

# Anejoñ numerals: the (mis)adventures of a counting system

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## 1. Introduction

Almost all Oceanic languages have either a quinary or a decimal counting system. Even in languages in which numbers above the base are expressed by lengthy compounds, and in which English, Melanesian Pidgin or French have made inroads into the system, the basic monomorphemic numerals are well known and very frequently used, while the lengthier compounds are generally also well known, though they may be used less frequently today.

The situation is different in Anejoñ.<sup>1</sup> Younger Aneityumese generally know only the first three Anejoñ numerals; they use these in counting, but for all numerals above three they use loans from Bislama, the Vanuatu dialect of Melanesian Pidgin. Older people tend to do likewise when counting, although they have a passive knowledge of some of the original numerals above three. There are also disagreements among these older speakers as to what are (or were) the terms for 'four', 'five' and 'six', and almost total blanks for numbers above six.

In this paper, we will show that the original counting system was a quinary one, and will make comparisons between that system and the system reconstructed for Proto Oceanic. We will also look at mission educational policy and its effects on the Anejoñ counting system. And we will try to establish why some of the five basic numerals have been lost while others have been retained.

## 2. The current numeral system

In this section we will look at the use of numerals in modern Anejoñ, before moving to examine the history of the system.

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<sup>1</sup>Anejoñ is the only indigenous language of Aneityum, the southernmost inhabited island in Vanuatu, and is spoken by about five or six hundred Aneityumese living there and elsewhere in the Republic. Orthographic *c* = [ɣ], *d* = [θ], *g* = [ŋ], *m̃* = [m<sup>w</sup>], and *ḗ* = [p<sup>w</sup>].

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## 2.1. Cardinal numerals

The ten basic numerals in common use are:

(1)	<i>ithii</i>	'1'	<i>siks</i>	'6'
	<i>erou</i>	'2'	<i>seven</i>	'7'
	<i>esej</i>	'3'	<i>et</i>	'8'
	<i>fo</i>	'4'	<i>nain</i>	'9'
	<i>faiv</i>	'5'	<i>ten</i>	'10'

It will be seen that of the numerals above three are loans from Bislama or English.<sup>2</sup>

The numerals are intransitive verbs in Anejoñ: they must be used in what are essentially relative clauses following the noun to which they refer, and in this environment are preceded by **singular** subject-tense pre-verbal particles. Borrowed forms are treated no differently from indigenous forms in this respect.<sup>3</sup>

(2) *A nouñan et ithii, erus amen a natimi is erou.*  
 L time 3SG:A one, 3DU:P stay S person 3SG:P two  
 'One time, there lived two people.'

(3) *Is amen aaki aan inmeseise et seven.*  
 3SG:P stay there he year 3SG:A seven  
 'He stayed there for seven years.'

Serial counting involves the use of the verbal prefix *m-*(*im-* before a consonant), which marks a clause in a discourse as having the same subject as the previous clause:

(4) *Is itiyi imehe aan jai m-amen m-ajgañ*  
 3SG:P NEG sick he but SS-stay SS-wait:for  
*nouñan-mas.*  
 time-die  
 'He wasn't sick, he was just waiting for the time to die.'

<sup>2</sup>The question as to whether English or Bislama is the immediate source is not one that we can answer here. The only Bislama numeral which is significantly phonologically different from its English cognate is *tri* 'three'; but this is not one of the cardinal numerals which has been borrowed into Anejoñ.

<sup>3</sup>Note that phrase order in Anejoñ is Verb, (Object), Subject. Abbreviations used in examples are:

A	aorist	P	past
DU	dual	S	subject
L	locative	SG	singular
NEG	negative	SS	same subject

So counting usually proceeds *ithii, m-erou, m-esej, im-fo, im-faiv ...* (literally, 'one, and-two, and-three, and-four, and-five ...').

Older speakers tend to use this system but, unlike younger speakers, they also have a passive knowledge of bits and pieces of an earlier system: that is, when asked what the word for, say, 'four' is, they will generally give an indigenous form, though they are much more likely to use *fo* in normal speech. Table 1 below lists the forms for the numerals 4, 5, 6 and 10 as remembered by eight Aneityumese (nobody really remembers 7, 8 and 9, though some are willing to guess). Gaps in the table indicate lack of knowledge, while the figure at the beginning of each row is the actual or approximate date of birth of the speaker.

	<i>four</i>	<i>five</i>	<i>six</i>	<i>ten</i>
1917	<i>amanowan</i>	<i>nijman</i>	<i>alalowag</i> <sup>4</sup>	
1920	<i>emanowan</i>	<i>mijman</i>	<i>meled</i>	
1925	<i>amanowan</i>	<i>mijman</i>	<i>meled</i>	<i>meled-mijman</i>
1927	<i>amanohowan</i>	<i>nijman</i>	<i>meled</i>	<i>mijman-mijman</i>
1930	<i>amanowan</i>	<i>nijman</i>		<i>nijman-ijman</i>
1935	<i>manowan</i>	<i>meled</i>		
1940	<i>mijman</i>	<i>meled</i>		
1955	<i>mijman</i>	<i>meled</i>		

Table 1: Variation in Anejoñ numerals

Recurring forms are:<sup>5</sup>

- (5) *(a,e)manohowan* '4'  
*(m,n)ijman* '4' or '5'  
*meled* '5' or '6'

## 2.2. Other numerals

Numerals may take a multiplicative prefix *ec-* (e.g. *ec-erou* 'twice', *ec-esej*

<sup>4</sup>This form is highly suspicious. In section 5, we point out that one elderly man has been "inventing" numerals to fill the gaps in the system left by the introduction of numerals of English origin. This may well be one of his inventions.

<sup>5</sup>We include the syllable *ho* in the form for 'four', even though it is missing from the forms given by most speakers represented in Table 1. There are numerous phonological problems concerned with *h* in Anejoñ, not the least of which is that there is a sound change in progress by which  $V_i h V_i C > V h C > V C$ , especially in more rapid speech.

'three times') which also occurs on other verbs of quantity (*ec-anag* 'many times', *ec-ehed* 'how many times?'). This also occurs (with the allomorph *ece-*) before consonant-initial loans: *ece-seven* 'seven times'.

There is no system of ordinals, nor does there seem to have been one:

They had only three ordinal numerals, viz., first, middle, and last. ... When they were tolerably well grounded in the cardinal numbers, I tried to initiate them into the use of the ordinal; but, simple as it appears to us, it was very difficult for them to understand the difference between one, two, three, and first, second, and third. (Inglis 1887:85).

The Missions obviously attempted to introduce English ordinals: in 1879, they published *Intas itap, nikavaig, nahaijin first u intas etipup itu* (Holy Book, first part of the Old Testament), but this "first" book was actually chronologically preceded by the "second" one, *Intas itap, nikavaig, nahaijin sekunt* ..., published in 1878. However, forms like *first, sekunt* and so on are not used today. Instead, the verb *uhup* 'to lead, go in front' is also used with the sense of 'first', while Bislama ordinal numerals are used in other cases: *nampa-tu* 'second', *nampa-tri* 'third' (< Bislama *nambatu, nambatri*), and so on. Note that in these cases the Bislama and not the Anejo form of the cardinal numeral is used: *nampa-tu*, not \**nampa-erou*.

### 3. Reconstructing the Anejoñ numeral system

In this section, we look first at the early records of the Anejoñ numeral system, and establish the nature of that system before the drastic changes which took place as a result of Mission education policy. We also trace the prehistoric development of the Anejoñ numerals from Proto Oceanic — a development which is of some significance in explaining the loss of certain items in the system.

#### 3.1. Early records of the numeral system

European contact began with a visit by sandalwooders in the brig *Alpha* in 1830 (Bennett 1831:189). The first Samoan catechists arrived in 1841, and the first European missionaries established themselves in 1848.

The earliest record of the Anejoñ numeral system derives from the initial contact with the *Alpha* in 1830:

The following few specimens of the language will suffice for the present to convey some idea of its general character, the orthography of the whole being in this instance according to the English pronunciation. In numerals they only extend as far as five, thus:

One - *Tee*, Two - *Rou*, Three - *Esheg*, Four - *Ouon*, Five - *Egman*. (Bennett 1831:191).

Inglis (1851:35) listed the first five numerals as:

(6)	<i>titi</i>	'1'
	<i>atu</i>	'2'
	<i>teset</i>	'3'
	<i>manwan</i>	'4'
	<i>nekman</i>	'5'

The forms *titi* and *teset* probably include the third person singular aorist preverbal particle *et*, which becomes *t-* before vowel-initial verbs. Interestingly, he then lists the identical five forms as being the numerals 6 through 10, with no additional morphemes. This suggests that the system was quinary, but presumably some vital additional information on the form of the numerals above five was omitted from his tables (as it is for the Tanna (Kwamera) numerals as well).

Inglis' dictionary of Anejoṃ (published in 1882) contains a short grammatical sketch, but no specific section on the numerals. The dictionary itself only lists the first four numerals:

(7)	<i>ethi</i>	'1'
	<i>ero</i>	'2'
	<i>eseij</i>	'3'
	<i>emanowan</i> or <i>emanahoan</i>	'4'

In a later publication, however, he notes that "they counted by fives, not by tens, as we do", using, for example, 'my hand and one' for six, 'my two hands' for ten, and 'my two hands and my two feet' for twenty (Inglis 1887:83-84). Lawrie (1892:713) makes a similar comment.

Two points are of considerable interest here. The first is that, although *nikman* is entered in Inglis' dictionary with the meaning 'a hand', the meaning 'five' is not given. Second, some of the sample sentences in Inglis' grammatical sketch contain phrases such as *nadiat is for* 'four days' and *nadiat et siks* 'six days' (Inglis 1882:45-46).<sup>6</sup> So that even in Inglis' time — his dictionary was published 34 years after the first European missionary arrived on Aneityum — Bislama or English loans seem to have been well established; and Lawrie (1892:713) confirms this: "Now-a-days the English numerals are known and used by the Aneityumese".

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<sup>6</sup>Inglis belonged to the reformed Presbyterian Church of Scotland, and the other early European missionary, Geddie, to the Presbyterian Church of Nova Scotia. Both presumably had post-vocalic *r* in their dialects, thus accounting for the spelling *for* 'four' rather than the modern *fo*.

Turner (1861:539) gives the numerals 1-10, and also a form for 20, and these appear to have been adopted by Capell in his sketch grammar of the language (Capell n.d.:39-40).<sup>7</sup> The forms given by Turner and Capell are:

(8) Turner	Capell	
<i>ethi</i>	<i>ethi</i>	'1'
<i>ero</i>	<i>ero</i>	'2'
<i>eseik</i>	<i>eseij</i>	'3'
<i>manohwan</i>	<i>manohwan</i>	'4'
<i>nikman</i>	<i>nijman</i>	'5'
<i>nikman cled et ethi</i>	<i>nijman celed et ethi</i>	'6'
<i>nikman cled et ero</i>	<i>nijman celed et ero</i>	'7'
<i>nikman cled et eseik</i>	<i>nijman celed et eseij</i>	'8'
<i>nikman cled et manohwan</i>	<i>nijman celed et manohwan</i>	'9'
<i>nikman lep ikman</i>	<i>nijman lep ijman</i>	'10'
<i>nikman ero un reduon</i>	<i>nijman ero un reduon</i>	'20'

Of the forms in (8), the numeral 'ten' is literally 'five again five'; the numeral 'twenty' contains the form *reduon* (perhaps a misprint for *neduon* 'his/her foot'); and the linker *un* is probably a misprint for *im* 'and'. Thus the form is, or was, more likely *nijman ero im neduon* 'two hands and feet'. Turner's linking particle *cled* is phonologically impossible for a (native) Anejoñ word, and Capell's *celed* is more plausible. However, he makes no comment on its meaning or etymology (though we note its resemblance to the form *meled* in Table 1).

Table 2 lists the forms recorded by early observers. We have combined Turner's and Capell's forms, using Capell's orthography, and have removed verbal prefixes from the forms given by Inglis (1851). Loanwords recorded by Inglis are in bold, while square brackets enclose the meanings of complex numerals whose exact forms were not cited by Inglis. Blank spaces indicate the absence of data.

### 3.2. The numeral system at European contact

The first three numerals have been retained throughout the historical period, although the commentators mentioned in the last section have slightly different forms for some of these numerals from the ones we have recorded. There is rather more variation, and some loss, with regard to the numerals above three.

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<sup>7</sup>Capell's grammar was written around the mid-1960s. It was based mainly on the Bible and other religious publications, but some data was also collected from a native speaker, who was born in the late 1930s or early 1940s. We have transliterated his phonemic spelling into the orthography currently used (e.g., his /c/ is written as *j*), but have not made any other alterations to the forms he gives.

	<i>Bennett 1831</i>	<i>Inglis 1851</i>	<i>Inglis 1882, 1887</i>	<i>Turner 1861, Capell n.d.</i>
1	<i>tee</i>	<i>iti</i>	<i>ethi</i>	<i>ethi</i>
2	<i>rou</i>	<i>atu</i>	<i>ero</i>	<i>ero</i>
3	<i>esheg</i>	<i>eset</i>	<i>eseij</i>	<i>eseij</i>
4	<i>ouon</i>	<i>manwan</i>	<i>emanowan, emanahoan, for</i>	<i>manohwan</i>
5	<i>egman</i>	<i>nekman</i>	<i>nikmak</i>	<i>nijman</i>
6		<i>iti</i>	[hand + 1] <b>siks</b>	<i>nijman celed et ethi</i>
7		<i>atu</i>	[hand + 2]	<i>nijman celed et ero</i>
8		<i>eset</i>	[hand + 3]	<i>nijman celed et eseij</i>
9		<i>manwan</i>	[hand + 4]	<i>nijman celed et manohwan</i>
10		<i>nekman</i>	[2 hands]	<i>nijman lep ijman</i>
20			[2 hands + 2 feet]	<i>nijman ero un reduon</i>

*Table 2: Early records of Anejoñ numerals*

**One.** There is some variation in the sources as regards the initial vowel of the numeral 'one'; as we will show below, it was probably *e*, but has assimilated to the high vowel in the second syllable (there are many such cases of assimilation in modern Anejoñ). The second vowel is definitely long, though previous writers usually ignored distinctions in vowel length in writing Anejo. So the form was probably *ethii*, undergoing change to *ithii*.

**Two.** The form *atu* given by Inglis (1851) bears no relation to forms for 'two' given by any other commentator. Apart from Bennett, forms for 'two' given by other commentators lack the final *u* which we recorded, though that may be due to mis-hearing on the part of Inglis and Turner which was then simply repeated by Lawrie and Capell. The original form was thus probably *erou*.

**Three.** We assume *esej* as the original form for 'three'. The *i* in the Turner/Capell form *eseij* represents a non-phonemic on-glide which occurs before all palatal consonants, while the stop given by other commentators is consistent with the stop or affricative quality of /j/ in this environment: phonemic /esej/ is phonetic [ɛse<sup>h</sup>č] or [ɛse<sup>h</sup>c].

**Four.** The numeral 'four' seems to have had the root *manohowan*, to which was probably added the prefix *e-*, which occurs on other numerals. Table 1 shows that only younger speakers seem to have totally lost this form: older speakers retain it, at least passively, and albeit with some variation in the initial vowel, including total loss in the speech of one speaker. All earlier commentators have a variant of this form, though none agree exactly.

**Five.** The numeral 'five' was based on the noun *nijma-*'hand', with the third person singular possessive suffix *-n*. The phoneme /j/ is manifested as a palatal stop before nasals — thus /nijman/ is phonetically [nicman] — which would account for the use of the velar stop by Bennett and Inglis. The variation between *nijman* and *mijman* (Table 1) is probably not significant, the latter form apparently including the same-subject prefix *m-* which is used in serial counting.

**Six to nine.** There is more disagreement concerning these numerals. Inglis and Lawrie say that they were 'five and one', 'five and two', and so on, but unfortunately they do not give us any actual forms. Turner and Capell give a linker *celed*, the numerals having the form 'five' + *celed* + subject-tense + numeral. Modern speakers use *meled* for 'six', and one or two older speakers believe that seven, for example, may have been *meled-erou*, though they are not sure.

While the form *celed* is not recognised by any modern speaker, it is formally related to *meled*, which is composed of *m-*'same subject' + *eled* 'to be left over after equal division; (of food) to remain after enough has been shared out at a feast'. So 'six' may have been *et eled et ithii* 'there is one left over', which would have become *m-eled (et) ithii* in serial counting, this being further shortened to *meled*; 'seven' was probably *meled (et) erou*; and so on. Some confirmation of this is found in the forms for 'ten' in Table 1, which roughly follow this pattern.

**Ten to twenty.** The form for 'ten' was most likely reduplicated: *nijman-(n)ijman* as a numeral, *mijman-(m)ijman* in serial counting. One older speaker thought that the forms above 'ten' might have worked on the same pattern as the numerals between six and nine: *mijman-mijman erou* '12', *mijman-mijman meled erou* '17'. But this was very much a feeling as to how the system **should** work, rather than even a passive knowledge of a pre-existing system. The (reanalysed) Turner/Capell form for 'twenty' agrees with Inglis' and Lawrie's descriptions of counting using the feet.

So the Anejoñ numerals at the time of contact were probably as follows:

(9) <i>ethii (&gt; ithii)</i>	'1'	<i>meled (ithii)</i>	'6'
<i>erou</i>	'2'	<i>meled erou</i>	'7'
<i>esej</i>	'3'	<i>meled esej</i>	'8'
<i>emanohowan</i>	'4'	<i>meled emanohowan</i>	'9'



<i>nijman</i>	'5'	<i>nijman-(n)ijman</i>	'10'
		<i>nijman erou im neduon</i>	'20'

### 3.3. The origins of the numerals

The first four numerals show a prefix *e-* to a numeral root (noting that there has been assimilation from *e* to *i* in *ithii* 'one'). Anejoñ *e* derives from Proto Oceanic (POc) *\*i*:<sup>8</sup>

(10) POc	>	Anejoñ	
<i>*tapine</i>		<i>na/taheñ</i>	'female'
<i>*pican</i>		<i>e/hed</i>	'how many?'
<i>*kita</i>		<i>e/cet</i>	'see'
<i>*bakiwak</i>		<i>ne/pcev</i>	'shark'

Quite a number of languages in North and Central Vanuatu show a numeral prefix *i-* (Tryon 1976:406-414), so this is probably a form of some antiquity.

Anejoñ *i-thii* 'one' may derive from, or include, POc *\*tai* 'one'. The correspondence *\*t > t* is also illustrated in (10) above. However, the intrusive *h* needs explaining, especially as Anejoñ *h* derives from POc *\*p* (see (10)).

Anejoñ *e-rou* 'two' derives from *\*rua*. The development of *\*r* as *r*, and of the sequence *\*ua* as *ou*, are illustrated below:

(11) POc	>	Anejoñ	
<i>*raqan</i>		<i>in-ra-</i>	'branch'
<i>*raun</i> 'leaf'		<i>in/rau</i>	'leaf-wrapped food parcel'
<i>*luaq</i>		<i>a/lou</i>	'vomit'

The numeral *e-sej* 'three' derives ultimately from *\*tolu*. There is, however, a considerable amount of data from a range of Oceanic languages which suggests that there was some fluctuation between back and front vowels in both syllables of *\*tolu*. That is, there are forms which suggest earlier *\*telu*, *\*toli*, and *\*teli* as well as *\*tolu*. (See Lynch 1977 for some discussion of this in Vanuatu and other languages). Anejoñ *e-sej* would derive from the variant *\*teli*: POC *\*t > s* before front vowels, and *\*l > j* before *\*i*, as in:

(12) POc	>	Anejoñ	
<i>*mate</i>		<i>mas</i>	'die, dead'
<i>*kati</i>		<i>a/cas</i>	'bite'
<i>*lima</i>		<i>ni/jma</i>	'hand, five'
<i>*keli</i>		<i>a/cjii</i>	'dig'

<sup>8</sup>The Proto Oceanic orthography used here is that of Ross (1988), and many of the reconstructions can also be found there. Glosses for Proto Oceanic forms are not given unless they differ somewhat from the glosses of the Anejoñ forms.

As can be seen from (12) above, the forms *nijman* or *m-ijman* derive from POc \**lima* 'hand, five'. This does not take the *e*-prefix, possibly because, unlike the first four numerals, it is primarily a noun, and its use as a numeral is a secondary derivation.

So far, there is little remarkable in all of this (apart from some slightly unusual phonological developments). However, the numeral 'four' presents us with some problems.

The Proto Oceanic form for 'four' was \**pat* or \**pati*, and there are forms in other members of the Southern Vanuatu subgroup (Sie *d/vat*, Lenakel *ku/vər* from \**pat*, Southwest Tanna *ku/as*, Kwamera *ke/fa* from \**pati*) which suggest that reflexes of both \**pat* and \**pati* were present in Proto Southern Vanuatu. The expected developments of these forms in Anejoñ are *e-hat* and *e-has* respectively, but neither occurs with the meaning 'four'. The form *hat* occurs as the root meaning 'stone' in *inhat* (< POc \**patu*), while the form *has* occurs with the meaning 'bad'. It might be that, at some earlier stage, '4' was *e-hat* or *e-has*, but this form was replaced because of this homonymy:

The form *e-manohowan* 'four' is thus an innovation. There are other examples of "disrupted" numeral sequences in Oceanic languages, in which all but one of the original numerals were retained. A number of Bougainville and western Solomons languages, for example, retain all the original Proto Oceanic numerals **except** for \**tolu* 'three', with the type Banoni *dapisa*, Mono-Alu *e-pisa* being common in this area (Lincoln 1976:98, Tryon & Hackman 1983:123). As to the form *e-manohowan* itself, we are unable to track down its origins.<sup>9</sup>

A number of quinary systems in Oceanic languages form the numerals from six to nine by compounding directly on the base 'five': so Lenakel *katilum-karena* 'six', is 'five-one'. But there are others which use compounds on some other base: note Paamese *elim* 'five', but *lahi-tāi* 'six' (carry-one), *lau-tel* 'eight' (leaf-three) (Crowley 1982:98). Anejoñ falls into this latter category, using the verb *eled* 'to be left over' as the base on which these compounds are formed. We are not aware of any cognates of *eled*, certainly not as far as its use in the numeral system is concerned. Other Southern Vanuatu languages — the closest relatives of Anejoñ — either simply juxtapose 'five' and the other numeral, or else link them with a particle derivable from Proto Oceanic \**ma* 'and'.

#### 4. Post-contact developments

We have shown that the original Anejoñ numeral system was quinary, but that the original forms above 'three' have been or are being lost. In this section we try to give some explanation for this loss.

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<sup>9</sup>One Anejoñ speaker suggested that it derives from *ma* 'ripe' + *nohowa-n* 'its fruit'. How this might have acquired the meaning 'four', however, is difficult to imagine.

#### 4.1. Mission education policy

The plan for missionisation of the island involved the conversion of each *natimarid* (regional chief) and other prominent male leaders and, following that, the education of the ordinary people, and this plan succeeded admirably:

By 1858 there was a school in every district and major churches at every *natimarid*'s settlement, chiefly power had been first broken and then re-established under missionary tuition. ... Aneityum was the first successfully missionized island in Melanesia and was the headquarters of the Presbyterian Mission to the New Hebrides for many years. (Spriggs 1985:25).

As we pointed out earlier, for most younger Anejoñ speakers the indigenous numerals stop at *esej* 'three'. Even in the 1882 dictionary Inglis was using forms like *for* 'four', and clearly the original system had begun to erode at an early stage. Capell, for example, noted in his grammar sketch that:

The true numerals are not fully preserved, however, because English numerals have been taught from the earliest days of Mission work for all numbers above five; in the Bible translation *for* is used for 'four' and *ford* ['fɔrθ] for 'fourth'. (Capell n.d:39).

Why did this happen? Inglis has this to say about the teaching of arithmetic in Aneityum:

Arithmetic was a more serious undertaking [than literacy]; we had not only to teach them how to form figures — for they were without figures as well as without letters — but we had to teach them the English names of the numerals. They counted by fives, not by tens, as we do. They counted their fingers up to five, then said *nikmak*, or *my hand*, for five. They then said "my hand and one" for six, "my hand and two" for seven, and so on till they came to ten, and then they held up their ten digits, and said, "my two hands." They repeated the same process on their ten toes, and then said "my two hands and my two feet" for twenty. All beyond was "many, many," or "a great many," &c. To teach arithmetic with this vocabulary was impossible. ... We saw that we could teach arithmetic only by adopting the English names of the numerals, and hence, as far as arithmetic was concerned, we taught them to speak English. (Inglis 1887:83-84).

1885

Thus although literacy training was carried out in Anejoñ, numeracy was taught in English. In addition, through contact with sandalwooders and other outsiders, Aneityumese were exposed to Bislama, which also has a decimal system in which the forms are derived from English. Thus most of the original Anejoñ numerals disappeared, and were replaced with numerals derived from English, either directly or via Bislama.

#### 4.2. The Bible translations

It was a fairly common practice among missionaries in Melanesia to avoid borrowings where possible in Biblical translations. Terry Crowley (pers. comm.) has pointed out that they were even wont to use archaisms if it meant avoiding a borrowing from English. And certainly, other areas of the Anejoñ language show no evidence of a consistent “policy” of replacement of indigenous forms by borrowed ones: as Inglis put it, “as far as arithmetic was concerned, we taught them to speak English” (Inglis 1887:84; our emphasis).

When it came to translating the Bible, the missionaries seem to have adopted the same compromise that modern Anejoñ-speakers have: they normally retained native forms for the first three numerals, but used loans for those above three. For example:<sup>10</sup>

(13) *Er ahtai inhaklin man et ero vai fardig et ethi ...*  
‘Can you not buy two sparrows for a penny ...’  
(Matthew 10:29).

*Is idim amen a Jona an nadiat is eseij im nepeig is eseij an nipjinetgan numu alupas ...*  
‘For as Jonah was in the belly of the sea-monster for three days and three nights ...’ (Matthew 12:40).

*Et faiv ache, um ero ache numu.*  
‘Five [loaves], and two fishes.’ (Mark 6:38).

*Is wat ti pan itac nadiat is eet ...*  
‘Now on the eighth day ...’ (Luke 1:59).

We said “normally” above. There are occasions when English loans are used for the the first three numerals, not only in compounds (as might possibly be expected), like:

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<sup>10</sup>Data listed here are from the translation of the New Testament, *Intas etipup mat ...* (1863), and are given exactly as in that translation — which is orthographically different in some respects from the way modern Anejoñ is written. Numerals are in bold.

- (14) ... *is eteuc nohoan is wun huntret is ethi*, ...  
'... and produced their crop, some a hundredfold, ...'  
(Matthew 13:8).

but also when representing simple numerals, like:

- (15) *Im lep aien is leh talent is tu aien, is lep leh talent is tu is eche aien.*  
'The man who received two talents made two more in the same way.' (Matthew 25:17).

On the other hand, there are a few occurrences of the original numerals for 'four' and 'five':

- (16) ... *eris ahlesahles yin natimi is emanohwan.*  
'... carried by four men'. (Mark 2:3).  
  
... *is amen anliin neom o un aien an mohoc is ikman.*  
'... and for five months she kept to herself.' (Luke 1:24).

Some of the confusion the missionaries were facing in dealing with these numerals can be seen in the following, where both original and borrowed forms for the same numeral appear in the same verse:

- (17) *Is alupai yin is ethi talent is faiv aien, im lep is ethi talent is tu, im lep is ethi talent is wun ...*  
'To one he gave five talents, to another two, to a third one ...'  
(Matthew 25:15).

*Eka auri aijaua par eti ato, um eti imyiehva nareto is ikman, akis alaa atimi is faiv dausant aijaua ...*  
'Do you not remember the five loaves for the five thousand ...'  
(Matthew 16:9).

It seems, therefore, that despite the efforts of the missions to introduce a wholly English counting system, there was a certain amount of resistance, with the lower original numerals particularly being widely retained.

### 4.3. Why only partial loss?

As we said at the beginning of this paper, Oceanic languages usually retain at least all of the "basic" (five or ten) numerals, though they frequently replace compound forms above the base with monomorphemic borrowed forms. Total replacement of a numeral system is relatively rare in the Pacific, though Chamorro provides one example. The Chamorro numeral system "was replaced by the Spanish system a good many years ago. ... Chamorro has borrowed the **complete system** of Spanish numbers"

(Topping 1973:166-167; our emphasis). In this case, there has been total replacement of the indigenous system; and, in fact, replacement seems to be taking place a second time, as "it appears that the Spanish system of numbers is rapidly giving way to the English system, especially when one is counting money" (Topping 1973:168).

Anejom̃ fits neither pattern. While mission educational policy was dictated by the fact that the long multi-morphemic numerals above five were unnecessarily unwieldy,<sup>11</sup> the strategy was to replace all Anejom̃ numerals with English ones. This, as we have seen, met with only partial success: **some** of the basic numerals have been retained, but others have been replaced by borrowed forms. One might well ask, then, why *emanohowan* 'four' and *nijman* 'five' have been, or are in the process of being, replaced by borrowings (or, alternatively, why the borrowing process did not extend to the first three numerals, which have been retained to the present day).

One reason may be that *emanohowan* 'four' was considerably longer (four syllables) than the other (disyllabic) numerals, was itself considered as a relatively recent innovation, and may have been viewed as morphologically complex (see note 9). Note also that *nijman* 'five' is also used with the meaning 'his/her hand'. Because of brevity on the one hand and homophony on the other, both forms were riper for replacement than the other basic numerals.

There is also the additional possibility that the first three numerals were "protected" by other features of the grammatical system. Anejom̃ pronouns distinguish four numbers, and non-singular pronoun roots incorporate what were probably originally number-marking suffixes; e.g.;

(18) <i>ajamrau</i>	'we (exclusive dual)'
<i>ajamtaj</i>	'we (exclusive trial)'
<i>ajama</i>	'we (exclusive plural)'

The fact that the dual and trial forms of the pronouns are still very commonly used, and that the forms marking them — *-rau* 'dual' and *-taj* 'trial' — bear some phonological similarity to the corresponding numerals *erou* and *esej*, may have meant that the first three numerals were less susceptible to borrowing than the others.

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<sup>11</sup>So Inglis (1887:84) says: "Our first practical want was to express the names of the chapters and verses in the Gospels. The twenty-sixth chapter and the seventieth verse of Matthew would have run thus — 'My two hands and my two feet, and my hand and one chapter, and my two hands and my two feet, also my two hands and my two feet, and again my two hands and my two feet, and my two hands verse of Matthew'".

### 5. The future?

There is some concern, especially among older Aneityumese, that their language has lost something important with the breakdown of their numeral system. One elderly man has gone to the extent of inventing a whole new set of numbers, making up words which sound as if they might be Anejom̄ words (but which bear no relation to the higher numerals discussed here), so that there might be some degree of acceptance among Anejom̄ speakers of a numeral system which is not borrowed — though neither he nor anyone else actually uses these forms.

It seems to us that, if this was a general feeling, at least the first ten numerals — given here in (9) — could be reintroduced into the language through the pre-school system in Aneityum. This might help stem some of the erosion in the language which has taken place as a result of contact with outsiders.

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