Polynesian; the latter then split into Samoic-Outlier and Eastern Polynesian. This paper is concerned only with the first split.

The Position of East 'Uvean in the Polynesian Language Family

Introduction

Wallis Island is part of the Territoire des Iles Wallis et Futuna. It is a relatively high island (142 m.) fourteen km. long and surrounded by an offshore reef with more than twenty islets. The reef encloses a very large lagoon, up to 5,000 m. across and as much as 43 m. deep. There are three passes in the reef. The island is 300 km. west of the westernmost island of Samoa, 384 km. north-east of Fiji and 530 km. north of the northernmost Tongan-speaking islands. Its nearest neighbours

are the Hoorn Islands 180 km. to the southwest, and Niuafu'ou Island about the same distance to the south. In 1968 the Polynesian population numbered 5,673 and there were, and are, several thousand Wallisians resident in New Caledonia and the New Hebrides.

East 'Uvean, the language of Wallis Island, is mutually intelligible with Tongan, and Isidore Dyen, on the basis of a high shared vocabulary percentage, regarded it as a dialect of Tongan.⁴ I will argue, however, that East 'Uvean (EUV) is a Nuclear Polynesian language and in a different highest-order subgroup from the Tongic language, Tongan (TON). The close similarity of EUV and TON derives in large part from massive borrowing by the former from the latter.

The Problem

There is phonological, lexical and grammatical evidence suggesting that EUV contains two strata, both Polynesian. Features from each stratum will be isolated and it will be shown that the indirectly inherited (borrowed) stratum derives from TON. Whether the borrowing took place when TON and EUV were already different languages (i.e. mutually unintelligible), as Pawley has suggested in a personal communication, is not, I believe, determinable. If it did then we have a case of reversal in a situation that I suppose most of us would have regarded as irreversible, for there is no doubt that TON and EUV are mutually intelligible at present. Whether two languages can become one, as would then be indicated, is an interesting question.

In his classic paper on the Internal Relationships of the Polynesian Languages (1953) Samuel Elbert was puzzled by the fact that EUV had two reflexes for each of three Proto-Polynesian phonemes, and that the proportional distribution of the twin reflexes of two of the proto-phonemes (*h and *r) was markedly different from the third (*ʔ). He surmised, correctly, that his sources were in error in their marking of EUV glottal stop, which is always retained as such in EUV and is not sometimes lost, as dictionary sources would indicate. The problem of the twin reflexes of *h and *r remained, however. Elbert concluded that EUV was probably to be subgrouped with TON but it was greatly influenced by borrowing from Samoan (SAM).

Following Pawley (1967) I reach an alternative conclusion and maintain that EUV is a Nuclear Polynesian language (a member of the Samoic-Outlier Subgroup, if such exists)⁵ but that it has borrowed heavily from TON.

The Evidence for Including EUV in Tongic

The evidence for regarding EUV as a Tongic language, closely related to TON, is as follows: firstly it is mutually intelligible with TON; secondly the phoneme inventories of the two languages are identical (See Table 1 in the Appendix) and no others have exactly the same phonemes; thirdly *h and *s have fallen together and *r is lost in many words, as in the Tongic languages TON and Niuean (NIU); fourthly EUV shares a number of lexical and grammatical features (including some innovations) exclusively with Tongic; fifthly EUV shares more basic vocabulary with TON than it does with any other language (See Table 2).

The Evidence for Including EUV in Nuclear Polynesian

The Phonological and Lexical Evidence

The argument concerns the EUV reflexes of *r and *h which are reflected in Tongic by zero and h and in the Nuclear Polynesian languages by l and zero. It would appear that we have here a case of what I have called direct versus indirect inheritance, the latter term denoting the special case of borrowing in which the borrowed form is derived ultimately from a proto-language shared by both donor and borrowing languages (Biggs 1965). However an alternative possibility must be considered.

PPN *r, *l, *h, *s reflect higher-level starred forms (PEO, POC or PAN) with a degree of inconsistency that has been interpreted as due to some alternation (possibly with a morphological function) between 'nasal and oral grades' of the proto-phonemes concerned. A number of *r/*l and *h/*s doublets have been reconstructed for Proto-Polynesian, but the possibility of explaining the double reflexes of *r and *h in EUV by an appeal to such alternation in the Proto-language is rejected here because of the correlation between the different reflexes on the one hand and cultural and basic vocabulary on the other that will be demonstrated.

Returning to the hypothesis that the twin reflexes indicate borrowing versus inheritance we address ourselves to the problem as to which indicates which, starting with *h, which is sometimes in EUV and always in Tongic languages reflected as such and sometimes in EUV and always in Nuclear Polynesian lost. Table 3 lists 47 PPN words with *h (none of which have doublets in *s) together with the EUV reflexes. Twenty-four of the reflexes have lost *h and 19 retain it. There are no conditioning factors. As the two reflexes occur with approximately equal frequency we must be dealing with borrowing on a massive scale.

Which is the borrowed reflex and which the directly inherited? This is decided by an appeal to the concept of basic vocabulary. Of the meanings represented by the 47 items five are found in Swadesh's 200 word list of basic vocabulary. They are 'road, sea, rain, what, who?'. All reflect h as zero. This is a strong indication that loss of *h is the directly inherited EUV reflex, with retention of *h indicating borrowed words.

*r is sometimes lost and sometimes reflected as l in EUV, as can be seen in Table 4. In this table reflexes in l are omitted if a proto-doublet with *l instead of *r has been reconstructed, because *l is also retained as such in EUV. Of the thirty-three reflections of thirty forms containing *r fifteen show loss of *r and eighteen have l. 'Lake' and 'live' are the only two items from the basic wordlist. *Ma'uli* (**ma/uri* 'live') retains l. *Ano* (**rano* 'lake') has lost *r in its commonly used form, but retains it in the names of the two crater lakes on the island. Place names are conservative and likely to contain the earlier form of the word. Accordingly the directly inherited EUV reflex of *r is considered to be l, and loss of *r indicates a borrowing.

This is confirmed by two crucial items, *huu* and *hou* from **huru* 'enter' and **horu* 'disturbed water' which show that loss of *r and retention of *h are indeed in the same stratum of EUV vocabulary. As it has already been shown that retention of *h is a mark of borrowing it now follows that loss of *r also indicates a borrowed form. The reflexes of *r and *h in EUV may now be displayed as in Table 5.

Grammatical Evidence for the Position of East 'Uvean

Pawley (1966a, 1967) lists a number of reconstructed morphological markers which he considers to be innovations of Nuclear Polynesian. Table 6 shows those which have reflexes in EUV. While not immune, grammatical morphemes are generally considered to be resistant to borrowing, so these forms are evidence for regarding EUV as a Nuclear Polynesian rather than a Tongic language. Of grammatical words claimed by Pawley to be Tongic innovations a few are found in EUV, which, if it is indeed a Nuclear Polynesian language must have borrowed them from either TON or, much less probably, NIU (See Table 7).

The evidence from grammar, then, is not inconsistent with our conclusion. It suggests that EUV is indeed a Nuclear Polynesian language and that it has borrowed from TON to the extent that it has taken over some grammatical forms. The massive nature of the borrowing is indicated by the fact that

for the diagnostic phonemes *h and *r approximately half the reflexes are borrowed. Extrapolating from this we may assert that approximately half of the total EUV vocabulary is borrowed from TON. As the phonologies of the two languages are so alike the TON borrowings in EUV are unaltered, which helps to account for the fact that the two languages are mutually intelligible in spite of their being in different highest order subgroups of Polynesian.

The Position of Anutan in the Polynesian Language Family

Anuta, also known as Cherry Island, lies about seventy miles northeast of Tikopia in the Santa Cruz Group of the Solomon Islands. It is about half a mile long from north to south, and rises to a twin hill in the centre with the northern peak two hundred and twelve feet high. A fringing reef, drying at low water, encircles the coast making landing difficult except for canoes. The population is between one and two hundred. The name Anuta reflects the Austronesian term for island, reconstructed by Dempwolf as *nut'a. As Yanuca the same name occurs as the name of the small island in Fiji which contains the oldest archaeological site yet discovered in that group.

Until very recently little was known of the language spoken on Anuta, other than that it is mutually intelligible with Tikopian. Firth (1954) makes this clear, notes the substitution of p for Tikopian f, and lists a number of lexical differences between the two. Among the Anutan forms three which are otherwise confined to Tongan and East 'Uvean suggested 'close relationship to or contact with TON or EUV'. The prospect of there being a third member of the Tongic subgroup was attractive and it was soon to be explored.

In 1970 Roger Green spent one day on Anuta and he subsequently presented evidence suggesting that Anutan belonged, not with Tongic, but with the Samoic-Outlier subgroup of Nuclear Polynesian. In 1971 Douglas Yen spent two months on Anuta and collected a vocabulary of about 1200 words, but it was not until 1976, when Richard Feinberg, an American anthropologist who worked with Anutans both on the island itself and in Guadalcanal, produced a still larger vocabulary⁶ together with some grammatical information, that it became possible to investigate the position of Anutan and obtain a definite answer as to its affinities.

The Evidence

Of perhaps 2000 Anutan words in Feinberg's vocabulary about

700 are reflexes of Proto-Polynesian or sub-Proto-Polynesian reconstructions. No non-Polynesian borrowings have been noted (other than some from English) which makes Anutan unusual among Polynesian Outlier languages most of which exhibit considerable borrowing from Melanesian languages.

Anutan has a typical Polynesian phonology with just one sound change, a merger of PPN *p and *f as p, not shared by any other language. Unique sound changes provide no evidence for subgrouping, but there are several features of Anutan phonology that do turn out to be evidential. PPN *s has no fewer than three reflexes in Anutan and PPN *r has two. The multiple reflexes cannot be shown to be conditioned in any way. In a few words, moreover, Anutan has o from PPN *a, a feature found in the Tongic languages.

PPN *s appears as Anutan t or t alternating freely with s, or it is lost. PPN *r is sometimes lost and sometimes appears as r which is also the ANU reflex of PPN *l. (*l and *r have fallen together in all Polynesian languages except those of the Tongic subgroup. *r is lost in both of the Tongic languages.) The phonology of ANU does not indicate its subgrouping but we note again that multiple unconditioned reflexes of proto-phonemes characteristically indicate borrowing from genetically related languages.

At this point, in the absence of any clear phonological indication of the status of ANU we look for morphological and lexical innovations shared with other languages, keeping in mind that we are probably dealing with a language that has borrowed from a related language, and also that morphology is, in general, resistant to replacement by borrowed forms. The question at this point is whether Anutan is a Tongic or a Nuclear-Polynesian language. Only if no answer can be reached in these terms will we consider the possibility that ANU is the only member of a third, hitherto undiscovered highest-order subgroup of Polynesian.

Six grammatical forms that Pawley says are innovations of Nuclear Polynesian but none of those he considers to be innovations of Tongic are found in ANU, thus providing strong evidence that the language is a member of the former subgroup. (See Table 6.)

Among lexical items, which are in general susceptible to borrowing, nine ANU forms show features innovated by Nuclear Polynesian (See Table 8) while thirteen show Tongic innovations. Twenty-three words reconstructed only for Nuclear Polynesian versus only half that number of words reconstructed only for Tongic (Table 9) provide further, perhaps weak evidence for assigning ANU to Nuclear Polynesian. If ANU is a Nuclear

Polynesian language it has borrowed heavily indeed from Tongic. What is certain is that ANU does have (at least) two strata. We will proceed on the assumption that it is a Nuclear Polynesian language with Tongic borrowings.

First we consider the multiple reflexes of *r and *s, taking *r first. Loss of *r is shared with the Tongic languages but merging *r and *l is common to all Nuclear Polynesian languages. We find fifteen cases where ANU reflects *r as r and only eight cases of *r being lost (Table 4). In view of the two to one ratio and especially because several words retaining *r but none showing loss are from the basic vocabulary we decide that r is the directly inherited ANU reflex of *r and that loss of *r indicates items borrowed from a Tongic source. This, of course, is compatible with our thesis that ANU is a Nuclear Polynesian language.

Turning to the three reflexes of PPN *s attested in ANU we note that Feinberg says of freely alternating t/s from *s, that it is restricted to those words with homosemantic cognates in Tikopian,⁷ a language that is mutually intelligible with ANU, and with which all Anutans are familiar because a number of Tikopians live permanently on Anuta. We take it then that ANU t from *s is at present changing to s under Tikopian influence and in just those words that have Tikopian cognates.

Turning to ANU t from *s and loss of *s we find thirty-six cases of the former and thirty-four of the latter reflex. Four, perhaps five basic vocabulary items show loss (nose, one, big, moon, testicles) and only two reflect t (left, child), so we take it that Anutan lost *s in directly inherited words but borrowed words reflect *s as t. We note, in support of *s being borrowed as ANU t that Anutan loanwords from English (e.g. puti 'cat') borrow s as t.

ANU is unique in reflecting PPN *s as t. All other PN languages have s, h, or ?, or have lost *s. ANU cannot have borrowed *s as t from a language that has lost *s and it is phonetically unlikely for h or ? to have been borrowed as t. Almost certainly ANU borrowed *s as t from a language that retains *s as such. Tikopian is such a language and contact between ANU and TIK is known to have been longstanding.

Having decided that t from *s and loss of *r indicate loanwords in ANU we now look for possible sources of the borrowing. Of the eight ANU words showing loss of *r one also exhibits o from *a which, as we have already noted is a Tongic rule. Taken together with the fact that only the Tongic languages (and EUV in borrowings from TON) show loss of *r we conclude that this feature marks Tongic borrowing into ANU. It would be nice to show that ANU t from *s also stems from Tongic.

Unfortunately none of the demonstrably Tongic items in ANU contain a reflex of *s, so we have no direct evidence for this but rather fairly conclusive evidence that ANU t from *s cannot be from Tongic. The argument goes as follows: both of the Tongic languages have merged *s and *h as h so if ANU had borrowed *s as t it must also have borrowed *h as t. But ANU always loses *h, even in words that can be shown on other grounds to be borrowed (e.g. *uu* from **huru* 'enter'). When borrowing words containing PPN *s from Tongic sources ANU could not have distinguished them from words containing *h so we must conclude that ANU t from *s must have come from a Nuclear Polynesian source. This conclusion is reinforced by the occurrence of ANU *taunga* from PNP **sau* a 'smell' a word that has no Tongic cognates.

We have then at least two borrowed components in ANU, one being diagnosed by loss of *r, the other by reflecting *s as t. Forms losing *r are borrowed from Tongic. There are only two Tongic languages, Tongan and Niuean, but East 'Uvean is a third language that, as we have seen has borrowed almost half its vocabulary from Tongan.

Only eight of seventeen identifiably Tongic forms in ANU are to be found in NIU, which may thus be ruled out as the donor, as all seventeen are to be found in Tongan. Do we then conclude that the Tongic component in ANU was borrowed directly from Tongan?

Before reaching that conclusion it would be well to note that virtually all of the identifiable Tongic borrowings in ANU are also to be found in EUV though the converse does not apply (See Table 10). It would be inconceivable that ANU has borrowed independently from TON only items which had already been borrowed by EUV from the same source. We must conclude, I feel, that the Tongic component of ANU came via EUV. This conclusion raises another question. Did Anutan borrow heavily from an East 'Uvean that was already heavily affected by borrowing from Tongan or are Anutan and East 'Uvean sister languages in a low-order subgroup of Nuclear Polynesian whose parent language had borrowed from Tongan before the split took place?

To show that EUV and ANU are members of a special subgroup it would be necessary to identify uniquely shared innovations in the grammatical morphemes or in basic words that are unlikely to have been borrowed. This has not proved to be possible. Some evidence that EUV and ANU are not, in fact, sister languages is provided by the respective percentages of borrowed lexicon extrapolated from Tables 3 and 4. If EUV and ANU were sister languages whose parent had borrowed from Tongan before they split off we might expect to find that Tongan

borrowings comprised similar percentages of their vocabularies. However it appears (Table 11) that while EUV has borrowed between 45 and 56 percent of its vocabulary from Tongan ANU has borrowed only 34 percent of its vocabulary from that source. The safest conclusion to reach at this point is, as stated at the beginning of the paper, that Anutan is a Nuclear-Polynesian language that has borrowed heavily from East 'Uvean, another Nuclear-Polynesian language that had already borrowed heavily from Tongan. In addition Anutan has borrowed heavily from a third Nuclear-Polynesian language, probably Tikopian.

In investigating the position of two languages within Polynesian we have asked linguistic questions which have been answered without recourse to any but linguistic data. The arguments leading to the answers include such words as 'relationship', 'inheritance', 'borrowing' and 'subgroup' all of which are technical terms with defined meanings within the discipline. The term 'language' itself has, for linguists, its own special connotations such as continuity in time, parameters of sameness and difference in respect to other languages, and, for most linguists, the impossibility of mixing with another language. The term 'mix' is, of course, also technically defined here. Above all the term 'language' itself is a fairly high level abstraction for the comparative linguist.

Within the framework of comparative theory the answers to our questions regarding Anutan and East 'Uvean are unambiguous — they are not 'sort of' or partly Nuclear-Polynesian languages in spite of extensive borrowing. Moreover I believe that, given the accuracy of the data and the correctness of my interpretation, the answers are unique, that is to say there are no alternative correct answers. The same linguistic data if applied to the question of settlement of the islands on which our languages are at present spoken, however, is inherently incapable of providing unique, unambiguous answers because any existing linguistic situation could have arisen from any number of different historical circumstances.

It is for the culture historian to synthesise the conclusions reached by linguists, archaeologists *et al.* to produce a theory of settlement consistent with all of them. Having answered questions posed within his own discipline the linguist or other expert may then, don another cap, though he does so at some peril. It may be garnished with bells.

Nevertheless I am tempted to take the risk. Let me suggest as a hypothesis at least that Anuta was probably settled from Tikopia at some stage and borrowed heavily from Tikopian. East 'Uvea was colonised by Tongans perhaps five

hundred years ago and subsequently, after their language had borrowed heavily from Tongan, 'Uvean speakers came to Anuta and, in turn, their Tongan-adulterated language became donor to the language of that tiny isle.

In concluding this paper I should mention that it combines the material from a paper on the position of Anutan read at the Second New Zealand Linguistic Conference held in 1978 and another on the position of East 'Uvean read at the Third New Zealand Linguistic Conference in 1980. Much of the research was done while on study leave in 1977. I would like to express my gratitude to the University of Auckland for giving me leave, and to the Institute of Linguistics and Sociology at the University of Hawaii for extending me academic hospitality during the summer and fall semester of 1977.

APPENDIX

TABLE 1: PHONEME CORRESPONDENCES

PPN	*p	*t	*k	*ʔ	*m	*n	*ŋ	*f	*s	*h	*w	*l	*r
PTO	*p	*t	*k	*ʔ	*m	*n	*ŋ	*f	*h	*h	*w	*l	-
PNP	*p	*t	*k	*ʔ	*m	*n	*ŋ	*f	*s	-	*v	*l	*l
TON	p	t	k	ʔ	m	n	ŋ	f	h	h	v	l	-
EUV	p	t	k	ʔ	m	n	ŋ	f	h	h/-	v	l	l/-
ANU	p	t	k	-	m	n	ŋ	p	-/t	-	v	r	r/-
TIK	p	t	k	-	m	n	ŋ	f	s	-	v	r	r

TABLE 2: PERCENTAGE OF BASIC VOCABULARY SHARED BY EUV AND TON WITH EACH OTHER AND WITH LANGUAGES SHOWING NEXT HIGHEST PERCENTAGES

Elbert 1953	TON-EUV	86	EUV-EFU	83	TON-EFU	74	EUV-TIK	78
Dyen 1965	TON-EUV	85						
Biggs 1972	TON-EUV	72	EUV-EFU	69	TON-EFU	67	EUV-ECE	63

TABLE 3: REFLECTIONS OF PPN *h IN EUV

Proto-Polynesian	Tongan	East 'Uvean	
*fiha 'how many?'	fiha		fia
*fiho 'froth'	fiho	fiho	
*fohe 'paddle'	fohe		foe
*fohi 'to peel'	fohi	fohi	
*fuhi 'to join'	fuhi 'bunch'	fuhi 'bunch'	
*hai 'who?'	hai		ai
*hakau 'coral reef'	hakau	hakau	
*hake 'up, upwards'	hake '+ go up'	hake 'go up'	ake 'up'
*haku 'swordfish, garfish'	haku	haku 'a fish'	aku 'a fish'
*hala 'road'	hala		ala
*hama 'outrigger'	hama	hama	ama
*haja 'turn or face towards'	hanga		aga/'i
*hajafulu 'ten'	hongofulu	hogofulu	
*hau 'needle'	hau 'thin spear'	hau	
*haʔu 'come'	ha'u		a'u
*hifo 'downwards'	hifo '+ go down'	hifo 'go down'	ifo
*hiŋoa 'name'	hiŋoa	higoa	
*hoŋe 'famine'	honge	hoge	
*huru 'enter'	huru	huru	ulu
*hisi 'strip, peel'	hihi 'gouge out'	hihi 'peel'	ihi 'split'
*haa 'what?'	haa		aa
*hapi 'fish sp.'	hapi		api
*haukafa 'lash up a canoe'	haukafa	haukafa	
*haja 'span'	hanga	haga	
*heke 'mount'	heka	heka	eke 'lift'
*hoŋohongo 'nettle sp.'	hongohongo	hogohogo	
*horu 'disturbed, of water'	hou	hou	
*huʔa 'high, of tide'	hu'a	hu'a	
*hulufe 'fern sp.'	hulufe	hulufe	
*huru 'take refuge'	huru/fanga 'refuge'		uu 'hide'
*kaihaʔa 'steal'	kaiha'a	kaiha'a	
*kakaha 'to burn'	kakaha	kakaha	
*kanahe 'mullet'	kanahe	kanahe	
*kauhala 'roadside'	kauhala		kauala
*kauhaja 'groin'	kauhanga		kauaga
*kauʔahe 'jaw'	kau'ahe	kauahe	
*loholoho 'coconut spathe'	loholoho	loholoho	

*lohu 'fruit-picking pole'	lohu		lou
*mahu 'abundance'	mahumahu	mahumahu	maumau 'waste'
*mohe 'sleep'	mohe		moe
*pihi 'spurt, flow'	pihi	pihi	pil
*?uha 'rain'	'uha		'ua
*?uhila 'lightning'	'uhila	'uhila	
*tahi 'sea'	tahi		tai
*tahina 'younger sibling'	tehina	tehina	
*wahe 'divide'	wahe	vahe	vae

TABLE 4: REFLECTIONS OF PPN *r IN EUV AND ANU

PPN	Tongan	East 'Uvean	Anutan
*fara 'pandanus'	faa	faa	paa
*firi 'plait, braid'	fii	fii	-----
*firi 'mix, mingle'	fio	fio	-----
*horu 'disturbed water'	hou	hou	
*huru 'enter'	huu	huu	ulu
*maarama 'light, clear'	maama		malama
*ma?uri 'live, soul, life'	mo'ui		ma'uli
*mara 'fermented'	maa	-----	ma/maa
*mori 'offering'	mo/moi		mo/moli
*muri 'behind'	mui		muli
*murivai 'river mouth'	muivai		mulivai
*poroporoaki 'message'	poopoaki	poapoaki	-----
*?ara 'awake'	'aa		'a/'ala
*?aro 'front'	'ao		'alo
*?arofi- 'sole'	'aofi-		'alofi-
*?ariki 'chief'	'eiki		'aliki
*?ura 'crayfish'	'uo	'uo	uo
*rama 'torch'	ama		lama
*rano 'lake'	ano	ano	lano
*ra?akau 'tree'	'akau	'akau	
*rara 'heat'	aa		lala
*rau.2 'hundred'	te/au	te/au	
*lefu 'ashes'	efu/efu		lefu/lefu
*reja 'turmeric'	enga		lega
*rofa 'fathom'	ofa		lofa
*roo 'go'	oo	oo	oo
*ro?i 'grate'	o'i		loi
*rono 'hear'	ongo	ogo	logo/na
*ruku 'dive'	uku		uku
*tafura?a 'whale'	tafua'a		tafola'a
*tere 'float, sail'	tee	tee/tee	
*tiro 'see'	sio	sio	
*toro 'sugarcane'	too	too	too
*turi 'knee'	tui		tuli
*waru 'grate'	vau	vau	valu
*?aawari 'weak, pliable'	ngavaivai	-----	-----

TABLE 5: REFLEXES OF PPN *r, *h, *s IN EUV AND ANU

PPN	*r	*h	*s
EUV			
Inherited	l	-	h
Borrowed	-	h	h
ANU			
Inherited	r	-	-
Borrowed	-	-	t/-

TABLE 6: NUCLEAR-POLYNESIAN MORPHOLOGICAL INNOVATIONS IN EUV AND ANU

PPN	PNP	EUV	ANU
*kim(o)urua '2 pers. du. pron.'	*ko(u)lua	koulua	korua
*kim(o)ut(1)u '2 pers. pl. pron.'	*ko(u)tou	koutou	kotou
*m(o)urua '2 pers. du. poss. pron.'	*o(u)lua	-ulua	(k)oru
*m(o)utolu '2 pers. pl. poss. pron.'	*o(u)tou	-utou	kotou
*eni 'here'	*nei	nei	nei
*ha 'indefinite article'	*se	he	e

- Notes: 1. PPN and PNP forms from Pawley 1967.
 2. Vowel length is not marked in EUV and ANU forms.

TABLE 7: TONGIC MORPHOLOGICAL INNOVATIONS IN EUV AND ANU

PPN	PTO	EUV	ANU
*ma 'and'	*mo	mo, ma	mo
*eni 'this'	*heni	heni	
*ena 'that'	*hena	hena	

TABLE 8: NUCLEAR POLYNESIAN LEXICAL INNOVATIONS IN EUV AND ANU

PPN	PNP	EUV	ANU
*fee 'where?'	*fea	fea	pea
*tafura?a 'whale'	*tafola?a	tafola'a	taporaa
*faŋa 'to feed'	*faaŋai	faagai	pangai
*fatu 'stone'	*poofatu	-----	poopatu
*kakano 'flesh'	*kanofi	-----	kanopi
PSO *nuanua 'rainbow'		nuanua	-----
*?aho, *?aatea	*?avatea 'daylight'		avatea 'midday'
*sui 'bone'	*ivi	-----	ivi-
*tama- 'father'	*tamana	-----	tamana
*taha 'one'	*tasi	tahi	tai

TABLE 9: ANU LEXICAL ITEMS NOT FOUND IN TONGIC

PNP	ANU
*afulu 'fish sp.'	apuru
*kape 'take out, pick out'	kape
*kavakava?atua 'Piper sp.'	kavakavaatua
*kave 'sibling, opposite sex'	kave
*kopi 'fold, double together'	kopi
*mamae 'pain'	mamai
*ma(a)nifi 'fish sp.'	manipi
*muu 'fish sp.'	muu
*nanue 'fish sp.'	nanue
*nefu 'hazy, blurred'	nepu
*ŋa?eŋa?e 'weak, tired'	ngaengae
*poke 'mix, pudding'	poke
*laki 'north, west, southwest'	raki
*takafi 'tread'	takapaki
*tama?afine 'daughter'	tamaapine
*tama(?)aloe 'man'	tamaaroe
*ta?o 'catch, grasp'	tango
*tali 'convey'	tari
*titi 'girdle, halo'	titi
*toka 'rock'	toka
*tuli 'shorebird sp.'	turi

TABLE 10: TONGAN LOANWORDS IN EUV AND ANU

PPN	EUV	ANU
*faʔee 'mother'	fa'ee	pae
*fara 'pandanus'	faa	pa
*fiho 'froth'	fiho	-----
*firi 'plait, braid'	fii	pi/pii
*firo 'mix, mingle'	fio	-----
*fohi 'to peel'	fohi	-----
*fuhi 'to join'	fuhi 'bunch'	-----
*hakau 'coral reef'	hakau	[akau]
*hama 'outrigger'	hama	[ama]
*haja 'span'	haga	-----
*hajafulu 'ten'	hogofulu	-----
*hau 'needle'	hau 'spear'	-----
*haukafa 'lash canoe'	haukafa	-----
*heke 'mount'	heka	-----
*hiŋoa 'name'	higoa	[ingoa]
*hoŋohoŋo 'nettle sp.'	hogohogo	[ongongo]
*hui 'bone' (PNP *ivi)	hui	ui
*hulufe 'fern sp.'	hulufe	-----
*huʔa 'high tide'	hu'a	-----
*huru 'enter'	huu	uu
*kaihaʔa 'steal'	kaiha'a	[kaia]
*kakaha 'burn'	kakaha	[kakaa]
*kanahe 'mullet'	kanahe	[kanae]
*kauʔahe 'jaw'	kauahe	[kauai]
PTO *kovi 'bad'	kovi	kovi
*laua 'they two' (TON naua)	naua	naua
*latou 'they' (TON natou)	natou	natou
*lima 'hand' (TON nima)	nima	nima
*loholoho 'coconut spathe'	loholohoo	-----
*lua 'hole, pit' (TON luu)	luu	ruo
*mahu 'abundance'	mahumahu	-----
*mara 'fermented food'	-----	ma/maa
*miro 'twist'	mio/'i	mioi
*ma 'and, with' (TON mo)	mo	mo
*maʔoni 'true' (TON mo'oni)	mo'oni	mooni
TON tenga 'thigh'	tega	tenga
*muri 'behind'	mui	[muri]
*palapala 'soiled' (TON 'wet')	palapala 'wet'	palapala 'wet'
*pihi 'spurt'	pihi	-----
*poroporoaki 'give message'	poapoaki 'say'	-----
PTO *puko 'Hernandia sp.'	puko	puko
*ʔahu 'gall'	'ahu	[au]
*ʔanufe 'grub' (TON 'unufe)	unufe	unupe
*ʔuhila 'lightning'	'uhila	-----
*ʔuna 'fish-scale' (TON 'uno)	'uno	uno

*ʔura 'crayfish' (TON 'uo)	'uo	uo
*ʔutiʔuti 'bite'	'uti'uti	utiuti
*raʔakau 'tree'	'akau	[raakau]
*rau 'hundred'	te/au	[rau]
*roo 'go'	oo	-----
*rono 'hear'	ogo 'famous'	[rongo]
*ruku 'dive'	uku	uku
PTO *suni 'oil, grease'	huni	-----
*tere 'sail, to'	[fakatele]	faka/tee/tee
*toro 'sugarcane'	to	to
*tamaʔiti 'child'	tamasi'i	tamatii
*tama- 'father' (PNP *tamana)	tamai	tamai
(TON kai'iloa 'lost, missing')	kailoa	kairo 'no'
*kumaa 'rat'	kumaa	kumaa
*tehina 'younger sibling'	tehina	-----
*ula 'flame'	ulo	uro
*wahe 'divide'	vahe	[vae]
*waru 'scrape'	vau	vau

Note: [] = loan status not indicated.

TABLE 11: REFLEXES OF *r AND *h IN EUV AND ANU
(Figures in parentheses are percentages)

	*r		*h	
	Inher.	Borr.	Inher.	Borr.
EUV	18 (55)	15 (45)	25 (44)	32 (56)
ANU	18 (67)	9 (33)		

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NOTES

- 1 Dening 1963:129.
- 2 Gladwin 1970:157-164.
- 3 Elbert 1962, Biggs 1965.
- 4 Dyen 1965:35.
- 5 Pawley is uncertain about the unity of the Samoic-Outlier subgroup (Personal Communication).
- 6 Feinberg 1977.
- 7 Feinberg 1977:10-11.