4.4.9. AUSTRONESIAN LANGUAGES: BOUGAINVILLE PROVINCE

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4.4.9.1. INTRODUCTION

All of the Austronesian languages of the Bougainville area belong to
the Oceanic subgroup. The best studied branch of Oceanic languages,
the Polynesian subgroup, is represented on the easternmost fringe of
Bougainville Province. In contrast, the Oceanic languages spoken on
the bigger islands of the area are among the least studied in the Pacific.
In an effort to restore some balance to this situation, I will deal very
briefly with the Polynesian languages and more extensively with the non-
Polynesian Oceanic languages. The focus will be on attempts to subgroup
these languages.

4.4.9.2. POLYNESIAN OUTLIERS

Nukuria, Takuu, and Nukumanu are distinct speech varieties which are
mutually intelligible or nearly so.[2] Even Luangiua, with its striking
sounds shifts *t > /k/, *k > /ʔ/, *n > /ŋ/, may be readily, or quickly,
understood by Polynesians of Bougainville district.[2]

Whatever disagreement may arise from the tricky problem of defining
language limits, all of these varieties form a subgroup with the closely
related speech of Samoa, Futuna, the Ellice Islands and the other
Polynesian Outliers, which languages are distinct from less closely
related languages of Tonga and of Eastern Polynesia.[3]

There may have been some contact in recent centuries between these
Polynesian Outliers and the rest of the Bougainville area. Parkinson
(1899) reported evidence of a Polynesian culture preceding occupation
of Kilinailau by Halia speakers.[4] Parkinson (1907:183-6) also mentions
occasional landings by Polynesians on the east coast of Bougainville.

So far, however, I have found no clear linguistic effects. Hahon,
Timputz, Solos, Saposa, and Nehan use a form of /kumala/ *sweet potato*,
but they could have obtained the plant and name recently by several
other routes.

4.4.9.3. OCEANIC LANGUAGES (EXCLUDING POLYNESIAN)

It is quite clear that Nehan, Halia, Solos, Petats, Saposa, Teop,
Hahon, Timputz, Piva, Banoni, Papapana, Torau, Uruava, and Mono-Alu
are all members of the Oceanic group.[5]

It is not yet clear whether these languages form a closed subgroup
within Oceanic. So far I have been unable to find phonological, lexical,
and morphological innovations that are shared by all and only these
languages.

In historical terms, this means that all of these languages trace
back to a single speech community, Proto-Oceanic, spoken about 5,000
years ago.[6] However, it is not clear whether these Oceanic languages
represent one, two, three, or more separate traditions since that time.

In order to assess the possibilities, I will briefly examine previous
studies and then present tentative conclusions based on my own con-
tinuing research.

4.4.9.4. PREVIOUSLY SUGGESTED SUBGROUPS

The lack of information on how many languages were spoken in the area
diminishes the value of the earlier studies. This is unfortunate in the
case of Schnee (1901), because his perceptive, scholarly approach was
applied to very scanty data. He suggested that there were two subgroups
(Sprachgebiete) in our area: one including Nissan, Kilinailau, Buka,
and north Bougainville, and another, possibly related group, including
Bougainville Straits and south Bougainville.

Friederici (1913) and Ray (1926) sought to explain language differ-
ences and similarities by theories of migration. As a result, they tell
us little about subgroups. Ray's suggestion of affiliation between
Bougainville and the rest of the Solomons must be qualified. He had
very little data to work with, thus he could not show much more than
the basic Austronesian characteristics. Also he did not even try to
find affiliation with the Bismarck Archipelago.[7]

One can easily infer from Blackwood (1935) that Halia, Petats, and
Solos are closely related dialects, and that Teop, Hahon, and Timputz
are closely related languages. She found that Petats and Timputz are
"similar in construction" (1935:15) but show extreme lexical differ-
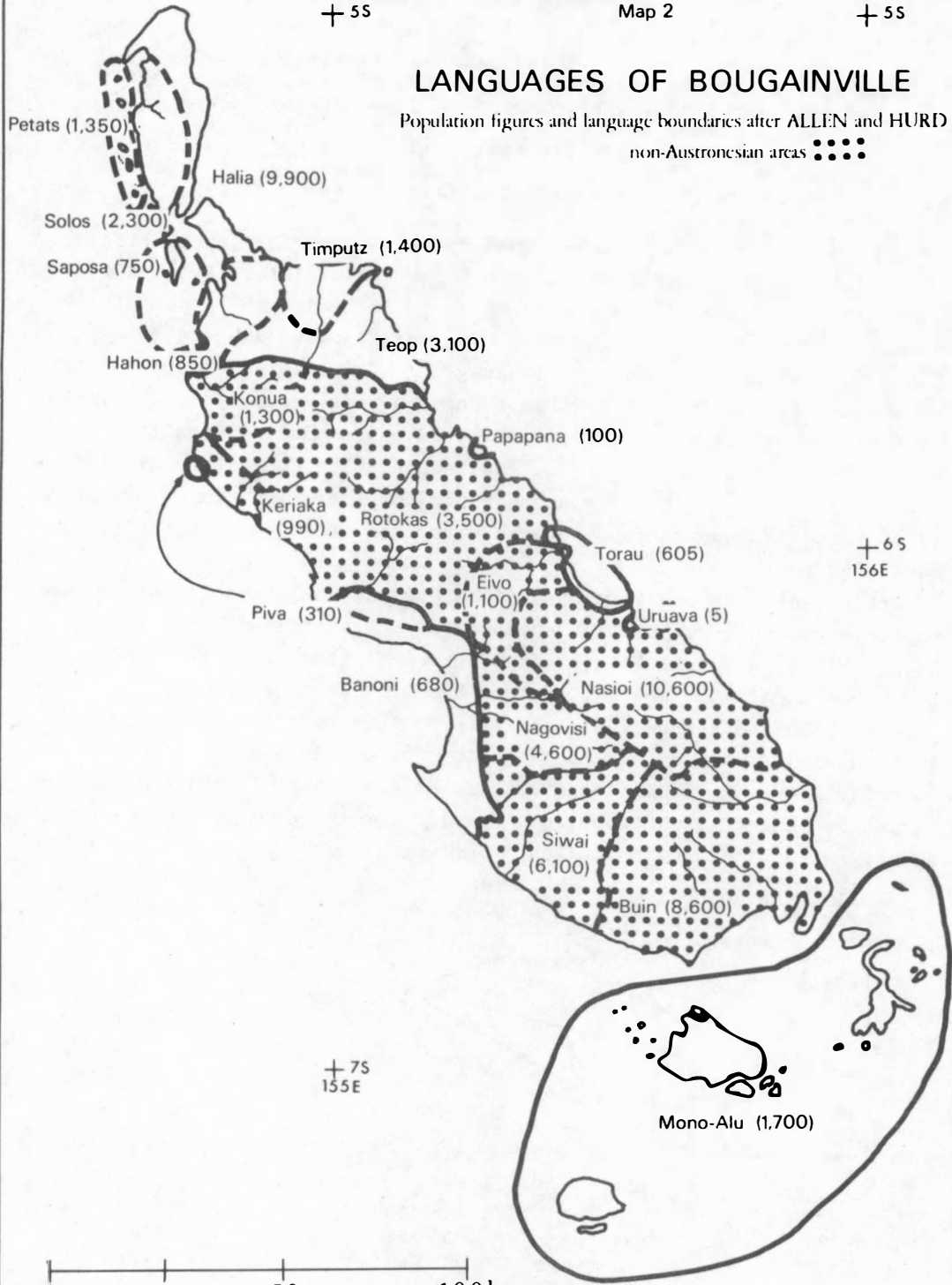ences. These conclusions are supported by later studies including
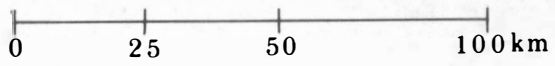
LANGUAGES OF BOUGAINVILLE

Population figures and language boundaries after ALLEN and HURD

non-Austronesian areas ⠿

Map 2

5S

5S

Petats (1,350)

Halia (9,900)

Solos (2,300)

Saposa (750)

Timputz (1,400)

Hahon (850)

Teop (3,100)

Konua (1,300)

Papapana (100)

Keriaka (990)

Rotokas (3,500)

Torau (605)

Eivo (1,100)

Uruava (5)

6S
156E

Piva (310)

Banoni (680)

Nasioi (10,600)

Nagovisi (4,600)

Siwai (6,100)

Buin (8,600)

7S
155E

Mono-Alu (1,700)

0   25   50   100 km

P CL 74

this one. However, her comments about Saposa lead to a mistaken con-
clusion (1935:15):[8]

> ... Saposa, has special sound changes not found elsewhere
> in this area, e.g. it alone of all the dialects studied
> possesses an _f_ sound, which occurs in words whose cognates
> in other dialects have either _h_ or _v_ (as in Saposa fūnu,
> Petats hūlu, Kurtatchi [Timputz, P. Lincoln] wūnu = hair).
> When these have been allowed for, the Saposa dialect conforms
> to the general type. All these dialects are mutually
> intelligible.

The sound [f] identifies Saposa speakers even when they speak Pidgin.[9]
The [f] in itself would probably not impair intelligibility, but its
uniqueness indicates an extended period of isolation which definitely
would. Furthermore, later studies show that Saposa shares 40% or less
basic vocabulary with any Buka language.[10] It would be surprising if
languages with so few basic words in common were mutually intelligible.
Blackwood possibly observed what might be called dual-lingualism. In
this kind of language sharing, a person learns to understand his neigh-
bour's language and the neighbour learns to understand his. In such a
case, these neighbours can converse with each other, each speaking his
own language.[11]

Grace (1955) tentatively classified Oceanic languages into nineteen
separate groups. He put the languages of Bougainville Straits,
Bougainville, and Buka into a single group distinct from the Choiseul
languages and in the nearest part of Bismarck Archipelago.

Dyen (1965) attempted to classify more than 200 languages of the
Austronesian family by lexicostatistics,[12] but his sample from
Bougainville area was inadequate to relate Banoni or Mono to any other
language. Except for Saposa, his results for the northern area coincide
closely with Blackwood's implied subgroups.
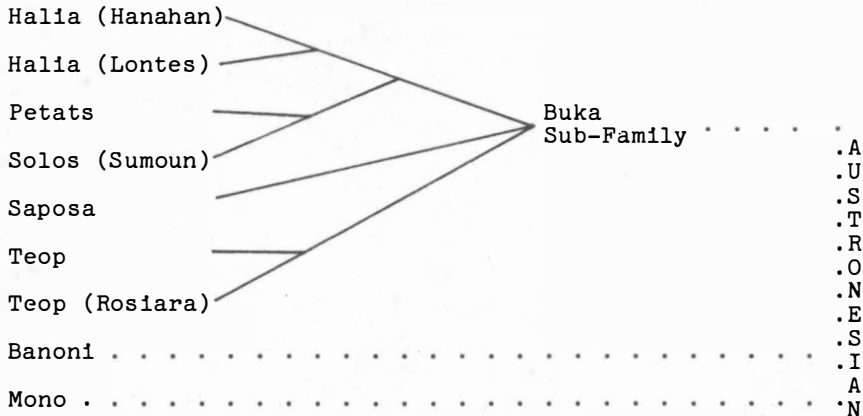
(after Dyen 1965)

Allen and Hurd (1965) classified all of the languages of Bougainville district on the basis of cognates shared on 170-item lists, which include the Swadesh 100 list and some cultural items.

Timputz Family: Teop, Hahon, Timputz

Petats Family: Halia, Solos, Petats, Saposa

Banoni Family: Banoni, Piva

Torau Family: Torau, Papapana, Uruava

Nehan and Polynesian Outliers are not grouped with any family. Their conclusions coincide closely with Blackwood's.[13]

If we ignore the distinction based on word-order, we find that Capell (1971) is in close agreement with earlier studies.[14]   He groups Nehan with New Ireland languages. The rest would fit the subgroup inferred from Schnee (1901).

4.4.9.5. CURRENT RESEARCH

In this section I will present some tentative findings of my own investigation. In spite of limited data, I have considered other kinds of evidence than just lexicostatistics, namely lexical isoglosses, grammatical innovations and sound changes.

4.4.9.5.1. *LEXICOSTATISTICS*

I compared wordlists for fifteen languages, fourteen in Bougainville area and Nguna from the central New Hebrides.[15]   Nguna is intended as a control. It is geographically remote and probably belongs to a different first-order subgroup of Oceanic.[16]   Thus any clear subgroup revealed by cognate counting should show a considerably closer relation among its members than any member shows with Nguna. Each wordlist approximated the Swadesh 100-word list. *'Horn'* and *'live'* were omitted from all lists. Also missing from Nguna were *'breast'* and *'moon'*. The figures in the table are not percentages but the actual number of cognates found. Since all lists approximated 100, the counts also approximate percentages. Cognate decisions tended to be liberal. I accepted some irregularities that appeared to be the result of natural changes. The consonant correspondences that were interpreted as regular will be discussed later in this paper.

Lexicostatistics Count for Bougainville Austronesian

```
Nehan
 22  Solos
 22  59  Petats
 22  50  51  Halia
 20  20  19  21  Hahon
 20  20  17  25  61  Timputz
 22  28  25  33  51  58  Teop
 21  36  36  36  34  33  37  Saposa
 20  21  23  27  27  25  34  35  Papapana
 19  18  19  23  25  25  28  31  33  Uruava
 22  25  27  26  24  25  29  30  25  41  Torau
 23  25  26  26  19  22  21  26  21  28  40  Mono
 22  25  26  23  22  23  26  30  23  30  29  30  Piva
 21  26  24  22  22  20  25  30  22  25  26  25  61  Banoni
 21  16  17  18  20  19  19  20  18  23  24  22  18  19  Nguna
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To interpret the results, first notice that the Nguna reference line indicates that agreements lower than 25 do not reflect particularly close relationship. This leads to the conclusion that Nehan is not particularly close to any Bougainville language.

Allen and Hurd's figures for Nehan (to the north-west of Buka) are in close agreement with mine, except: Nehan-Petats 28%, and Nehan-Halia 27%. In the light of reported contact between Nehan and Buka (Blackwood 1935:380), these differences can be easily explained as borrowing.[17]

Beaumont (1972:11) compared some limited Nehan data with New Ireland languages and concluded there was no particularly close relationship hhere either. Looking at data in Capell (1971:256-9) suggests this same conclusion.

Thus, we may conclude that Nehan has had a prolonged history of isolation. The rest of the languages are spoken in a visually contiguous area in the sense that one may proceed from one language to the next without losing sight of land. Nonetheless, the cognate counts are not sufficiently high to force the conclusion that all of these languages share a period of common history independent of all other groups. On the other hand, this conclusion is not excluded by the cognate counts. As we have seen, linking of these languages with Nehan and probably the rest of New Ireland area is not very strong.

The next logical place to look for related languages is Choiseul, visible to the south-east from Bougainville. Capell (1968) found that Choiseul languages form a closed subgroup. They show relatively high

cognate percentages among themselves and quite low percentages with other languages. In particular he found that comparisons with Mono-Alu ranged from 6% to 13% (Capell 1968:15). I have not done any calculations comparing Bougainville lists with his Western Solomons lists, partly because none of these lists looked very similar to any Bougainville list.

Hooley (1971) included Halia among his Morobe area comparisons. His results indicate that there is no close relation of any Bougainville language with any language of the northern New Guinea-western New Britain area.

It now appears that the languages from Buka to Mono may have been isolated from other Oceanic groups for most if not all of the five or so millenia since the dispersal of Proto-Oceanic.[18] Proceeding from this very tentative hypothesis, we can ask about the degree of isolation between languages within the Buka-to-Mono area.

The cognate counts show some rather close relationships:

    Buka: Solos, Petats, Halia
    North: Hahon, Timputz, Teop
    West: Banoni, Piva
   East: Uruava, Torau, Mono

The East group is only weakly supported. Torau-Uruava (41), and Mono-Torau (40) connections appear to be significantly higher than Uruava-Mono (28). It would make slightly more sense, if the Torau were geographically between the other two, instead of north of Uruava. In fact, other evidence that it was spoken in the south-east corner of Bougainville was amassed by Terrell and Irwin (1972).

In order to make sense of the rest of the table, I propose a network diagram. I have placed these groups in their approximate geographical positions[19] and drawn lines connecting language pairs that share between 30 and 40 cognates.

Saposa shows inexplicably high lexical agreement with all other groups. On this basis we can say that there is a Bougainville group. However, this is only weakly defined because of some very low counts within the group. For example, Uruava shows a closer relation to Nguna (23) than to Solos (19) and Petats (19). Similarly, a group uniting the North and Buka groups with Saposa is suggested by the uniform, moderate relation to Saposa. Again such a grouping is weakly defined because we find only one line directly connecting Buka with the North group. Some of the other relations are quite low indeed, e.g. Petats-Timputz (17).

Let us now turn to other kinds of evidence to test these subgrouping hypotheses.

NETWORK DIAGRAM
BOUGAINVILLE SUBGROUP
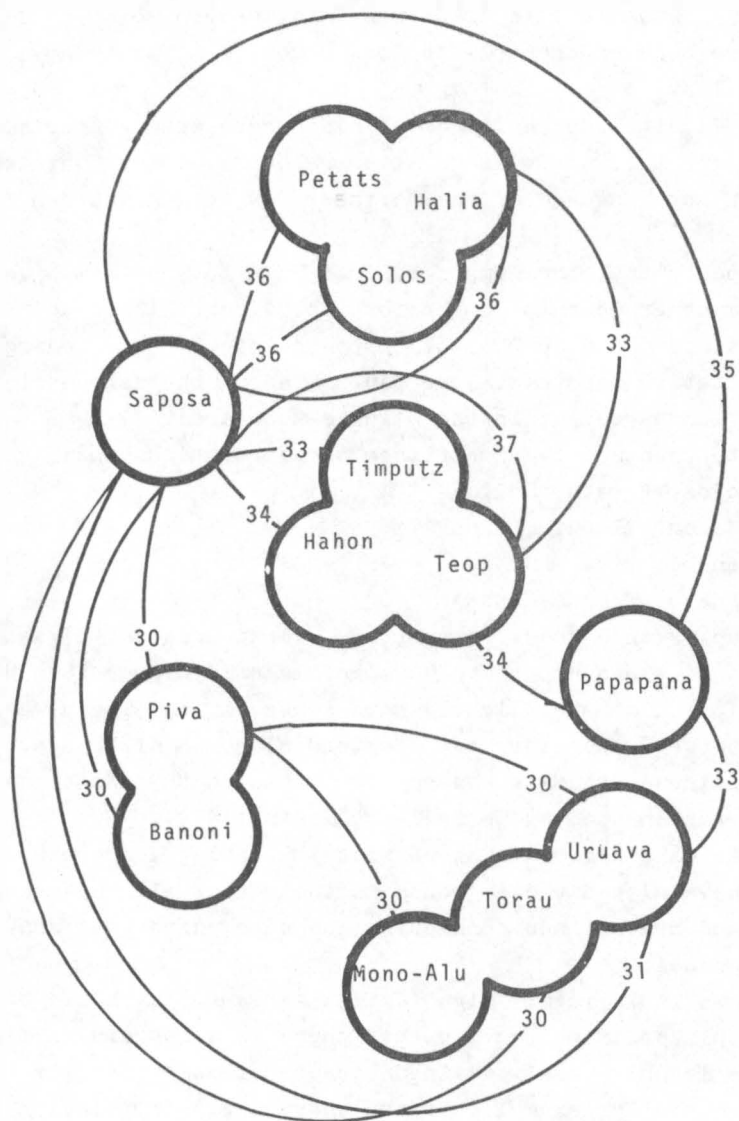
Languages sharing more than 40 words in the lexicostatistical count
are represented by overlapping circles. Languages sharing from 30 to
40 cognates are joined by a line on which the exact number has been
written.

4.4.9.5.2. *LEXICAL INNOVATIONS*

The most widely shared items are familiar Austronesian or Oceanic
retentions.   In approximate possible Proto-Bougainville form they are:
*ma(i) *hither*, *mate *die*, *taliŋa *ear*, *mata *eye*, *boŋi *night*, *ikana
fish (all except Banoni), *mea *tongue* (all except Uruava), *pulu *hair*
(all except Mono).   All but Banoni and Piva share *atea *know*, possibly
related to *ate *liver* (Capell 1968:22).

I have found no lexical innovations that support the Bougainville
subgroup. *atunu *kill/strike* nearly qualifies: Teop [ʔasun], Halia
[atuŋ], Banoni [tsunu], Piva [atsunu], Torau [atunu], Uruava [atunu].
But it is found outside the subgroup: Nehan [uiliataŋpo]; even more
damaging outside the area, in Papua: Motu [heatu], Roro [ahu], Doura
[aku], and Kuni [aku].[20]   Some other words look promising but are not
shared widely enough.   For example, the Banoni subject pronoun /no/
thou appears to derive from an earlier innovative form *alo which is
clearly reflected in Solos /eno/, Petats /elo/, Halia /alo/, Uruava
/aro/, and possibly some other forms like Papapana /anioi/. However,
Piva, in other ways most like Banoni, retains /aɣoi/ *thou*.[21]   The
innovative form is also found outside the subgroup on nearby Choiseul:
Varese /aro/ *thou*.

Similarly, an innovative word for *three* is shared by Solos /huapis/,
Petats /hopis/, Halia /topisa/, Saposa /fopis/, Torau /episa/, Mono
/episa/, Piva /topisa/, and Banoni /dapisa/. Teop /kukan/, Timputz
/kukon/, Hahon /kukana/ might be a further innovation. But Uruava
/toru/ and Papapana /tau tonu/ are retentions of POC *tolu. Again
certain Choiseul languages share the innovation. Tavula /kapösa/,
Varese /pisa/, Ririo /pisa/, Kuboro /pösa/.

4.4.9.5.3. *GRAMMATICAL COMPARISON*

More and better descriptions of these languages are needed before
grammatical comparisons show more than interesting directions to in-
vestigate.

In Halia, non-past tense marking includes what look like possessive
suffixes that agree in person and number with the subject.[22] Petats
appears to have a similar system.

alia	e	la-g	
I	*non-past*	*go-I*	*I (will) go* (Allen 1971:65)

elia	a	la nauk	
I		*go*	*I am going* (Capell 1971:277)

Torau, Uruava, and Mono share an interesting device to express con-
tinuing present tense, which is more clearly related to the possessives

than the Buka system. The following data are from Rausch (1912) and
Boch (n.d.).

    Uruava   [purapura ia emu] *thou art making it*
    Torau   [aaloa   ai sau] *thou art making it*
    Mono-Alu [babaeni   saŋ] *thou art asking for it*

In Uruava the full verb stem is reduplicated. In Torau and Mono-Alu
only the first syllable is reduplicated. In each case the separable
possessive form follows.[23] But compare the following:

    Uruava [o purai] *thou made it*   [ko purai] *thou will make it*
    Torau [mu aloa] *thou made it*   [ba aloa] *thou will make it*
    Mono [oi baene] *thou asked for it* [ona baeni] *thou will ask*

The other tenses are not so similar. Fragmentary data from other
languages indicate substantial differences in the tense and aspect
marking within other groups as well. Thus verb markers will not be of
much use to evaluate subgrouping hypotheses, but the study of inter-
action of possession and subject markers would be interesting for other
reasons. I might add that Banoni and Piva do not have anything that is
conspicuously like either Halia or Mono-Alu present tense, but more
subtle similarities may be found.[24]

4.4.9.5.4. *SOUND CORRESPONDENCES*

In the table of sound correspondences, multiple reflexes are listed
in approximate order of frequency. Ø represents loss of the consonant.
The data are insufficient for detailed discussion, but some clarifi-
cation is possible.

Some Proto-Oceanic phonemes played a minor role in comparisons, but
I will try to interpret what expected results are.[25]

*p   multiple reflexes; probable vowel conditioning. For example, in
     Banoni /β/ and /γ/ merge before back vowels. [ᵝʸom] *turtle* :
     *poñu.

*p   occasionally lost before high vowel. [dzai] *fire* : *api.

*mp   little change.

*m   retained. Unexplained: Solos [bora] *fat* : *mona(k).

*t   retained before non-high vowels.

*t   before high vowels, various stages of t : ts : s : Ø are reflected.

*s and *ns probably merged in all cases. Interesting problems arise
    with Papapana [tanana] *road* : *njala(n) or *sala(n), and Mono
    [lulu] *breast* : *susu.

Consonant Correspondences Tentatively Accepted as a Basis for Lexicostatistics

POC	*p	*mp	*m	*t (o)(a)(e)	*t(u)	*t(i)	*s	*l	*R	*r	*n	*k	*ŋ
Nehan	w,Ø	b	m	t	t	ts	s,h	l	r,Ø	--	n	Ø,k	ŋ
Solos	h,Ø	b	m,b	t	t	t	s	n	n	n	n,r	Ø,k	ŋ
Petats	h	b	m	t	t	ts	s	l	l	l	n,r	Ø,k	ŋ
Halia	h	b	m	t	t	ts	s	l	l	l	n,l	Ø,k	ŋ
Hahon	β,Ø	b	m	t	ts	ts	s	n	n	--	n	Ø,k	n
Timputz	β,Ø	b	m	t	s	s	h	n,l	n	--	n	Ø,k	n
Teop	f	v	m	t	t,ts	Ø	s	n	n,r	n	n	Ø,k	ŋ,n
Papapana	β	b	m	t	t	t	t,Ø,s	n	r,n	n	n	Ø,k	ŋ,n
Uruava	β	b	m	t	t	s	Ø,s	r	r	r	n	Ø,k	n
Torau	β,b,Ø	b	m	t	t,Ø	Ø	s	n,l,r	r,Ø	r	l	Ø,k	n
Mono	f	b	m	t	t	t	Ø,s,l	n,Ø,l	n,l,Ø	l	n	Ø,k	Ø
Piva	β	b	m	t	ts	ts	s	n(r)	n	n(r)	n	Ø,k	ŋ
Banoni	p,β,Ø	b	m	t	ts	ts	s	n,r	r,n	n(r)	n	Ø,k	ŋ

*l, *R, and *r show some complex developments. More accurate phonemic
     statements are needed to resolve the problems. Halia has /r/
     versus /l/ distinction (Allen 1971). Teop does not (Carter 1952).
     Banoni, Piva, and Uruava do not (Lincoln, field notes). Data
     that I have seen for Torau and Mono-Alu suggest that /r/ and /l/
     are distinct but [l] and [n] may be members of the same phoneme.
     Hahon, Timputz, Teop, Saposa, Torau, and Mono-Alu have lost /l/
     in *tali a but only in Mono-Alu does this appear to be regular.
     Compare Mono [aiti] rain : *laŋit.

*n   cases of change to [l] or [r] are not yet clear.

*k   has double reflexes common to many Oceanic languages.[26]

*ŋ   is retained in Banoni, Piva, Halia, Solos, Petats, and Nehan.
      Sometimes Saposa and Papapana also.

*ŋ   becomes [n] in Teop, Timputz, Hahon, Uruava, Torau, and in some
      cases Saposa and Papapana.

*ŋ   is regularly lost in Mono-Alu.

*ñ   is possibly retained in Saposa, merged with *n otherwise.[27]

*ŋk   is a likely source for [g] occurring in all languages but good
      evidence is lacking.

*q   appears to be generally lost.

*nt   is without clear evidence.

*ŋm   (or *mw) probably merged with *m.

*ŋp   (or *pw) probably merged with *p.

*w and *y are not clearly attested.

Vowels have not been adequately investigated. The following corres-
pondences will probably be supported.

*a : [a], [e]; *e : [e], [i]; *i : [i], [u]; *u : [u], [i]; *o : [o],
     [u].

Vowel length is probably phonemic in all Bougainville languages, but
phonetic data are unreliable at this point.

     The only consonant correspondence set that shows much promise as the
basis of subgrouping is *ŋ. However, the pattern of development is not
very helpful. The loss of *ŋ in Mono-Alu suggests that this language
has been isolated from all others for some time. Torau and Uruava share
an innovative change of *ŋ to [n] with the North group but so far other
evidence does not support subgrouping these languages together.[28]

Papapana and Saposa both have syllable initial [ŋ] in their inventories
but it cannot always be traced to *ŋ; and *ŋ is reflected by a different
nasal in some cases: Saposa [ŋwɛr], Papapana [ŋuru] *mouth* ?: *ŋusu,
*ŋutu; Saposa [voiñ],[29] Papapana [i boni] *night* : *mpoŋi.

   In short, then, sound correspondences reveal some developments that
are fascinating in their own right but of little or no value in sub-
grouping.

4.4.9.6.   CONCLUSIONS

   My investigations are the first to try to find subgroups among all
the Austronesian languages of the Bougainville district and including
Mono-Alu.   The task was simplified somewhat because the Polynesian lan-
guages of Nukuria, Takuu, and Nukumanu had already been studied suffi-
ciently to conclude that they formed a subgroup with Samoa and other
Polynesian Outlier communities.   This subgroup is clearly distinct from
any others in the district.

   The rest of the languages were investigated, as data would permit,
from several points of view.   Lexicostatistics made it clear that Nehan
probably had little shared history with the rest of the district.   Also
previous suggestions that Halia, Petats, and Solos form a Buka subgroup
were confirmed.   Similarly the north Bougainville subgroup of Hahon,
Timputz, and Teop was confirmed.   The possibility of these two sub-
groups forming a single subgroup including Saposa as the third member
remains open, because Saposa shows similarity to all Bougainville lan-
guage groups.   A total Bougainville subgroup is also weakly supported
by the same evidence.   Piva and Banoni were shown to be closely related.
Mono-Alu, Torau, and Uruava were shown to form a subgroup also,[30] but
it is not yet clear whether this group should also include Papapana,
and Piva and Banoni as well.   If so, why not the northern languages
also?

   Lexical innovations that would support any of these larger sub-
groupings have not been found.

   The consonant correspondences do not clearly define any subgroups.
The most promising was the development of *ŋ which almost defines an
east coast group where *ŋ : /n/ but Saposa and Papapana were unclear.
Also, the loss of *ŋ in Mono contradicted and thereby weakened other
evidence for subgrouping it.

   Preliminary search for shared grammatical innovations highlighted
the shortage of descriptive grammars.   On the positive side, Mono-Alu,
Torau, and Uruava were shown to share a complicated, innovative device
to express continuing action: namely, reduplication of verb stem

followed by possessive marking. The possibility of borrowing is quite
high because this device is shared in detail while other tense markers
are quite different. Also, other evidence for grouping these languages
together is not good enough to make the agreement quite plausible.
However, Halia subject marking in non-past tense opens the possibility
that there may be a much earlier shared innovation that is highly de-
veloped in Uruava, less so in Halia and lost in other areas.

The network diagram quite accurately exhibits what is now known about
groupings of Bougainville languages. Explicit in the choice of such a
display is that information is inadequate for the most decisive tree
diagram. Implicit in the choice is that possibly tree diagrams are
inappropriate.

My remarks have been quite tentative, but this should be taken
positively. My investigation is continuing, and other researchers are
joining in the effort. It is hoped that some Bougainvilleans may be
among those who become interested in the problems I have discussed.

N O T E S

1. Field research in Bougainville was supported in part by the National Science Foundation and in part by my generous hosts in Bougainville. Many other friends and colleagues helped me in various ways in writing this paper, particularly Andy Pawley and George Grace. To all of them, "Tenkyu tru". However, I take full credit for any mistakes.

2. Irwin Howard, personal communication.

3. See Pawley (1967), Biggs (1971), Elbert (1965), Bayard (1966).

4. See 4.2.10.

5. I am following the tradition of Dempwolff, Milke, Grace, and others in using the term Oceanic. For characteristics of the group see Milke (1961) and Grace (1964). For discussion of a specific case, Nehan, see Dempwolff's notes accompanying Mayr (1930-31).

6. See Pawley and Green (1973) for details of this time estimate and other interesting observations.

7. Oliver (1949:10) has exaggerated Ray's comments rather than qualifying them.

8. I interpret "All these dialects..." to mean Buka + Saposa, as does Oliver (1949:10).

9. Leo Hannet, personal communication.

10. For Dyen the highest was 24.5% (1965:35).

11.   I have observed such interactions between Banoni speakers and
Siwai (non-Austronesian) speakers. Evelyn Todd (personal communication)
observed this kind of interaction on Savo Island, British Solomon
Islands. I am indebted to her for sensitising me to the possible im-
portance of dual-lingualism discussed further in Lincoln (1976).

12.   Using a 196-word approximation to the Swadesh 200.

13.   They comment that Saposa was exactly intermediate between their
Timputz and Petats Families. They arbitrarily put it with Petats.

14.   Papapana, which is not specifically discussed by Capell, gives us
grounds for abandoning the AN1 (SVO) and AN2 (SOV) distinction, at least
in this case. The eleven transitive sentences in Papapana collected by
Allen and Hurd in their survey divide as evenly as possible between
SVO and SOV.

15.   The Uruava list is from my own field notes. The Nguna list is
from data collected by A.J. Schütz. The Mono list is from the TRIPP
(Tri-Institutional Pacific Project) list filled in by Elija Hoala.
The other lists are taken from the 190 Summer Institute of Linguistics
survey lists collected by Jerry Allen and Conrad Hurd. The Summer
Institute of Linguistics New Guinea Branch generously allowed me to
copy those lists. Examples quoted in this paper come from these sources
unless otherwise noted.

16.   Pawley (1972) discussed Nguna as a member of his Eastern Oceanic
Subgroup. That subgroup is probably valid, and is not likely to include
any Bougainville language.

17.   Recall that Allen and Hurd included cultural items.

18.   See Note 6.

19.   See Map 2 accompanying this chapter.

20.   cf. Pawley and Dutton (1977). I am indebted to the author for
pointing out these cognates to me.

21.   cf. Roviana /aɣoi/ *thou*.

22.   Possessives are of slightly different form (see Capell 1971:276).

23.   Mono-Alu has two such words: [eŋ] *thy* (food, pain, smokes, etc.) and [saŋ] *thy* (with other objects).

24.   I have in mind the following facts about Banoni.
(1) The possessor in a verbal construction is marked by object suffix. /ke podeɣo buɣawa/ *Hast thou betel nut?*, where /buɣawa/ *betel nut*, /ke/ 'third singular perfect/stative', /-iɣo/ 'second singular object', /podo/ *have/belong*.
(2) The possessor in one type of nominal construction is marked by normal Oceanic possessive system. /ɣem buɣawa/ *they betel nut* directly relatable to Proto-Oceanic *ke-mu mpua *edible-thy fruit*.
(3) The possessor in nominal construction may be marked by subject-like pronoun. /buɣawa minno/ *betel nut, thy*. The final syllable may be the same as /no/ *thou* in /ko mana wai no/ *you gave it to me*, where /ko/ 'second singular perfect/stative', /mana/ *give*, /wai/ *to me*, /no/ *thou*.
    These facts have yet to yield to any coherent explanation. In the /minno/ construction, it appears that subject marker has become a possessive marker, the exact reverse of the Buka development.

25.   Proto-Oceanic forms from Grace (1969), ':' means 'corresponds to'.

26.   cf. Lincoln (1973), and Pawley and Dutton (1976).

27.   See Blust 1972:3 for evidence for Proto-Oceanic *ñ.

28.   Caution: [ŋ] in Rausch (1912) is probably a misprint for [g]. See Lincoln 4.2.10.4.14.

29.   The [ñ] in Saposa is not easy to explain. It is possibly an allophone of /ŋ/. The development of *ñ is not clear either. All of these problems converge into the single Saposa form [teⁱnania] *ear-his* clearly from *taliŋa-ña, but with irregular developments, either *l : ∅ and *ŋ : n or *ŋ : ∅ and *l : n, of near equal probability.

30. This study is the first clear demonstration of such a subgroup. Thurnwald and Frizzi hinted at something like this but in a misleading way (see 4.2.10.3.). Schnee was clearer, but included perhaps too much.

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