

THE DEVELOPMENT OF THE VERB PHRASE IN THE OCEANIC LANGUAGES OF THE BOUGAINVILLE REGION

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1. INTRODUCTION

1.1. The languages

The Bougainville region, for the purposes of this paper¹, stretches from Nehan (Nissan or Green Islands) in the north-west to the Shortland and Treasury Islands in the south-east, and includes Buka, its offshore islands and Bougainville. The region is shown in Map 1: the Shortland and Treasury Islands are parts of the Solomon Islands and the remainder of the region belongs to Papua New Guinea.

Much of the island of Bougainville is occupied by speakers of languages belonging to Wurm's (1975) East Papuan phylum. However, parts of coastal Bougainville and all of the region's smaller islands are peopled by Austronesian-speakers, whose languages belong to the Oceanic subgroup of Austronesian languages. It is these languages, shown in Map 2, that this paper is concerned with.

As Figure 1 indicates, the Austronesian languages of Bougainville all belong to one group, the Bougainville family, which probably combines with the New Ireland family to form a higher-order subgroup of Oceanic.² Phonological features which link the two families are:³

- a) merger of POC *d and *R;
- b) merger of POC *s, *ns and Blust's (1978) POC *j, but retention of POC *ɲj as a separate phoneme;
- c) merger of POC *n and *ñ;
- d) retention of POC final consonants in some (unsuffixed) items, with daughter languages agreeing on items in which a POC final consonant is retained or lost.

There are also a number of morphological features shared by both families. However, further research is required to ascertain whether the two families constitute a closed subgroup, the more so as Johnston's (1982) Proto-Kimbe appears to share all the features attributed to Proto-New Ireland-Bougainville.

Feature (a), merger of POC *d and *R, is common to all the Oceanic languages of the Papua New Guinea mainland (Milke 1965; Pawley 1978), but serves to draw a sharp line between Santa Ysabel (except Bugotu) and the languages of Pawley's (1972:99) South-East Solomonic subgroup of Eastern Oceanic, which merge POC *R with *l, but keep *d separate. At the opposite geographic extreme, it divides off the languages of the Admiralty Islands, which have partially lost POC *R, sometimes retaining it as /y/, but have kept separate reflexes of *d (Blust 1978).

Amran Halim, Lois Carrington and S.A. Wurm, eds *Papers from the Third International Conference on Austronesian Linguistics*, vol.1: *Currents in Oceanic*, 1-57. *Pacific Linguistics*, C-74, 1982.

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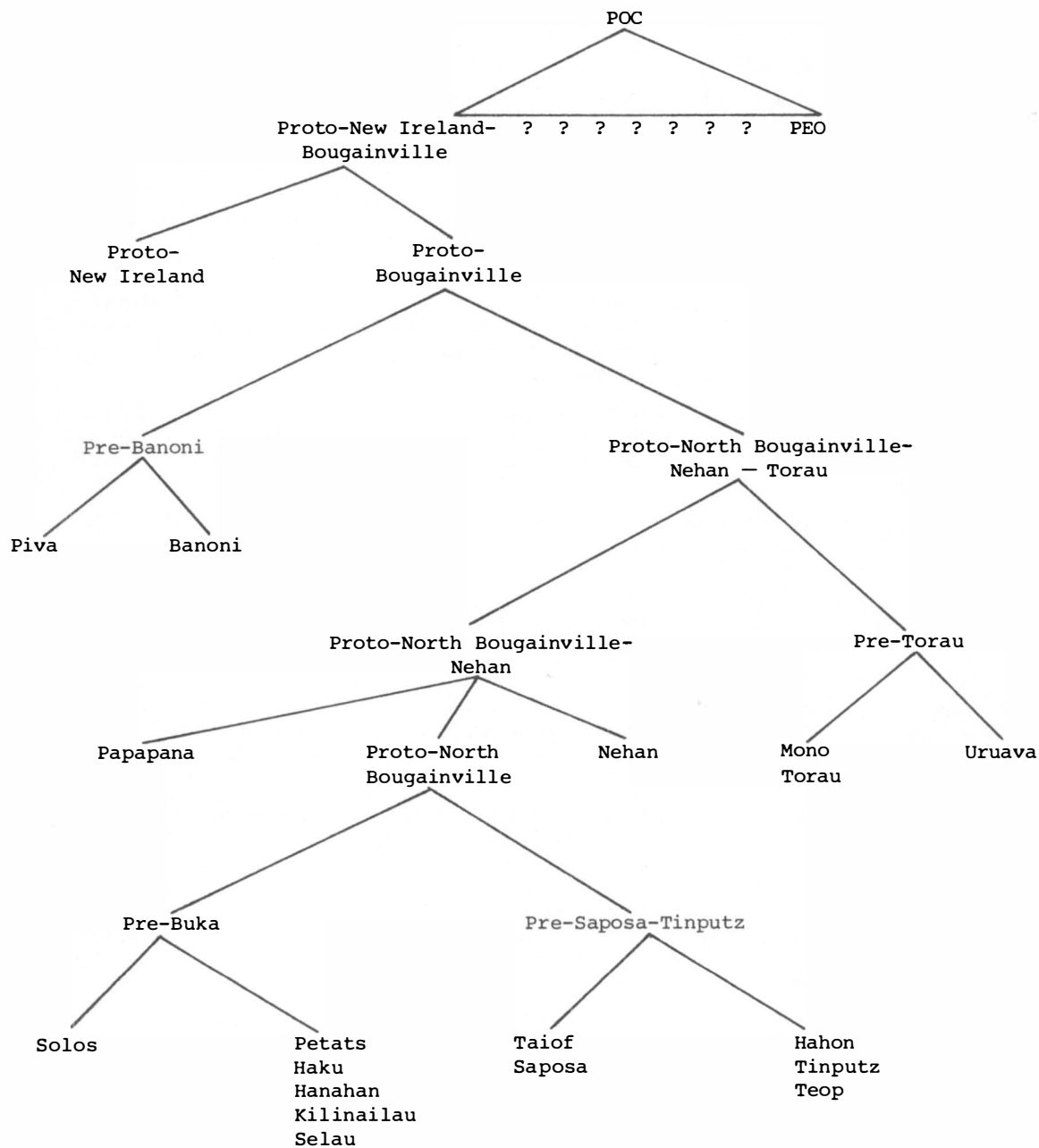
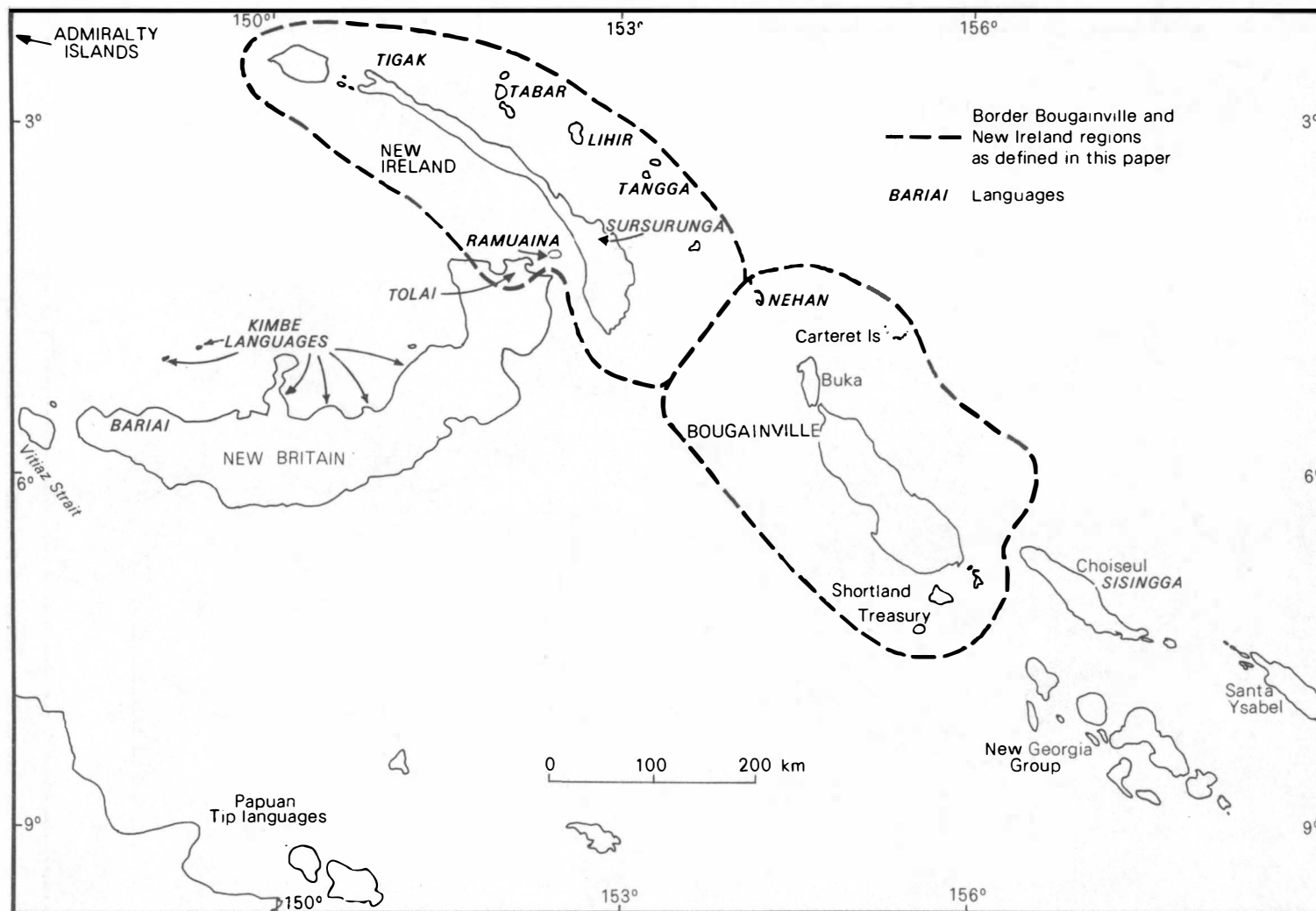
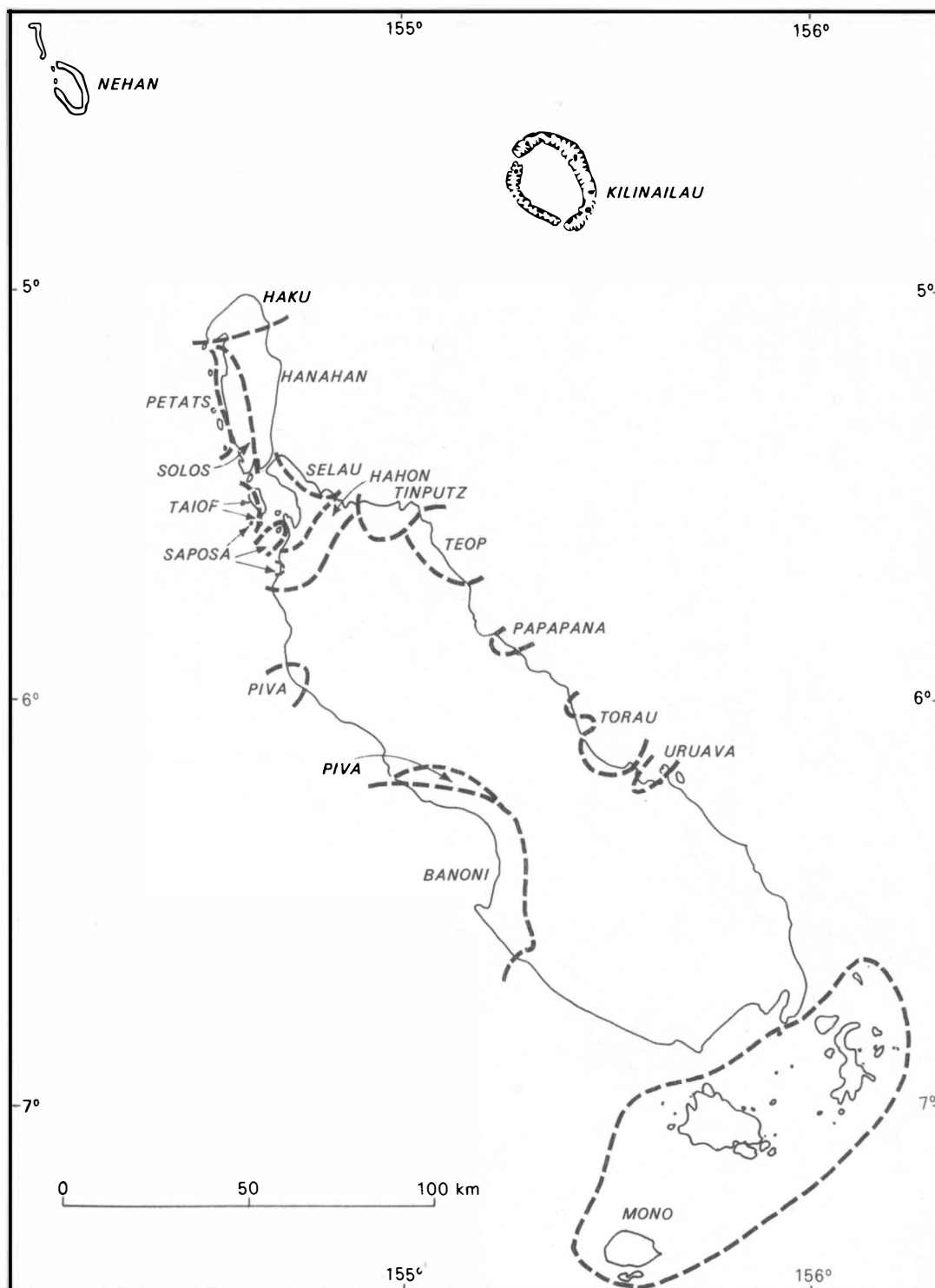


Figure 1: Family tree: Bougainville and New Ireland



Map 1: Sketch-map of locations



Map 2: Sketch-map showing locations of Oceanic languages of the Bougainville region

Feature (b) separates New Ireland and Bougainville from the South-East Solomonian languages, the Admiralties, the north coast of New Guinea (Ross 1977) and the Papuan region (Ross 1979), all of which display other configurations of reflexes.

Features (c) and (d) separate New Ireland and Bougainville from the north coast of New Guinea and the Admiralties, where POC *n and *ñ are separately reflected, and final consonants are not retained.

The only phonological feature distinguishing Proto-Bougainville (PBV) from Proto-New Ireland (PNI) is the retention of POC *w in PNI, contrasting with its loss in PBV. There are however a number of morphological contrasts.³ The New Ireland languages do not share in the developments reconstructed in this paper for the Bougainville verb phrase; and whilst Pawley's (1973) POC *ka-marking is reconstructible in the PNI possessive noun phrase, in PBV it was replaced by *ge-marking.

To the south, several morphological features separate the languages of Choiseul from those of Bougainville. Again, Choiseul languages do not share the innovations in the Bougainville verb phrase; neither POC *ka- nor PBV *ge-marking occur in the Choiseul possessive noun phrase; and Choiseul independent pronouns appear in some cases to entail bases different from those reconstructible for New Ireland and Bougainville (Sisingga and Babatana re '2sg' is not relatable to PNI *[i]u, *nu or PBV *goi⁴, and Sisingga Öra, Babatana zira '3pl' do not reflect the same proto-form as PNI *di[a], PBV *[a]Di[a]⁵).

Tryon's (1982) analysis also indicates a boundary between Mono, the southernmost daughter language of PBV, and the Choiseul languages.

Analysis of the phonological and morphosyntactic development of the Oceanic languages of the Bougainville area, only part of which is reported in this paper, confirms Lincoln's (1976a) groupings and indicates the family tree presented in Figure 1.

The communalects of the Bougainville family for which data were examined are listed in their groupings below, using as far as possible Lynch's (1976)* nomenclature and terminology. Where the work of others has been relied on, this is shown. 'S' indicates that a set of syntactic data was collected⁶, and 'T' that free text was available.⁷ The list also serves as a key to abbreviations:

A. West subfamily	BAN	Banoni	(S,T, Lincoln 1976b)
	PIV	Piva	(T, Lincoln 1976b,c)
B. North-Nehan-Torau cluster			
East subfamily	TOR	Torau	(S, Rausch 1912)
	MON	Mono	(T, Wheeler 1913a,b; Fagan 1979)
	URU	Uruava	(Rausch 1912)
North-Nehan group			
Nehan isolate	NEH	Nehan	(S,T, Todd 1978)
N. Bougainville subfamily			
Buka subgroup	SOL	Solos	(S)
	PET	Petats	(S)
incl. Halia dialects	HAK	Haku	(S)
	HAN	Hanahan	(T, Allen 1971 & 1978)
		Kilinailau	(Carteret Islands)
	SEL	Selau	(S)

* Note that Wurm and Hattori, eds 1981, where the dialects are subsumed into the Halia language, was not available at the time of writing.

Saposa-Tinputz subgroup	TEO	Teop	(S, Carter 1952)
	TIN	Tinputz	(S,T, Hostetler 1975)
	HAH	Hahon	
incl. Saposa dialects	SAP	Saposa	(T)
	TAI	Taiof	(S)
Papapana isolate	PAP	Papapana	

Data were also examined from two languages of the Choiseul family, namely Sisingga (SIS) and Babatana (BAB, Ray 1926) and most of the New Ireland family. Other language abbreviations are:

PBV	Proto-Bougainville
PNNT	Proto-North-Bougainville-Nehan-Torau
PNN	Proto-North-Bougainville-Nehan
PNB	Proto-North-Bougainville
PBK	Pre-Buka
PST	Pre-Saposa-Tinputz
POC	Proto-Oceanic
PEO	Proto-Eastern Oceanic

1.2. The problem

Although references to the structure of the POC verb phrase have appeared in the literature (e.g. Foley 1976; Pawley and Reid 1976) it has yet to be reconstructed in detail. However, the Oceanic languages of New Ireland, the Kimbe family, Papua and Choiseul, as well as Pawley's (1972) reconstruction of the PEO verb phrase, all agree in showing a pre-verbal complex of subject marker (a short-form pronoun marking the person and number of the subject) and tense-aspect marker, as illustrated in (1) and (2) from New Ireland and Choiseul respectively:⁸

Tabar (1) eau u ta ka
 I I fut go
 'I shall go'

SIS (2) aro m-e zo
 I fut-I go
 'I shall go'

All the languages of the Bougainville family have verb-phrase structures similar to (1) or (2), although in some languages the subject marker or the tense-aspect marker is not present.

However, all the Bougainville languages for which data is available also have a second verb-phrase structure. Capell (1971:276) was the first scholar to note in print of the Buka languages that "Verbs exhibit a method of conjugation which is unique in MN [=Melanesian] as a whole, not only in NGAN [=New Guinea Austronesian]." He commented on the particles following the verb which 'mark person and tense'. Lincoln (1976a:427-428) remarks more specifically that in examples like

HAN (3) alia e la-gu
 I vi go-I
 'I (will) go' (Allen 1971:65)

PET (4) elia e ngala-no-g
 I vi cry-aux-I
 'I am crying'

"non-past marking includes what look like possessive suffixes that agree in person and number with the subject" and goes on to comment that "Torau, Uruava and Mono

share an interesting device to express continuing present tense, which is more clearly related to the possessives than the Buka system" - as in, for example:

MON (5) gagana sa-ria
go aux-they
'(as) they are/were going' (Wheeler 1913a)

MON (6) au e-na
stay aux-he
'(as) he was staying'

Lincoln's comment that verb phrases like (3) to (6) resemble possessives refers to the formal similarity of the sequences of auxiliary + subject marker in these verb phrases to sequences of possession morpheme + suffixed possessive pronoun in alienable possessive noun phrases descended from those reconstructed by Pawley (1973) for POC. Thus the possession morphemes in (7), (8) and (9) resemble the auxiliaries of (4), (5) and (6) respectively:

BAB (7) na-gu visu
poss-I bed
'my bed'

MON (8) sa-ria pakusi
poss-they axe
'their axe'

MON (9) e-na niunu
poss-he coconut
'his coconut'

It will be argued below that the absence of an auxiliary in (3) arose from the deletion of the morpheme *e- reflected in (6).

Verb-phrase structures in Bougainville family languages which resemble those of other Oceanic languages (cf. (1) and (2)) will here be called 'Structure A', whilst the possessive-like structures will be called 'Structure B'. Structures A and B in representative languages of the Bougainville family are described in section 2.2. below.

The problem addressed in this paper is that of tracing how Structure B came to exist alongside Structure A. It will be shown that Structure B has arisen from the nominalisation of verb phrases in which the subject pronoun of the verb phrase was transformed into the possessor pronoun suffix in the nominalisation. Indeed, Allen (1978) has shown that the verb phrase in Halia is considerably more complex than Capell or Lincoln were able to describe, and data from other languages of the North Bougainville family show that they share much of this complexity, which includes suffixes marking the presence of an object, the semantic case of another non-subject noun phrase, and information regarding aspect, direction and location. Hence the nominalisations with which this paper is concerned are nominalisations of full verb phrases or clauses, not deverbal nouns derived from verb stems such as are found in various Oceanic languages, e.g.:

SIS (10) o-na le
poss-he die
'his death'

Motu (11) ia e-na mase
he poss-he die
'his death'

It is likely that the deverbal nouns of (10) and (11) are not of POC antiquity. On plentiful evidence exemplified in (12) and (13), Proto-New Ireland formed deverbal nouns with the infix *ni-/-in-, and the Nehan evidence also points to its

use in Proto-Bougainville:

Noatsi (12) m-in-et 'death' < met 'die'

Ramuaina (13) m-in-at 'death' < mat 'die'

NEH (14) ni-kalekinale 'work (N)' < kalekinale 'work (V)'

Oceanic languages from Bali and Mergen in the New Britain area to Polynesian (Clark 1981) form deverbal nouns with the suffix -ŋa:

Mergen (15) mate-ŋa 'death' < mate 'die'

Bali (16) galama-ŋa 'work (N)' < galama 'work (V)'

Maori (17) hoki-ŋa 'return (N)' < hoki 'return (V)'

Since both affixes probably produced nouns in Proto-Austronesian (Starosta et al. 1982), they must be reconstructed for POC. This makes it less likely that the unaffixed forms as in (10) and (11) occurred as nouns in POC.

It is possible, however, that nominalised verb phrases, as opposed to deverbal nouns, did occur without a nominalising affix in POC, as similar (possessive-like) structures are found in Sursurunga of New Ireland and in Polynesian:

Sursurunga (18) ka-k tu han ur i rum
 poss-I aux go to at house
 'I am going (am on the way) to the house'

Maori (19) ka mutu taa-na tohutohu
 tense end poss-he instruct
 'when he finished his instructions' (Clark 1981)

Although it is equally possible that such structures arose independently in Sursurunga, Proto-Bougainville, and Proto-Polynesian, the evidence is insufficient for a claim that Structure B is a morphological innovation supporting the establishment of the Bougainville family as a closed subgroup.

Because the verb phrases of the modern Bougainville languages are very varied and in some cases rather complex, the strategy adopted in this paper is, in Section 2, to describe the verb phrases of the representative languages one by one, then, in Section 3, to present their historical development in chronological order. This is a long-winded strategy, and it does not directly reflect the inductive process of reconstruction on which the work depends, but it is hopefully a less confusing mode of presentation than immediate comparison between the representative languages.

In his dissertation on Halia verb morphology (Hanahan dialect), Allen (1978) expresses the hope that his description will aid research into the historical origins of Melanesian languages. This paper is intended to make a start in fulfilling this hope, and it is appropriate to end this introduction by acknowledging my considerable debt to Allen for his valuable analysis, which has aided me in the analysis of other North Bougainville languages and without which the work reported in this paper could hardly have started.

2. SYNCHRONIC DESCRIPTION

The verb-phrase structures of representative languages of the Bougainville region are described in 2.2. below. The descriptions are arranged in a progression moving from those languages whose verb-phrase systems make the least use of Structure B to those in which it plays the most significant part, as follows:

GROUP	LANGUAGES
West subfamily	Banoni
Nehan isolate	Nehan
East subfamily	Mono
North Bougainville subfamily	
Buka subgroup	Petats, Haku, Selau, Solos
Saposa-Tinputz subgroup	Teop, Taiof, Tinputz

In each description the structure of the verb phrase in the main, declarative, affirmative, active clause, i.e. the 'least marked' clause-type (see Givón 1979), will be presented, together with variations from this structure which are relevant to the discussion in Section 3.

Section 2.1. first provides an outline account of the clausal context of the verb phrase, as a prerequisite for section 2.2.

2.1. The clausal context

All the Bougainville Oceanic languages except Tinputz have in the main, declarative, affirmative, active clause a TVX structure, i.e. Topic - Verb - Rest of sentence. In other words, the preverbal noun phrase is usually one⁹ whose referent the speaker assumes the hearer can identify; other noun phrases follow the verb phrase and may fall anywhere on the cline from 'referent identifiable by the hearer' through 'referent identifiable by the speaker but not the hearer' to 'non-referential'.

If a choice of topic is available, all the languages under consideration tend to select the subject noun phrase as topic as, for example, in (20a). However, (20b) exemplifies the non-subject topic, in this case the object a um ono 'this house' (co-referential with the marker -n), whose referent has just been introduced into the discourse in (20a).

- NEH (20) a. inggam nami uma-ng wesulung siok E TOK i kot¹⁰
we our house-1 cook one sm stand on ground
'Our house for cooking stands on the ground'
- b. a um ono RA KIL0-N a haus kuk
art house this sm:3pl call-om:3sg art "haus kuk"
'They call this house a "haus kuk"' (Todd 1978:1219)

Where the topic is not simply considered identifiable but also 'given' (i.e. "the speaker assumes [it] to be in the consciousness of the addressee at the time of the utterance"; Chafe 1976:30), it is commonly deleted, as (21b,c) and (22c) illustrate for topic subjects, (23b) for a topic object. A clue to the identity of the deleted topic is given by the subject- or object-marker in the verb phrase.

- BAN (21) a. nari KA TAI naanaa
they sm go so
'So they went'
- b. KA NE SISI naanaa
sm come bathe so
'So they bathed'
- c. KA SI-SISI
sm redup-bathe
'They bathed and bathed' (Lincoln 1976c:93)

- MON (22) a. I-NUNU ga Dimoai
sm-dive emph Dimoai
'(Then) Dimoai dived'
- b. keno-a I-NUNU
sea-in sm-dive
'He dived into the sea'
- c. nau I-NGKOT-I ga pakusi
then sm-grasp-om emph axe
'Then he grasped the axe' (Wheeler 1913a)
- BAN (23) a. KA TAI nana-i-ba gheri ghinima
sm go this-art-emph their five
'The five of them went'
- b. K-E TOVI-RIA tsina-ri mo sisi
asp-sm.3sg send-om.3pl mother-their to bathe
'Their mother sent them to bathe' (Lincoln 1976c:91)

A deleted topic subject may simply make way for the next available noun phrase on the cline of identifiability to become topic, as in (20a) and (22b), where only the subject markers *ra* 'they' and *i* 'he' respectively indicate the deleted topic subject.

The fact that the selection of the topic entails the speaker's estimate of the position of a noun phrase on a cline means, among other things, that the TVX pattern can develop different corollaries in different languages. Thus in Banoni and Mono, a corollary of the TVX pattern is that noun phrases considered to be 'new' (in Chafe's sense) cannot be promoted to topic position: this is the case in (23a), where *gheri ghinima* 'the five of them' is the 'new' subject of an intransitive verb and there is no other noun phrase in the clause. It is the non-promotion rule also that prevents the new subject *tsinari* 'their mother' in (23b) from occupying the position vacated by the deleted 'given' topic subject.

The non-promotion rule is even stronger in Mono, where it not only bans promotion of 'new' noun phrases but also of noun phrases whose re-introduction into the discourse may cause an identification difficulty. Hence *Dimoai* (22a), who is the protagonist, is not promoted to topic as he has not been mentioned for several clauses.

At the opposite extreme the North Bougainville languages have no non-promotion rule. If the only noun phrase in the clause is the 'given' topic subject, then it is deleted and the topic position is empty; but if a non-deletable noun phrase occurs at all, it is promoted to topic even if it is 'new', as with *e Hugen...* in (24a) and *tei kolo* in (24b):

- HAN (24) a. e Hugen me-re cina-nen ne tubu-nen
art Hugen with.art mother-his and grandparent-his
I KETE tara bongbong me NA OSUL RAMUNU-R
sm go.up in.art morning and go fill water-sm
'Hugen went with his mother and grandmother one morning to fetch water'
- b. ba tei kolo I HAKOUL-E-MA-TA a mul
and sky people sm let.down-om-dir-past art vine
'And the sky people let down a vine'
- c. ba mul E NA KUTEKUTE-TA i ramun
and vine sm go hang-past at water
'And the vine hung at the water-hole' (Allen 1978)

Bougainville languages are not only TVX but allow only one preverbal topic. Since their relativisation strategy allows only topic relativisation, a subject

noun phrase which in an independent clause might well be topic is 'demoted' in a relative clause to the immediate post-verbal position to make way for a non-subject to be relativised. In (10) and (11) the subject, marked [], is topic in (a) but demoted in (b) to make way for 'woman', which is promoted to topic and relativised. (This process may occasion a change in the form of an independent pronoun subject, but a co-referential subject marker remains without change.)

- TEO (25) a. [ena] pa tara-u a mon
 I asp see-npr art woman
 'I saw a woman'
- b. a mon, to PA TARA VURU [na], PA DE BATA NA-NA
 art woman, rel asp see already I asp carry adv aux-sm
 bon-o hoi
 4-art basket
 'The woman that I saw was carrying a basket'

Examples (26) to (29) are products of the same demotion process:

- BAN (26) nana numa, kang K-O DZUTE-A [na], k-e tsigom
 that house, rel asp-sm:lsg build-om:3sg I asp-sm stand
 'That house I built is still standing'
- SEL (27) a yana pakum tagla eni, T-E NU-YA-GU [la]
 art fish big my this rel-vi eat-om-sm:lsg I
 'This is my big fish that I shall eat'
- PET (28) a pinapo, T-E KAKA-GU [an], i Pororan
 art village rel-vi live-sm:lsg I at Pororan
 'The village where I live is Pororan'
- NEH (29) a tamata, GE-R-U KALEKINALE [io], t-e Kalok
 art man rel-l-sm:lsg work I cop Kalok
 'The man for whom I work is Kalok'

Two North Bougainville languages, namely Taiof and Tinputz do not have this process. The reasons for this will be discussed later.

It is perhaps worth noting that the languages of New Ireland for which I have examined free text¹¹ are clearly SVX in contrast with the TVX of Bougainville (and Choiseul). The subject is preverbal, and although subject deletion may occur, there is no non-subject promotion. An examination of all nineteen languages of the New Ireland family has shown no promotion or subject demotion in relative clauses. Thus:

- Nalik (30) a. [nia] GA RAIN a ravin nabari
 I sm:lsg see art woman now
 'I saw a woman just now'
- b. a ravin, [nia] GA RAIN, KA VASAK a ruai
 art woman, I sm:lsg see, sm:3sg carry art basket
 'The woman I saw was carrying a basket'

2.2. Verb phrase structures

2.2.1. Banoni¹²

The 'least marked' verb phrase in Banoni is always a variant of Structure A:

- BAN (31) asp (-sm) (dirV) + V (adv) (-om) (-dir)

Banoni has combined aspect-subject markers, but only for the completive aspect:

BAN (32)	SINGULAR	PLURAL
	1e ko	ka(ma)
	1i --	ka(ra)
	2 ko	ka(mi)
	3 ke	ka(a)

For example:

- BAN (33) no K0 RABAKA-MA
 asp.sm V-dir
you.sg cmp.you.sg arrive-come
'You have arrived here'
- BAN (34) ghata K-E REGHE-TA nna
 asp-sm V-om
us.i cmp-he see-us.i he
'He saw us'

It seems likely that the other Banoni aspects, marked with ma 'indefinite future' and ta 'future', may also have been marked for person and number, but have lost this marking just as the completive plurals are losing it now. The future aspects are disambiguated for person and number by a preceding subject noun phrase or subject pronoun:

- BAN (35) na MA GEROO
 asp V
I should return
'I must go back'
- (36) nna TA BUTSU
 asp V
he fut fall
'He will fall'

The Banoni directional verb may co-occur with the future aspect:

- BAN (37) ghata TA NO TSEREGHE
 asp dirV V
we.i fut go sleep
'We will sleep (when we arrive)'

The Banoni verb phrase marks the person and number of an object by suffixed object markers; as (34) above illustrates, this allows the object to be promoted to topic and the subject to be demoted to postverbal position with no loss of case marking.

The only occurrence of Structure B found in Banoni is the permissive structure:

- BAN (38) tai ghe-m
 V poss-pron
go Ø-you.sg
'You may go'

On the limited data available, the Piva verb phrase appears to be a simplified version of the Banoni verb phrase.

2.2.2. Nehan

Apart from one relic form, the Nehan verb phrase is always of the Structure A

type:

NEH (39) (asp-) sm (+ {^{int}_{mod}}) + v (+ adv) (-dir)

Whereas in Banoni a subject marker is always prefixed by an aspect marker, the present tense in Nehan is marked by the non-occurrence of an aspect marker. Compare:

NEH (40) (inggo) U EN hon
sm v

(I) I eat taro
'I am eating taro'

(41) (inggo) K-U EN hono neraw
asp-sm v

(I) past-I eat taro yesterday
'I ate taro yesterday'

The modifier slot in (39) is occupied *inter alia* by *turung* 'future' (see (47) and (48) below) and *nihing* 'just' (see (43) and (44) below).

The TVX structure of Nehan was illustrated in (20) above, and it is with this structure that one of the language's most interesting and uniquely innovative syntactic features is connected: all noun phrases, including pronouns, are marked as either topic-or-subject or non-topic-or-subject. These rather clumsy terms are occasioned by the strange distribution of the marker *ta-* (or variant *to-*) which precedes a non-topic-or-subject noun phrase or pronoun (the morphophonemics of this marker are rather complex, and well described by Todd (1978)).¹³ A topic noun phrase does not have a *ta*-marker:

NEH (42) a kuah E IOROTEL ta-r tolak
art woman she carry ta-l basket
'The woman was carrying a basket'

This applies whether the topic (*a kuah*) is subject, as in (42), or object, as in (43):

NEH (43) a kuaha K-U NIHING BANGA ku io
art woman past-I just see only I
'I saw a woman just now'

If a subject is demoted to postverbal position, it retains its topic-or-subject form and is introduced by a ligative:

NEH (44) . . . ta-r uma r-E WANGOLI-N-ir kuah
ta-l house l-she live.in-it-l woman
'... in the house the woman lives in' (Todd 1978:1223)

However, if the object noun phrase is not the topic, it is introduced by *ta-* (or *to-*), as in (45), which is a less marked version of the clause in (43):

NEH (45) K-U NIHING BANGA puk ta-r kuah
past-I just see only ta-l woman
'I saw a woman just now'

Hence the term 'non-topic-or-subject' to describe the function of the *ta*-marker.

The historical origin of this marker is the PBV (and POC) preposition **ta*. However, Nehan has reinterpreted the two prepositions **i* and **ta* as articles. *i* is the article co-occurring with locative nouns (e.g. *i lalon* '(in) the bush'), *ta-* the 'article' co-occurring with non-topic-or-subject noun phrases. As a result, Nehan is almost without prepositions, and all noun phrases (except locative nouns) which are not topic or subject are introduced by the *ta*-marker, regardless of whether they function as object, as in (45), or as location (*ta-r tung*):

- NEH (46) Kalok K-E PUNGA ta-r tung
Kalok past-he fall ta-l ditch
'Kalok fell into the ditch'

or as time (ta-r bong):

- NEH (47) ia R-U TURUNG WANGOL io ta-r bong
where I-I future sleep I ta-l night
'Where will I sleep tonight?' (Todd 1978:1180)

or as accompaniment (ta-r tamat):

- NEH (48) inggo U TURUNG LA tago ta-r tamat i lalon
I I future go together ta-l man art bush
'I will go with the man through the bush'

or as instrument (to-r-o dok):

- NEH (49) Kaloko K-E HALOH toto-guo to-ro dok
Kalok past-he hit ta-me ta-art stick
'Kalok hit me with a stick'

or as beneficiary (ta-ng Maria):

- NEH (50) Kalok K-E KEP ta-r makih ta-ng Maria
Kalok past-he bring ta-l betelnut ta-l Maria
'Kalok brought the betelnut for Maria'

or as thematic topic (ta-r wekih):

- NEH (51) ta-r wekih o tamat AHIK PAH RA WEKIH ta-r mamang binaka lik
ta-l fish(ing) art man not irr they fish ta-l every time small
'As for fishing, the people don't fish all the time' (Todd 1978:1220)

The one relic of Structure B in Nehan is limited to one verb, *kae-* 'be situated, exist', which does not take normal subject markers or aspect markers, but instead has suffixed subject markers which are reminiscent of possessive suffixes:

- NEH (52) Kalok KAE-N ta-r tung
Kalok be-he ta-l ditch
'Kalok is in the ditch'
- (53) gisin KAE-S ta-r tung
these be-they ta-l ditch
'They are in the ditch'

This structure is discussed in Section 3.1.2.

2.2.3. Mono

Mono, Torau, and Uruava appear to have quite similar verb-phrase structures. The 'least marked' Mono structure is usually a variant of Structure A, although this is sometimes supplanted by Structure B.

Structure A is:

- MON (54) sm - asp - V (+ adv) (-om) (-dir)

A superficially puzzling difference between (54) and the verb-phrase structures of the other Bougainville languages lies in the sequence subject marker - aspect, which is the norm only in Mono:

- MON (55) ha-na-nuhu-i
 sm-asp-V-om
I-fut-dive-it
*'I shall dive for it'*¹⁴

The closely related Torau language has the sequence aspect — subject marker in most, but not all, cases:

- TOR (56) inau MA-GU TANISI
 asp-sm V
 I fut-I cry
 'I shall cry'
- (57) pa-e alo-dia
 asp-sm V-om
 fut-he make-them
 'He will make them'

but:

- TOR (58) nimanidi MANI-PA TANISI
 sm-asp V
 we.e we.e-fut cry
 'We shall cry'

This matter is discussed further in section 3.1.1.

Adverbs are sometimes incorporated into the verb phrase in Mono:

- MON (59) I-ISA MALE-N ga pota
 sm-V adv-om
 he-throw away-it ? pandanus
 'He threw away the pandanus'

As was illustrated in section 1.2., Mono also has a Structure B verb phrase in which the possession morphemes sa- 'dominant' and e- 'subordinate' occur:

- MON (60) (sm-asp-) V (-om) + poss-sm

The occurrence of the two possession morphemes is illustrated by:

- MON (61) AU E-NA hahine-na pata-ang
 V poss-sm
 stay Ø-she sister-his shore-on
 'His sister stayed on shore'
- (62) HO-HOSE SA-RIA, I-KAPA ga pakusi
 redup-V poss-sm sm-V
 paddle Ø-they it fell ? axe
 'As they were paddling, the axe fell'

Of the two, sa- occurs far more frequently, but no criterion has been found to predict the occurrence of e-. Thus both morphemes co-occur with the verb au in seemingly analogous environments. Compare (61) with (63):

- MON (63) o-na-au sa-m, ha-na-nuhu-i
 sm-asp-V poss-sm sm-asp-V-om
 you.sg-fut-stay I-fut-dive-it
 'While you stay here, I shall dive for it'

A third morpheme, na-, historically dominant possessive (Pawley 1973), but no longer used in Mono noun phrases, replaces sa-/e- where the predicate is nominal rather than verbal:

- MON (64) soa TOTONA NA-NA
 subj N poss-em
 thing truth Ø-it
 'It is true'
- (65) hahine-m na-na
 N-pron poss-sm
 sibling-your.sg Ø-it
 'It's your brother'

The non-future aspect has no preverbal marking in Structure B, as (61) and (62) illustrate, but the future aspect has a prefixed subject marker — aspect sequence, as in the first verb phrase of (63), so that there are two subject markers, one prefixed, one suffixed.

Structure B verb phrases serve several functions in Mono, discussion of which is postponed to section 3.2.

2.2.4. Petats

Each of the languages of the North Bougainville subfamily (exemplified here by Petats, Haku, Selau, Solos, Teop, Tinputz and Taiof) has two 'least marked' verb-phrase structures, Structure A and Structure B.

Structure A is used for past or distant-time events and is formally closer to the principal verb-phrase structures of Banoni, Nehan and Mono, in that it has preverbal subject markers. Variants of Structure B, characterised by postverbal subject markers, express non-past times.

The Petats verb phrases are presented here as a model of North Bougainville verb phrases, and only the differences from them in other languages of the subfamily are dealt with in the following sections.

Petats Structure A is:

PET (66) sm + V (+ adv) (-{^{CM}_{OM}}) (-dir) (-loc)

At its simplest the Petats Structure A resembles the Nehan verb phrase in its present-tense form:

PET (67) ieu E NIN hapal na korits i nala
 sm V
 he he eat some art taro at yesterday
 'He ate some taro yesterday'

NEH (68) E EN hono
 sm V
 he eat taro
 'He eats taro'

This similarity extends to the directional suffixes that occur throughout Bougainville:

PET (69) elia GU LA-M-A i Pororan
 sm V-dir-loc
 I I go-come-here at Pororan
 'I have come from Pororan'

BAN (70) no K0 RABAKA-MA
 asp.sm V-dir
 you.sg cmp.you.sg arrive-come
 'You have arrived here'

NEH (71) KALE-ME me-k makih io
 V-dir
 bring-come for-me betelnut me
 'Bring me some betelnut'

However, the similarity extends no further. On the preverbal side of the verb phrase, Petats has no aspect-marking suffixes corresponding to those of Banoni, Nehan and Mono, but instead switches to Structure B to express non-past events. Postverbally, Petats has a battery of suffixes marking the relationships of the

verb phrase to other clause constituents, where Banoni, Mono, and Nehan use quite different devices. These suffixes also occur in Structure B and are described below.

Petats Structure B is:

PET (72) vi (+ int) + V (+adv) (- $\begin{smallmatrix} \text{cm} \\ \text{om} \end{smallmatrix}$) (-aux)-sm (- $\begin{smallmatrix} \text{dir} \\ \text{fut} \end{smallmatrix}$) (loc)

The main difference between Structures A and B is visible in (73), where Structure A is followed by Structure B:

PET (73) imanas elia GU KA-U i Petats kivi roman elia E KA-U-GU i Pororan
 sm V-cm vi V-cm-sm
formerly I I be-at at Petats but now I Ø be-at-I at Pororan
'Formerly I lived at Petats but now I live at Pororan'

It will be easier to follow the structures of North Bougainville verb phrases if they are reduced to a 'skeleton' of subject- and aspect-marking affixes and verb stem. The skeletons of the two structures in (73) are:

PET (74) sm + V Structure A

(75) vi + V-sm Structure B

The subject markers of Structures A and B belong to different sets:

PET	(76)	Structure A		Structure B	
		Singular	Plural	Singular	Plural
	1e	gu	i	-gu	-mu
	1i	-	i	-	-ri
	2	mu	i	-mu	-mu
	3	e	i	-na	-ri

(The vowels of the Structure B pronouns are deleted in certain environments)

The verb introducer of Structure B, *e*, is invariable for person and number.

Structure B has three variants: present, near past, and future. The skeleton of the present variant is:

PET (77) vi + V (-aux) -sm

The auxiliary morpheme *na-ʎno-* combines with the subject markers *-na* '3s' and *-ri* '3p' respectively to give *-nou* 'aux + 3s' and *-rou* 'aux + 3p'. The distribution of the auxiliary is not properly understood, but it is apparently omitted in verb phrases expressing states regarded as more permanent, as in (73). Its use in present clauses is illustrated in (78) to (80):

PET (78) elia E KA-NO-G i luma
vi V-aux-sm
I ø be-?-I at house
'I am at the house'

(79) elia E NIN-E-N0-G u korits
vi V-om-aux-sm
I Ø *eat-it-?-I* art taro
'I am eating taro'

(80) ella E NIN BURBURAH-NO-G
vi V adv-aux-sm
I Ø eat quick-?-I
'I am eating quickly'

The skeleton of the near past variant of Structure B is:

PET (81) vi + V-sm-dir

where the directional suffixes *-ma* 'come'; and *-la* 'go' serve as markers of the near past and also have the subordinate function of marking respectively 'to the speaker' and 'from the speaker' with verbs of motion and 'there' and 'here' with other verbs:

- PET (82) elia E SUATS-E-GU-M a tolim a wel
 vi V-om-sm-dir
I Ø carry-it-I-come art five art coconut
'I have brought five coconuts'
- (83) elia E NIN HAKAP-E-GU-L a pos
 vi V adv-om-sm-dir
I Ø eat all-it-I-there art banana
'I have eaten all the bananas'
- (84) ieu E METE-LA-L
 vi V-sm-dir
he Ø die-he-here
'He has died/is dead'

(In (84) *-na* '3s' becomes *-la* by assimilation to *-l(a)* 'directional')

The skeleton of the future variant of Structure B is:

- PET (85) vi (+ int) + V-sm-fut

where the intention morpheme is *na* 'go' or *me* 'come' and the future morpheme is *-u*. For example:

- PET (86) mahu elia E NIN-E-G-U a pos
 vi V-om-sm-fut
tomorrow I Ø eat-it-I-shall art banana
'Tomorrow I shall eat bananas'
- (87) elia E NA NGALA-G-U
 vi int V-sm-fut
I Ø go cry-I-shall
'I shall go and cry'
- (88) eru E LA MOTO-R-U
 vi V adv-sm-fut
they Ø go later-they-will
'They will go later'

Discussion now turns to the three sets of suffixes which are common to both Structures A and B in Petats, but which have no direct equivalents in languages outside the North Bougainville subfamily. The three sets are:

- PET (89) a. object marker: *-e-*
 b. case markers: *-me-* 'associative'
 -u(a)- 'locative, directional'
 c. locative marker: *-(y)a*

The object marker *-e-* indicates transitivity, and in Petats does not vary for person or number of the object. It occurs in (79), (82), (83) and (86) above within Structure B. Examples (90) and (91) illustrate its use with, respectively, a Structure A verb phrase and a non-3rd-person object:

- PET (90) e Haroman E SUATS-E-M u mali tere Tangin
 sm V-om-dir
art Haroman he carry-it-come art betelnut to.art Tangin
'Haroman brought some betelnut to Tangin'

- (91) elia E NGITS-E-GU-L elia
 vi V-om-sm-dir
 I Ø cut-'it'-I-there me
 'I have cut myself'

A generic object may be incorporated into the verb phrase by insertion into the object marker slot:

- PET (92) eru E KUA RAMUNU-R
 vi V obj-sm
 they Ø drink water-they
 'They are drinking water'

The Petats object marker differs in function from those of Banoni and Mono in that it is an invariant marker indicating a case relationship (normally Patient or Goal) of a noun phrase to the verb phrase, whereas Banoni and Mono object markers are personal pronoun suffixes of the kind common in Oceanic languages, and illustrated for Banoni in (93):

- BAN (93) K-E MANA-MAM vai nna
 asp-sm V-om:lpe
 comp-he give-us.e it he
 'He gave it to us'

The Petats case markers -me- 'associative' and -u(a)- 'locative, directional' also indicate the case relationship of a noun phrase to the verb phrase. Their nearest equivalents in other Bougainville languages are prepositions. Thus -me- 'associative' indicates a comitative relationship expressed in Banoni by the (formally similar) preposition ma-, me-:

- PET (94) e Haroman pes T-E KA GON-ME-N elia
 rel-vi V adv-cm-sm
 art Haroman only who-Ø be together-with-he me
 'It is only Haroman who lives with me'

- BAN (95) Satoko K-E TAI-MA me-a
 asp-sm V-dir
 Satoko comp-he go-come with-me
 'Satoko came with me'

Whereas the Banoni preposition must immediately precede its noun phrase or noun (me-a 'with me'), the Petats case marker -me- is separated from its noun phrase or pronoun (elia 'me') by any morphemes which follow the case marker in Structure A and B (cf. (66) and (72)).

Similarly the Petats case marker -u(a)- 'location, direction' indicates a locative case relationship marked by the Banoni preposition mo:

- PET (96) elia E LA-UA-NØ-G tara luma ehei
 vi V-cm-aux-sm
 I Ø go-to-?-I at.art house there
 'I am going to that house'

- BAN (97) K-E GHØIT-A nne mo ghabi-na koromo
 asp-sm V-om
 comp-he carry-it he to mouth-its river
 'He carried it to the mouth of the river'

It is typical of the use of the locative case marker -ua- that in (96) it co-occurs with the preposition ta-, also expressing location. Allen (1978:52) labels the corresponding Hanahan marker -ua- as 'directional'; however, the function of Petats -u(a)- includes stative location, as in (73) above.

The case marker -u(a)- overlaps in function with the locative marker -(y)a-:

PET (98) elia E TAPA-NO-G-A ien
 vi V-aux-sm-loc
 I Ø dwell-?-I-there here
 'I live here'

The marker -(y)a- also co-occurs with time phrases:

PET (99) ieu E HILOU-YA tara bong
 sm V-loc
 he he run-them at.art night
 'He ran away in the night'

A feature which is important to a historical understanding of North Bougainville verb phrases is relativisation. As foreshadowed in Section 2.1., only the topic may be relativised, and a non-topic subject is demoted to postverbal position. The Petats relative marker is t(u)-, prefixed to the subject marker in Structure A, to the verb introducer in Structure B. For example:

PET (100) a katun, T-E LA GON-ME-GU-M an e Haroman
 art man who-Ø go together-with-I-here I art Haroman
 'The man with whom I came is Haroman'

where an 'I' is the demoted subject.

Relativisation is used in Petats for contrastive focus (cf. (94) above):

PET (101) e Haroman, TU GU NGOTS-en
 rel sm V
 art Haroman, who I see-him
 '(It was) Haroman (that) I saw'

The same construction appears frequently to focus the wh-item in a question:

PET (102) elia GU KAT asah i nala
 sm V
 I I do what at yesterday
 'What did I do yesterday?' (unfocussed)

(103) asah TU GU KAT elia i nala
 rel sm V
 what that I do I at yesterday
 'What was it that I did yesterday?' (focussed)

2.2.5. Haku

Haku is the next member in the chain of communalects running from Petats through Haku and Hanahan to Selau. Its verb-phrase structures differ from Petats only in the area of the postverbal morphemes. Differences observed are:

- the object marker distinguishes between -e-, -i- '3s', -ri- '3p', and -(i)o- 'non-3' (PET -e- is invariant);
- there are three case markers: -ve- 'benefactive', -me- 'associative', and -wa-, -u- 'locative, directional' (Petats has no benefactive case marker);
- the benefactive and associative case markers may be followed by the object marker indicating the person/number of the noun phrase to which the case marker relates (a Petats case marker is never followed by an object marker);
- no locative/temporal morpheme has been observed corresponding with Petats -(y)a-.

The three Haku object markers are exemplified in (104) to (107):

- HAK (104) aku E KOT-E-G-U a tsi tsinihi
 vi V-om-sm-fut
I Ø make-it-I-shall art bit canoe
'I shall make a small canoe'

The object marker -ri- is apparently used only with a pronominal object, where it disambiguates the object pronoun -en '3', which is both singular and plural:

- HAK (105) aku pisahas T-U POK-I-en
 rel-sm V-om:3sg
 aku pisahas T-U POKO-RI-EN
 rel-sm V-om:3pl
I self who-I break-^{it}_{them}}-it/them
'(It was) I myself (who) broke it/them'

- (106) e Samu T-E HARUKU-RI-en
 rel-sm V-om:3pl
 art Samu who-he kill-them-them
'It was Samu who killed them'

(but: e Samu T-E HARUKU u muki *'It was Samu who killed the dogs'*).

- (107) e Samu E YOVU-IØ ku a pal ruei
 sm V-om:1/2
 art Samu he hit-1/2 me art stick wood
'Samu hit me with a stick'

The benefactive case marker and its co-occurring object pronouns are illustrated in (108) and (109):

- HAK (108) POLASA-VE-I-en ta tapalan ira
 V-cm-om
bring-for-him-him art some betelnut
'Bring him some betelnut'
- (109) POLASA-VE-Ø ga ta tapalan ira
 V-cm-om:1/2
bring-for-1/2 us.i art some betelnut
'Bring us some betelnut'

The available data do not include a case marker followed by -ri- '3p', and an example from Allen's study of closely related Hanahan is therefore offered:

- HAN (110) none E GALA GONO-ME-RE-NA a gala pien
 vi V adv-cm-om:3pl-sm
he Ø descend together-with-them-he art pl child
'He is going down (to the beach) with the children' (Allen 1978:53)

2.2.6. Hanahan

The Hanahan verb phrase, described in fine detail by Allen (1978), differs from Haku only in that the auxiliary na-, no- does not occur at all in Structure B.

2.2.7. Selau

The Selau verb phrase, like Hanahan, has no *na-*, *no-* auxiliary in Structure B:

SEL (111) ala E NU-YA- -GU osono

HAK (112) aku E NAN-E-NU-GU potutu

vi V-om-aux-sm

I Ø eat-it-?-I taro

'I am eating taro'

The Selau structures are otherwise identical to Haku, except in the treatment of object markers. Selau has two object markers, *-ya-* 'singular' and *-ra-* 'plural' (with various morphophonemic variations) for all persons:

SEL (113) e Taga E ATUNG-YA li 'me'

e Taga E ATUNG-YE-n 'him'

e Taga E ATUNG-RA mam 'us.e'

e Taga E ATUNG-RE-n 'them'

sm V -om

art Taga he hit-. . .

'Taga hit . . .'

(114) e Taga E ATUNG-RI a wario

sm V-om

art Taga he hit-them art women

'Taga hit the women'

Whereas in a case marker — object marker sequence in Haku and Hanahan, the object marker is co-referential with the noun phrase to which the case marker relates (cf. (108) to (110) above), in Selau the object marker is co-referential with and agrees in number with the noun-phrase *object*, i.e. the pattern of (114) above is carried over into a clause with a case marker:

SEL (115) e Taga E ATUNG-ME-RI a wario a tsirei

sv V-cm-om

art Taga he hit-with-them art women art stick

'Taga hit the women with a stick'

2.2.8. Solos

Although Petats and Solos show the highest number of cognates on the Swadesh 100-word list (Lincoln 1976:424), a range of phonological and syntactic differences between Solos and the Petats-Haku-Hanahan-Selau chain indicate that historically Solos forms a separate branch of the Buka subgroup. The higher cognate count perhaps results from the trading and intermarriage between Solos and Petats reported by Blackwood (1935:17). A number of important syntactic differences lie in the noun phrase and are beyond the scope of this paper.

Structure B of the Solos verb phrase differs from Petats in that the auxiliary *no-* may occur in all three variants, whereas in Petats it occurs only in the present. Hence Structure B:

SOL (116) (vi +) V (-aux) - sm (-{^{dir}_{fut}})

accounts for all three variants.

Whereas the other Buka languages agree on *-u* as the future suffix, Solos has *-a*:

SOL (117) no HEN NO-M-A a tsi pos mahu
 V aux-sm-fut
you.sg eat ?-you.sg-will art bit taro tomorrow
'You will be eating taro tomorrow'

(118) n-E KUI-GU-A o tsinih pea tun
 vi V-sm-fut
I-ø build-I-shall a canoe big very
'I shall build a very large canoe'

Solos shares with Petats a single invariant object marker. The Solos form is -i-:

SOL (119) na GU NU-I-M in mes in wen
 sm V-om-dir
I I carry-it-come art one art coconut
'I brought one coconut'

However, Solos resembles Haku, Hanahan and Selau in having a benefactive case marker, -bo-, that Petats lacks:

SOL (120) na katun, K-E SUA-BO-GU-ME na o tsini, e Nasin
 rel-vi V-cm-sm-dir
art man, who-ø paddle-for-I-there I art canoe art Nasin
'The man, for whom I paddled the canoe, is Nasin'

Like Petats, Solos does not permit a case marker to be followed by an object marker.

2.2.9. Teop

Teop, which has been assigned to the Saposa-Tinputz subgroup of the North Bougainville subfamily, differs more from all member languages of the Buka subgroup than any of them do from each other.

The most important formal difference in the verb phrase is that Teop has no preverbal subject markers in Structure A and no verb introducer in Structure B. The immediate preverbal slot is instead occupied by an aspect marker in both structures. This gives a structure rather like those Banoni cases where an aspect marker occurs without a subject marker.

Teop Structure A is:

TEO (121) asp + V (+ adv) (-cm) (-om) (-dir) (-npr)

However, whereas Structure A in the Buka languages expresses only the past, different combinations of aspect marker and the non-present suffix -u give various tenses of the verb phrase. These appear to be:

TEO (122)	pa + V (-u)	far past
	nava + V	far past
	na + V	past
	mana + V	recent past
	pasi + V (-u)	future

Thus the marker -u, which in Buka indicates 'future', occurs in Teop at both ends of the time spectrum.

Teop Structure B is:

TEO (123) asp + V (+ adv) (-cm) (-om) aux-sm (-dir)

with two variants:

TEO (124) pa + V + aux-sm past progressive
na + V + aux-sm present

From a synchronic viewpoint, the auxiliary and subject marker in Teop must be regarded as a single subject marker morpheme, as they cannot be separated. There is no usage corresponding to the Buka use of the directional morpheme to indicate near past.

Teop, like Haku and Hanahan, allows a case marker to be followed by an object marker. Three object markers have been observed:

TEO (125) -ma- 1st and 2nd persons
-vu- 2nd person
-ri- 3rd person plural

In the third person singular, no object marker occurs. However, my data show some unexplained variations where a marker occurs with the 'wrong' person, which, together with the overlap of -ma- and -vu- in the second person, indicates that an earlier system may be breaking down. Examples with 'proper' distribution are:

TEO (126) e Ivihi pa navuhu-vu-an bo-no pea naono
e Ivihi PA NAVUHU-RI-ori bo-no pea naono
asp V -om
art Ivihi pa hit-² you.sg 4-art stick wood
3p them
'Ivihi hit you/them with a stick'

This example also illustrates a morpheme observed only in Teop, namely the fourth-person marker ba-, bo-, used when a second or further third-person noun phrase or pronoun occurs in a clause.¹⁵

Teop has three case markers:

TEO (127) {-ki- '3rd pers.'} 'benefactive'
{-ka- '1st/2nd'}
-me- 'associative' (PET -me-)
-vo- 'directional' (PET -u(a)-)

Their usage is similar to Haku:

TEO (128) e Ivihi NA KIU KI-NANA bo-ne Teva
asp V cm-aux.sm
art Ivihi NA work for- 4-art Teva
'Ivihi is working for Teva'

TEO (129) e Ivihi PASI NAO ME-M- -an
e Ivihi PASI NAO ME-VU- -am
e Ivihi PASI NAO ME- ba-ri
asp V cm-om
art Ivihi fut go with-1/2- -you.sg
-2 - -you.pl
-4-them
'Ivihi will go with you.sg/you.pl/them'

(130) have TO NAO-VO an
rel V -cm
where that go -to you.sg
'Where are you going?'

There appears to be a fluidity in the sequence of Teop postverbal elements that does not occur in the Buka languages:

- TEO (131) DE-V0-MA en DE-MA-V0 en
V-cm-dir V-dir-cm
carry-to-come here carry-come-to here
'Bring it here' 'Bring it here'
- ena PASI NAO-ME-U e Ivihi komana rasu
asp V- cm-npr
ena PASI NAO-U-ME e Ivihi komana rasu
asp V-npr-cm
I fut *go-with/-u art Ivihi inside bush*
'I shall go with Ivihi through the bush'

What happens here is that the case marker is postponed to the end of the verb phrase, so that it immediately precedes the noun and behaves like a preposition. This in any case happens where two case markers are required:

- TEO (132) e Ivihi NA KIU ki bo-ne John me bo-ne Teva
asp V cm cm
art Ivihi na work for 4-art John with 4-art Teva
'Ivihi worked for John with Teva'

The relative marker to functions like Petats, Haku, Hanahan and Selau t(V)-:

- TEO (133) a otei, TO PA NOMA-ME-U na, e Ivihi
rel asp V -cm-npr
art man who pa come-with-u I art Ivihi
'The man I came with is Ivihi' (relative clause)
- (134) e Ivihi, to pa tarama-u na
rel asp V-npr
art Ivihi who pa see -u I
'(It was) Ivihi (that) I saw' (focus)
- (135) tobonihi to pasi nao-v-ue a ma mon mohina
rel asp V-cm-npr
what.time that fut go-to-u art p woman garden (wh-item)
'When will the women go to the garden?'

2.2.10. Taiof

The Taiof verb phrase differs as markedly from Teop as from the Buka languages, but shares features with each.

The most marked differences are preverbal. Firstly the subject marker of Structure A and the verb introducer of Structure B have the same forms, namely *ti* if the subject is third person plural and *to* otherwise. These morphemes are labelled as verb introducers in both structures.

Secondly, Taiof expresses aspect partly by the modifiers *matain* 'future' and *nating* 'habitual'.

A less important difference is that Taiof replaces the directional suffixes/markers of other Bougainville languages with the full directional verbs *nao* 'go' and *me* and *um* 'come', which immediately follow the head verb of the verb phrase.

Thus the Taiof Structure A, which (as in Buka) is past in meaning, is:

- TAI (136) vi (+ mod) + V (+ {^{adv}_{dirV}}) (-cm) (-om)

For example:

- TAI (137) u moun TI NAU tasi
 vi V
 art woman they go sea
 'The women went to the beach'
- (138) aina TO NI UM a nima niun
 vi V dirV
 I Ø carry come art five coconut
 'I have brought five coconuts'
- (139) imuan aina TO NATING NONGOS Siara
 vi mod V
 formerly I Ø habitual be Siara
 'I used to live at Siara'

The Taiof Structure B is:

- TAI (140) (vi) (+ mod) + V (obj) (+ {^{adv}_{dirV}}) (-cm) (-om) aux-sm

where obj indicates an incorporated generic object.

There are five variations on Structure B:

- TAI (141) vi + V + aux₁-sm present
 (mod₁+) V + aux₁-sm present habitual
 vi + mod₁ + V + aux₁-sm past habitual
 mod₂ + V + aux₁-sm future
 vi + V + aux₂-sm near past

where mod₁ = nating, mod₂ = matain, aux₁ = no-, ro-, and aux₂ = e-.

Unlike its Petats and Solos counterparts, the distribution of the Taiof auxiliary is straightforwardly predictable. It is notable that, like Mono, Torau and Uruava, the auxiliary has two forms, no- ~ ro- and e-, but that in Taiof the choice of form is conditioned by aspect (variation between no- and ro- is morpho-phonemic only, conditioned by the following subject marker).

Structure B is illustrated in:

- TAI (142) aina TO AIN VESAU RO-U
 vi V adv aux-sm
 I Ø eat quick pg-I
 'I am eating quickly'
- (143) aina NATING AIN KAPU MAUT RO-U
 mod V obj adv aux-sm
 I habitual eat taro daily pg-I
 'I eat taro daily'

The use of the modifier matain to express future contrasts with the Buka/Teop suffix -u:

- TAI (144) aye MATAIN MAT NO-N roman
 mod V aux-sm
 he fut die pg-he today
 'He will die today'

The Taiof near past structure has the auxiliary -e- (and does not follow the Buka pattern of adding a directional suffix):

TAI (145) aye TO MAT-E-N
 vi V-aux-sm
 he $\emptyset$ die-perf-he
 'He has died/is dead'

In its object markers Taiof is closer to Teop, with three object markers distributed as follows:

TAI (146)	Singular	Plural
	1e -ma-	-ma-
	1i -	-ra-
	2 -ma-	-ma-
	3 -i(n)-, $\emptyset$	-i-, -ri-

For example:

TAI (147) aina TO TOK-MA noh
 vi V-om
 I $\emptyset$ see-1/2 you.sg
 'I saw you'

(148) anoh TO ATUNG-RA-RO- $\emptyset$ reh
 vi V -om-aux-sm
 you.sg $\emptyset$ hit-3p-pg-you.sg them
 'You are hitting them'

(In (148) the expected subject marker -m is deleted before the following consonant.)

Taiof has two case markers, -of- 'benefactive' and -me- 'associative'. As in Haku, Hanahan and Teop a following subject marker is co-referential with the noun phrase to which the case marker relates:

TAI (149) e John TO BINUN-OF-I reh
 vi V- cm-om
 art John $\emptyset$ work-for-3 them
 'John worked for them'

(150) e Maras sion NONGOS-ME-MA-RO- $\emptyset$ nga
 V -cm-om-aux-sm
 art Maras self be-with-1/2-pg-he me
 'Only Maras lives with me'

Taiof differs sharply from the Buka languages and from Teop in its treatment of relativisation. The differences are tabulated below:

TAI (151)	Buka and Teop	Taiof
relative marker	yes	no
only the topic relativised	yes	no
non-topic subject demoted	yes	no

The difference in strategy is illustrated in:

TAI (152) a moun, nga TO TOK-IN eh, e Soaka
 vi V -om
 art woman I $\emptyset$ see-3s her, art Soaka
 'The woman that I saw was Soaka'

TEO (153) a mon, TO PA TARA VURU na, e Teva
 vi asp V adv
 art woman $\emptyset$ pa see already I art Teva
 'The woman that I saw was Teva'

The Tinputz object marker system is simpler than both Teop and Taiof and indeed seems to survive only in the shape of the fossils -ra- '3p' and -a[n]- 'non-3p', prefixed directly to personal pronoun objects, but not to noun objects.

For example:

TIN (160) { TO REP-RA -poe
 TO REP-AN -yō
 TO REP-A -wa
 TO REP e Viksi }
 asp V -om
 art Valain hit-3pl-them
 -ø -me
 -ø -you.sg
 art Viksi
 'Valain hit them/me/you.sg/Viksi'

The three Tinputz case markers are almost identical in form and function to those of Teop:

TIN (161) { ke- '3rd pers.' } 'benefactive'
 ka- '1st/2nd'
 me- 'associative'
 vu- 'directional'

The relativisation strategy of Tinputz is very similar to that of Taiof (and hence unlike Teop and the Buka languages). The only difference is that where a non-subject is relativised, the relative clause is introduced by the relative marker n-:

TIN (162) ee Varain, n-ō TO EP
 asp V
 he Varain who-I ø see
 'It was Varain that I saw'

Subject relativisation is unmarked:

TIN (163) eyō TO EP e kovu, TO TE-TE NO-N o kovei
 asp V-V aux-sm
 I ø see art woman ø carry ø-she art basket
 'I saw the woman who was carrying the basket'

However, the Tinputz clause appears to differ sharply from both Teop and Taiof — and indeed all other Bougainville languages — in having a basic SVX rather than TVX structure, as the data show neither topicalisation nor subject demotion.

3. HISTORICAL DEVELOPMENT

The historical development of the Bougainville verb phrase and of its clausal context is described starting near the top of the tree-diagram in Figure 1 and working downwards. Reconstructed forms are used in some examples. Whilst their phonological basis is quite firm and derives from the sound correspondences in Table 1, their lexis is much less certain, as are some questions of morphophonemics. The use of plausible reconstructions has been attempted as a means of presenting historical development, but the correctness of the lexical choices is by no means guaranteed.

Table 1: Sound correspondences

POC	*p	*p	*t /_*i	*t /_*u	*nt	*[n]s	*nj	*l	*d *R	*nd	*ñ *n	*ŋ	*k *q	*k *q	*k *q	*ŋk
PBV	*p	*v	*t	*t	*D	*s	*c	*l	*R	*d	*n	*ŋ	*k	*g	*Ø	*g
BAN	p	v	ts	ts	r	s	s	n	n	r	n	ŋ	Ø	gh,g	Ø	g
PIV	p	v	ts	ts	r	s	s	n	n	r	n	ŋ	k	gh,g	Ø	g
PNNT	*p	*v	*t	*t	*D	*s	*c	*l	*R	*d	*n	*ŋ	k	*Ø	*Ø	*g
MON	p	h	s	t	r,d	s,Ø	s,Ø	n	n	n	n	Ø,n	Ø	Ø	Ø	g
TOR	p	Ø	s	t	d	s,Ø	s,Ø	n	r	r	n	n	k	Ø	Ø	g,ŋ
URU	p	v	s	t	d	s,Ø	s,Ø	r	r	r	r,n	n	k	Ø	Ø	ŋ
NEH	p	w	t	t	?s	h	s	l	r	d	n	ŋ	k	Ø	Ø	g
PNB	*p	*v	*t	*t	*r	*s	*s	*l	*R	*r	*n	*ŋ	*k	*Ø	*Ø	*g
PET	p	h	ts	t	r	s	s	l	l	r	n	ŋ	k	Ø	Ø	g
**HAK	p	h	ts	t	r	s	s	l	l	r	n	ŋ	k	Ø	Ø	g
SEL	p	w	ts	t	r	s	s	l	r	r	n	ŋ	k	Ø	Ø	g
SOL	p	h	t	t	r	s	s	n	n	r	n	ŋ	k	Ø	Ø	g
TAI	p	f	ts	t	r	s	s	n	n	r	n	ŋ	k	Ø	Ø	g
HAH	p	v	ts	ts	r	s	s	n	n	r	n	n	k	Ø	Ø	g
TIN	p	w	ts	ts	r	h	h	n	n	r	n	n	k	Ø	Ø	g
TEO	p	v	s	s	r	h	h	n	n	r	n	n	k	Ø	Ø	g
PAP	p	v	s	t	d	t,s	?	n	n	r	n	ŋ	k	Ø	Ø	g

** Hanahan correspondences are as for Haku.

Notes: POC *mp > b in all languages
 POC *m, *ŋm > m in all languages
 POC *w > Ø in all languages
 POC *t > t/_*a, *o, *e in all languages

3.1. Proto-Bougainville

3.1.1. The structure of the 'least marked' verb phrase

As was indicated in section 1.2., the more ancient of the two verb-phrase structures is Structure A. Since Structure B is 'least marked' only in the North Bougainville subfamily, whilst Structure A is 'least marked' throughout the Bougainville family, the Proto-Bougainville 'least marked' structure was a variant Structure A using evidence both from its daughter languages and from its reconstructed sister language Proto-New Ireland.

There is evidence that both proto-languages had similar aspect-marking morphemes, of which the following are reconstructible for Proto-Bougainville:

- PBV (164) a. *Ø 'past, present' (PNI *Ø)
 URU Ø 'past'
 NEH Ø 'present'
 PET HAK HAN SEL SOL (Structure A)
 Ø 'past'
- b. *ka 'completive, stative' (PNI *ka 'sequential')
 PIV ko 'past'
 BAN k- 'completive'
 URU k- 'future'
 NEH k- 'completive'
 (SIS BAB ka- 'past, present')
- c. *ma 'present, indefinite future'
 BAN ma 'indefinite future'
 Pre-MON *ma- (see below)
 TOR ma- 'past'
 TAI ma 'irrealis'
 PBK *m- (see below)
 Pre-NEH *m- (see below)
 (SIS BAB ma- 'future')
- d. *ta 'non-present, non-habitual' (PNI *ta 'non-habitual')
 BAN ta 'future'
 PIV tsa 'future'
 TOR ta 'past'
 (BAB ta-ka- 'past')
- e. *[n]a 'future' (PNI *[n]a 'future')
 MON [n]a 'future'
 URU ka-na 'negative + future'
 TEO na '? imperfective'
- f. *pa ? (PNI *ka-pa 'negative + ?')
 BAN pa 'prohibitive'
 TOR -pa- 'future'
 TEO pa 'perfective'
 TEO pa-si 'future'
 NEH pa- 'irrealis'

The PBV meaning of *ma seems to have been in the area 'non-past, non-completive', and there are three sets of cases which suggest that it had become so neutral in meaning that the sequence *ma + subject marker underwent re-analysis of various kinds. Evidence for this is contained in the paradigms of subject markers below (POC reconstructions are from Ross 1981):

(165) 1sg	2sg	3sg	lpl.e	lpl.i	2pl	3pl
POC *[ŋ]ku	*u, *ko	*i, *e	*mi, *ma	*ta	*m[i]u	*[n]t[i,e],[n]
PBV *gu, *(g)u	*u, *(g)o	*i, *e	*mi, *ma	*ta, *da	*m[i]u	*Di, *De, *Ra
BAN -o	-o	-e	-ma	-ra	-mi	-a
MON ha-	o-	e-	m-	ta-	omi-	eri-, re-
TOR -gu	-u	-e	-mani-	-da-	-mu	-di-
URU -u	-o	-e	emi-	-osi	-omu	-edi
NEH u	o	e	ming	i	mung	ra
PBK *gu, *u	*[m]u	*i, *e	*i, *[m][i,u]	*i, *e	*[m][i,u]	*e, *ri
PET gu	mu	e	i	i	i	i
HAK u	u	e	u	e, u	u	e

	1sg	2sg	3sg	1pl.e	1pl.i	2pl	3pl
HAN	u, i	u, i	e	u, i	i	u, i	i
SEL	u	e	e	e	e	e	e
SOL	gu	mu	i, Ø	mu, i	i	mu	i, ri

The first set of cases consists of the Buka reflexes of the second singular, first plural exclusive and second plural subject markers. In all three, the Proto-Buka reconstruction contains a facultative *m-. It is suggested that the reflexes of PBV *mi '1pl.e' and *m[i]u '2pl' were re-analysed in the Petats-Halia chain as *m- + subject marker, leading to loss of *m- when aspect markers decayed, whilst the sequence *m- 'aspect' + *u '2sg' was re-analysed as *mu '2sg' in Solos and Petats (perhaps by analogy with PBK *-mu '2sg possessive').

The second set of cases consists of Nehan ming '1pl.e' and mung '2pl', from PBV *mi and *mu respectively, which were re-analysed as *m- 'aspect' + subject marker, as the paradigm below indicates:

NEH (166)	Present	Past	Bound
Singular 1	u	k-u	-u
2	o	k-o	-o
3	e	k-e	-e
Plural 1e	ming	k-ing	-ing
1i	i	k-i	-i
2	mung	k-ung	-ung
3	ra	k-a	-a

The third set of cases is made up of the Mono independent pronouns, which begin with ma- (third person pronouns are replaced by demonstratives). They are included in (167):

(167)	1sg	2sg	1pl.e	1pl.i	2pl
POC	*[i]-[n]au	*[i]-[n]u	*ka[ma]mi	*ki[(n)]ta	*kam[i]u
PBV	*[a][i]au	*[a][i]no	*ga[ma]mi	?	*gam[i]u
PTOR	*[a]inau	*[a]ino	*[a]ramani	?	*[a]ramu
MON	maha	maito	mani	maita	maang
TOR	inau	ine	nimani	nida	nimu
URU	aria	aro	aramani	?	aramu

Whilst the Uruava pronoun set and the singular pronouns in Torau are derivable through Proto-Bougainville from the Proto-Oceanic pronouns reconstructed by Ross (1981), of the Mono pronouns only mani '1pl.e' is plausibly derivable from its POC forerunner. Comparison of the remaining Mono independent pronouns with their subject marker counterparts suggests that the Mono independent pronouns derive from *ma- + subject marker sequences:

MON (168)	independent	subject marker
1sg	maha	ha
2sg	maito	o
1pl.i	maita	ta
2pl	maang	omi

Although sequences of aspect and subject marker do not occur in North Bougainville languages, and although present-day Mono (and, in some cases, Torau) has the sequence subject marker + aspect, the evidence above suggests that the earlier sequence was aspect + subject marker, as it remains in Banoni and Nehan. Sequences of subject marker + aspect in Mono, Torau and Proto-New Ireland apparently arose from the Proto-New Ireland-Bougainville verb-phrase structure:

PNIB (169) indep pron asp + sm + V
 Subject Verb Phrase

The PNIB subject marker was lost, and the independent pronoun reinterpreted as a new subject marker. Evidence for this lies in the fact that where there are formal criteria to distinguish subject markers derived from POC independent pronouns from those derived from POC subject markers, Mono and Torau prefixed subject markers are more readily derivable from the POC independent pronouns:

(170)	Subject markers		Indep pronoun	Subject marker
	MON	TOR	POC	POC
1pe	am-	mani-	*ka[ma]mi	*mi, *ma
1pi	ta-	da-	*ki[(n)]ta	*ta
2pl	omi-	-	*kam[i]u	*m[i]u

The initial vowels of MON am- and omi- and the disyllabicity of TOR mani suggest POC *ka[ma]mi, *kam[i]u, PBV *ga[ma]mi, *gam[i]u as their probable origin; TOR da- points to POC *kinta, PBV *giDa as its origin.

Since Proto-New Ireland shares the subject marker + aspect sequence with Mono and Torau, and also has subject markers derived from the POC independent pronouns, it is possible that the attrition of the old subject marker and the rise of the subject marker + aspect sequence had already started in PNIB. Both Mono and certain southern New Ireland languages indicate an early fusing of independent pronoun subjects and future aspect marker *[n]a, as follows:

(171)	Mono		Sursurunga	Ramuaina
Singular	1	ha-na	i-na	a-n
	2	o-na	u-na	u-n
	3	e-na	Ø-na	i-n
Plural	1e	am-a	gim-a	miet-a
	1i	ta-ra	git-a	dat-a
	2	omi-a	gam-a	muat-a
	3	eri-a	d-a	diat-a

The data indicate that this fusion may have commenced in PNIB, and been inherited by Mono. It is possible that the fused order pulled Mono towards the subject marker + aspect sequence, a pull not operating in other Bougainville languages because they had lost *[n]a.

As noted in section 2.2.4., the object marker differs in function among the Bougainville languages. The object marker in Petats and Solos is invariant, and its sole function is to indicate transitivity. At the opposite extreme, the object marker of Banoni, Piva, Mono, Torau and Uruava is plainly a suffixed pronoun indicating the person and number of the object. Between the two extremes lie Haku, Hanahan, Selau, Taiof, and Teop object markers, marking some person and/or number distinctions. These markers are tabulated below:

	1sg	2sg	3sg	1pl.e	1pl.i	2pl	3pl
BAN	-aa	-igho	-a	-mam	-ita	-mi	-ria
MON	-aha	-io, -no	-i, -n	-ami	-ita	-ang	-di
TOR	-au	-o	-(i)a	-mani	-da	-mu	-dia
URU	-au	-io	-i	-mi	?	-mu	-di
PET	-e-	-e-	-e-	-e-	-e-	-e-	-e-
HAK	-(i)o	-(i)o	-e-	-(i)o-	-(i)o-	-(i)o-	-ri-
SEL	-ya-	-ya-	-ya-	-ra-	-ra-	-ra-	-ri-, -ra-
SOL	-i-	-i-	-i-	-i-	-i-	-i-	-i-
TEO	-ma-	-ma-, -vu-	-Ø-	-ma-	?	-ma-, -vu-	-ri-
TIN	-a-	-a-	-a-	-a-	-a-	-a-	-ra-
TAI	-ma-	-ma-	-i[n]-	-ma-	-ra-	-ma-	-ra-, -i-

The object markers reconstructible for POC (Ross 1981) and for PBV are as follows:

	Singular		Plural	
(173)	POC	PBV	POC	PBV
1e	-au	-au	-ma, -ma[m]i	-ma, -mami
1i	-	-	-kita, -ta	-ita, -da
2	-ko[e]	-[i]go	-miu, -mu[a]	-mi, -mu
3	-a	-ia	-[n]ti[a]	-Di[a]

(PBV *-ia '3sg om' < POC *i 'transitive marker' + *a '3sg om')

The distribution of object markers in (172) reflects a gradual simplification in the North Bougainville languages of the system of PBV markers. However, all the markers in (172) are derivable from (173). In Teop and Taiof, -ma- (< PBV *-ma '1pl.e') has invaded first the area of formally similar '2pl' (PBV *-mi, *-mu), then the corresponding singulars (Teop retains -vu- < PBC *-go '2sg' as a second-person marker). In Haku, -(i)o- (< PBV *-i]go '2sg') has spread through the first-/second-person area. In Selau the third person pronouns -ya- and -ra-~ri- (< PBV *-ia '3sg', *-Di[a] '3pl') have invaded the first-/second person area. And in Petats, -e- (< PBV *-ia '3sg') is all-victorious. The reasons for this development are examined in section 3.3.1. below.

The remaining features of the 'least marked' Proto-Bougainville verb phrase are fairly easy to reconstruct.

Both Banoni and PNI have the possibility of a directional verb before the head verb. This is illustrated for New Ireland by (174) and for Banoni by (175):

Tabar (174) RA TAR-I-A ma-di kavo bua
 dirV V-tr-om
 go carry-Ø-it for-them some betelnut
 'Take them some betelnut'

BAN (175) ghata TA NO TSEREGHE
 asp dirV V
 we.i fut go sleep
 'We shall sleep (when we get there)'

The intention markers of Nehan and the Buka languages clearly derive from the same source:

BAN (176) inggo U {^{ME}_{LA}} KALEKINALE
 sm int V
 I I {^{come}_{go}} work
 'I shall come/go and work'

so we may reasonably assume that PBV had directional verbs.

Only Nehan and Taiof show preverbal modifiers, and one of these, Taiof matain 'future', is evidently cognate with the (postverbal) adverb reflected in PET SOL moto, SOL o-mat, TIN a-mot 'later'. It seems probable that there was no separate preverbal modifier category in PBV, and that Nehan and Taiof modifiers are the descendents of adverbs which have come to serve as aspectual morphemes.

All Bougainville languages agree on incorporating some adverbs (especially of manner and completion, e.g. 'already') into the verb phrase. It is often attached directly to the verb stem:

(177) V + adv-om

Since Beaumont (1979:75) also reports the sequence of (177) in Tigak of northern New Ireland, it seems probable that (177) occurred in PBV.

In the light of the considerations in this section, the structure of the 'least marked' verb phrase in Proto-Bougainville may be reconstructed as:

PBV (178) (asp +) sm (+ dirV) + V (+ adv) (-om) (-dir)

3.1.2. Verbal nominalisation

Enough reflexes of Structure B, the structure of verbal nominalisation, are spread across the Bougainville region to indicate that nominalised verb forms occurred in Proto-Bougainville. It is not immediately clear, however, what their function was.

It was noted in section 1.2. that the forms taken by Structure B resemble the POC possessive structures reconstructed by Pawley (1973):

POC (179) inalienable: N-pron
 dominant: *na-pron + N
 subordinate: *ka-pron + N

and that reflexes of verbal nominalisation where Pawley's N is replaced by V are found as Structure B in Banoni, Mono, Torau, Uruava, Nehan and the North Bougainville family.

In Banoni, Lincoln (1976b) reports on the permissive structure:

BAN (180) TAI GHE-M
 V poss-pron
 go Ø-you.sg
 'you may go'

Mono Structure B is used in general for the progressive aspect and was described in section 2.2.3. above. Its sister languages express progressive aspect in a similar manner:

TOR (181) io TA-TANIS! E-LA
 redup-V poss-pron
 he cry Ø-he
 'He was crying'

- (182) tioni ruma tia-la-i TU SA-LA-TO
 V poss-pron-punctiliar
man house inside-its-at be Ø-he-now
'The man is inside the house'
- URU (183) ruma-ia POPO NO-NA
 V poss-pron
house-at be Ø-he
'He is in the house'

Nehan has one apparent remnant of a Structure B, exemplified in:

- NEH (184) Kalok KAE-N ta-r tun
V-pron
Kalok be-he ta-l ditch
'Kalok is in the ditch'

Since the verb of location in Solos, Petats, Haku and Hanahan is *ka*, it is likely that the Nehan example in (184) was historically:

- NEH (185) ka e-n
N poss-pron

Structure B in the North Bougainville languages is also clearly nominal in origin:

- PET (186) elia E KA-NO-G i luma
 vi V-aux-sm
I ∅ *be-?-I at house*
'I am in the house'

Historically:

- PET (187) ka no-g
V poss-pron

However, not all Structure B forms in Petats, Haku, Solos and Taiof include the 'auxiliary' *no-*, and none have it in Hanahan or Selau. A form like:

- HAN (188) a tson E NOU-NA
 vi V-sm
art man Ø eat-he
'The man is eating'

may derive historically from one of two structures:

- HAN (189) a. nou-na
V-pron
b. *nou e-na
V poss-pron

with the vowel *e- deleted. Since (189a) implies a form like the inalienable possessive, found nowhere else in a Bougainville verb phrase, and since the Taiof near past and Tinputz conditional both use e-, the latter seems the more probable derivation.¹⁷

The possible forms of Proto-Bougainville nominalisation reflected above are:

- PBV (190) a. V + *na-pron (MON, URU, North Bougainville)
 b. V + *ge-pron (BAN, MON, TOR, URU, NEH, TAI)
 c. V + *sa-pron (MON, TOR)

These do not always correspond with the dominant/subordinate constructions of the same language:

	dominant	subordinate	predicative
BAN	ghe-pron + N	ghe-pron + N	
MON	sa-pron + N	e-pron + N	
TOR	a-pron + N	a-pron + N	sa-pron
URU	Ø-pron + N	e-pron + N	
NEH	na-pron + N	[r]-e-pron + N	

whilst the North Bougainville languages preserve no- (< PBV *na-) in Structure B verb phrases (and also e- in Taiof and Tinputz), they have substituted a periphrastic possessive construction with the preposition *ta 'at, to' for the older POC/PBV possessive noun phrase construction:

HAK (192) a luma ta-mulo
 art house ta-you.sg
 'your house'

I am unable to explain the origin of Pre-Torau *sa-pron; the morpheme *sa- appears to be a local innovation, occurring in both possessive noun phrases and verbal nominalisations, but the remaining forms in (193) allow us to reconstruct the PBV possessive sequence as:

PBV (193)	*na-pron + N	dominant
	*e-pron + N	subordinate ¹⁸

Hence the PBV morphemes of possession and verbal nominalisation are the same, namely *na- and *ge-, but the sequence of elements is reversed:

PBV (194)	V + *na-/*ge-pron	nominalisation
	*na-/*ge-pron + N	possession

On widespread Oceanic evidence (Pawley 1973) the possession sequence is the older one.

Although there is ample evidence for reconstructing verbal nominalisation in PBV, there is insufficient agreement between its branches, Pre-Banoni and PNNT, to posit its PBV function.

3.2. Proto-North Bougainville-Nehan-Torau

If the reconstruction of the PBV verb phrase presented in the previous sections is approximately correct, then one of the two branches of PBV, namely Pre-Banoni, is substantially the more conservative. Indeed, the changes from PBV to Pre-Banoni are so limited that there is little to be added to what has been said already.

The same is not true of PNNT, however, whose daughter languages show substantial and varied innovations. These innovations are almost entirely in the area of nominalisation/Structure B. As the discussion in the previous section indicates, all the elements of the 'least marked' verb phrase reconstructed for PBV remained without change in sequence in Pre-Torau (with the possible exception of the pre-head directional verb) and Nehan (except for the loss of the object marker, which is discussed below). Hence there were apparently no significant changes in Structure A during development from PBV to PNNT.

At first sight, there is little commonality of function among the reflexes of verbal nominalisation in the daughter languages of Pre-Torau, in Nehan, and in the North Bougainville languages. However, it will be argued here that three functions of nominalisation can be distinguished in Mono and that these reflect stages in the development of verbal nominalisation, a development which was going on when PNNT

split into Proto-North Bougainville-Nehan and Pre-Torau, and which assumed different forms in the daughter languages.

The first of these functions is illustrated in the first verb phrase of (195c) and (196c):

- MON (195) a. mama RE-ENA ga hakasi
 sm-V
 then they-put ? canoe
 'Then they launched the canoe'
- b. RE-HOSE
 sm-V
 they-paddle
 'They paddled'
- c. HO-HOSE SA-RIA, I-KAPA ga pakusi
 redup-V poss-pron sm-V
 paddle-paddle Ø-they it-fall ? axe
 '(As they were) paddling, the axe fell (into the water)'
- (196) a. IRI-GAGANA
 sm-V
 they-travel
 'They went (on their way)'
- b. IRI-NAU
 sm-V
 they-go
 'They went'
- c. GAGANA SA-RIA, IRI-SOKU Hauroho
 V poss-pron sm-V
 go Ø-they they-reach Hauroho
 'Having travelled, they reached the Hauroho river'

In stylistic terms, these nominalisations exemplify the device of recapitulation, common in the narrative discourse of non-Austronesian languages of the Papua New Guinea region and described by Longacre (1972:45-48), whereby a previous action is briefly recapitulated to 'introduce' the next action in the sequence.¹⁹ Syntactically, this function of Mono nominalisation is similar to the absolute constructions in the earlier Indo-European languages, which also entail something similar to verbal nominalisation, lying between parataxis and subordination (Berent 1973). Such nominalisations are always sentence initial and are independent of the syntax of the following clause. These syntactic characteristics suggest that in discourse terms the nominalisations fall into the category 'topic', whose syntax is described by Li and Thompson (1976); they describe the function of the 'topic' by quoting Chafe (1976:50):

What the topics appear to do is to limit the applicability of the main predication to a certain restricted domain . . . The topic sets a spatial, temporal or individual framework within which the main predication holds.

Since I am using the term 'topic' in a different sense, I will use 'thematic topic' (the term is Olson's, 1979) for Li and Thompson's and Chafe's 'topic'.

Although these writers are mainly concerned with noun phrases as thematic topics, Chafe includes spatial and temporal settings in his description of the thematic topic, so that *Tuesday in Tuesday I went to the dentist* is a thematic topic. The Mono use of verbal nominalisation as recapitulation seems to be a subtype of thematic topic, providing a temporal (sequential) setting for the following clause.

PNNT (197) V + *na-/*e-pron

PNNT (198) redup-V + *na-/*e-pron

The second function of Mono nominalisation is that of a subordinate clause of time. It resembles the first function formally, in that the nominalisation precedes an independent clause, but it is not recapitulative. In cases like (199c) it borders on recapitulation:

- MON (199) a. ba-taha Dimoi I-MEKA-SOHA
 sm-V-V
poss-his wife Dimoi she-long-wait
'Dimoi's wife waited a long time'
- b. I-TA0H0
 sm-V
 she-mourn
 'She mourned'
- c. RORO SA-NA RORO SA-NA, I-B0I
 V poss-pron V poss-pron sm-V
 see Ø-she see Ø-she it-night
 'As she kept looking for him, night came'

MON (200) 0-NA-AU SA-M, HA-NA-NUHU-I
 sm-asp-V poss-pron sm-asp-V-om
 you.sg-fut-stay Ø-you.sg I-fut-dive-it
 'While you stay here, I shall dive for it'

- (201) AU E-NA, AU E-NA hahine-na peta-ang Somapauboho I-AU
 V poss-pron V poss-pron sm-V
stay poss-she stay poss-she sibling-his shore-on Somapauboho she-stay
'His sister staying on shore, she stayed at Somapauboho'

However, what a subordinate clause of time must do (unlike a thematic topic) is to incorporate tense or aspect, as in (200) and in (202):

- | | | | | | |
|-----------|---|-----------------|--------------------------|---------------|---------------|
| MON (202) | 0-NA-GAGANA | SA-M | 0-NA-ROR0-I | hanua-ang | saiga |
| | sm-asp-V | poss-pron | sm-asp-V-om | | |
| | <i>you.sg-fut-travel</i> | <i>Ø-you.sg</i> | <i>you.sg-fut-see-it</i> | <i>men-at</i> | <i>garden</i> |
| | <i>'As you travel on, you will see men's gardens'</i> | | | | |

The structural development illustrated here is a grafting of the preverbal subject marker + aspect complex onto a verbal nominalisation. Given that Mono has reversed the aspect + subject marker sequence of PBV (see 3.1.1. above), we may posit as the subordinate-clause structure of verbal nominalisation:

PNNT (203) (asp-)sm + [V]V + *na-/*e-pron

Although none of the North Bougainville languages has both aspect marker and subject marker in Structure B, Teop preserves the aspect marker, whilst the Buka verb introducer *e* appears to be the third person singular subject marker generalised to all persons (since the postverbal pronoun renders person/number distinctions of the subject marker redundant). We may also reasonably assume that a transitive verb occurring in nominalised form as a thematic topic or in a subordinate clause would have carried its object marker with it (and a verb of motion its directional marker). My Mono data in fact show no object- or directional markers in this context, but only independent clauses. However, this is probably a quirk of the data, as Mono, Torau and Uruava all incorporate object markers into Structure B verb phrases in independent clauses:

- MON (204) ROR0-IA SA-RIA
 V-om poss-pron
see-it Ø-they
'They could see it'
- TOR (205) A-AL0-DIA SA-GU
 redup-V-om poss-pron
make-them Ø-I
'I am making them'
- URU (206) PURA-PURA-IA E-MI
 redup-V-om poss-pron
do-it Ø-you.pl
'You are doing it'

Hence a fuller version of (203) is:

PNNT (207) (asp-) sm + [V]V (-om) + *na-/*e-pron (-dir)

In its third function, the nominalisation is not only non-recapitulative, but clearly independent, in that it is not relatable to the following clause. Thus (208a) is not relatable to (208b):

- MON (208) a. TA-TAI SA-NA SA-NA kanega taro-na
 redup-V poss-pron poss-pron
cry-cry Ø-she Ø-she man spouse-her
'She kept on weeping for her husband'
- b. elua boi ga l-AU-l nitua-ang hamata
 sm-V-om
two night ? he-stay-it spirit-at village
'For two nights he stayed at the spirits' abode'

Example (209) contains a nominalisation which has its *own* thematic topic (boitalu) and its *own* TVX structure (topic: hanua-ang Alu), and occurs independently at the conclusion of a narrative:

- MON (209) boitalu hanua-ang Alu ROR0-IA SA-RIA ga niunu
 V-om poss-pron
formerly people-at Alu see-it Ø-they ? coconut
'Formerly the Alu people could see the coconut palm'

In this third function, the nominalised form has become an independent verb phrase expressing habitual action. However, there is no indication in the Mono, Torau or Uruava data of any further development in structure beyond (207).

The North Bougainville languages, on the other hand, show a number of further structural changes, and it seems likely that it was at this stage that PNNT split into Pre-Torau and PNN.

3.3. Proto-North Bougainville-Nehan

It follows from the discussion in the preceding section that PNN should have had two verb-phrase structures, and this is indeed the approximate situation which obtains in the North Bougainville languages, with Structure A derived from the 'least marked' structure of PBV, and Structure B from verbal nominalisation.

It will be convenient to discuss the development of Structure B before Structure A.

3.3.1. Structure B

Structure B, as described for the various North Bougainville languages, is (brackets are omitted for clarity's sake):

(210)

PET SOL	vi	int	V	adv	{ cm om}		aux	sm	{ dir fut}	loc
HAK	vi	int	V	adv	cm	om	aux	sm	{ dir fut}	-
HAN SEL	vi	int	V	adv	cm	om	-	sm	{ dir fut}	loc
TEO	asp	-	V	adv	cm	om	aux	sm	dir	-
TIN	asp	-	[V]V	adv	cm	-	aux	sm	dir	-
TAI	vi	mod	V	{ adv dirV}	cm	om	aux	sm	-	-

On the basis of (210), we may make a tentative reconstruction of Proto-North Bougainville Structure B:

PNB (211) (asp-)vi (int +) [V]V (+ adv) (-cm) (-om) +aux-sm (-dir)

The phrase-final locative morpheme occurs only in the Buka languages and will not be considered further; other discrepancies between the North Bougainville structures will be considered below.

The PNNT forerunner of (211) was (207):

PNNT (207) (asp-) sm + [V]V (-om) + *na-/*e-pron (-dir)

The historical question which faces us is how (207) became (211). The question is basically: How did the additional elements in (211) come to be incorporated into the verb phrase in PNB? If it is recognised that the PNB verb introducer *e* is a direct descendant of the third-person subject marker in PNNT, and that the PNB 'auxiliary' morpheme is a direct descendant of *na-/*e-, then we are left with three elements to explain: the intentional morpheme, the incorporation of the adverb, and the origin of the case marker.

The motivating force behind these additions was the extension of function of verbal nominalisation from use in a presuppositional subordinate clause to use in an independent assertive clause. The extension necessitated structural innovations to cope with noun phrases in various case relations with the verb phrase and with adverbial modifications of the verb. In view of this, the most important innovation was the incorporation of the case marker into the verb phrase.

This is also the pattern throughout much of New Ireland:

and in Eastern Oceanic (Pawley 1972). It was probably the POC pattern and almost certainly the PBV pattern.

TAI (214) a mes TO TOK-IN NO-N A MOUN
vi V-om aux-sm NP
art man $\emptyset$ see-her pg-he art woman
'The man can see the woman'

It is this separation of object marker from noun phrase which provided the precedent for an analogous separation of a case-marking preposition from its noun phrase. The crucial factor in the analogy is that PBV prepositions themselves had a suffixed object marker co-referential with their noun phrase (as also often in POC; Pawley 1973:142-150).

BAN (215) me-a Vapai
prep-om
with-him Vapai
'with Vapai'

NEH (216) Maria me-s o kaluana
prep-om
Maria with-them art friend
'Maria and her friends'

Tabar (217) ma-i-a e Maris
 prep-tr-om
 with-Ø-him art Maris
 'with Maris'

The prepositional origin of the case marker is clear from the fact that even in the North Bougainville languages themselves it may occur in certain circumstances outside the verb phrase, as noted for Teop and Tinputz. A further example is:

SEL (218) amam MERE TAGA E LA-M-U i ratu
 PrepP vi V-sm-fut
we.e with art Taga Ø go-we.e shall at bush
'I shall go with Taga through the bush'

However, far more common is the 'boxed in' structure which separates the case marker and its object marker from the noun phrase with which it is co-referential:

HAN (219) none E GALA GONO-ME-RE-NA a gala pien
 vi V adv-cm-om-sm
 he Ø descend together-with-them-he art pl child
 'he is going down (to the beach) with the children'
 (Allen 1978:53)

This separation remains in Petats and Solos although they have deleted the co-referential object marker after a case marker:

PET (220) elia E LA GON-ME-G-U e Haroman i latu
 vi V adv-cm-sm-fut
 I Ø go together-with-I-shall art Haroman at bush
 'I shall go with Haroman through the bush'

It is easier to present the parallel developments involving the object marker and the preposition-object marker sequence through hypothetical PNN reconstructions than present-day examples, but examples (202) to (220) provide a basis for the reconstruction.

Our starting point is provided by Structure A forms in which the object marker is not separated from the noun with which it is co-referential. We reconstruct:

PNN (221) *e X E ATUNG-IA e Y
 sm V-om
 art X he hit-him art Y
 'X hit Y'

The parallel prepositional construction is:

PNN (222) *e X E LA MA-IA e Y
 sm V prep-om
 art X he go with-him art Y
 'X went with Y'

As was illustrated in (212) and (214) above, the B form separates the noun phrase from its object marker, so that the present progressive equivalent of (221) is:

PNN (223) *e X E ATUNG-IA NA-NA e Y
 sm V-om aux-sm
 art X he hit-him Ø-he art Y
 'X is hitting Y'

The parallel 'prepositional' construction, i.e. the present progressive equivalent of (222) is:

PNN (224) *e X E LA-MA-IA NA-NA e Y
 sm V-cm-om aux-sm
 art X he go-with-him Ø-he art Y
 'X is going with Y'

With this shift, the PNN case marker construction attested by (219) and (220) arises out of the prepositional construction.

An alternative possibility was noted in Teop and occurs sporadically in the North Bougainville languages, namely leaving the case marker in its 'prepositional' position outside the verb phrase. Hence, as an alternative to (224) we may reconstruct:

PNN (225) *e X E LA NA-NA MA-IA e Y
 sm V aux-sm prep-om
 art X he go Ø-he with-him art Y
 'X is going with Y'

Since the structure illustrated in (224) occurs more often in the North Bougainville languages than (225), it appears that an alternative resegmentation of the sequence verb + preposition + NP had taken place in PNN on lines similar to English, whereby 'X is going with Y' can be relativised either as 'It is Y, with whom X is going' or the preferred 'It is Y that X is going with'. In the preferred form, 'with' is treated as part of the verb phrase 'is going-with'. North Bougainville relativisation works like the preferred English form, leaving the case marker in the verb phrase:

PET (226) a katun, T-E LA GON-ME-GU-M an, e Haroman
 rel vi V adv-cm-sm-dir
 art man, who-Ø go together-with-I-come, art Haroman
 'The man with whom I have come is Haroman'

Relativisation in PNN must have worked the same way:

PNN (227) *a tioni, TO U LA-MA-IA NA-GU, e X
 rel sm V cm-om aux-sm
 art man, who I go with-him Ø-I, art X

Although the object marker is lost in this context in SOL and PET (and disappears sporadically in other North Bougainville languages), the evidence above points towards its reconstruction here. Its presence aids recovery of the case of the relativised noun, and perhaps contributed to the reanalysis of the verb + preposition sequence as a transitive verb 'go-with'.

All the examples above employ the case marker -me- 'associative'. However, the other case markers appear to have developed in a similar manner. They are:

(228)	'benefactive'	'directional'
PET	-	-
HAK	-ve-	-wa-, -u-
HAN	-be-	-wa-, -u-
SEL	-bua-	-wa-, -u-
SOL	-bo-	-p(u)-
TEO	ki- ka-	-vo-
TIN	ke- ka-	-vu-
TAI	of-	-

Taiof has no directional case marker, but a relic of it may occur as -o in nao 'go' (< PBK *la 'go' + *u(a) 'directional'?). I cannot explain the origin of the Buka benefactive marker. However, the Teop/Tinputz benefactive marker may be cognate with the New Ireland dominant possessive morpheme *ka-, which sometimes has benefactive force:

Tangga (229) ansiak gi ke Siarafut
 bamboo this for Siarafut
 'This bamboo is for Siarafut'

The Taiof benefactive marker -of- appears to be cognate with the Proto-Malaitan reconstruction *'ofi 'for' (Keesing 1975:245), indicating PBV *govi, PNN *ovi- 'for'.

The origin of the directional marker is puzzling, as it co-occurs with the preposition i in those languages which have it:

HAN (230) alia LA-U i Hanahan
 V-cm
 I go-to at Hanahan
 'I went to Hanahan'

This sequence is reminiscent of one in southern New Ireland where a directional morpheme *u* precedes a locative preposition:

Tangga (231) A LA u na Amfar
I go to at Amfar
'I am going to Amfar'

The directional marker *u* would then have been 'boxed in' in the same way as *-me-* 'associative':

HAN (232) alia E LA-WA-G i han
 vi V-cm-sm
I Ø go-to-I at home
'I am going home'

The directional marker *-u-~wa-* is never followed by an object marker, the absence of which is predictable from the hypothesis above.

Other items which were part of the 'least marked' verb-phrase structure in Proto-Bougainville were also 'boxed in' in the PNN Structure B. Thus the adverb tended to directly follow the verb, and to precede the object marker in a transitive verb, so that when the verb was 'boxed in' by the auxiliary + subject marker sequence, these two elements both remained with it. Thus:

PNN (233) *e X E LA GONO MA-IA e Y
 sm V adv prep-om
art X ge go together with-him art Y
'X went together with Y'

developed a present progressive equivalent:

PNN (234) *e X E LA GONO MA-IA NA-NA e Y
 sm V adv cm-om aux-sm
art X he go together with-him Ø-he art Y
'X is going together with Y'

corresponding to the development from (222) to (224), and attested by (219) and (220).

Similarly a generic/non-referential noun object was and is incorporated into the verb phrase, displacing the object marker. Thus in (235) the presence of the object marker *-a* indicates the referentiality of the object, and in (236) its absence indicates generic status:

BAN (235) nna K-E TSUN-A-MA i borogho
 asp-sm V-om:3sg-dir
he cmp-he kill-it-here art pig
'He killed a (particular)/the pig'

BAN (236) na K-0 TA KUU manguri
 asp-sm asp V
I cmp-I fut drink coconut
'I am drinking coconut'

The Banoni treatment of referential and generic objects follows a common Oceanic pattern. Fijian behaves similarly:

Fijian (237) e GUNU-V-A na wai na gone
drink-tr-om:3 art water art child
'The child drinks the water' (referential)

(238) e GUNU WAI na gone
drink water art child
'The child drinks water' (Foley 1976) (generic/non-referential)

It is reasonable to assume that this was the pattern of POC and PBV, and that in PNN the Structure A pattern of (239) developed a Structure B equivalent in (240):

PNN (239) *e X E AN KORITI
 sm V obj
 art X he eat taro
 'X ate taro'

PNN (240) *e X E AN KORITI NO-NA
 sm V obj aux-sm
 art X he eat taro Ø-he
 'X is eating taro'

This development is attested by (241):

TEO (241) ena NA AN MUNIHI TAMUANA NOM
 asp V obj adv aux.sm
 I na eat taro daily Ø.I
 'I eat taro every day'

In section 3.1.1. above, it was shown that the various object-marker systems in North Bougainville languages represent varying stages in the decay of the original object-pronoun suffixes of Proto-Bougainville. The demise of the object-marker system in North Bougainville was apparently the result of two interacting factors, one syntactic, the other phonological. The syntactic factor is the use of independent pronouns within the TVX structure attributable to PBV. The X portion of TVX contains at least one 'new' element, and where the new element in Proto-Bougainville was a personal pronoun, it was marked by the non-topic form of the pronoun in addition to the clitic or suffixed pronoun form. Thus a clause with the presupposition 'X did something to me' would read:

PNN (242) *e X E ATUNG-AU
 art X he hit-me
 'X hit me'

whereas with the presupposition 'X hit someone', it would read:

PNN (243) *e X E ATUNG-AU lau
 art X he hit-me me
 'X hit me'

It is probable that by the time PNN split into Nehan and Proto-North Bougainville, the structure illustrated in (243) had become unmarked and had displaced (242), as Nehan has lost its object markers:

NEH (244) kaloko K-E HALOH toto-guo
 Kalok past he hit ta-me
 'Kalok hit me'

and the North Bougainville languages only permit (243):

TAI (245) e Maras TO RAK-MA na
 art Maras Ø hit-1/2 me
 'Maras hit me'

The use of a non-topic independent pronoun in the X-part of TVX in North Bougainville languages is not limited to objects. It results originally from 'new'-ness in the post-verbal X region and has become the unmarked form of any non-topic pronoun. Its use for demoted — i.e. non-topic — subjects was illustrated in section 3.1.1. above. It is used in the same way for case-marked pronouns:

TAI (246) e Maras sivon NONGOS ME-MA-RO-Ø NA
 V cm-om-aux-sm Pron
 art Maras self be with-1/2-Ø-he me
 'Only Maras lives with me'

SEL (247) Taga atua T-E SOUSOUO ME-N LA
 rel-vi V cm-sm Pron
Taga only that-Ø live with-he me
'Only Taga lives with me'

A similar process has affected dominant/subordinate possessive constructions, in which the preposition *ta is used (as in much of Oceania: Pawley 1973:148-150). The PBV construction was as in:

PBV (248) *a Ruma [ta]ta-gu
 art house at-me
'my house'

as in Tigak (New Ireland) a lui tata-k. However, in contexts where the pre-supposition is *'the house belongs to someone'*, an independent non-focal pronoun was added:

PNN (249) *a Ruma eni [ta]ta-gu lau
 art house this at-me I
'this house is MINE'

By the break-up of PNN this had become the unmarked form, so that we find a reflex of *lau 'I' not only in the potentially marked case:

SEL (250) a ruma eni ta-g-la
 art house this at-me-I
'this house is MINE'

but also in the unmarked case:

SEL (251) a ruma ta-g-la eni
 art house at-me-I this
'my house is THIS ONE'

The result is that Nehan and all the North Bougainville languages except Solos have possessive pronoun suffixes which are composed historically of the original possessive suffix and an independent pronoun, whilst the original possessive suffixes have become (except in Nehan) the subject markers of Structure B verb phrases. For example, for the second person singular:

(252)	Possessive	Subject-marker	Non-topic pronoun
NEH	-mua < -mu-a	-	a
PET	-mulou <	-m(u)	lou
HAK	-mulu <	-mo	lu
HAN	-mulo <	-mu	lo
SEL	-mli <	-m	li
SOL	-o	-m	-o
TEO	-man <	-m	an
TIN	-ma <	-m	wa
TAI	-mon <	-mu	an

The phonological factor at work in the decay of object pronouns is similar to the process of phonological simplification which has led to the reanalysis of two morphemes as one in the possessives. However, whereas the redundancy of two pronouns has led to the collapsing of two morphemes into one in the possessives, the object marker is boxed in and separated from the independent pronoun, and has undergone phonological attrition, and reinterpretation as a marker of transitivity alone. Thus the earlier PNN forms:

- PNN (253) *e X E ATUNG-MAMI NA-NA lami
 art X *he hit-us* e aux-*he us*
'X is hitting US'
- (254) *e X E ATUNG-MIU NA-NA limiu
 art X *he hit-you.pl* aux-*he you.pl*
'X is hitting YOU'

were reduced to:

- PNN (255) *e X E ATUNG-MA NA-NA lami/limiu
'X is hitting us/you'

and the loss of person/number marking triggered the extension of *-ma to the first person singular illustrated in Taiof (245) and (246) above.

This attrition is still going on in Taiof, Tinputz and Teop, but is complete in Petats and Solos, where only one object marker survives for all persons. This object marker therefore became redundant after a case marker and was deleted.

In Selau, illustrated in section 2.2.7., matters have taken a different turn. Instead of being deleted, the object marker (which distinguishes singular and plural) has been reinterpreted in the context of a case marker so that it is co-referential not with the case-marked noun phrase but with the object noun phrase (example (110)).

The developments described in this section have brought us from the verbal nominalisation of PNNT, with the structure:

- PNNT (207) (asp+) sm + [V] V (-om) + {^{*na}_{*e-}} -pron (-dir)

to a PNN structure:

- PNN (256) (asp+) sm + [V] V (+adv) (-cm) (-om) -{^{*na}_{*e-}} -sm (-dir)

The remaining developments which gave rise to the PNB structure:

- PNB (257) (asp) (vi) (+int) + V (+adv) (cm) (-om) (-aux) -sm {^{dir}_{npr}}

have been largely foreshadowed by previous discussion, and are motivated by the drive to eliminate redundancy from a highly complex verb phrase structure.

An important development which apparently occurred before the break-up of PNN was the attribution of function to the now functionless morphemes *na- and *e-, originally markers of nominalisation. From their origin in subordinate temporal clauses, Structure B verb phrases developed progressive ('(as) they were going') and near past ('having reached ...') senses, which seem to have been attributed to *na- and *e- respectively. Taiof witnesses to this distinction. Any possessive sense which *na- and *e- might have retained was lost with the replacement of the possessive construction by the *ta construction in PNB. The attribution of a progressive sense to *na- rendered reduplication redundant, and it disappeared.

The origin of the morpheme -u (Buka 'future', Teop 'non-present') at the end of the verb phrase is obscure, but its distribution shows that it arose at the PNN or PNB stage, probably as part of the reallocation of tense/aspect functions.

Once Structure B was well established as the verb phrase of an independent clause with, among other senses, a potentially future use, then the integration into it of the intentional morphemes *la 'go' and *me 'come' (derived from directional verbs) was a natural step, as in:

- PET (258) elia E NA NALA-G-U
 vi int V-sm-fut
I Ø go cry-I-shall
'I shall go and cry'

3.3.2. Structure A

The 'least marked' verb phrase of PBV:

PBV (259) (asp+)sm(+dirV) + V (+adv)(-om)(-dir)

underwent only a minimal change to produce PNN Structure A:

PNN (260) (asp+)sm(+int) + V (+adv)(-cm)(-om)(-dir)

namely the incorporation of the case marker into the verb phrase by analogy with Structure B. Whereas in Structure B however, this incorporation occurred through the 'boxing in' of the case marker, in Structure A it occurred by simple affixation. To return to reconstruction:

PNN (261) *elia GU LA ma-ia e X
 sm V prep-om
I I go with-him art X
'I went with X'

a weakening of boundaries gave:

PNN (262) *elia GU LA-MA-IA e X
 sm V-cm-om
'I went with X'

reflected in relativisation:

PNN (263) *e X TO GU LA-MA-IA eni
 rel sm V-cm-om
art X who I go-with-him this one
'(It was) X, that I went with'

where *eni serves as mandatory non-topic pronoun as attested by:

PET (264) e Haroman, TU GU LA-M-EN
 rel sm V-cm
art Haroman who I go-with him
'(It was) Haroman that I went with'

3.3.3. Nehan

Nehan was attributed by Capell (1971:259-261) to the New Ireland family. Lincoln (1976) attributes it to the Bougainville regional grouping, but not to a specific subfamily. Todd's (1978) study of its grammar enables it to be assigned to the North-Bougainville-Nehan group proposed in this paper, although, as Lincoln points out, it has long been separated from the languages of the rest of Bougainville.

The main grammatical clues to its membership presented above were:²¹

- its strongly TVX structure;
- its lack of case marking;
- the affixation of non-topic independent pronouns to possessive pronoun suffixes;
- the verb kae- 'be situated, exist', which takes possessive-type pronoun suffixes as subject markers and is derivable from PNN *ka- 'be' + *e- 'auxiliary'.

Feature (d) indicates that Nehan once had Structure B, but has lost it, retaining only the kae- structure. What appears to have happened is that Structure A and Structure B were merged, the sequence (-cm)(-om) was lost from Structure A, and the sequence (-cm)(-om)(aux-sm) from Structure B, leaving the Nehan verb phrase reported in section 2.2.3.:

An important clue to the probability that Pre-Nehan had the case markers of PNN but lost them lies in the lack of prepositional case marking in Nehan and its identical treatment of all non-topic cases. It has been hypothesised above that prepositions became case markers in PNN; these case markers were lost in Pre-Nehan, leaving all non-topic cases identically marked.

Whereas Nehan apparently eliminated the redundancy of the two subject markers in Structure B by losing the postverbal subject marker, PNB took the opposite course and reduced the preverbal subject markers to a verb introducer *e*, originally the third singular subject marker. This simplification has spread gradually to the Structure A (preverbal) subject marker (see table (170) above), and loss of person/number distinction is compensated by the use of topic or non-topic independent pronouns as subject. This left the PNB skeleton structures.

- | | | | |
|-----|-------|---------------------------------|-------------|
| PNB | (266) | (asp+)sm... + V...(-dir) | Structure A |
| | (267) | (asp+)vi... + V...-aux-sm(-dir) | Structure B |

In Pre-Buka, the potential redundancy of a preverbal aspect marker and a post-verbal aspect-marking auxiliary in one verb phrase was eliminated by loss of the aspect marker. However, the 'near past' auxiliary *-e- was then lost by phonological attrition, and its function attributed to the directional marker, giving:

- | | | | |
|-----|-------|----------------------------------|-------------|
| PBK | (268) | sm ... + V ... (-dir) | Structure A |
| | (269) | vi ... + V ... (-aux) -sm (-dir) | Structure B |

In Pre-Saposa-Tinputz, retention of the aspect marker marked the onset of the verb phrase, rendering the verb introducer and the already decayed preverbal subject markers redundant and resulting in their loss. Hence:

- | | | | |
|-----|-------|-------------------------------|-------------|
| PST | (270) | asp ... + V ... (-dir) | Structure A |
| | (271) | asp ... + V ... -aux-sm(-dir) | Structure B |

In Taiof, the aspect marker was lost, but the postverbal auxiliary distinction between *-na- and *-e- remained. A result of this loss was the absence of any marker showing the onset of the verb phrase. The formal identity of the Taiof/Tinputz verb introducer to and the Teop relative marker to was noted earlier, and it is evident that Pre-Taiof and Pre-Tinputz demarked the Pre-Saposa-Tinputz focus construction so that it became the least marked structure. The focus construction in Teop includes a relative clause:

- TEO (272) e Ivihi, TO PA TARA-U na
rel asp V-npr
art Ivihi, who past see-u I
'(It was) Ivihi (that) I saw'

Its earlier, Pre-Taiof, equivalent was:

Pre-TAI (273) *e X, TO TARA-I nga
 rel V-om
 art X, *who see-him I*
 '*(It was) X (that) I saw*'

However, the unmarked equivalent of (273) did not mark the verb onset:

Pre-TAI (274) *anga TARA-I e X
 V-om
 I *see-him* art X
 '*I saw X*'

and so (273) was demarked (and replaced (274)), leaving to as verb introducer:

Pre-TAI (275) *e X TO TARA-I nga
 vi V-om
 art X Ø *see-him I*

where the object marker *-i guarantees proper case-recovery and the gloss '*I saw X*' (not '*X saw me*'). This is the situation that obtains in present-day Taiof and that has resulted in a relativisation strategy different from that of all other North Bougainville languages (section 2.2.10).

4. CONCLUSIONS

It can by no means be claimed that this paper gives a complete description of even the 'least-marked' verb phrases of Bougainville Oceanic languages, and the sketch of their historical developments given here neglects much, especially in the area of morphophonemics. The attempt to trace these developments, however, provides some justification for the genetic groupings given in Figure 1, and provides a family-tree, which, as Lincoln (1976a) observed, is only partly possible with phonological and lexical data.

The division of the Bougainville family into a West subfamily (Banoni, Piva) and the North-Nehan-Torau cluster is motivated by:

- (a) the retention of PBV *g in the West subfamily and its loss in all other languages;
- (b) the development of the structure of verbal nominalisation to 'least marked' status in the North-Nehan-Torau languages.

The division of the North-Nehan-Torau cluster into an East subfamily (Mono, Torau, Uruava) and a North-Nehan group is motivated by the continued development in the function and structure of Structure B (< verbal nominalisation) in the North Bougainville languages, with which Nehan is grouped for the reasons given in section 3.3. The East subfamily also stands out as the only group in Bougainville to distinguish reflexes of POC *nt and *nd. However, it is just possible that Nehan retains this distinction also.

The North-Nehan group is assumed on the basis of very limited data to include Papapana, as it shares with the North Bougainville languages and Nehan the division of nouns into two categories: 'clearly countable' (PNN article *a) and 'not clearly countable' (PNN article *o).

An account of the sequence of splits in the North Bougainville subfamily is provided in the section immediately above the present one.

NOTES

1. My thanks go to Robert Blust, Ross Clark, Peter Lincoln and Darrell Tryon for their comments on an earlier version of this paper. Full responsibility for this revised version, however, lies with me.
2. In an earlier version of this paper it was suggested that the Bougainville and New Ireland families belonged to a much larger higher-order subgroup of Oceanic. However, there is evidence that most of the features crucial to establishing this subgroup may be retentions of previously unreconstructed POC contrasts (Ross 1981). Hence, although such a subgroup has not been refuted, the evidence for it is weakened.
3. The features here are the result of my own analysis of the sound- and cognate correspondences among most of the Oceanic languages of New Ireland and Bougainville, based on my own data, and a more cursory analysis of Choiseul languages, using data from Capell (1968) and Lanyon-Orgill (1950).
4. The bracketing conventions employed in reconstructions are:
 - (X) phoneme X may or may not have been present;
 - (X,Y) either phoneme X or phoneme Y was present;
 - [X] alternate reconstructions with and without phoneme X are supported by the data;
 - [X,Y] alternate reconstructions, one with phoneme X, the other with phoneme Y, are supported by the data.
5. SIS BAB re is of unknown origin; PNI *[i]u, *nu reflect POC *[i]-[n]u; PBV *goi reflect POC *[i]-ko[e]; SIS Öra, BAB zira reflect POC *ida; and PNI *di[a], PBV *[a]-Di[a] reflect POC *-[n]ti[a]. (POC pronoun reconstructions are from Ross 1981).
6. My knowledge of Banoni syntax came first from Lincoln's (1976b & c) work, for which I am very grateful. My knowledge of Nehan syntax comes partly from Todd (1978), to whom I am also indebted. I would also like to thank the following informants, who provided lexical and/or syntactic data: Mr Andrew Belanias, Yatchibol village (Nehan); Mr John Tsihakou, Nova village, and Miss Helen Hosian, Hapan village (Solos); Miss Mary Koisan, Pororan Island, and Miss Dinah Teit, Petats Island (Petats); Miss Alina Masina, Lontis village, and Mr Samu Sasama, Lemanmanu village (Haku); Miss Josephine Wariu, Baniata village (Selau); Miss Josephine Tosan, Jupuno village, and Miss Rose Sisip, Kokoteni village (Taiof); Mr Ezekiel Ivihi, Takani village, and Miss Roslyne Purupuru, Teop village (Teop), Mr Chanel Suston, Sisiko village (Tinputz); Miss Ann Sirinai and Miss Rose Magasa, Rorovana village (Torau); Sr Mary Patricia, Mariga village (Banoni); and Mr Moses Biliki, Gagara village (Sisingga). To all my informants, students and teachers following programmes at the Goroka campus of the University of Papua New Guinea, I owe a debt of gratitude for their patience and goodwill.
7. Text sources are Lincoln (1976b & c) for Banoni and (1976c) for Piva; Wheeler (1913a) for Mono; Todd (1978) for Nehan; Allen (1978) for Hanahan; Hostetler and Hostetler (1975) for Tinputz; and a Saposa manuscript kindly provided by David Snyder of SIL.

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