OCEANIC STUDIES: PROCEEDINGS OF THE FIRST INTERNATIONAL CONFERENCE ON OCEANIC LINGUISTICS

edited by
John Lynch and Fa'afo Pat

Department of Linguistics
Research School of Pacific and Asian Studies
THE AUSTRALIAN NATIONAL UNIVERSITY

TABLE OF CONTENTS

EDITORS' FOREWORD

As the International Conferences on Austronesian Linguistics got bigger and bigger, a number of specialists in the languages of the Oceanic subgroup felt that a return to a smaller, more informal conference was a good idea – one where discussions over tea and coffee, beer or kava, were just as important as the paper presentations themselves. Paul Geraghty in fact provided the inspiration for the First International Conference on Oceanic Linguistics (FICOL): he wanted a conference which did not have parallel sessions, and which did have tea-breaks (and tea!) – and he also wanted an opportunity to re-sample the delicious French pastries available in Vila.

And so FICOL was conceived. In early July 1993, forty or fifty Oceanic linguists converged on Port Vila, the capital of Vanuatu, where the University of the South Pacific's Pacific Languages Unit is based, for a week of discussion and debate. Not all the papers given at FICOL are included in this volume – some were already committed elsewhere, and some are doubtless still undergoing gestation! – but this collection contains 26 of the 41 papers delivered at the Conference.

In the hosting of the Conference itself, we are grateful to the University of the South Pacific for its financial assistance, and to Andonia Piau-Lynch and the staff of USP's Vanuatu Complex for ensuring that the Conference ran smoothly. We are also grateful to the editorial staff of the Department of Linguistics in the Research School of Pacific and Asian Studies, Australian National University, for seeing a multitude of diskettes and manually-typed papers into a consistent and well-produced format.

Finally, we hope that the initiative in mounting FICOL will see an ongoing series of productive, and enjoyable, ICOLs.

<div style="text-align:right">

John Lynch and Fa'afo Pat
Port Vila, Vanuatu

</div>

THE CONTRIBUTORS

Robert Blust is Professor of Linguistics at the University of Hawai'i in Honolulu, where he received his PhD in 1974. He has conducted linguistic fieldwork in Malaysian Borneo, Papua New Guinea and, most recently, Taiwan. His research interests, which have produced over 100 publications in more than 20 linguistics, anthropology and archaeology journals worldwide, include the comparative-historical study of the Austronesian languages, Austronesian culture history and problems of explanation in ethnology.

The late Reverend William Camden was closely associated with Vanuatu for over thirty years, having taught at the Presbyterian Bible College (formerly the Tangoa Training Institute) on Santo, and since its inception led the Kokonas Bible Translation team in Vanuatu. Apart from his skills as a translator, Bill Camden was also the author of the first major Bislama dictionary, and a number of seminal papers on the relationship between Bislama and local vernaculars of Vanuatu.

Ann Chowning was born in Arkansas and received her BA in Spanish from Bryn Mawr College and her MA and PhD in anthropology from the University of Pennsylvania. Since 1954 she has been carrying out long-term anthropological fieldwork in Austronesian-speaking societies in Papua New Guinea, three in West New Britain and one in the Milne Bay Province. She is Professor Emeritus of Anthropology at Victoria University, Wellington, New Zealand.

Tom Dutton is a Senior Fellow in the Department of Linguistics, Research School of Pacific and Asian Studies, at the Australian National University, where he received his PhD (for a study of Koiarian languages) in 1969. His main interests are in the two major lingua francas of Papua New Guinea, Tok Pisin and Hiri (formerly Police) Motu, in descriptive and comparative-historical studies in non-Austronesian languages in south-east mainland Papua New Guinea, and in language-contact phenomena in this area.

Nicholas Faraclas is a Senior Lecturer in linguistics at the University of Papua New Guinea. Having received his PhD from the University of California at Berkeley, a National Science Foundation Fellowship and two Fulbright Fellowships, he has developed and taught courses and published several books and articles in the areas of theoretical, descriptive, socio- and applied linguistics. After continuous involvement in community-based literacy activities over the past two decades in Latin America, Africa and the South Pacific, he is now working with indigenous NGOs in the movement for critical literacies in Papua New Guinea, the Solomon Islands and Vanuatu.

Greg Fox studied French and classical languages at Sydney University and, after five years teaching in Sydney high schools, spent from 1969 to 1983 on New Testament translation into the Big Nambas and Ifira languages of Vanuatu. After ten years as a pastor in Brisbane, he has returned to Sydney, where he combines pastoral ministry with teaching Biblical Greek and Hebrew in John Knox Theological College.

Helen Fox has been involved in all the studies and translation work which her husband Greg has done with the exception of Biblical Hebrew. She was vitally involved in the preparation of the Big Nambas and Ifira New Testaments for publication. She is at present teaching Latin at Sydney Girls' High School.

Paul Geraghty was born in England of Irish parentage and educated at Rugby School and Cambridge University. His doctoral dissertation, from the University of Hawaii, was on the history of the Fijian languages. He works for the Government of Fiji as Director of the Institute of Fijian Language and Culture, and is interested in linguistics as a tool in reconstructing Pacific prehistory, and in the development of contemporary Pacific languages.

Robin Hooper teaches linguistics in the Department of English at the University of Auckland. Her research is concerned with comparative Polynesian syntax and semantics, and in particular with the Tokelauan language, which was the subject of her doctoral dissertation from the University of Auckland.

Wassissi Konyi is from Maré, New Caledonia. After completing his baccalaureate in Nouméa, he took a Masters in anthropology and linguistics at the University of Paris III La Sorbonne Nouvelle, and a postgraduate diploma, his theses in both cases being on aspects of the phonology of his native Nengone. He has been in charge of research in the Agence de Developpement de la Culture Kanak in Nouméa since 1990.

Ernest W. Lee was born in Ohio in 1931 and has served with the Summer Institute of Linguistics since 1956, including ten years in Vietnam and the last fifteen in the Solomon Islands, where he has been involved in literacy work and Bible translation in Solomon Islands Pijin. His PhD dissertation from Indiana University in 1966 was a reconstruction of Proto Chamic, and he maintains an interest in the Chamic languages of Southeast Asia. He is currently teaching language discovery, translation principles and writing in Pijin at the Bishop Patteson Theological College of the Church of Melanesia in the Solomon Islands.

Richard Leona is a former schoolteacher from Loltong, North Pentecost (Vanuatu). He has collaborated with David Walsh – in Vanuatu, at the Australian National University, and at the University of Sydney – on the compilation of a Raga dictionary. He is currently recording Raga oral history as a fieldworker for the Vanuatu Cultural Centre.

Heather Lotherington was until recently Senior Lecturer in Education at the University of the South Pacific where she specialised in language education. She is now a lecturer in linguistics at Monash University, Melbourne. She received her PhD in Educational Linguistics from the University of Toronto in 1989. Her research interests include second language acquisition, reading in a second language, bilingual education and language policy.

John Lynch did an undergraduate degree in anthropology at the University of Sydney and then obtained his PhD in linguistics from the University of Hawai'i. Having taught linguistics for twenty years at the University of Papua New Guinea, he is currently the Director of the University of the South Pacific's Vanuatu-based Pacific Languages Unit. He has carried out extensive fieldwork in southern Vanuatu, and has also worked on other Austronesian and Papuan languages, as well as Melanesian Pidgin. His main interests are in comparative Oceanic linguistics and Oceanic linguistic prehistory.

Ross McKerras is a New Zealander who has been working with the Summer Institute of Linguistics in Vanuatu since 1983. He is collaborating with Mark Natunmal and other Uripiv people to produce a translation of the New Testament in Uripiv and an Uripiv-English dictionary.

Meredith Osmond holds an MA in linguistics from the Australian National University. Since 1991 she has been working part-time on the compilation of a Proto Oceanic lexicon organised on semantic principles. The project is being undertaken at the ANU under the direction of Andrew Pawley and Malcolm Ross.

Bill Palmer is a doctoral student at the University of Sydney. In 1991 he completed an MA in linguistics with a thesis proposing a morphemic approach to morphology. At the end of 1994 he returned from fieldwork on Santa Isabel, Solomon Islands, and is currently writing a grammar of the Kokota language.

Fa'afo Pat is a native speaker of Hula. After teaching for a time at the University of Papua New Guinea, she did an MA in linguistics at the University of York in England, then joined the University of the South Pacific's Pacific Languages Unit in 1992. Her research interests are in pidgin and creole languages, psycholinguistics (language learning), social aspects of language and translation.

Andrew Pawley received his PhD from the University of Auckland in 1967 and is Professor of Linguistics in the Research School of Pacific and Asian Studies, at the Australian National University. His main research interests are in the description and history of languages and cultures of Pacific Island peoples and in the nature of linguistic and communicative competence. He has done fieldwork in Papua New Guinea, Fiji, Samoa and Tasmania.

Malcolm Ross is a Fellow in the Department of Linguistics, Research School of Pacific and Asian Studies, at the Australian National University. Previously he spent ten years in various positions in Papua New Guinea, with the result that his doctoral dissertation, from the ANU, was on the prehistory of the Austronesian languages of Papua New Guinea and the western Solomons. His research interests include Austronesian and Papuan languages and comparative/historical linguistics, especially where contact-induced change is involved.

Gillian Sankoff was born in Montréal, Québec, and was educated at McGill University, where she studied with the late anthropologist Richard Salisbury. Her PhD, in linguistic anthropology, was a study of a trilingual village in Morobe Province, Papua New Guinea. She made five research trips to that country between 1966 and 1975. While teaching in the Anthropology Department at the Université de Montréal (1968-1979), she also carried out sociolinguistic research on spoken French. In the Linguistics Department at the University of Pennsylvania (which she chaired from 1987-1993), her major research foci have remained bilingualism, language contact and creolisation.

Melenaite Taumoefolau is a Tongan student at the University of Auckland presently working on a doctoral thesis on problems in monolingual Tongan lexicography. She obtained a BA in English and History and a concurrent Certificate in Education at the University of the South Pacific, and an MA in English as a Second/Foreign Language at the University College of North Wales. She is most interested in research in first and second language acquisition and how this may contribute to knowledge about the nature of language in general.

Darrell Tryon is a Senior Fellow in the Department of Linguistics, Research School of Pacific and Asian Studies, at the Australian National University. He has specialised in Austronesian descriptive and comparative linguistics in Oceania, particularly in Vanuatu and the Solomon Islands for the past thirty years. His interests also include pidgin and creole linguistics.

Craig Volker is an assistant professor in the School of Languages of the Gifu University for Education and Languages in Japan. He graduated from the University of Montana and studied at the University of Queensland before receiving his PhD from the University of Hawai'i in 1994. His research interests are the pidgin languages of the New Guinea Islands (Tok Pisin and Creole German) and New Ireland languages. He has recently begun work on a dictionary of the Nalik language of New Ireland.

David S. Walsh was born near Stonehenge of Irish and Scottish parents. After graduating from the University of Auckland, he was research linguist (1965-67) for the Bernice P. Bishop Museum's Polynesian Culture History Project. From 1967 until his retirement in 1989 he lectured in anthropological linguistics at the University of Sydney, where he received his PhD in 1983. Fieldwork on the languages of Pentecost Island, Vanuatu, led to his long-term collaboration with Richard Leona on the compilation of a dictionary of the Raga language.

Afamasaga Malia Malaki Williams was born and educated in Western Samoa, and then completed a BA at the University of Auckland and a teaching diploma at Auckland College of Education. In 1976 she returned to Western Samoa and first taught at Samoa College and Western Samoa Secondary Teachers' College, then worked as a translator/interpreter for the Legislative Department, before migrating to New Zealand in 1983. She taught Samoan language at Hillary College until 1991, when she started the Samoan language programme at Auckland University. She has recently completed her MA and is currently working on a PhD on *matai* language and oratory in Samoan.

Deanne Wilson was born in Whangarei and is currently at the University of Auckland where she is working on a doctoral dissertation examining regional variation in Māori. Her abiding linguistic interest is in word formation.

THE LINGUISTIC POSITION OF THE WESTERN ISLANDS, PAPUA NEW GUINEA

ROBERT BLUST

1. GEOGRAPHICAL SETTING[1]

The Admiralty Islands lie in the north-western extremity of island Melanesia, between roughly one and three degrees south latitude. Together with the large islands of New Ireland, New Britain and their satellites, they form the Bismarck Archipelago. By far the largest island in the Admiralty group is Manus, with an east-west length (including the contiguous Los Negros Island) of about 100 km, and a maximum width across its hilly, heavily forested interior of about 30 km.

The north shore of Manus is fringed by a chain of populated islets, located generally at a distance of no more than 5 to 7 km, and all within sight of the main island. The most important of these (from west to east) are Harengan, Sori, Ponam, Andra, Hus and Pitjilu. In the same category we should perhaps include Bipi, situated a short distance off the western tip of Manus.

To the south of Manus is a far less compact and orderly collection of volcanic islands, ranging in distance from one or two to 40 km from the main island. The largest of these are Lou, an important source of prehistoric trade obsidian, and Baluan, noteworthy for its extensive disused stoneworks, locally attributed to the 'Mapou men', said to be a vanished race of little people. The nearer islands are occupied by speakers of Titan (the 'true Manus' of Mead 1930), and the Baluan-Pam-Lou group by speakers of south-east Admiralty languages (the 'Matankor' of most earlier writers).

Another congeries of volcanic islands that is also occupied by speakers of south-east Admiralty languages lies to the east of Manus at distances ranging from 15 km (Pak) to 80 km (Nauna) from the main island. The largest of these, second in size only to Manus itself is Rambutyo, located some 35 km south-east of Los Negros Island.

Manus, its immediate satellites, and the south-east Admiralty islands constitute a relatively discrete geographical unit centred just below two degrees south latitude, and except for Nauna bounded within 146'30'' and 148' east longitude. In earlier publications such as Moseley (1877), Ray (1891), and Schnee (1901) these were the only referents of the expression 'Admiralty Islands'. However, since Thilenius (1903), certain other islands to the west and north have been included – usually implicitly – in a larger Admiralty group. In order from east to west these are: 1) the tiny, remote Kaniet Islands, about 180 km north-west of the western tip of Manus, 2) the minute Anchorite Islands, some 40 km to the north-

---

[1]   I am indebted to Malcolm Ross, who read and provided valuable commentary on an earlier version of this paper. Any surviving errors of fact or interpretation remain my sole responsibility.

west of Kaniet, 3) the Agomes, or Hermit group (sometimes called Luf, from the name of the coral-ringed central high island), around 80 km south-west of Kaniet, or 180 km west and slightly north of the western tip of Manus, 4) the numerous atolls of the large Ninigo Lagoon, approximately 60 km further to the north-west, 5) the small island of Aua, Hunt or Durour, about 280 km north-West of Manus, and 6) approximately 40 km to the south-west of Aua the slightly larger island of Wuvulu, or Maty. Thilenius (1903) labelled these islands collectively the 'Western Islands of the Bismarck Archipelago'; other writers, such as Dempwolff (1904) and Grace (1955), have shortened this to the 'Western Islands'. With the exception of the Anchorite and Kaniet Islands, which are slightly north of one degree south latitude, all of the Western Islands (WI) lie between one and two degrees south latitude, and between approximately 143'50'' and 145'25'' east longitude.

Wuvulu and Aua are closer to the New Guinea mainland than to Manus, the first being less than 200 km from the Sepik coast, and only 180 km from Wogeo in the Lesser Schouten Islands. According to Hambruch (1908) Wuvulu warriors formerly raided the Sepik region, paddling their large war canoes, as they lacked sails.

The languages of the Admiralty Islands, together with numbers of speakers according to Wurm and Hattori (1981) are listed in Table 1. Hyphenated names indicate dialects of the same language; names separated by a slash are alternative designations for the same language. The presentation of language names follows a west-to-east geographical order. All estimates of numbers of speakers are for the mid 1970s.

TABLE 1: LANGUAGES OF THE ADMIRALTY ISLANDS

1.	Wuvulu-Aua (850 speakers)
2.	Kaniet (extinct)
3.	Seimat/Ninigo (some dialect variation; 450 speakers)
4.	Hermit (20 speakers)
5.	Bipi-Sisi (530 speakers)
6.	Lindrou/Salien/Nyada (2,200 speakers)
7.	Sori-Harengan (570 speakers)
8.	Likum (100 speakers)
9.	Levei-Tulu (1,100 speakers)
10.	Ponam (420 speakers)
11.	Andra-Hus (810 speakers)
12.	Ere-Lele-Kele-Kuruti (5 dialects; 4,660 speakers)
13.	Pelipowai/Bohuai/Pahavai (400 speakers)
14.	Nane (300 speakers)
15.	Okro (200 speakers)
16.	E (50 speakers)
17.	Leipon/Pityilu (650 speakers)
18.	Titan/Manus/M'bunai/Tito (2,250 speakers)
19.	Nali/Yiru (1,300 speakers)
20.	Loniu (460 speakers)
21.	Mokerang (200 speakers?)
22.	Papitalai (320 speakers?)
23.	Pak-Tong (970 speakers)
24.	Baluan-Lou-Pam (1,280 speakers)
25.	Lenkau (400 speakers)

26.   Penchal (400 speakers)
27.   Nauna (130 speakers)

2. BRIEF HISTORY OF RESEARCH

The island of Manus and its immediate satellites were discovered for Europe by the Spaniard Alvaro de Saavedra in 1528, and were named after the British admiralty by the English navigator Philip Carteret, who sighted Manus and several smaller islands on September 15, 1767. Four days later Carteret passed Aua, which he named Durour, and Wuvulu, which he named Maty. In 1817 the English sea captain Bristow approached, but did not land on Wuvulu, which he named 'Tiger Island' on account of the perceived ferocity of its inhabitants.

In the latter part of the nineteenth century German economic interest in the area intensified, and in 1885 Manus, its immediate satellites and the south-eastern islands were made a German protectorate. Following the establishment of the German administration scientific interest in the entire area increased markedly. In 1893 the German sea captain Dallmann landed on Wuvulu, and made the first collection of items of material culture, which he sent to Berlin. From 1897 to 1899 the ethnologist Georg Thilenius, working under the auspices of the Prussian Academy of Sciences, visited many parts of the Pacific for ethnological investigations. As part of this work he spent seven weeks in the Admiralty Islands, visiting Manus (which he called 'Taui'), the Agomes and Kaniet Islands and the Ninigo Lagoon. Thilenius was not able to visit Wuvulu (which he called 'Popolo'), but obtained some information from traders familiar with the island, including a vocabulary of 101 words. Somewhat longer vocabularies were collected from the Ninigo Lagoon, the Kaniet Islands, the Agomes Islands and a language called 'Taui', which was spoken on Manus. He published the results of this survey in 1903, referring to the islands in question as 'the Western Islands of the Bismarck Archipelago'.

In 1905 the renowned linguist Otto Dempwolff, who was then a medical doctor concerned with malaria research in New Guinea, published short vocabularies of 28 languages spoken in the New Guinea area. Among these languages were four identified as Wuvulu, Ninigo, Kaniet and Agomes. Much of his material was collected from plantation labourers recruited by the German New Guinea Company.

During this period Thilenius became Director of the Museum of Ethnology in Hamburg, and from 1908 to 1910 he directed the Südsee Expedition, the results of which were published in 12 volumes. Two of these volumes were devoted to the area that concerns us: 1. 'Wuvulu und Aua', by Paul Hambruch (1908), and 2. 'Admiralitäts-Inseln', by H. Nevermann (1934). Hambruch's volume contains vocabularies of Wuvulu and Aua.

Following the First World War German New Guinea (including the Admiralty Islands) became an Australian Trust Territory. Although Margaret Mead did the fieldwork for her well-known book, *Growing up in New Guinea* on the south coast of Manus during the early 1930s, no further information was collected on the languages until the late 1940s, when an Australian District Health Officer, W.E. Smythe, who had an amateur interest in linguistics, collected comparative vocabularies for most of the languages of Manus and the south-eastern Islands, and even more information on the language of the Ninigo Lagoon, which he called 'Seimat'. Most of this information remains unpublished.

Ideas regarding the structure and classification of the languages of the Admiralties were coloured at first by such non-linguistic considerations as physical type and material culture. Generally speaking, the peoples of the eastern Admiralties are dark brown to black, with frizzy hair, whereas the inhabitants of Wuvulu and Aua are light-brown or even olive, with wavy to slightly frizzy hair. Hambruch (1908), citing a certain Captain Andersen, described the Wuvulu-Aua people as 'Polynesians', of lesser physical stature than the populations of Polynesia itself. Dempwolff (1905:196) went so far as to suggest that these islands originally had a Melanesian population which was conquered by Polynesian invaders who slew the men and appropriated the women. In his view (inconsistent with his later view of Oceanic languages, but never formally retracted) Wuvulu-Aua is a 'Melanesian' language which has been modified phonotactically and grammatically by a Polynesian superstratum.

The tradition of appealing to external influence to account for various features of Admiralty language has continued into the present. Smythe (1970), for example, claims to have found linguistic indications of Micronesian influence in the area, although his proposed evidence fails to bear close scrutiny (Blust 1984). Similarly, Z'graggen (1975:117) claims that there is "strong evidence" that the group including Seimat and Kaniet "links with the Austronesian languages of the Lesser Schouten Islands". As shown by Ross (1988:329) there is, in fact, no linguistic evidence for this claim.

Published material on the languages of the Western Islands is summarised in Table 2.[2]

TABLE 2: PUBLISHED MATERIAL ON THE LANGUAGES OF THE WESTERN ISLANDS

SOURCE	Wuvulu-Aua	Seimat	Kaniet	Agomes	Type
Thilenius	101	–	289	296	117	lexical data
Dempwolff	490	–	305	210	361	lexical data
	6	–	–	5	–	verb paradigms
	38	–	–	5	–	toponyms
	88	–	–	28	–	personal names
	X	–	–	–	–	grammar notes
Hambruch	309	595	–	–	–	lexical data
	X	–	–	–	–	grammar notes
Smythe	–	–	X	–	–	sketch grammar
Z'graggen	–	170	186	117	–	lexical data

All numbers refer to number of lexical items, verb paradigms, etc. (not to number of pages). Dempwolff's grammatical notes on Wuvulu (including his ethnohistorical speculation) come to four pages, and Hambruch's to nine. Smythe's still unpublished grammatical sketch of Seimat is 78 typed pages.

---

2   Differing referents for the same name, and differing names for the same referent have introduced a measure of nomenclatural confusion into discussions of the Admiralties. Most noteworthy are the following: 1) Thilenius (1903) includes Manus (called 'Taui'), together with its immediate satellites, among the 'Western Islands' of the Bismarck Archipelago. Later writers, as Milke (1958) restrict the term to the sense adopted here, thus defining 'Western' in relation to the island of Manus, rather than in relation to the Bismarck Archipelago as a whole; 2) Thilenius (1903) calls Wuvulu 'Popolo', Dempwolff (1905) writes Wuvulu and Kaniet as 'Wuwulo' and 'Kanied', and the German colonial writers in general call Seimat 'Ninigo'. Following a practice established by Smythe (n.d.) I use 'Ninigo' as a placename, but call the language 'Seimat'; 3) Smythe (1970:1231, fn. 9) maintains that his Kaniet material differs markedly from that of Thilenius. As will be seen, it is likely that more than one language was spoken in the Kaniet group.

From February to May 1975 the writer conducted a historically-oriented linguistic survey of the Admiralty Islands sponsored by the Department of Linguistics, Research School of Pacific Studies at the Australian National University. Material was collected for 27 speech communities, including three from the Western Islands, as follows: 1) Wuvulu (Aunna village): 700 lexical items, 20 sentences; 2) Aua (Pa'a village): 369 lexical items, 13 sentences; 3) Seimat (Awin village): 803 lexical items, 45 sentences. Wuvulu and Seimat data was collected from a single informant each, while Aua data was collected from two informants who worked simultaneously with me. During a brief encounter later in 1975 some 28 words were collected from a second Wuvulu speaker who spent a short time in Canberra. This speaker, for whom only the name 'Noah' was obtained, was born in Onni village, and his speech turned out to differ in some historically interesting particulars from that of my Aunna informant.[3]

Several hypotheses have been advanced concerning the classification of the languages of the Admiralty Islands. Those proposed up to the mid-1970s are usefully summarised by Healey (1976:353), who proposes a classification of his own as a "tentative compromise" between the often conflicting views of other scholars.

Although the languages of the Western Islands are sometimes casually included with those of Manus and its satellites in earlier discussions, this association appears to be based on considerations of geography rather than of language. Grace (1955) assigns Wuvulu and Aua and the languages of the 'Admiralty Islands' to different primary subgroups of the Oceanic branch of Austronesian. Milke (1958:59) includes the languages of the "Western Islands of the Bismarck Archipelago and Admiralty Islands" in his Group A, one of three primary divisions of Oceanic, but does not indicate whether he regards them as forming a genetic unit within this group. Agomes, on the other hand, is assigned by both Smythe (1970) and Healey (1976) to a group that includes many of the languages of western Manus and its northern satellites. Agomes will not be considered further in this paper.

To the extent that scholars concerned with the languages of the Admiralty Islands have been aware of the larger context of Oceanic linguistics, there has been universal agreement that all of these languages belong to the Oceanic branch of the Austronesian family. The theory of an Admiralty subgroup which includes the languages of the Western Islands together with those of Manus and its satellites, but excludes all other languages, was first explicitly proposed by the writer, as quoted by Healey.[4] In his 'tentative compromise' Healey himself rejects this view, suggesting instead that Wuvulu and Aua form a 'Wuvulu isolate' (a proposal very similar to that of Grace 1955), that Seimat and Kaniet form a 'Ninigo Family', and that the remaining languages of the Admiralties form a 'Manus Family' which is further subdivided into four sub-families (North-West Islands, South-East Islands, East Manus, West Manus).

---

3   Language informants were: Harry Lopes, born 1952 in Aunna village, and 'Noah X', born about 1954 in Onni village (Wuvulu); Therese Hillard, born 1954, and Omana, born about 1910, both of Pa'a village (Aua); Vincent Tonam, born 1954 in Awin village (Seimat). All data were elicited through Tok Pisin.

4   Other writers, such as Meyer (1932) and Smythe (1970), have discussed the internal classification of the 'languages of the Admiralty Islands', but appear to have defined the sample that is to be subgrouped entirely on geographical grounds. Smythe (1970), for example, although proposing an internal classification that bears some resemblance to that advocated in this paper, believed that "the languages of the Admiralty Islands area have multiple origins or strata, having incorporated in varying degrees vocabulary and grammatical features from Papuan, Melanesian, Micronesian, and Indonesian sources" (Healey 1976:350).

Healey's classification in general reflects his skill in handling linguistic data, and his care in the use of secondary sources. His material, however, was limited and not always of the best quality. Moreover, lacking direct field experience in the area he did not immerse himself for months in the comparative study of the languages in question. Sound change in many Admiralty languages has been extensive, so much so that the existence of an Admiralty subgroup becomes clear only through careful application of the comparative method to a fairly substantial corpus of accurately recorded material. In examining the evidence for this proposal the reader will be reminded of the scientific value of the comparative method both in dismissing claims of cognation based on mere phonetic resemblance, and in establishing cognation where a lack of phonetic resemblance could give no encouragement to the untrained observer.

As should be clear from the foregoing remarks, the languages of the Western Islands (or, for that matter, the Admiralty Islands as a whole) are still very imperfectly known. My central aims in the present contribution are: 1) to provide an improved, if still imperfect, phonology of Wuvulu-Aua and Seimat based on my own fieldnotes, 2) to compare this analysis with an interpretation of the early German sources for the same languages, 3) to attempt a phonemic interpretation of the Kaniet material from the German sources, 4) to demonstrate the existence of an Admiralty subgroup based on exclusively shared phonological, morphological and lexical innovations, and 5) to demonstrate that Wuvulu-Aua, Seimat and Kaniet (but not Agomes) form a genetic unit within the Admiralty subgroup.

The existence of a linguistic subgroup which includes the languages both of the eastern and of the western Admiralties is asserted in Blust (1978:34), with a promise that supporting evidence will be forthcoming. This paper is that (long overdue) promised publication. In the meanwhile Ross (1988) has published arguments in support of the same group. However, seven of the ten exclusively shared innovations which Ross has proposed in support of an Admiralty subgroup either conflict with data that he overlooked, or are so non-distinctive as to have little value as subgrouping evidence. It is thus important that additional arguments be developed to test the validity of the Admiralty hypothesis. None of the exclusively shared innovations that I use here in establishing an Admiralty subgroup appears in Ross. We have thus reached our conclusions largely on the basis of independent lines of evidence, and for this reason it is worth publishing my argument in addition to his.

The reader will discover that I do not have complete confidence in my phonemic transcription of Wuvulu-Aua. As can be seen already in the vocabulary of Dempwolff (1905), there is an altogether extraordinary amount of free variation in both speech communities, but especially Wuvulu. Where the repetition of morphemes in a corpus is insufficient to establish that phones are interchangeable, variation can be difficult to detect, particularly when a speaker insists that variants are contrastive. Moreover, even when it can be shown that repeated material is phonetically variable, it is not always clear whether recorded variation is due to real differences in speech, or to inconsistency in transcription. In the hope of bringing this situation somewhat more under control my own notes were carefully checked against each other, and against each of the early German sources. It is concluded that free variation may be a more complex phenomenon than has usually been recognised in general linguistic theory. Specifically, the Wuvulu-Aua material suggests that free variation need not imply that variant phones have equal probabilities of occurrence, either in general, or in particular morphemes, even though variation is 'free'.

Apart from the limited materials in Z'graggen (1975), all of which were compiled from earlier sources, nothing has been published on the languages of the Western Islands since the pioneering work of Thilenius (1903), Dempwolff (1905), and Hambruch (1908). In addition to its central aims the present study is intended to stimulate interest among linguists in a group of challenging languages which, although of great importance to the reconstruction of Proto Oceanic, have been very much neglected. Hopefully its shortcomings will spur others who may have access to fuller information into publishing the results of their research.

Ideally, any classification of the languages of the Western Islands should include descriptive sketches not only of these languages, but of selected eastern Admiralty languages as well. However, for reasons of space little information will be given here on the languages of the eastern Admiralties apart from what is essential to the subgrouping argument. For further details the reader is referred to Blust (1978).

3. LANGUAGES OF THE WESTERN ISLANDS

This section will include the following information for Wuvula-Aua, Seimat and Kaniet: 1) phoneme inventories, 2) allophony, 3) morphophonemic alternations. A review of the German sources for Wuvulu-Aua and Seimat will precede the discussion of Kaniet. Where historical information is relevant to understanding synchronic processes it will be mentioned, but is otherwise deferred to §4.

Before discussing the synchronic phonology of the languages a few general remarks on typology may be of some use. All of the languages of the Western Islands appear to be SVO. Compare the following sentences:

WUVULU

(1)   *Ina fa-inum-a-u   fei   xanu.*
         he   CAUS-drink-it-me ART/DEM water
         He made me drink the water.

(2)   *Matani John (i)   ana-i-a   fei   nia-u?*
         why   John (he) eat-TRANS-it ART/DEM fish-my
         Why did John eat my fish?

AUA

(1) a. *John ina muta ana-u   nia.*
         John he eat EDIBLE.POSS-my fish
         John ate my fish.

    b. *Ina muta-i-a   John ana-u   nia.*
         He eat-TRANS-it John EDIBLE.POSS-my fish
         John ate my fish.

(2)   *Matani ina muta-i-a   fei   ana-u   nia?*
         why   he eat-TRANS-it ART/DEM EDIBLE.POSS-my fish
         Why did John eat my fish?

SEIMAT

(1)   *John (i)   aŋiaŋ   hula.*
      John (he)   eat.PROG   taro
      John is eating taro.

(2)   *Nake   lahan John ani ana-k   xixi?*[5]
      because why   John eat EDIBLE.POSS-my fish
      Why did John eat my fish?

Thilenius gives no syntactic information on Kaniet, and Dempwolff supplies only five verb paradigms. These suggest an SVO typology:

KANIET

(1)   *Ŋa   cam.*
      I   come
      I come/am coming.

(2)   *O   num-i.*
      you drink
      You drink/are drinking.

What little information we have on the grammar of the languages of the Western Islands is concerned primarily with pronouns and numeration (including numeral classifiers).

In Wuvulu *ana* appears to function primarily as a main verb 'eat', but in Aua and Seimat the cognate term is a possessive classifier, that is, a preposed relational marker to which the pronoun is suffixed in relations of 'alienable' possession. The data for Wuvulu, Aua and Kaniet is scanty, but Smythe (n.d.) reports five possessive classifiers for Seimat: 1. *tupo-* 'domesticated animal', 2. *teta-* 'property of any sort', 3. *ana-* 'food', 4. *welu-* 'cultivated plant (except banana, which takes *tupo-*), 5. *unuma-* 'drink'.

Most body part and kinship terms appear to be inalienably possessed, a relationship marked by direct suffixation of the pronoun. Thilenius fails to note this, citing, for example, Kaniet *pulém*, Seimat *pulán*, Wuvulu *pulána* 'eye' without distinguishing the possessive suffixes *-m* '2SG', and *-n/na* '3SG'. Dempwolff indicates the bimorphemic character of some of these forms, but is inconsistent: for example, Wuvulu *rauna* 'leaf' = /rau-na/ 'its leaf', *fuana* 'fruit' = /fua-na/ 'its fruit'; Seimat *axen* 'chin' = /axe-n/ 'his/her chin', *susun* 'breast' = /susu-n/ 'her breast'; Kaniet *susum* 'breast (your)' = /susu-m/ 'your breast', *puðom* 'navel' = /puðo-m/ 'your navel', *auan* 'mouth' = /awa-n/ 'his/her mouth', Kaniet of Allison Island, Ninigo Lagoon *ihoin* 'tooth' = /iho-ñ/ 'his/her tooth'. Hambruch generally separates the pronominal ending of obligatorily possessed nouns, but occasionally includes a third person possessive pronoun as part of his lexical entry, as with *ulina* 'Hülse, Hülle, Haut' = /uli-na/ 'its hull, shell, rind, bark', *vuana* 'Ähre, Knospe, Frucht' = /fua-na/ 'its bud, fruit'.

In all of the languages of the Western Islands numeration appears to be complex, and radically altered from the Proto Austronesian and Proto Oceanic system of decimal counting. Dempwolff recorded distinct sets of Wuvulu numerals used in 1) serial counting, 2) counting

---

5   The nasal variation in the Seimat word for 'eat' is unexplained. Both transcriptions appear to be correct, since /aŋiaŋ/ was recorded several times in progressive constructions, /aŋ/ in desideratives, and /ani/ in futures, imperatives and dehortatives.

of coconuts, 3) counting of other fruits, 4) counting of doves/birds in general (?), and 5) counting of pairs. Hambruch further notes that separate (in some cases partially similar) terms are used on Aua for counting 1) fish, 2) teeth in the mouth, and 3) bowls/dishes. Such complexity of numeral classifier systems is reminiscent of some of the languages of Micronesia (see, for example, Benton 1968).

The simple decimal counting system of Proto Austronesian which was retained intact in Proto Oceanic, has been restructured along seemingly more cumbersome lines in all WI languages. Dempwolff (1905) and Hambruch (1908) report the following Wuvulu terms used in serial counting.[6]

TABLE 3: WUVULU NUMERALS USED IN SERIAL COUNTING

	Dempwolff	Hambruch
1.	*ai(ai)*	*(e)ai*
2.	*guai*	*eguai*
3.	*oðuai*	*adluai*
4.	*guineroa*	*guinneroa, chunaroa*
5.	*aipan(e)*	*eipan*
6.	*oðeroa*	*adluroa*
7.	*oðeromiai*	*adluroa meai*
8.	*vaineroa*	*veinoroa*
9.	*vaineromiai*	*veinorou meai, ullaavue*
10.	*(e)vapa ani*	*evapaanye, avue*

Hambruch suggests the following structure for this system: 1=1, 2=2, 3=3, 4=2x2, 5=5, 6=3x2, 7=6+1, 8=4x2, 9=8+1, 10-1, 10=2x5, two hands. This structure cannot be inferred from synchronic evidence, but diachronic considerations do suggest that it is justified. Little information on serial counting could be collected from Harry Lopes, who volunteered only three numerals: /kia/ 'one', /olu/ 'two', /fa/ 'three' (the latter two actually 'three' and 'four' respectively). The Aua system of serial counting is essentially similar to that of Wuvulu.

The following Seimat free numerals from 1-10 were recorded by the early German writers, and by myself.

TABLE 4: SEIMAT NUMERALS USED IN SERIAL COUNTING

	Thilenius	Dempwolff	Blust
1.	*tel*	*tehu*	*tehu*
2.	*huhua*	*huohu*	*hũohu*
3.	*tolu*	*toluhu*	*toluhu*
4.	*hinalao*	*hinalo*	*hinalo*
5.	*tabanim*	*tepanim*	*tepanim*
6.	*tabantel*	*t. tehu*	*t. tehu*
7.	*tabahuhuŋa*	*t. huohu*	*t. hũohu*
8.	*tabamtolu*	*t. toluhu*	*t. toluhu*
9.	*tabamhinalao*	*t. hinalo*	*t. hinalo*
10.	*huabanim*	*huopanim*	*hũopanim*

---

6   The German sources (particularly Dempwolff) abound with typographically difficult diacritics, most of which appear to be superfluous. In the rare cases where a diacritic is phonologically significant (as in representing the glottal stop) I transcribe it in phonemic notation. Otherwise only segmental symbols are reproduced here.

The structure of the Seimat system of serial counting is less tortuous than that of Wuvulu and Aua: 1=1, 2=2, 3=3, 4=4, 5 = one hand, 6=5+1, 7=5+2, 8=5+3, 9=5+4, 10=two hands.

Smythe (n.d.) has recorded a somewhat different set of numerals for Seimat (1. *te-*, 2. *hūo-*, 3. *tolu-*, 4. *hinalo-*, 5. *te-pani:m-*, 6. *te-pani:m te-*, 7. *te-pani:m hūo-*, 8. *te-pani:m tolu-*, 9. *tai te- lehe hūo pani:m*, 10. *hūo pani:m*) in which 'nine' appears to be subtractive (10-1). In addition he reports a number of morphophonemically related numeral variants used with different types of objects (dogs, houses, pieces of meat, villages, coconut palms, canoes, things, days, bananas, sheets of paper, persons).

The Kaniet numerals are reported as follows.

TABLE 5: KANIET NUMERALS USED IN SERIAL COUNTING

	Thilenius	Dempwolff
1.	*tef*	*texu*
2.	*ua*	*uafu*
3.	*tohu*	*tohu*
4.	*faf*	*fafu*
5.	*mia*	*himiab*
6.	*tohiniet*	*tohineas(?)*
7.	*koðohu*	*go tohu*
8.	*kouehu*	*go uo*
9.	*koðef*	*go texu*
10.	*hemiðin*	*himisen*

The Kaniet system of serial counting has still another structure, one closely similar to that of many languages of the eastern Admiralties: 1=1, 2=2, 3=3, 4=4, 5=5, 6=6, 7=10-3, 8=10-2, 9=10-1, 10=10.[7] Whereas the Wuvulu-Aua system makes use both of multiplication and of addition, and the Seimat system makes use simply of addition (except in the single subtractive recorded by Smythe), the Kaniet system makes use only of subtraction in deriving numerals. It is noteworthy that in Thilenius's material both 'one' and 'four' contain an apparently meaningless suffix *-f,* while in Dempwolff's material 'two' and 'four' contain a corresponding suffix *-fu.* A cognate suffix *-hu* can be isolated in the Seimat numerals 'one', 'two', and 'three', as recorded by Dempwolff, and by the present writer; this does not appear to be functional, and is not discussed by Smythe (n.d.).

Finally, many of the Seimat adjectives recorded by Dempwolff contain an apparent suffix *-n* which he failed to segment from the stem: *ailan* 'strong', *tian* 'fat, greasy', *ŋoŋolin* 'old', *kokunan* 'short', *polu(n)* 'black, blue', *malavin* 'dirty', *kakan* 'red', etc.

---

7   More accurately, the morphological structure of the numerals 7, 8 and 9 might be glossed as 'three taken away', 'two taken away', and 'one taken away', since these forms contain no overt reference to the numeral 10. Greenberg (1978:257) claims that the use of either subtraction or division as a generative mechanism in a numeral system universally implies the use of both addition and multiplication. The basis for this claim is unclear to me, as many Austronesian languages have some numerals between '6' and '9' which are analysable either synchronically or diachronically as subtractives, without the corresponding use of addition in forming any of the primary numerals (1-10).

3.1 WUVULU-AUA

According to the Army General Survey Report of 1943, the population of Wuvulu Island at that time was approximately 300 persons, distributed over three villages: 1) Onne, on the north-west coast, 2) Tumuvalli, on the west coast, and 3) Auna (also written Aunna), on the south-west point. The approximately 225 inhabitants of Aua Island were located in two villages, for which the report provides no names.

All writers on Wuvulu or Aua have recognised that the populations of these two islands speak dialects of a single language. The closeness of this relationship is evident in the appended lexicostatistical lists (see Appendix), and is clearly reflected in the phonology. Table 6 lists the phonemes of Wuvulu.

TABLE 6: THE PHONEMES OF WUVULU

Consonants (14)					Vowels (5)	
p	t	k	?		i	u
b	(d)					
m	n	(ŋ)			e	o
f			(h)			
l						a
(r)						
w						

The labial consonants have their usual phonetic values except that /f/ has allophones [f] and [v] in free variation. Before a high vowel /t/ is realised as a voiceless palatal affricate, varying freely with [s]. Elsewhere it appears as a dental stop, whereas /n/ is alveolar. /l/ has two freely varying allophones [L] and [l]. The former is a voiced interdental lateral, easily confused with /l/, although sometimes heard by English speakers as [ð]. In the German sources it is generally written *dl*. Most distracting of all, /k/ appears to vary freely between [k], [g], [x] and [ɣ].

High vowels occasionally are devoiced in final position, especially after a nasal. A similar devoicing was recorded interconsonantally in a single reduplicated form, /manumanu/ 'tree, wood'. Vowels otherwise have their normal values, except that /e/ generally is lower-mid.

Aua phonology differs structurally from that of Wuvulu in lacking /k/, but including /x/ (which is generally voiced), and /r/, which occurs with high frequency. Consonant allophony differs in a single detail: in Aua /w/ is optionally realised as a labiovelar glide, or as a voiced bilabial fricative. Vowel allophony is identical except that no devoicing was observed.

Although the devoicing of final high vowels may sometimes produce the impression of a final consonant in Wuvulu, underlying canonical shape in both dialects is (C)V(C)V. In this respect Wuvulu-Aua morpheme structure differs from that of Seimat, and of all languages of the eastern Admiralties. As in the much better known languages of Polynesia, a thematic consonant surfaces before the suffix *-ia: inu* 'to drink', *inu-(m)ia* 'drink it!' (POc **inum* 'drink'). In the data collected both dialects generally reflect the historically anticipated final consonant (all but 1, 3, 13 and possibly 14 – see Table 7). As in other Oceanic languages, however, there is some skewing of etymologically expected consonants in this position (POc = Proto Oceanic; -Cia forms are imperatives).

TABLE 7: THEMATIC FINAL CONSONANTS BEFORE -ia IN WUVULU-AUA

	POc	Wuvulu	Aua	English
1.	*ajok	ato-(f)ia	ato-(f)ia	sniff, smell
2.	*inum	inu-(m)ia	inu-(m)ia	drink
3.	*kanan	ana-ia	-----	eat
4.	*kampit	api-(ʔia)	-----	squeeze
5.	*kulit	uli-(ʔia)	-----	to skin
6.	*mata	maʔa-ia	maʔa-ia	eye/look at
7.	*mate	-----	maʔe-ia	die/kill
8.	*panek	-----	fane-ia	climb
9.	*pani	fani-a	fani-a	give
10.	*paŋun	fu-(n)ia[8]	-----	wake up (transitive)
11.	*puput	fufu-(ʔ)ia	-----	pluck, pull out
12.	*tasim	ati-(m)ia	ati-(m)ia	whet, sharpen
13.	*tonol	ono-(m)ia	-----	to swallow
14.	*tunu	unu-(m)ia	unu-(m)ia[9]	cook
15.	*qutup	uʔu-(f)ia	uʔu-(f)ia	submerge to fill
16.	*taŋis	ʔai-(k)ia		weep, cry

No consonant clusters occur, and a maximum of two vowels were recorded in sequence.

As can be seen, both Wuvulu and Aua possess a comparatively small inventory of phonemes, but a relative wealth of allophones. The principal analytical problems in the phonology of both dialects concern: 1) the assignment of phones to phonemes, 2) the contrastive status of stress, and 3) the systematic status of certain phonemes that appear to be generationally or geographically restricted.

Apart from the complementation of [č] and [s] (before high vowels) and [t] (elsewhere), all allophony in both Wuvulu and Aua involves free variation. Because my elicitation time was limited (about 12 hours for Wuvulu, less than 10 hours for Aua), and because almost all material for the former language was collected from a single, somewhat difficult informant, my fieldnotes contain little repetition of morphemes. It is therefore not always easy to determine whether recorded phonetic differences represent distinct phonemes, or free variants. As one consequence of this indeterminacy it was assumed in Blust (1978:103) that Wuvulu has distinct phonemes /k/, /x/ which exemplify an unexplained phonemic split. I now believe – for reasons to be given below – that [k] and [x] are in free variation. The major problems in Wuvulu involve 1) [f] and [v], 2) [č] and [s], 3) [k], [g], [x], and [ɣ], and 4) [L] (a voiced interdental lateral) and [l].

The phones [f] and [v] were recorded both initially and intervocalically: [fálɛ] 'love', [mɛ́fo] 'beard', [vatálɛ] 'sailing', [mɛvi] 'dream'. While these and other examples suggest an /f/ : /v/ contrast, the limited transcription of repeated material in my notes points instead to free variation. Thus, within the same sentence I recorded: [vɛninainaʔiufɛni] = /feni nainaʔi-u feni/ (this pen-my this) 'this is my pen' (similarly with [fɛna], [vɛna] 'that'). Other instances of [f], [v] variation detectable from multiple recordings are: Wuvulu [lofu], [lovu] 'elder

---

8   For deletion of prevocalic *a after the regular disappearance of the velar nasal, compare the similar vowel change in POC *pulaka > Wuvulu fula (Aua fulaa) 'swamp taro', and pre-Wuvulu-Aua *fua-uʔu > Wuvulu fouʔu (Aua fuauʔu) 'louse'.

9   Possibly from POC *qumun 'earth oven', with metathesis: cf. Kaniet (Thilenius) umun-i 'to cook'.

same sex sibling', [nafa], [nava] 'shoot, stab', Aua [rufu] 'village', [paʔaruvu] 'Pa'a village', [aɣaʔuavu] 'lime', [rawɛafu] 'lime spatula'. Similar variation was recorded by Hambruch, as in his Wuvulu transcriptions *rufu* 'village' (Dorf), *ruvu* 'world' (Welt). The phonetic correspondences of labial fricatives that were recorded without a variant pronunciation are listed in Table 8.

TABLE 8: CORRESPONDENCES OF LABIAL FRICATIVES IN WUVULU AND AUA

Wuvulu	Aua	Number
f	f	25
f	v	6
v	f	6
v	v	5
f, v	v	2
f	f, v	2

While these figures may at first suggest that a significant correlation exists between [f] as recorded in Wuvulu and [f] as recorded independently in Aua, closer attention to the totals shows that this agreement can be explained as a product of the greater frequency of [f] in both dialects. It is additionally possible (though unconfirmed) that one or the other variant may occur with greater text frequency in particular morphemes. I conclude, then, that [f] and [v] are variant pronunciations of a single phoneme which I write /f/.

The phones [č] and [s] were recorded in free variation in numerous forms ([uču], [usu] 'elbow', [čuču], [susu] 'breast', [ači], [asi] 'whet, grind', etc.), and require no further discussion. The phone [č] was recorded before a non-high vowel only in the onomatopoetic form [ačoi] 'sneeze', for which a variant [ačio] was also noted. The appearance of orthographic *t* before a high vowel in Wuvulu, Aua *tigo* 'taro axe', and *utu pani* 'elbow', as recorded by Hambruch (1908) suggests that the non-stop allophones of /t/ may be a recent development. Other transcriptions in Hambruch, however, as *juju* 'female breast' show that some allophony was already present by the turn of the century.

Perhaps the most serious problem of free variation in Wuvulu concerns the phonemic status of the velar phones [k], [g], [x], and the rarer [ɣ]. Although [k] and [g] were recorded as free variants in Blust (1978), /x/ was assigned to a separate phoneme, thereby producing an apparently unconditioned phonemic split in the historical phonology of the language. Closer attention to my fieldnotes now suggests that [x] is simply another variant of /k/.

Variation of [k] and [g] was recorded in [aki], [agi] 'younger same sex sibling', [aki], [agi] 'to dig', [maʔiku], [maʔigu] 'to sleep, close the eyes', and in the semantically less direct comparisons [ukuku] 'rumbling belly', [ugugu] 'lightning', [wigugu] 'low rumbling thunder'. Variation of [k] and [x] was recorded in [akɛwa] 'day', [axɛwa] 'light, radiance', [wake] 'say, speak', [waxewaxe] 'talk in one's sleep', [nakanakaya] 'to think' and [naxanaxafafɛlo] 'jealous (= 'thinking no good'). Variation of [k] and [ɣ] was recorded in [paka], [paɣa] 'tree with bark used to make bark cloth', and variation of [x] and [ɣ] in [axaxana], [aɣaɣana] 'black'.

The forms [aki] and [agi] in both meanings cited above were said to be respectively slow speech and rapid speech variants. Despite this admitted variation my informant, Harry Lopes, insisted that certain words could be pronounced only with [x], others only with [k], and others only with [g]. Thus, [agi] 'saltwater' was said to be correct only with [g], and to be homophonous with the rapid speech variants meaning 'younger same sex sibling', and 'to

dig'. Among his examples of purportedly invariant pronunciations, however, he included [kuta] 'sit down', and [guta] 'stay', which appear to be the same morpheme. The voiced velar fricative was acknowledged to be an occasional rapid speech variant of [x], as in [waxa], [waɣa] 'root'.

The Wuvulu-Aua phonetic correspondences, listed in Table 9, which involve a velar obstruent are found in my fieldnotes.

TABLE 9: CORRESPONDENCES OF WUVULU VELARS AND AUA /r/ OR GAMMA

Wuvulu	Aua	Number
k	r	14
k	ɣ	11
g	r	14
g	ɣ	13
x	r	16
x	ɣ	7

Taken at face value these observations suggest an extraordinarily complex system of velar obstruents in the immediate parent of Wuvulu-Aua. However, if we heed the recorded clues to variation and unite Wuvulu [k], [g] and [x] under a single phoneme we will reduce the number of distinct correspondences in question to two. I assume, then, that Wuvulu has a single phoneme /k/ with free variation for the phonological features [voice] and [continuant]. Unlike Wuvulu [k], [g] and [x], Aua [r] and [ɣ] show no recorded tendency to interchange, and so must be regarded as phonemically distinct.

The assignment of voiced allophones to /f/ and /k/ is internally consistent, since voicing appears to be non-distinctive in both cases. By contrast, the voicing distinction in /p/ : /b/ is invariant, neither Wuvulu nor Aua showing any fluctuation between these phones. Moreover, the phonetic correspondence Wuvulu [p] : Aua [p] was recorded in 39 examples, and the phonetic correspondence Wuvulu [b] : Aua [b] in 8 examples, with no exceptions. I conclude, then, that /p/ and /b/ are phonemically distinct in both dialects. Similarly, /p/ and /f/ are never interchanged in my corpus, and clearly contrast in Wuvulu, Aua /pifine/ 'woman'.

The relationship of [L] and [l] poses somewhat different problems. I worked with Wuvulu before working with Aua, and in the beginning wrote both segments as [l]. When the phonetic difference became apparent I rechecked the distribution of the two phones in my data. Some uncertainties remained, as informant reaction in Wuvulu varied from indifferent to confusing. However, both Aua informants firmly distinguished the two laterals, the only recorded inconsistency being [biLoLo] 'butterfly', next to [waʔawaʔafɛnabilolo] 'caterpillar'. The following Wuvulu-Aua phonetic correspondences for laterals were noted.

TABLE 10: CORRESPONDENCES OF LATERALS IN WUVULU AND AUA

Wuvulu	Aua	Number
l	l	20
l	L	13
L	L	6
L	l	3

These inconsistencies are, by and large, what one would expect from error due to mistranscription. When I transcribed [L] in Wuvulu (where there is a greater probability of

error) I generally also transcribed [L] in Aua. Two of the three exceptions are morphemes that contain both laterals in Aua, and these could conceivably involve a regular assimilation in Wuvulu: Aua [walaLo], Wuvulu [waLaLo] 'deep', Aua [laLo], Wuvulu [LaLo] 'inside'. Moreover, both words appear to derive historically from a single base, POc *ralom 'deep; inside'. Although the recorded variation with [L], [l] bears some resemblance to that with [f], [v], and [k], [g], [x], then, one might easily conclude that [L] and [l] are phonemically distinct in both dialects. However, the limited material recorded for the Onni sub-dialect of Wuvulu exhibits further discrepancies in the correspondences for laterals. Moreover, my transcription of [L] and [l] often fails to agree with the orthographic distinction of *dl* and *l* in Hambruch (e.g. Hambruch: W *adlia*, A *allia*, but Blust: W, A [alia] 'ear'; Hambruch: W, A *alo*, but Blust: W, A [aLo] 'sun'; Hambruch: W, A *livo*, but Blust: W [livo], Aua [Livo] 'tooth'). Tentatively I conclude that [L] and [l] are allophones of a single phoneme both in Wuvulu and in Aua.

Given its rarity in Oceanic languages, one of the first things likely to impress the linguist recording Wuvulu or Aua is the presence of prima facie stress contrasts, as in [gúfu] 'island' : [gufú] 'kinsman'. Closer attention to morphology, however, reveals that the phonetic contrast in such forms is not phonemic. Consider the following phonetic transcriptions of obligatorily possessed nouns in Wuvulu:

(1) [páni] 'hand, arm'   (2) [áma] 'father'

SG   SG

1 [paníu]   1 [amáu]
2 [panímụ]   2 [amámụ]
3 [panína]   3 [amána]

(3) [núgɛ] 'nose'   (4) [áko] 'spouse'

SG   SG

1 [nugɛ́u]   1 [akóu]
2 [nugɛ́mụ]   2 [akómụ]
3 [nugɛ́na]   3 [akóna]

(5) [čuču] 'breast'   (6) [ná?u] 'child'

SG   SG

1 [čuču]   1 [na?ú]
2 [čučumụ]   2 [na?úmụ]
3 [čučuna]   3 [na?úna]

Paradigms (1) - (4) show that primary stress falls on the penultimate vowel, and that this placement is maintained by a rule of stress shift in suffixed forms. The apparently morphological use of stress in the first person singular of bases ending in [u], then, is due to affixation: [čučú] = /tutu-u/, [na?ú] = /na?u-u/, etc. Although body parts and kinship terms may occur without a possessive suffix, a suffixed pronoun generally is attached to the base even when the latter is elicited as a simple (non-possessed) form. It is noteworthy that the only cases of phonetically contrastive final stress in Wuvulu occur in /u/-final bases that do not normally occur without a possessive suffix. Given the complementation of final stress with [u] in bases that end in other vowels, it seems clear that [gufú] 'kinsman' is best regarded phonemically as /kufu-u/ 'my kinsman'.

In one known case cognate forms in the two dialects appear to differ in stress: Wuvulu [fúla], Aua [fulá] 'taro'. But closer inspection again shows that the difference is due to vowel length or gemination. POc *pulaka* 'swamp taro: *Cyrtosperma* spp.' became pre-Wuvulu-Aua *fulaa*. Under certain conditions Wuvulu (but not Aua) then dropped the first of two consecutive vowels in words of three or more syllables (see fn. 8).

In trisyllabic bases I recorded primary stress sometimes on the initial and sometimes on the penultimate syllable: [bíLoLo] 'butterfly', [totóna] 'breadfruit sap'. On testing for contrast Harry Lopes suggested a minimal pair in [avέlo] 'rotten (of wood)' : [áfɛlo] 'bad'. No other contrast was found, however, and it is likely that /afelo/ is a single polysemous morpheme. Neither Aua informant insisted on stress contrasts, and although a different form was given for 'rotten (of wood)', the Aua word for 'bad' was recorded as [avέlo].

With one category of exceptions quadrisyllables (some of which may be morphologically complex) were recorded with secondary stress on the initial syllable, and primary stress on the penult: [fàwɛwéni̦] 'heart', [lìlimóka] 'grass', [pòno?ía] 'buy it! (imperative)', [ìnumía] 'drink it! (imperative)'. In vowel-final stems the suffix -/ia/ appears as [ya], and primary stress falls on the last stem vowel: /ma?a-ia/ > [ma?áya] 'look at it! (imperative)', /alo-ia/ > [aLóya] 'sell it! (imperative)'. The stress rules of Aua are essentially identical to those of Wuvulu.

I conclude 1) that in both dialects primary stress falls optionally on the initial or the penultimate syllable of trisyllabic bases, but on the penult of other bases, and 2) that there is a rule of stress shift in suffixed bases that gives rise to surface contrasts in stressed versus unstressed final /u/. It is perhaps worth observing that there appears to be a difference in the stress pattern of trisyllabic bases and trisyllabic words. Thus /mulau/ 'frog' was recorded with stress on either non-final syllable, whereas /pula-u/ 'my eye' was recorded with stress only on /a/.

Finally, the stress rules and morpheme structure constraints enable us to disambiguate high vocoids as phonemic vowels in some forms. Neither [ma?áu] 'right (side)', nor [akúi] 'sandcrab', for example, can contain underlying final or postconsonant semivowels, as no unambiguous consonants occur in these positions, and stress would be incorrectly assigned to the initial syllable.

Four phonemes of questionable status were recorded in Wuvulu. Each is questionable because of its rarity and/or restricted distribution, or because it appears to be characteristic of a different social or geographical dialect than that most clearly represented in the speech of Harry Lopes. These phonemes are /h/, /r/, /d/ and /ŋ/. In addition, an initial glottal stop was recorded in a few forms. Both broader comparative information and Wuvulu dialect data suggest that it is contrastive, but was not transcribed consistently in this position.

Five Wuvulu items collected from Harry Lopes contain [h]: [húa] 'chest (anatomical)', [ho?áki] 'younger sibling of opposite sex (gloss correct?)', [hági] 'handle of axe or adze', [hí?a] 'no, not', and [hái] 'scrape out a coconut'. The first of these items was recorded as [húa], [xúa]. It is thus possible that [h] is a free variant of [x] (hence yet another allophone of /k/). Unfortunately, this possibility was not checked in the field, and cannot be checked now.

In four of the 28 items recorded for the dialect of Onni village [h] appears in initial position, where it corresponds to zero in the speech of Harry Lopes (see Table 11).

TABLE 11: CORRESPONDENCES OF /h/ AND ZERO IN WUVULU DIALECTS

Onni	Aunna	English
hadia	alia	rock cod
halo	alo	sun
humu	umu	house
haʔo	aʔo	thatch

Two observations can be made in connection with these Onni forms. Firstly, the [h] was recorded as optional in the words for 'house', and 'thatch'. Secondly, the following forms were tested for the optional presence of an initial [h], and were accepted only if pronounced with an initial vowel: 1) [ayáya] 'look upward', 2) [adía] 'ear', 3) [agúa] 'we (DU.EXC)', 4) [ína] 'mother', 5) [adíga] 'well water', 6) [ági] 'sea, saltwater', 7) [ági] 'sibling of opposite sex'.[10]

Wherever an etymology is available for any of these forms (all but 1 and 5), it begins with *t. Since *t became glottal stop intervocalically in Wuvulu and Aua, it is reasonable to suppose that it also did so in initial position before disappearing, as it seems to have done in most forms recorded from Harry Lopes. The few examples of initial glottal stop recorded from Harry Lopes are consistent with this view: POc *tian(an) > [ʔía] 'pregnant', *tina > [ʔina] 'mother', *tangis 'weep, cry' > [ʔai] (morphophonemically, in: /ina fa-ʔai-k-i-a/ 'he made him cry'). I recorded no examples of initial glottal stop in the limited data collected from Noah X. Tentatively, I hypothesise that in the dialect of Onni village an epenthetic [h] developed before an initial vowel to facilitate perception of the contrast between zero and glottal stop, the latter disappearing.[11]

In summary, Wuvulu appears to show sub-dialect differences with regard to the distribution of [h] in particular morphemes, and perhaps with regard to its phonemic status as well. In both dialects I write it as it was transcribed. Only two examples of [h] were recorded in Aua: [hubáu(na)] 'fork on the outrigger', [màmahuiána] 'green/blue'.

It is likely that glottal stop reflects *t in all positions in the speech of Harry Lopes, but that in initial position it was not consistently distinguished from zero in my transcriptions. The word for 'mother' was given as [ína], [ʔína], and it is possible that initial glottal stop varies with zero generally. Initial glottal stop was also recorded in two Aua forms with a known etymology: POc *tolu > [ʔolu] 'three', *kiokio > [ʔioʔio] 'kingfisher'. In this description I write initial glottal stop as transcribed, although it is probable that I have inadvertently omitted it in some forms.

Though common in Aua, [r] is rare in Wuvulu. As noted in Blust (1978:103),[ř] was recorded in a single form: [banúřa] 'cape (of land)'. This statement in fact refers only to the speech of Harry Lopes. An effort was made to elicit further examples of [ř] from Noah X, with the following results: 1) [řoa] 'meteor', 2) [řo] 'glowing red (of embers)', 3) [banúřa] 'cape (of land)'.

Hambruch (1908) does not list the word for 'cape', but writes the others as roa 'rot', and roa 'Blitz' (I recorded [xóa] 'red' from Harry Lopes). Together with the statement of Noah X that older speakers in Onni village say [áři] where younger speakers say [ági] 'sea,

---

10 Older speakers reportedly distinguish 6 and 7 as [ári] and [ági] respectively.

11 A similar phenomenon is seen in colloquial Samoan, where initial vowels sometimes are preceded by [h] when contrasting them with the same vowel preceded by glottal stop: /ulu/ = [ulu], [hulu] 'head', but /ʔulu/ [ʔulu] 'breadfruit'.

saltwater', it seems likely that [r̄] in Wuvulu is characteristic of the older generation. In such cases it corresponds with Aua /r/.

The phone [d] was recorded only from Noah X, and corresponds to [L] in the speech of Harry Lopes: [hadía] 'rock cod', [adía] 'ear', [adíka] 'well water', [púda] 'eye'.

Finally, [ŋ] was recorded from Harry Lopes in a single variant pronunciation: [fua], [fuŋa] 'plant something and look after it'.

The German sources shed some additional light on Wuvulu-Aua, but they raise at least as many questions as they answer. These materials, of course, predate general recognition of the phonemic principle. In the following discussion I will use the distribution of orthographic symbols as a basis for inferring implicit claims about phonemic or allophonic relationships.

For Wuvulu we have three sources in the German literature: Thilenius (1903), Dempwolff (1905), and Hambruch (1908); for Aua we have only Hambruch (1908). Table 12 presents a phoneme inventory for Wuvulu as inferred from the German sources.

TABLE 12: WUVULU PHONEMES INFERRED FROM THE GERMAN SOURCES

Consonants (13)				Vowels (5)	
p	t		ʔ	i	u
b		g			
m	n			e	o
f	s				
	l			a	
	r				
w	y				

Among the voiceless stops all three German writers recognise /p/, /t/. A contrast of /p/ and /b/ is implied by Thilenius in, for example, *polu* 'earth', *bo* 'canoe', by Dempwolff in *puge* 'navel', *bugoa* 'beetle', and by Hambruch in *palu* 'dove, piegon', *bala* 'rat'. Dempwolff, on the other hand, lists a number of variable pronunciations that differ in *p* versus *b*: *paule*, *baule* 'God', *parafu*, *barafu* 'banana', *pore*, *bore* 'rudder', *pea*, *bea* 'flying fox'. Some of these variable forms correspond to invariant forms with /p/ in my data, others to invariant forms with /b/: *pore*, *bore* 'rudder', next to *poke* 'canoe paddle'; *pea*, *bea*, next to /bea/ 'flying fox'. No such voicing variation appears in Thilenius or Hambruch, nor was free variation between /p/ and /b/ recorded in any lexical item recorded from Harry Lopes.

Hambruch writes a single instance of [č] in *tsura* 'wing feather' (cf. *tulai* 'girdle of mussel shells'). Dempwolff, however, recorded a number of instances of [č] (written sometimes as *ts*, sometimes as *tj*). Apart from *putʃero*, *putʃuro* 'small', and *tʃitʃeri* 'to slurp', all of these appear before high vowels. At first glance this distribution suggests a complementation with [t], but Dempwolff implies a /t/ : /č/ contrast in pairs such as *tipuna* 'leaf decoration on a pandanus headdress': *tʃive* 'to lie (deceive)'. Dempwolff's material is drawn from several sources (which he identifies for each lexical item), and appears to be dialectally mixed, hence complicating the problem of arriving at a satisfactory analysis of the phonology. Repeated forms such as *atu* 'water bailer' and *atju* 'Nautilus shell ladle', and terms which are written differently by Dempwolff and Hambruch, as *tʃulai* 'kind of mussel shell' (D), *tulai* 'girdle of mussel shells' (H), or *tʃigo* 'axe' (D), *tigo* 'taro axe' (H) overshadow the apparent evidence for contrast, and suggest that /t/ was already developing a palatal allophone before high vowels (and /e/?) at the turn of the century, but that some forms had not yet been affected.

Free variation between [č] and [s] is not apparent in Dempwolff's material. Thilenius, however, gives one form with *s* which corresponds to /t/ in my data: *susu* 'milk' (cf. /tutu/ 'breast').

An orthographic *k* appears fairly often in Thilenius's limited material, but only rarely in Dempwolff and Hambruch. Two of the examples given by Thilenius correspond to forms in my data, and in these *k* apparently represents the glottal stop: *mamakilu* (my /maʔiku/ 'to sleep'), *kumu* (Dempwolff's *ʔumu*, my /umu/) 'lip'. The few examples of *k* in Dempwolff appear to be used in a similar way: *ʔari, kari* 'starfish'.

Although Thilenius distinguished the glottal stop from zero in some forms, he wrote it with *k*. Apart from *fu, au, u* (implied /fuʔauʔu/, for what should be /fuauʔu/) Hambruch appears to have ignored it altogether. Only Dempwolff recorded the glottal stop fairly consistently with a distinct symbol, marking it with a diacritic on the following vowel, as in the words for 'star' (/piʔu/), 'monitor lizard' (/waʔi/), and 'to vomit' (/mumuʔa/). However, even Dempwolff's transcriptions are inconsistent, the glottal stop being missed in forms such as *maigu* (/maʔiku/) 'to sleep', and *waa* (/waʔa/) 'snake', and inserted where it does not belong in the word for 'night' (/poi/).

As noted already, /b/ is clearly distinguished from /p/ by all of the German writers, although Dempwolff's transcriptions imply that these phonemes varied freely in a number of forms.

An orthographic *d* does not appear in Thilenius, and is found in Dempwolff only in the form *mundavue* 'sky' (gloss followed by a question mark). Hambruch writes *d* in several cases for the interdental lateral, a sound that he also transcribes with *dl*.

Orthographic *g* does not appear in Thilenius, but is common both in Dempwolff and in Hambruch (where it is sometimes written geminate). This symbol corresponds to all of the allophones of /k/ in my data, as in the following Dempwolff citations (my phonemic transcription appears after the colon): *gua* 'two': -/kua/ 'marker of the dual number', *viga* : /fika/ 'how much, how many?', *vuaga-na*: /waka/ 'root', *uge* 'crayfish, crab' : /uka/ 'shrimp, lobster', *agi* : /aki/ 'younger sibling', *nuge* : /nuke/ 'nose', *puge* : /puke/ 'navel', *aga* : /aka/ 'name'. What is noteworthy is that /k/ in my material corresponds to *g* in these forms, but to *r* in others: *ropa* : /kopa/ 'rain', *muro* : /muko/ 'stone', *aru* : /aku/ 'smoke', *ranu* : /kanu/ 'fresh water', /aro/ : /ako/ 'spouse', *rufu* : /kufu/ 'village', *are* : /ake/'chin', *pore* 'rudder' : /poke/ 'canoe paddle', etc. In a few cases Hambruch gives a form with a velar stop corresponding to a Dempwolff citation with *r*: *kopa* (H), *ropa* (D) : /kopa/ 'rain', *pagavu* (H), *parafu* (D) : /pakafu/ 'banana'. It appears, then, either that the material of the German sources is dialectally mixed, or that earlier /r/ was changing to a velar stop during the period in question.

Dempwolff gives no examples of orthographic *k* or *ch* (voiceless velar fricative) corresponding to *k* in my material, and Hambruch gives only one that I have found (*kopa* 'rain'). This suggests that earlier *r* changed first to [g], the other allophones developing later. However, Thilenius gives *hahua-n* 'forehead', a form that corresponds to /kawa/ in my data, as well as *axu-an* (my /aku/), which suggests that in some form of Wuvulu a fricative allophone of /k/ already existed.

All of the German writers recorded *m* and *n* for Wuvulu, and none recorded the velar nasal.

Among the fricatives all three German writers use both orthographic *f* and orthographic *v*. In Thilenius *f* appears only in *fifina* 'woman', and *v* in just two forms, where it precedes a low vowel. An apparent contrast is found in Dempwolff's *fuana* 'fruit' versus *vuagana* 'root'. The latter, however, represents /waka/ in my data. Moreover, variable transcriptions such as Dempwolff's *fa, va* 'four', *tave, tafi* 'friend', *rufu, ruvo* 'village', and Hambruch's *rufu* 'village', *ruvu* 'world', and *vafi* (my /fafi/) 'evening' make it clear that [f] and [v] were freely varying allophones, just as they are in modern Wuvulu and Aua. On phonetic grounds the choice of a symbol for this phoneme appears to be arbitrary. Dempwolff writes *f* and *v* with approximately equal frequency; Hambruch almost invariably writes *v*. Patterning, however, favours a voiceless fricative.

Thilenius writes *s* in four items: *masani* 'turtle', *susu* 'milk', *samisami* 'drum' and *sipan* 'to hurt'. Dempwolff writes *s* in three other items: *isa* 'lizard', *aso* 'to kiss (?)', and *sale* 'to run'. Hambruch writes *s* in a single form: *wusilapan* 'taro god'. Although *s* before a high vowel might be regarded as an allophone of /t/, this is not possible for *s* before a non-high vowel. Orthographic *s* in the German sources thus appears to represent a distinct, if rare, phoneme – at least before non-high vowels.

Thilenius writes *χ* (voiceless velar fricative) in five, and *h* in six forms, whereas Dempwolff writes *χ* in two words, but does not use *h* at all. Hambruch writes *ch* (/x/) as an implied segment in a few forms, but appears to use *h* as a diacritic to express vowel quality, as it appears only preconsonantally or word-finally: *kihbe* 'big', *rahrahna* 'branch', *rireh* 'door' (my /kikei/). One instance of *χ*, and one of *h*, in Thilenius correspond to /k/ in my data: *aχuan* (/aku/) 'smoke', *hahuan* (/kawa/) 'forehead'. The others (*tehu* 'one', *hinalua* 'four', *haχaχ* 'war', *nemaχ* 'to ebb', *χao* 'feather', *kaχipulan* 'eyebrow', *lihon* 'tongue', *hehe* 'wooden sword') lack known equivalents in other sources for Wuvulu, although *tehu*, *hinalua*, and *lihon* are very similar to known Seimat forms. It is possible that Thilenius inadvertently included some Seimat vocabulary in his Wuvulu list. In any event, there is little basis for positing phonemes /x/ or /h/ for early twentieth century Wuvulu.

Dempwolff frequently writes *ð*, and Hambruch writes *dl* or *d* for the voiced interdental lateral, where Thilenius writes only *l*. However, both Dempwolff and Hambruch also write *l* in the same environment, thus implying a contrast: Dempwolff *ðivo* 'incisors' : *lio* 'vulva', *aðo* 'sun' : *olo* 'spider', Hambruch *udluu* 'kneecap' : *ulu* 'breadfruit tree'. Both writers nonetheless indicate that these segments are in free variation: Dempwolff *oðu, olu* 'three', *pula, puða* 'eye', *bauðe, baule* 'God'; Hambruch *palu, pado* (Aua *padlu*) 'dove, pigeon'. The German sources, then, confirm our interpretation that Wuvulu has only one lateral phoneme /l/ with freely varying allophones [L] (interdental), and [l] (alveolar or post dental).

As noted already, orthographic *r* is a common equivalent, both in Dempwolff and in Hambruch, of my /k/. In Dempwolff's material *r, l* and *g* clearly contrast: *aruru* 'coconut crab', *ulu* 'cord made of breadfruit bast fiber', *ogogu* 'thunder'. We must, then, recognise a phoneme /r/ in the Wuvulu of the German sources. In contrast to Dempwolff and Hambruch, Thilenius writes only *l*: *lopa* (Dempwolff: *ropa*) 'rain', *polu* (Dempwolff, Hambruch: *poru* 'woods').

All of the German writers use the symbol *w*, corresponding to /w/ in my data: Thilenius *awi*, Dempwolff, Hambruch *awui* = /awi/ 'fishhook'. Dempwolff, however, sometimes writes *v* for what I transcribed as [w]: *vaʔi* (/waʔi/) 'monitor lizard', *paiva* (/paiwa/) 'shark'. In one entry (*awui, abui, avui* 'fishhook') Dempwolff transcribed variant pronunciations

which suggest that /w/ may have been optionally realised as a voiced bilabial fricative, as in modern Aua.

In addition to *w* Thilenius uses *j*, and Dempwolff uses *y* to represent a palatal glide: Thilenius *maja* 'big', *kumaloja* 'get a sail', Dempwolff *loya* 'seagull', *yore* 'to buy', *yau* 'I'. Only one likely instance of /y/ (as distinct from /i/) appears in my data: [láya] 'ginger'. Although the German sources do suggest that a phoneme /y/ existed in Wuvulu around the turn of the century, then, with no other examples in my corpus I do not feel justified in positing /y/ for modern Wuvulu.

The vowels of Wuvulu are accompanied by such a wealth of diacritics (especially in Dempwolff's transcriptions) that one is left with little choice but to treat them as meaningless. If we do this all writers agree in recognising a five-vowel system. The German writers also recognise several diphthongs where I prefer on distributional grounds to write vowel sequences.

Finally, Thilenius and Dempwolff both write some final consonants: (Thilenius) *pun* 'moon', *aun* 'wind', *ukup* (misprint for *uku-m*?) 'head hair'; (Dempwolff) *vapanim* 'ten', *uab* 'hole, cave', *ad* 'Nautilus shell'. These transcriptions clearly indicate that final high vowels were optionally devoiced then, as they are now.

As noted earlier, preconsonantal and final *h* in Hambruch can be treated as a diacritic.

In the German sources Aua is represented entirely by the vocabulary of Hambruch. There are very few differences between Aua phonology as represented by Hambruch's transcriptions, and Aua phonology as I recorded it, a remarkable contrast with the Wuvulu material. Hambruch uses *g* for [ɣ], writes *v* where I write /f/ (*ava* : /afaa/ 'north-west wind'), and occasionally writes *b* where I write /p/ (*baiwa* : /paiwa/ 'shark'). As can be seen in the words for 'north-west wind', Hambruch does not distinguish geminate from single vowels.

To sum up, my phonemicisation of Wuvulu and that implied by the German sources circa 1900 differ in the following particulars: 1) I recognise a phoneme /k/ where they imply a phoneme /g/; 2) I recognise a marginal /d/ (probably not found in the Aunna sub-dialect), a unique instance of /ŋ/ (possibly a loan), and a few instances of initial /h/ (again, possibly sub-dialect forms), where the German sources have nothing; 3) the German sources imply /s/ (in Seimat loans?) where I find no evidence for a distinct phoneme; 4) the German sources have a well-attested /r/, while this phoneme is very marginal in my data; 5) the German sources imply /y/, while I find little evidence for it (although /w/ is well attested).

To give a more realistic picture of a single sub-dialect (Aunna), then, /d/, /ŋ/ and /h/ probably should be dropped from Table 6. This yields a phoneme inventory with 11 consonants, one of them (/r/) extremely marginal. But the /p/ : /b/ distinction should perhaps also be questioned. I recorded 109 instances of /p/, and 37 instances of /b/ in my Wuvulu corpus. The Aua data is more limited, but the proportions of /p/ and /b/ are similar. I have regarded /p/ and /b/ as different phonemes in Wuvulu because 1) I recorded no [p], [b] variation from Harry Lopes, while other kinds of free variation (e.g. [f], [v]) were common, 2) seven of the Wuvulu forms that I recorded with [b] have cognates that were recorded independently in Aua, and all of them agree in voicing, and 3) no Wuvulu form that I recorded with [p] has an Aua cognate with [b] in my data.

Together with the fact that [p] and [b] occur in similar environments, the foregoing observations normally would be sufficient evidence that the two phones contrast. However,

as already noted, Dempwolff often has variant transcriptions of Wuvulu that differ in *p* : *b*. Moreover, both Dempwolff and Hambruch sometimes write invariant *b* corresponding to /p/ in my material, as with my Wuvulu, Aua /paiwa/, Wuvulu *paiva* (D), Wuvulu, Aua *baiwa* (H) 'shark', or Wuvulu, Aua /poʔi/, Wuvulu *boʔi-a* (D) 'white', Wuvulu *poi-a* (H) 'yellow'.

There is a good deal of outright error in the early German work, and it would be comforting to simply dismiss these voicing disagreements as erroneous transcriptions. The difficulty with this approach is that we are compelled in any case to recognise a great deal of free variation in connection with /k/, /t/ before high vowels, /f/, and /l/.[12] Since there is no other well-attested voiced stop, and since both /k/ and /f/ have freely varying voiced and voiceless allophones, a phoneme /b/ is automatically suspect.

Perhaps subtler and more pernicious to the general concept of the phoneme, however, is the question how 'free' free variants really need to be. Harry Lopes recognised that [k] and [g] were respectively slow speech and rapid speech variants, and that [x] and the far rarer [ɣ] had a similar relationship. However, he consistently denied that the latter two phones could be interchanged with the former. As seen earlier, despite his denials, there is some evidence from repeated morphemes in my corpus that [k], [g], [x] and [ɣ] all belong to a single phoneme. How can we explain such native-speaker reaction?

One possibility is that a phonemic merger is in progress. Harry Lopes acknowledged that [maʔigu] and [maʔiku] are respectively rapid speech and careful speech equivalents meaning 'to sleep'. However, he insisted that [agi] 'younger same sex sibling' has no other pronunciation. Since the first word derives from POc *matiruR, and the second from POc *taji, it is conceivable that this difference in informant reaction reflects a change which has already taken place (POc *s and *j > Wuvulu [g]), versus a change which is now in progress (POc *r > Wuvulu careful speech [k] > rapid speech [g]). The problem with using informant reaction in this case is that the informant is known to have insisted on a unique pronunciation of some other forms, and yet pronounced the forms differently at different times.

The concept of free variation operates with at least two implicit assumptions which have been completely unquestioned in the theoretical literature: 1) all variants have a roughly equal frequency, or likelihood of occurrence in the same style of speech, and 2) all variants have a roughly equal likelihood of occurrence in a given morpheme. It is an empirical issue whether either of these assumption is justified. I have presented what I believe are good reasons for treating Wuvulu [k], [g], [x] and [ɣ] as allophones of a single phoneme. Given this analysis, in examples such as [pugexe] 'bubbles', [ugexe] 'egg cowrie', and [waxaku] 'rotten' it must be concluded that different values of the same phoneme occur in different syllables of the same morpheme. This is, at the very least, rather puzzling. Does each of these words really have sixteen equally likely pronunciations (four phonetic values of the velar obstruent in the first syllable interacting with the same four values in the second syllable)? My contact with the language was simply too brief, and the corpus of material collected too limited to answer such a question, but I suspect that preferences exist for certain pronunciations of given morphemes despite the general interchangeability of the allophones that distinguish phonetic tokens. Whatever the facts turn out to be, it is clear both from the German sources (especially Hambruch 1908) and from my own fieldnotes, that Wuvulu is a language with an

---

12   Hambruch (1908:38) claimed much more extensive free variation than I observed, maintaining that *b* could be interchanged not only with *p* but also with *ch* (/x/), that *g* could be interchanged with *r*, *rh*, *ch*, *p* and *w*, and even that *m* could be interchanged with *t* or *v*!

exceptional amount of free variation. A more detailed study of this aspect of the language may well yield valuable theoretical insights into the nature of 'free' variation.

3.2 SEIMAT

As noted earlier, Seimat is the language of the Ninigo Lagoon, an extensive body of water enclosed within a coral reef reaching some 50 km from north to south. Like similar structures elsewhere in the Pacific, this reef forms the foundation for a number of tiny atolls scattered for many miles around the coral rim of the large shallow lagoon. The Army General Survey Report of 1943 divides the population of the Ninigo Lagoon into three groups: 1) the Ninigo group, 2) the Sama group, and 3) the Awin group. The Ninigo group consists of nine atolls: 1.1 Chauch, 1.2 Ami, 1.3 Pihun, 1.4 Ninuch, 1.5 Potaminam, 1.6 Keholl, 1.7 Pingilap, 1.8 Mal and 1.9 Lau. Four villages were then located on Chauch Island, and one each on most of the others. The Sama group consists of Pataku Island, and the Awin group of Maletin Island. The dialect described here is that of Awin village.

The phonemes of Seimat, as determined from my phonetic transcription of the speech of Vincent Tonam, appear in Table 13.

TABLE 13: SEIMAT PHONEMES (AWIN DIALECT)

Consonants (12)				Vowels (5)	
p	*t*	*k*		*i*	*u*
m	*n*	*ŋ*			
	s	*x*	*h*		
				e	*o*
	l				
w	*y*			*a*	
				(plus nasalisation)	

In Seimat /t/ is dental, while /n/, /s/ and /l/ are alveolar. The vowels /i/ and /o/ have lowered allophones in closed syllables, and /e/ appears to be /ɛ/ everywhere except when preceding a vowel.

Seimat phonology presents a distinctly different set of problems than those encountered in Wuvulu-Aua. Firstly, free variation is virtually absent. In four of the 803 words in my corpus I transcribed [h], and in one other [x], only to learn by rehearsal of the transcribed form with Vincent Tonam that I should have written the other symbol. See Table 14 for examples.

TABLE 14: VARIABLY TRANSCRIBED /h/ AND /x/ IN SEIMAT

Initial Form	Corrected	
wah	*wax*	shoulder
xoixoxin	*xoixohin*	near
hẽhipat	*hẽxipat*	comb
pahaŋoŋ	*paxaŋoŋ*	dream
tihiŋa	*tixiŋa*	spill

Contrast is established in pairs such as [koxa] 'phalanger, cuscus' : [kohan] 'rotten (of meat)', and [tax] 'saltwater' : [tah] 'belt'. Nothing else resembling free variation was recorded in Seimat.

A second conspicuous difference between Wuvulu-Aua and Seimat involves the form of morphophonemic alternations before a suffix. Wuvulu and Aua have lost only the final consonant of POc *CVCVC morphemes, producing a canonical form CVCV, and 'thematic' final consonants which appear when such a form is suffixed (Table 7). By contrast, Seimat has lost the entire final syllable, yielding a canonical form CVC. When nouns are suffixed with a possessive pronoun, or when verbs are suffixed with -/wen/, the original last-syllable vowel reappears (but not the consonant which originally followed it), as seen in Table 15.

TABLE 15: THEMATIC VOWELS IN SEIMAT SUFFIXED NOUNS AND VERBS

	POc	Simple Stem	Suffixed Stem	
1.	*qawa	aw	awa-	mouth
2.	*qate	at	ate-	liver
3.	*mputos	put	puto-	navel
4.	*qutin	ut	uti-	penis
5.	*patuk	pat	patu-	head
6.	*malip	mal	mali-wen	laugh/to laugh
7.	*taŋis	taŋ	taŋi-wen	cry/to cry
8.	*matiruR	mati	matihŭ-wen	sleep/to sleep

One instance of a thematic vowel was recorded in a derived adjective: *tasik > /tax/ 'saltwater', /taxi-an/ 'salty'.

In a number of reduplicated stems the last-syllable vowel is similarly preserved: *mañur > /manuman/ 'drifting on a current', *taŋis > /taŋi-taŋ/ 'crying', *malip > /malimal/ 'laughing', *roŋoR > /hoŋo-hoŋ/ 'hearing'. In one recorded case the vowel that surfaces before a suffix or reduplicating stem is not the historical final: *mutaq > /mut/ 'vomit', /mutumut/ 'vomiting', /mutu-wen/ 'to vomit'.

In terms of the typology of morphophonemic alternations, then, Wuvulu and Aua are broadly reminiscent of the Polynesian languages, and Seimat of the Nuclear Micronesian languages or Mota (although in the latter languages what resurfaces under suffixation typically is the entire -VC syllable, and not the vowel alone).

The third feature of Seimat phonology that merits some discussion is an alternation which I will call 'genitive assimilation'. Seimat has a number of genitive compounds in which the attribute and head are linked by /i/, as with [pulixíxi] 'corn, callus' (= /pul i xixi/ 'eye of fish'), [kanisús] 'breast milk' (= /kan i sus/ 'water/liquid of breast'), and [kanipúl] 'tears' (= /kan i pul/ 'water of eye').[13] In a small number of genitive constructions the form of the linker is not [i], but rather [ɛ]. Attention to the available etymologies shows that in all of these cases the attribute ended in *a. Before word-final vowels disappeared in Seimat the

---

13   Smythe (n.d.:26) notes that /i/ is used in genitive constructions when the possessing noun "is a class rather than an individual", as with /iŋ i pou/ 'pig-house' vs /iŋa-n pou/ 'the house of some particular pig', or /nat i pou/ 'piglet' vs /natu-n pou/ 'offspring of some particular pig'. This distinction corresponds both formally and semantically with what Hooper (1985:152ff.) calls a "contrast between specific and non-specific genitives" found in many Oceanic languages, as in Lonwolwol (Vanuatu) /alu barbar/ 'pigskin' vs /alu-n barbar/ 'the pig's hide', or /neti vanten/ 'baby' vs /neti-n vanten/ 'the man's son'.

sequence *a-i contracted to /e/, giving rise to a second allomorph of the genitive marker. When final vowels subsequently disappeared this marker survived (since it never occurred word-finally), thereby preserving a trace of the original final vowel of the attribute. As a result it can be argued on the basis of allomorphy in the genitive marker that word-final /a/ is still present in a number of morphemes which appear in attribute position in genitive compounds. Examples are: 1) POc *qawa 'mouth', Seimat /awa i sal/ ([awɛsál]) 'path, road' (lit. 'mouth of path/road'); 2) POc *mata 'eye, face, front', Seimat /mata i iŋ/ ([matɛíŋ]) 'front of a house'; 3) POc *nanaq 'pus', Seimat /nana i pul/ ([nanɛpúl] 'sleep in eye' (lit. 'pus of eye'); 4) Proto Western Islands *wanda 'root', Seimat /wahã i pahōa/ ([wahẽpahōa]) 'grass roots'. There is one known example which suggests that a similar assimilation and contraction occurred within the sequence *-e-i: 5) POc *ndamwe 'chew betel', Seimat /xame i wap/ ([xamɛwáp]) 'lime spatula'.

Where the attribute in a genitive compound originally ended with a vowel other than *a or *e assimilation and contraction did not occur: 6) POc *qatoluR, Seimat /atol i patu/ ([atolipátu]) 'brain' (lit. 'egg of head'); 7) POc *ndanum 'fresh water', Seimat /kan i tax/ ([kanitáx]) 'saltwater'('water of sea'); 8) POc *kulit 'skin', Seimat /ul i pow/ ([ulipów]) 'skin of a pig'. For reasons that remain unclear, some attributes that originally ended in *a do not show the expected changes in Seimat: 9) Proto Admiralty *pula 'brow', Proto Western Islands *pula 'eye', Seimat /pul i xixi/ ([pulixíxi]) 'corn, callus' (lit. 'eye of fish'); 10) POc *talinga 'ear', Seimat /taxing i paxi/ ([taxiŋipáxi]) 'kind of mushroom' (lit. 'ear of ghost'); 11) POc *puaq 'fruit', Seimat /hua i pata/ ([huaypáta]) 'fruit of a tree'. It is possible that loss of *-a was a lexically gradual change which was incomplete at the time of genitive assimilation, and that only stems which still retained the final low vowel in some environments underwent the latter change.

From a general Austronesian standpoint the most unusual feature of the Seimat phoneme inventory undoubtedly is the presence of phonemic vowel nasality. Even more remarkable from a general typological standpoint is the distribution of nasalised vowels in Seimat, which occur only after /h/ or /w/ (Table 16).

TABLE 16: EVIDENCE FOR SEIMAT VOWEL NASALITY

	Oral Vowels	Nasal Vowels
1.	hua 'crocodile'	hūa 'two (in counting trees)'
2.	hehin 'woman'	pehēhĩn 'grouper sp.'
3.	ho 'mangrove sp.'	hō 'skin mole'
4.	iti'hi 'caulk'	tihĩ 'to pour'
5.	taha- 'belt'	wahã 'root'
6.	awa-k 'my mouth'	kawã-k 'my forehead'
7.	wat 'monitor lizard'	wāt 'earthworm'
8.	walal 'barbelled fish'	wāluwāl 'boil, abscess'

A count of all stems in my corpus which contain non-final /h/ or /w/ shows the following frequencies of oral and nasal vowels: 1) hV : 126, 2) hṼ : 28, 3) wV : 59, 4) wṼ : 6. All instances of /wṼ/ involve /ã/; all five vowels occur nasalised after /h/, although /ã/ is rare.

Although I have no doubt that these figures are generally accurate, several potentially distorting factors should be mentioned. Firstly, the morphology of many forms is not completely understood, and it is possible that a number of longer verbs which begin with /ha/- contain the causative prefix, as with [haŋaini] 'to sell'. Secondly, I have tried to count

the verbal suffix -/wen/ only once for purposes of the above figures, but may occasionally have misinterpreted it as part of the stem. Finally, all vowels are nasalised next to a nasal consonant, and nasality appears to carry through a following /h/ to the succeeding vowel. In forms such as [hõŋ] 'hear', [mõîh] 'living, alive', or [nãhî] 'to walk', then, the oral/nasal contrast appears to be neutralised, thus eroding an already limited data base relative to determining the historical sources of Seimat vowel nasality.

Stress in Seimat generally falls on the penultimate syllable, although in genitive compounds primary stress was recorded on the first vowel of the head, resulting in some apparent stress contrasts: [pulixíxi] 'corn, callus' versus [kanisús] 'milk'. Although the stress rules of Seimat remain to be worked out in detail, it is clear that stress is not phonemic.

The German sources imply one important difference between early twentieth century Seimat and Seimat as I recorded it. Dempwolff's transcriptions contain orthographic voiced stops *b*, *d*, *g*, and Thilenius writes *b* and *d* (the latter only in final position). Examples are: Thilenius *tabanim* 'five', *boe* 'lava stone', *tueb* 'betel nut', *iad* 'connecting sticks for the outrigger', Dempwolff *bou* 'pig', *bal* 'dove, pigeon', *ub* 'coconut', *kohod* 'star', *gohu* 'thunder'. Since the homorganic voiceless stops are written in similar environments, contrast is implied. The difficulty with accepting this implication is that the transcriptions of Thilenius and Dempwolff often disagree with one another in the matter of voicing: for example, *tabanim* (T), *tepanim* (D) 'five', *pou* (T), *bou* (D) 'pig', *pal* (T), *bal* (D) 'dove, pigeon', *up* (T), *ub* (D) 'coconut', *kohot* (T), *kohod* (D) 'star'. Where the German sources imply a voicing distinction I recorded only voiceless unaspirated stops, as did Smythe (n.d.).

Two features of the German transcriptions are especially noteworthy: 1) the frequency with which /x/ and /h/ are confused, 2) the rarity with which final /x/ or /h/ was transcribed. Examples of the first problem are: a) -*kaha/kaxa*, an apparent body-part marker recorded by Thilenius in a number of words, generally with *h* (*kamakaha* 'forehead', *tumukaha* 'lips', *esukaha* 'teeth'), but once with *x* (*lihokaxa* 'tongue'); b) *peihu* (T) for /pexuh/ 'beach'; c) *xu* (D) for /hux/ 'island'; d) *manihu* (D) for /manexux/ 'bird'; e) *nahon* (D) for /naxun/ 'wound'. Examples of the second problem are: a) *a* (T) for /ah/ 'fire'; b) *ho* (T) for /hox/ 'canoe paddle'; c) *aka* (T, D) for /akah/ 'rain'; d) *lemau* (T), *nemau* (D) for /nemaux/ 'bush, jungle'; e) *xu* (D) for /hux/ 'island'; f) *kanita* (D) for /kan i tax/ 'saltwater'; g; *usu* (D) for /usuh/ 'rat'.

It is puzzling that the first problem should occur, given the importance of the /x/ : /h/ contrast in German. Similarly, although final -/h/ does not occur in German final /x/ is common, yet both segments were generally omitted by both Thilenius and Dempwolff.

As might be expected, neither Thilenius nor Dempwolff transcribed Seimat vowel nasality correctly. However, one inconsistency in Thilenius is revealing in this regard. The set of numerals that he gives for Seimat is that set used in counting children: 1) /tel/, 2) /hũhũa/, 3) /tolu/, 4) /hinalo/, 5) /tepanim/, 6) /tepanim tel/, 7) /tepanim hũhũa/, etc. For 'two' Thilenius writes *huhua*, giving no indication that he heard the contrast of plain and nasalised vowels. But for 'seven' he writes *tabahuhuŋa*, with an inappropriate velar nasal which clearly suggests that he heard the distinctive nasality in this form, although he was unsure how to represent it.

Smythe (n.d.) provides no explicit discussion of Seimat phonology, but his transcriptions imply a phoneme inventory essentially identical to the one I present here, including the recognition of contrastive vowel nasality. The one noteworthy difference is that Smythe recognises contrastive vowel length in some monosyllables, as with *at* 'liver' versus *ha:t*

'stone', or *tin* 'mother' versus *hi:l* 'how much/how many?'. In my Seimat transcriptions all monosyllables, with the apparent exception of those ending in -/h/ or -/x/, contain two moras, at least in citation forms: /hō/ = [hō:] 'skin mole', /ho/ = [ho:] 'fruit sp.', /ka/ = [ka:] 'crown-of-thorns starfish', /wãt/ = [wã:t] 'earthworm', /wat/ = [wa:t] 'monitor lizard', /kah/ = [kah] 'lionfish', /tax/ = [tax] 'sea, saltwater', etc. In addition, sequences of like vowels in reduplicated forms are realised as a long vowel, as with /axaax/ (= [axa:x]). I recorded no length contrasts of any kind.

3.3 KANIET

Thilenius (1903) and Dempwolff (1905) provide our only linguistic data on the now depopulated Kaniet (written 'Kanied' by Dempwolff), or Anchorite Islands. In his 'Ninigo' (= Seimat) vocabulary Dempwolff recorded the entry *kanied* 'seagull', and it is likely that the name of the Kaniet Islands derives from this word.

It is unclear exactly when the language or languages of the Kaniet Islands became extinct or, indeed, whether some native speakers might not survive outside their native archipelago. Based on a two-day stay in the islands late in 1902, Dempwolff (1904) claimed that the Kaniet people were on the verge of extinction. One photograph that he published with his article, however, depicts a group of 14 apparently healthy adult men. The Army General Survey Report of 1943 indicates a population of 5 persons still living on Tatak Island in the Kaniet group. Healey (1976:356) states that Kaniet has been "extinct since about 1950", and Vincent Tonam maintained rather colourfully in 1975 that if one were to sail to Kaniet he would 'find nothing but the trees'.

The picture that emerges from these remarks, however, is in need of some qualification. Firstly, as will be seen in the appendices, Thilenius and Dempwolff apparently described two different languages under the same name. Smythe (1970:1231), who collected some still unpublished Kaniet material, reports a "big discrepancy" between Thilenius's data and his own. However, he does not mention Dempwolff.[14]

Secondly, Dempwolff's Kaniet data was collected in December 1902 from two locations: 1) on the Anchorite Islands themselves, and 2) from Kaniet speakers who resided on Allison Island (Manu=Malu=Mal in Seimat) in the Ninigo group. According to Dempwolff the latter population had then been on Allison Island for some 20 years, and had closer connections with its Seimat neighbours than with the dwindling population of its own home islands. It is thus entirely possible that some Kaniet speakers still survive on one or more atolls in the Ninigo Lagoon. Given his long-term interest in Seimat, it is likely that Smythe's Kaniet material, like Dempwolff's, was collected from speakers residing on Allison Island. Healey's report that the last Kaniet speakers died around 1950 almost certainly was obtained from Smythe. Moreover, if Kaniet still survived in 1975 Vincent Tonam surely would have known about it. It thus appears probable that the Kaniet language is extinct, whatever the fate of the Kaniet people who resettled in the Ninigo Lagoon.

Lexically the Kaniet lists of Thilenius and Dempwolff differ more than one might expect for dialects of a single language. Some 65 lexical items used on a modified form of the Swadesh 200-word lexicostatistical test list (Blust 1981) are found in both Kaniet lists, and

---

14   The Kaniet material in Z'graggen (1975) apparently was taken from Thilenius (1903), with minor typographical adjustments.

only 35 of these, or 53.8% are cognate. Given their lexical distinctness, then, it seems best to treat the two lists separately.

Thilenius's 296-word vocabulary of Kaniet contains a number of words that end in a consonant: *ik* '2SG', *tef* 'one', *halaŋg* 'rain', as well as four examples of consonant clusters. It uses 25 symbols or digraphs (diacritics have been ignored): *p*, *t*, *tj* (= [č]), *k*, *b*, *dj* (= [y]), *g*, *m*, *n*, *nj* (= [ñ]), ng (= [ŋ]), *f*, *s*, *x*, *h*, *ð*, *l*, *r*, *w*, *j* (= [y]), *i*, *u*, *e*, *o*, *a*. The following points are noteworthy: 1) *tj* appears only in *kanetje* 'putrified, decayed'; 2) *dj* is rare, and is attested only in non-final position (*djooi* 'day', *djedjeain* 'finger'; 3) *g* is found only intervocalically where, however, it appears to contrast with *k* (*nagai* 'when?' versus *akanu* 'fresh water'); 4) /ñ/ is represented as *nj* non-finally, but as *nj*, *inj*, or *in* (after a vowel) in final position (*njamu* = /ñamu/ 'mosquito', *kanj* = /kañ/ 'smell, have an odour', *foinj* = /foñ/ 'turtle', *djedjeain* = /jejea-ñ/ 'his/her finger' (?)); 5) *ng* is not written in initial position; 6) *x* is rare, being written only intervocalically where, however, it appears to contrast with *h* (*paxai* 'breadfruit' versus *maha* 'Tridacna shell'); 7) *h* is not written word-finally; 8) *ð* alternates morphophonemically with *t*: *tef* 'one', *koðef* 'nine' (= 'one taken away'), *tolu* 'three', *koðolu* 'seven' (= 'three taken away'); at the same time *ð* appears to contrast with *t*: *nunut* 'drum' versus *palauð* 'tapa skirt'. Unlike the similar symbol that Dempwolff uses for Wuvulu, Kaniet *ð* has no historical connection with **l*, and probably was not a lateral; 9) *r* is written only intervocalically in a single morpheme (*sorafu* '20', and the morphophonemically related form *pahimserafu* '70') where, however, it appears to contrast with *g* and *l*; 10) the occasional use of a macron implies contrastive length in the vowels; 11) a number of diphthongs are implied by Thilenius's transcription, but these will not be considered further.

Among the labials /p/, /m/, /f/ and /w/ seem certain: /pani/ 'wing', /mamahu/ 'ash', /faf/ 'four', /sawa/ 'fish spear'. Thilenius's orthography also implies a phoneme /b/: baxu 'dove, pigeon: *Ptilopus* sp.', *babam* 'sweat', *maxeb* 'chief, headman'. Given the confusion surrrounding the contrastive status of orthographic *b* in the German transcriptions of Wuvulu, Aua and Seimat, we can only wonder whether *p* and *b* really contrasted in Thilenius's Kaniet. Without further information it is perhaps best to simply accept the implications of the orthography and recognise /b/. Finally, comparative data make it appear likely that Thilenius's *kamuam* 'forehead' is actually /kamʷa-m/' your forehead', thus providing evidence for a labiovelar nasal. In light of this interpretation the orthographic sequence labial stop + rounded vowel+ vowel may be analysed as labiovelar stop + vowel: *bobuau* = /bobʷau/ 'night' (?), *poalo* = /pʷalo/ 'pig' (?).

Among the dentals /t/, /n/, /s/ and /l/ seem certain: /tama/ 'father', /nasai/ (written *nashai*) 'morning', /salae/ 'path', /lase/ 'coral'. As noted already, Thilenius writes *r* only in *sorafu* '20', and the morphologically related form *pahimserafu* '70'. Without further support *r* is perhaps best treated as a transcriptional error. Most problematic is *ð*, which occurs 23 times in Thilenius's material, but appears to alternate with /t/. Moreover, in forms such as *ðeiana* (POc **tian-an*) 'pregnant', Kaniet *ð* evidently reflects POc **t*. I treat Thilenius's *t* and *ð*, then, as freely varying allophones of a single phoneme /t/.

The languages of Kaniet are the only languages of the Western Islands to preserve the distinction of POc **n* and **ñ*. Since it is a typological universal that no language has more orders of nasals than of stops (Ferguson 1963), the presence of Kaniet /ñ/ clearly implies the presence of a palatal stop or affricate. There are two candidates for such a phoneme in Thilenius's data: /c/ and /j/. The former is implied in only one form (*kanetje* 'putrified, decayed'), and the latter in five. It thus seems reasonably safe to conclude that Thilenius's

Kaniet had a phoneme /j/. Without further information it is perhaps best to regard [č] as an allophone of /j/. Finally, a palatal glide /y/ is implied in *majin* = /mayin/ 'sleep', *kaja* = /kaya/ 'child', *puje* = /puye/ 'beach', and some other forms.

Among the velars /k/ and /ŋ/ seem very likely: /kañ/ 'smell, have an odour', /laŋi/ 'wind'. The relationship of *k* and *g* is uncertain, but a contrast is implied in, for example, *alo-megiab* 'evening' versus *mebakil* 'big'. In Thilenius's data *k* is far more frequent than *g* (44 instances to 8), and the implied voiced stop may well have been a free variant of /k/. But without evidence of free variation or alternation within Thilenius's corpus it is perhaps best to assume a contrast.

The relationship of *h* and *x* is also problematic. Thilenius writes *h* in 21 forms, where it occurs both initially and intervocalically. By contrast *x* occurs only 7 times, and only in intervocalic position. Moreover, it is clear from comparative data that both segments derive from *l. A relationship of free variation seems likely, and I accordingly recognise a single phoneme /h/.

As with the other languages of the Western Islands, a five-vowel system is indicated for Kaniet by Thilenius's orthography. Implied length contrasts are of uncertain status, and will be ignored.

Table 17 presents the phoneme inventory of Thilenius's Kaniet as I have inferred it from his material, sometimes with the assistance of comparative data.

TABLE 17: A PHONEMIC INTERPRETATION OF THILENIUS'S KANIET

Consonants (19)					Vowels (5)	
p	*t*		*k*		*i*	*u*
pʷ						
b		*j*	*g*		*e*	*o*
bʷ						
m	*n*	*ñ*	*(ŋ)*			*a*
mʷ						
f	*s*			*h*		
	l					
w		*y*				

As noted earlier, Dempwolff's 210-word vocabulary of Kaniet contains material from two different locations. On December 26, 1902 material was collected in the Anchorite Islands. On December 28, 1902 a few additional forms were collected from Kaniet speakers who had settled around 1880 on Allison Island in the south of the Ninigo Lagoon. Where they differ, forms from the two locations are distinguished. The material from Allison Island consists of only nine lexical items, most of them slightly differing variants of the forms recorded in the home islands. It seems reasonably certain, then, that the rather notable discrepancy between the list of Thilenius and that of Dempwolff reflects linguistic differences that still obtained in the Kaniet and Anchorite Islands around 1900.

A number of the words in Dempwolff's vocabulary end in a consonant, and six implied consonant clusters are found. The following segmental symbols are used by Dempwolff: *p*, *t*, *tʃ* (= [č]), *k*, *b*, *d*, *g*, *m*, *n*, *ñ*, *ng* (= [ŋ]), *f*, *s*, *ʃ*, *x*, *h*, *v*, *ð*, *l*, *r*, *w*, *y*, *i*, *u*, *e*, *o*, *a*. Noteworthy points are: 1) *p* is not found word-finally; in some examples it appears to vary with *b*: *paxin*, *baxin* 'large'; 2) in some cases *tʃ* appears to vary with *t*: *tohu* 'three', *go-tʃoho*

'seven' (= 'three taken away'); in other cases contrast is implied: *tʃam* 'come' : *tasin* 'water'; 3) *tʃ, k, h* and *ð* do not occur word-finally; 4) *d* and *n* do not appear initially; 5) *θ* is written only in *naθnig* 'my son', and probably should not be distinguished from *ð*; 6) *ʃ* appears to contrast with *s*: *ʃo* 'grass' : *sof* 'island'; in some forms, however, the two sounds evidently vary freely (*ʃeano, senano* 'path, way'); in still other examples *ʃ* seems to vary freely with *ð* (*naʃai, naðai* 'morning'); 7) *x* varies with *g* in *tax(o), tag* 'no, not'; 8) *w* appears to vary with *v*, at least in some forms (*kawo, kauvo* 'wood'); 9) *ɽ* (voiceless *r*) was recorded only in *aɽif* 'drum'.

Among the labial phonemes /p/, /m/, /f/ and /w/ seem almost certain: /pafi/ 'ghost', /maña/ 'sail', /fafu/ 'four', /awa-n/ (*auan*) 'mouth'. As in Thilenius's material, the relationship of *p* and *b* is problematic. The two phones evidently varied freely in *baxin, paxin* 'big', and in *pafi* 'ghost', *bafe* 'devil'. However, *b* is written in 16 forms, and appears to contrast with *p* in, for example, *bubuye* 'tobacco' versus *puye* 'spear'. As in Thilenius's corpus, we accept /b/ tentatively, but recognise that [b] may have been an allophone of /p/. A series of labiovelars is also implied by transcriptions such as *mowan* (/mʷan/) 'man', and *poalu* (/pʷalu/) 'pig'. The symbol *v* is written only four times by Dempwolff. As noted above, it appears to represent an allophone of /w/: for example, *auvim, auwim* 'fishhook' = /awi-m/ 'your fishhook'.

Among the dentals /t/, /n/, /s/ and /l/ seem secure: /tasin/ 'water', /natnig/ 'my son', /sami naum/ 'beard', /layeŋ/ 'tail'. Both *d* and *ð* are confined almost exclusively to intervocalic position, where *t* is absent. The known exceptions are *ðitol* 'hungry', *ðangi* 'weep', *salemod* 'fear', and *fefid* 'angry'. The first two items have known etymologies, and based on these it appears likely that *ðitol* was a mishearing of *fitol*, and that *ðaɲi* was phonemically /taɲi/. Given the distribution of symbols in Dempwolff's corpus, and the available comparative information, the orthographic symbols *t, d* and *ð* will all be treated as allophones of a single phoneme /t/. For our purposes the unique instance of *r* in Dempwolff's Kaniet vocabulary will be ignored.

Like Thilenius's Kaniet, Dempwolff's material also contains a palatal glide /y/, and a palatal nasal, although the latter is not always written as such: *niam* = /ñam/ 'mosquito', *kaña* = /kaña/ 'dirty' (or 'sweat'?). The sole candidate for a corresponding stop/affricate is *tʃ* in *tʃam* (/cam/?) 'come', and a few other forms. However, the apparent free variation between *t* and *tʃ* noted earlier raises questions as to whether a phoneme /c/ is justified by Dempwolff's data. Given the universal implication that the number of places of articulation for nasals will not exceed that for stops, a palatal stop/affricate will tentatively be accepted, although /t/ and /c/ may have varied freely in some morphemes. The orthographically implied palatal fricative is rare, and will be considered an allophone of /s/.

Among the velars /k/ and /ŋ/ seem certain: /kami/ 'sea', /aɲiŋ/ 'wind'. More problematic are *g, x* and the glottal fricative *h*. As in Thilenius's data, *g* is less common than *k*. There is some evidence that *g* and *k* are dialect equivalents, as in *goluŋ* (Anchorite Islands) versus *kulun* (Allison Island) 'finger'. However, the first person singular possessive suffix is consistently transcribed as *g*, and it seems best in view of all of the evidence to recognise a contrast. Finally, *x* and *h* seem to contrast (*texu* 'one', *tohu* 'three'); since Dempwolff's transcriptions provide no evidence of variation between them they will be written as different phonemes here.

As with Thilenius's Kaniet, Dempwolff's transcriptions imply a five-vowel system. Table 18 presents the phoneme inventory of Dempwolff's Kaniet as inferred above.

TABLE 18: A PHONEMIC INTERPRETATION OF DEMPWOLFF'S KANIET

Consonants (19)				Vowels (5)		
p	t	c	k	i		u
p^w						
b			g	e		o
m	n	$ñ$	$(ŋ)$			
m^w					a	
f	s		x h			
	l					
w		y				

4. EVIDENCE FOR AN ADMIRALTY SUBGROUP

Although Blust (1978) was the first to claim that the languages of the Western Islands belong in an immediate subgroup with the languages of the eastern Admiralties, published evidence for such a grouping first appeared in Ross (1988:330-332). Ross bases his argument on the following pieces of evidence, which are cited verbatim, but renumbered:

1) POC *R was lost before high vowels in Proto Admiralty (PAd) and became PAd *R before other vowels (probably *[-x-] or *[-ɣ-] as eastern Admiralty reflexes tend to be -y-, or in some languages -w- before -o-, whilst western Admiralty languages always lose it).

2) POC *p became PAd *-f- word-medially.

3) POC word-final consonants were lost in PAd.

4) Numeral classifiers are used, and occur in the sequence numeral + classifier, the sequence forming a single word phonologically.

5) The numeral one is used as a common article (marking not only indefinite but also specific and definite noun phrases).

6) All POC non-singular possessive pronominal suffixes were lost and replaced by PAd disjunctive pronouns.

7) The POC possessive pronominal suffix *-ña P:3S is replaced by PAd *-na (for expected **-ña).

8) The POC disjunctive pronoun *kita D:1IP is reflected by PAd *ta (for expected PAd **ita).

9) Reduplication of the verb, used to form the continuative aspect in POC, was lost in PAd; in many Admiralties languages it is replaced by the verb stay as an auxiliary.

10) The POC common article *na has coalesced with common nouns, resulting in phonological changes in some initial consonants.

Although Ross and I are in agreement not only with regard to the existence of an Admiralty subgroup, but also with regard to almost every detail of its internal structure, there are problems with the evidence he has presented, and I would like to discuss these briefly before presenting my own argument.

1) While it is true that the languages of the Western Islands invariably reflect POc *R as zero, it is not true that the languages of the eastern Admiralties invariably reflect POc *R as

zero before a high vowel. This is perhaps clearest where the high vowel in question is *u, as with POc *suRuq 'fluid, liquid, broth' > Loniu, Nauna *cuy*, Bipi, Baluan, Lenkau *suy* 'soup'. However, it is equally true of *i, as in POc *paRi > Nali, Baluan *pey*, Bipi, Likum *pay*, Levei *pep*, Nauna *pɨy* 'stingray'. Since the original last syllable of POc forms has regularly disappeared in all languages of the eastern Admiralties the front glide in reflexes of *paRi can only reflect *R.[15]

2) Although POc *-p- has lenited in almost all Admiralty languages it is noteworthy that this is not the case in Sori of north-western Manus, nor in Baluan, Lou, Penchal, and perhaps some other languages of the south-eastern Admiralties: POc *apaRat 'north-west monsoon' > Nali *n-ohay* 'wind', *hay* 'north-west monsoon', Ere *ahay* 'wind', Bipi, Likum *yahay* 'west wind', Lindrou *jaha* 'north-west monsoon', Nauna *ahay* 'west wind; west', but Sori *japay* 'north-west wind', Baluan *apay* 'east wind', POc *pupu 'bamboo basket trap for fish' > Loniu, Pak, Nauna *puh*, Leipon *b̄uh*, Lindrou *bu*, but Sori *b̄up*, Lou, Penchal *pup*. In principle, of course, it is possible to argue that POc *p first lenited to /f/ and subsequently returned to a stop, despite the rarity of such changes (Blust 1991). The difficulty with this explanation is that instances of POc *p- which did not undergo secondary prenasalisation generally disappeared in those languages which reflect POc *-p- as /p/: *paŋan 'to feed' > Sori, Lou *aŋ*, POc *pasok 'to plant' > Lou *as*, POc *puka 'to open, uncover', > Lou *uk*. Are we to assume that earlier /f/ which remained prevocalic was further lenited to /h/, and ultimately zero, while an earlier /f/ which became final underwent secondary fortition to a stop? The facts appear to find a phonetically more plausible explanation in a hypothesis that prevocalic *p and *k were preserved as stops until the loss of final vowels in eastern Admiralty languages removed them from prevocalic position. The lenition of prevocalic *p and *k then followed as a widespread drift throughout the Admiralties. Not only does this hypothesis explain why languages such as Sori or Lou reflect *p- in non-nouns as zero, and *-p- which became final as /p/, it also explains why Lou and Baluan reflect *k- in non-nouns as zero, and *-k- which became final as /k/.

3) Word-final consonants were, indeed, lost in all Admiralty languages, but this can be said of so many other languages throughout the Oceanic group that it is virtually meaningless for purposes of subgrouping.

4) Constructions of the form NUMERAL + CLASSIFIER do occur both in western and in eastern Admiralty languages. However, the same is true of most if not all Nuclear Micronesian languages, and of various languages of the south-east Solomons, Fijian, and the Polynesian languages (Pawley 1972:59ff.). In the absence of specific Proto Admiralty reconstructions which can be shown to be innovative this observation has no defensible subgrouping value.

5) The historical change of the numeral 'one' to an indefinite article is, of course, a commonplace occurrence in the languages of the world. Its claimed subgrouping value in the present case must, therefore, rest with its additional use in marking specific and definite noun phrases. As Ross himself points out, structurally parallel constructions involving minimally (and in no particular order) ARTICLE + NOUN + DEMONSTRATIVE/POSSESSIVE PRONOUN, in which the article reflects an earlier word for 'one', are also found in Mussau, and in at least some Nuclear Micronesian languages. Under these circumstances convergence is difficult to rule out as an alternative explanation of the facts.

---

[15]   Note that Levei (western Manus), somewhat surprisingly, reflects both *-w and *-y as /p/.

6) The replacement of POc non-singular possessive pronominal suffixes with Proto Admiralty disjunctive pronouns, is distinctive, and in my view carries far more weight as subgrouping evidence than any of the other observations examined so far.

7) Although it is true that POc *-ña '3SG possessor' is reflected irregularly as -/n/ throughout the eastern Admiralties, it is not at all clear that this is true in Kaniet. Ross (1988:333) claims that while Kaniet should reflect POc *-ña as -/ñ/, the actual reflex is -/n/. While such a change is reported in Z'graggen (1975:127), it is contradicted by the data both in Thilenius (1903) and in Dempwolff (1905): POc *saman 'outrigger float' > tama-ñ (T), sama-ñ (D) 'its outrigger float' (T), POc *qatop 'thatch, roof' > ato-ñ (D) 'its thatch', POc *raRaq 'blood' > ka-xa-ñ (D) 'his/her blood', POc *ponse 'canoe paddle' > fose-ñ (D) 'its paddle'. In addition to these examples Dempwolff recorded a historically secondary final velar nasal in a number of body-part terms, which probably represents a mishearing of -/ñ/: POc *qaqe 'foot/leg' > ae-ŋ 'his/her foot/leg', *qanse 'chin/jaw' > ate-ŋ 'his/her chin/jaw', *ndamʷa 'forehead' > kamʷe-ŋ 'his/her forehead'.

8) Although the loss of the initial syllable from POc *kita '1PL.INC' is well attested in the eastern Admiralties, the evidence for such a change in the languages of the Western Islands is precariously slim. Ross (1988:333) cites Aua a-hua 'we (DU.INC)', for expected **iʔa-hua, and Seimat ka-lu 'we (DU.INC)', ka-ko 'we (trial/paucal INC)'. The Seimat forms show irregular /k/ for anticipated /t/, but since the same irregular change is seen in -/ko/ (expected **to) 'marker of the trial number' Ross appears to be justified in using these forms as evidence for his claim.

9) Ross claims that the use of reduplication to mark continuative aspect, which is widespread in other Oceanic languages, was lost in Proto Admiralty, and its function represented by an innovated construction using the verb 'stay'. Yet Smythe (n.d.:61) notes that partial reduplication in Seimat 'implies continuous action, or at least action lasting for some time'. Among the examples he gives are: /hani/ 'go to', /hahani/ 'be in a state of going to', /kak/ 'say, speak', /kakak/ 'talk about', /xuali/ 'help', /xuxuali/ 'assist continuously', /tu/ 'stand up', /tutu/ 'stand continuously', /nua/ 'dive', /nunua/ 'swim', and /lua/ 'burn', /lulua/ 'be alight'. The data which I recorded from Vincent Tonam includes additional examples such as /ŋa aŋiaŋ hula/ 'I am eating taro' vs /pahak ŋa aŋ hula/ 'I want to eat taro', /tele-i/ 'kill (someone/something)' vs /teletel/ 'be killing', /nahĩ teletel/ 'to hunt' (lit. 'walk/go killing'), /hoŋ/ 'hear' vs /hoŋohoŋ/ 'hearing', /mal/ 'to laugh' vs /malimal/ 'laughing', and /taŋ/ 'to cry' vs /taŋitaŋ/ 'crying'. Given these examples there can hardly be any question that verbal reduplication marks continuative aspect in Seimat, as it does in many other Oceanic languages.

10) The tenth and last piece of evidence which Ross offers for an Admiralty subgroup is perhaps the most compelling and important. Throughout the Admiralties nouns show a nasal grade reflex of initial consonants which in other Oceanic languages have what is normally interpreted as an oral grade reflex. The explanation for these discrepancies of consonant grade is that the POc common article *na became cliticised to following nouns (as it has in some other Oceanic languages), then lost its vowel and fused with the following consonant. Ross calls this phenomenon 'secondary nasal grade', and presents convincing evidence 1) that it is found throughout the Admiralties with the same distribution in cognate morphemes, and 2) that it is distinctive to this subgroup as opposed to other Oceanic languages.

To summarise, of the ten innovations which Ross proposes as evidence for an Admiralty subgroup, four are contradicted by the data of Admiralty languages themselves (1, 2, 7 and

9), and three are so common outside the Admiralty group as to render their contribution to the argument of little value (3, 4 and 5). The surviving evidence consists of three proposed morphosyntactic innovations: 1) the replacement of POc non-singular possessive pronominal suffixes with the corresponding Proto Admiralty disjunctive pronouns; 2) the likely replacement of POc *kita '1PL.INC' with *ta- in the set of Proto Admiralty disjunctive pronouns; and 3) the development of secondary nasal grade in the reflexes of POc nouns which began with an obstruent consonant.

Ross collected an impressively detailed set of data on the comparative phonology and morphosyntax of Admiralty languages. By contrast my own fieldwork was more heavily biased toward comparative phonology, lexicon and diachronic morphology. Whereas I failed to collect enough syntactic data to test any but the most elementary claims about exclusively shared innovations, I collected sufficient lexical data to enable me to propose a number of innovations in support of the Admiralty hypothesis which are not mentioned by Ross. The lexical innovations which I propose are presented below as L1 - L40, and the morphololological innovations as M1 - M9 (W = Wuvulu, A = Aua, S = Seimat, K = Kaniet). Space does not permit a discussion of phonological correspondences here, but a comprehensive tabulation of developments from POc to most of the Admiralty languages is given in Ross (1988:321-325). A few of the comparisons suggested below diverge in minor details from the correspondences set out by Ross, and tentatively I ignore his distinction between Proto Admiralty *dr and *d.

4.1 LEXICAL EVIDENCE FOR AN ADMIRALTY SUBGROUP

The following cognate sets appear to reflect replacement innovations in Proto Admiralty (hereafter PAdm). The symbol *V in PAdm forms indicates an indeterminate final vowel.

L1. POc *siku > PAdm *kusu 'elbow': W/A utu, Lindrou kusuʔu-, Titan kusu-.

L2. POc *qapaRa > PAdm *pose 'shoulder': W foka, A fore, Bipi pose-, Levei pose/pwese-, Nali pwese-.

L3. POc *limas > PAdm *dalopV 'canoe bailer': S kaloh, K kalop, Bipi xaloh, Sori harop, Loniu oloh (< assimilation), Leipon d̄uloh (*a > /u/ unexplained).

L4. POc *lima > PAdm *mina- 'hand': S, Lou, Penchal mina-, Nauna min.

NOTE: Ross (pers.comm.) has noted that this could be a metathesis of POc *nima, a widely reflected variant of *lima. However, even under this interpretation its subgrouping value remains largely unaffected.

L5. POc *kaso > PAdm *kaqopV 'rafter': S kaup, Likum kaʔoh, Leipon kawoh, Lou, Lenkau kop.

L6. POc *que > PAdm *wasiwV 'cane, rattan': S waxu-k 'my cane', Kuruti wisiw, Loniu wesiw 'large rattan', Nali wasiw 'small rattan, cane', Pak wesew 'rattan, cane'.

L7. POc *ñuñum > PAdm *ñup-ia 'wash, bathe': S nuhi 'to wash (transitive)', Nauna ñuhi 'bathe'.

L8. POc *kapika > PAdm *nasi 'kind of Malay apple, Syzygium gomata': W/A nati, Likum nah, Ere, Kele, Kuruti nas, Lou nes.

NOTE: Possibly not a replacement innovation. Ross (pers.comm.) cites Levei *kehip* 'kind of tree with red fruit similar in appearance to the Malay apple, but not edible', and Lou *keik* 'kind of Malay apple' as likely reflexes of POc *kapika* in Admiralty languages.

L9. POc *aRu* > PAdm *mosimo* 'a shore tree, *Casuarina equisetifolia*': W *moki* (loss of last syllable unexplained), A *morimo*, S *moxin* (*m* > /n/ unexplained), Bipi, Sori, Nali *musim*, Lou *mʷesim*, Penchal, Nauna *mosim*.

L10. POc *saRum* > PAdm *cawi* 'needle', *cawit-ia* 'to sew': W *tawi* 'needle', S *sawit-i* 'sew', *sa-sawit* 'needle' (with -/t/ by analogical back-formation?), Bipi *sawik* 'sew clothes', Leipon *cewet-i*, Loniu *coet-i* 'sew', Pak *tiw*, Penchal, Nauna *ciw* 'needle'.

L11. POc *kiRam* > PAdm *samenV* 'axe (or spear?)': S *samen* 'spear', Bipi, Lindrou *samen* 'axe, knife', Nali *semen* 'axe'.

NOTE: Also Titan *cimel* 'axe, adze', Ere *samer* 'kind of small axe', Nauna *camel* 'knife'.

L12. POc *kiRe* > PAdm *moña* 'pandanus with long red or yellow fruit, probably *Pandanus conoideus*': W/A *mona*, Likum, Mondropolon, Nali, Pak, Lou, Baluan *mon*, Leipon, Loniu *moñ*, Bipi, Sori, Kele, Kuruti, Lenkau, Nauna *moy*.

NOTE: Ross (this volume) derives the Admiralty forms cited here from POc *mʷaŋa* 'a tree: *Pandanus conoideus*', but problems in the sound correspondences remain to be resolved.

L13. POc *ikan* > PAdm *nika* 'fish': W/A *nia*, Bipi, Lindrou, Likum, Kuruti, Leipon, Nali, Loniu, Pak, Nauna *ni*, Sori *niy*, Lou, Baluan, Lenkau *nik*.

NOTE: Possibly a reflex of POc *ikan* with fossilised common noun marker *na-*.

L14. POc *kapika* > PAdm *caRe* 'kind of Malay apple, *Syzygium gomata*': A *tae* 'kind of red *laulau*', Bipi, Sori, Lenkau *say*, Lindrou *sa*, Loniu, Penchal *cay*, Pak *tay*.

L15. POc *Ruap* > PAdm *ulua* 'high tide, flood': W/A *ulua*, Bipi, Titan, Pak *wulu*, Lindrou *wuluw*, Sori *guruw*, Likum *ulu etuh*, Ndrehet *ulup*, Kele, Kuruti, Ere *uluw*, Leipon *ulu*, *ulua-n*, Ahus *mat ulua-n* 'high tide'.

L16. POc *paRaRa* > PAdm *baronV* 'handle of an axe': S *pahon*, Bipi *poxon* (< assimilation), Levei *polon*, Titan *palon*.

L17. POc *kiRe* > PAdm *taopV* 'sleeping mat': S *taoh*, Nauna *taoh*.

L18. POc *kiki*, *rikit* > PAdm *busiko* 'small': W *putiko*, Bipi *pisik* (< assimilation), Lindrou *bwisik*, Ere *pusik*, Penchal *pʷicik-In*.

The following items appear to be PAdm lexical innovations, but because a POc equivalent has not been reconstructed they cannot be shown to be replacement innovations.

L19. PAdm *pali* 'laugh, smile': W/A *fali*, K(T) *fahe*, K(D) *fahi*, Sori *pari-h*, Kele, Pak *hal*, Lele, Nali *hay*, Ahus *heli-s*, Loniu *-han*, Lenkau *hal-sek*.

NOTE: cf. POc *malip* 'laugh, smile', a form reflected in Seimat *mal* 'laugh', *mali-mal* 'laughing'. PAdm *pali* thus was not a replacement innovation, and the semantic distinction between PAdm *mali* and *pali* remains unclear.

L20. PAdm *kara* 'fireplough': W *aka-aka*, S *axa-ax* 'fireplough', Leipon *kar*, Loniu *ka*, Penchal *kal* 'fireplough, wood used to make fireplough'.

L21. PAdm *kururV 'thunder': S kuhuh, Bipi kuxux, Lindrou, Likum kuruh, Mondropolon, Kuruti, Lou kurur, Penchal kulul.

NOTE: Ross (pers.comm.) suggests that this may be a rightward reduplication of POc *guru 'thunder'. In any case the distinctive form retains its value for subgrouping.

L22. PAdm *kuñV 'coconut leaf carrying pouch': S kun 'flat coconut leaf basket used to carry small objects', Bipi, Likum kuy, Nali, Lou kun, Loniu, Nauna kuñ.

NOTE: Seimat kun may be a loan from one of the languages of Manus.

L23. PAdm *mʷalutV 'dove, pigeon': S walut, Likum mʷaluk, Baluan mʷalut, Nauna molut.

L24. PAdm *tiwa 'sideboards in mid-section of outrigger canoe': A iwa, S, Nauna tiw.

L25. PAdm *papawV 'oars': S papaw, Levei pʷahap, Loniu pahaw, Baluan papaw.

NOTE: There are disagreements of consonant grade in this form, and it may turn out that Seimat papaw is a loan from one of the languages of Manus.

L26. PAdm *kaŋkV 'crown-of-thorns starfish': S ka 'red spiny starfish', Likum kak 'poisonous brown starfish', Loniu, Nauna kak 'starfish', Lou, Baluan kaŋ 'spiny red starfish'.

L27. PAdm *bata + X 'chest (anatomical)': S pata-nawa (= 'trunk' +'breathe'), Levei poto-lok, Titan pata-lala-, Ere par-waru.

L28. PAdm *mʷane 'straight': W/A wane wane, Bipi, Nali mone-n, Baluan mʷane-nen, Lenkau mʷene-nen.

L29. PAdm *laŋa 'to sail, go sailing': S laŋa-laŋ, Likum laŋa-k, Loniu laŋa-t.

L30. PAdm *kalika 'a fish, grouper sp.': W alia, S ali, Sori ariy, Bipi, Titan kali, Lindrou kalik, Ndrehet kalip, Ere, Nali kaliy, Loniu, Pak, Lenkau, Nauna keli.

L31. PAdm *dar(i/u) 'lionfish': S kah, Sori dah, Ndrehet kʰah, Leipon d̃ar, Ahus nhar, Titan lal, Pak dɨh, Nauna cɨl.

L32. PAdm *baraŋa 'kind of black sea bird': W/A paka-ka, Bipi paxak, Lindrou barak, Sori baha, Nali palaŋ, Loniu paʔaŋ, Leipon, Lou, Nauna paraŋ, Lenkau pad̃aŋ.

L33. PAdm *ñapa 'shoot; spear': W nafa(?) 'shoot, stab', S nah 'to spear', Bipi, Lindrou, Titan, Loniu, Nauna ñah, Ere, Nali nah, Lou nap 'fish spear'.

L34. PAdm *watiRi 'monitor lizard, Varanus spp.': W/A waʔi, S wat, Sori gatiy, Bipi, Likum, Leipon, Titan, Loniu, Penchal, Lenkau wati, Lele watiy, Ahus, Kuruti wadiy, Ere, Nali wariy.

L35. PAdm *cilalV 'malevolent bush spirit': S silal, Kele, Kuruti, Ere sinel, Lele siney, Papitalai cinal, Nali sinay, Loniu cinen, Pak tilel, Lou pʷali silal, Penchal, Nauna cilal.

NOTE: There are disagreements of consonant grade in this form, and it may turn out that Seimat silal is a loan from one of the languages of Manus.

L36. PAdm *masawa 'sea anemone': W/A matawa, Lindrou, Sori masew, Likum mʷesew.

L37. PAdm *dame* 'to ask': S *kame-i*, Bipi *dame-n*, Lindrou *d̃eme-na*, Titan *leme-tay*, Ere *d̃am-te*.

A number of the PAdm reflexes of POc nouns and verbs show partial reduplication of the first syllable. Although no grammatical function or semantic value can be attached to this process now, it is treated here as a morphological innovation.

M1. POc *panako* > PAdm *papanako* 'to steal': A *fafanao*, Kuruti *pahna*, Ere *panna*, Nali *pahana*, Lou *panak*.

M2. POc *maRuqane* > *m^waqane* > PAdm *m^waqam^waqane* 'man, male':W *mamane*, A *wawane*, S *wawan*, Penchal *m^wam^wan*, Nauna *mumuan*.

M3. POc *latoŋ* > PAdm *lalato* 'stinging nettle: *Laportea* spp.': W *lala?o*, Kele *lulat*, Lenkau *lalatr*.

M4. POc *peke* > PAdm *bebeke* 'defecate': W/A *pepe*, S *pe-pepe*, Ndrehet, Mondropolon *pe*, Lenkau *pehek*.

M5. POc *quluŋa* > PAdm *quluquluŋa* 'pillow; rest the head': S, Titan *ululuŋ*.

M6. POc *ali* > PAdm *alali* 'a fish: flounder, *Platichthys* spp.': W/A *alali*, S *alal*, Penchal *alil*.

In addition to the above examples of innovative partial reduplication, several other diverse types of change shared exclusively by Admiralty languages can be classified as morphological.

M7. POc *salan* > PAdm *qawa i sala* 'path, road': S *awa i sal*, Titan *p^wan cal*, Loniu *p^waha can*.

NOTE: Literally 'mouth of the road' in all languages. The reconstruction of PAdm *qawa i sala* follows from the reconstruction of PAdm *qawa* 'mouth'.

M8. POc *kanan* > PAdm *kanana* 'food': W *anana*, Mondropolon *kanna*, Levei, Ndrehet *kana*.

NOTE: It is not altogether clear that the innovation in this case is morphological. If cognate with Wuvulu anana, the eastern Admiralty forms irregularly retain the last vowel. This may be a result of chronologically prior syncope, and a condition preventing loss of a final vowel following a geminate consonant.

M9. PAdm *-pu* 'numeral suffix': K (D) *-fu*, S *-hu*, Bipi, Lindrou, Likum, Kele, Lele, Kuruti, Leipon, Ere, Nali, Loniu, Pak, Nauna *-h*, Sori, Lou, Baluan, Penchal, Lenkau *-p*.

NOTE: Although not found in Wuvulu-Aua, this innovation is one of the most persuasive pieces of evidence for an Admiralty subgroup, since 1) it is clearly innovative, 2) it is fossilised in all of the contempory languages, and 3) borrowing does not offer a serious alternative to shared innovation. Ross (1988:329) segments the final consonant of Lou *um si-p* 'one/a house', and glosses it as a 'classifier'. However, based on the material available to me, Lou *-/p/* 1) is not synchronically segmentable, 2) clearly is the same morpheme which appears in the numerals for 'two' (*ruep*) and 'three' (*tellp*) used in serial counting, and 3) has no obvious function. Dempwolff recorded Kaniet *-fu* only in *ua-fu* 'two', and *fa-fu* 'four' (POc *rua*, *pa*), and Thilenius recorded the cognate morpheme only in Kaniet *te-f* 'one', and *fa-f* 'four'. Seimat reflects the same suffix in *te-hu* 'one', *hūo-hu* 'two', and *tolu-hu* 'three' (POc *tolu*), and in each case it has irregularly retained the final vowel. Throughout

the eastern Admiralties reflexes of PAdm *-pu appear as a single consonant which cannot be explained from the POc reconstructions *sa 'one', *rua 'two', *tolu 'three', *pa/pati 'four', *lima 'five', *onom 'six', *pitu 'seven', *walu 'eight', *siwa 'nine', *sa-ŋapuluq 'ten': Bipi si-h, xuo-h, talo-h, ha-h, lime-h, ono-h, Sori si-p, huo-p, taro-p, papu-w, lime-p, gono-p, Leipon ti-h, ma-rwe-h, ma-culo-h, ma-ha-h, ma-lme-h, ma-wno-h, Lou si-p, rue-p, telI-p. It is likely that PAdm also innovated numerals for 6-9, as POc *pitu, *walu and *siwa have been replaced in Seimat by 6 + 1, 6 + 2, 6 + 3, and throughout the eastern Admiralties by subtractives.

In addition to the above exclusively shared lexical and morphological innovations there are some lexical items which show irregular phonological changes that are widely shared within the Admiralties. These will be labelled IPC (irregular phonological change).

IPC 1. POc *latoŋ > PAdm *ñalato 'stinging nettle, *Laportea* spp.': S nalat, Bipi, Lindrou ñalak, Sori ñara, Likum, Ndrehet nalat, Levei nolok, Mondropolon lanak (met.), Lele, Nali nayat, Ahus ñarat, Leipon ñilet, Loniu ñalat, Pak nalar.

NOTE: Also see M3.

IPC 2. POc *mipi/nipi > PAdm *mepi 'dream': W mefi, Lindrou -mmah, Sori me-mep, Pak mehe-meh, Lenkau mep-mep, Nauna mehi-meh.

IPC 3. POc *tamʷata > PAdm *damata 'person, human being': W kamaʔa, A ramaʔa, Bipi xamak, Nali d̃amat, Loniu amat, Nauna camat.

IPC 4. POc *papine > PAdm *pepine 'woman, female': W/A pifine, S hehin, K fefin, Bipi, Lele, Leipon, Ere, Nali, Loniu pihin, Sori bibiŋ, Titan, Lou, Baluan pein, Penchal, Lenkau pehin.

NOTE: Both Wuvulu-Aua, and a number of languages in the eastern Admiralties show a secondary assimilation of PAdm *e to the following *i. This change is assumed to be convergent.

IPC 5. POc *kianso > PAdm *kayaco 'connecting sticks for outrigger': W ato, S ayas, Titan kacac, Nali kayas, Papitalai kayac, Pak kayat.

IPC 6. POc *qayawan > PAdm *qaiwa 'banyan, *Ficus* spp.': W aiwa, Lindrou, Likum ew, Titan, Nali, Loniu yew, Penchal, Nauna kew.

NOTE: Many of the languages of Manus have lost a vowel in the environment VC...CV, but the change is regular and took place after the break-up of PAdm. By contrast, the loss of the medial vowel of POc *qayawan in PAdm *qaiwan appears to be unique.

IPC 7. POc *qasawa > PAdm *qasoa 'spouse': W ako-, A aro-, S axoa-, Lou asoa-.

NOTE: The sporadic change of *-aw- to /o/ in this form is also found in Numbami asowa, and in some of the languages of Vanuatu, including Raga ahoa- 'husband' and South-East Ambrym asou- 'spouse'. However, other Oceanic languages retain the original sequence of vowel and glide (Motu adava-, Mekeo akafa- 'spouse'). Tentatively I view this shared sporadic change in the Admiralties as more likely the result of a single change than of several parallel changes.

Finally, many of the languages of the eastern Admiralties reflect POc *kandoRa 'cuscus' with metathesis of the vowels, such as PEAdm *godaRa: Bipi koxa, Sori ohay, Lou ŋora, Lenkau ŋohay, Penchal kotay, Nauna kocay. Since a similar metathesis appears in Seimat

koxa we might attribute this change to PAdm. However, the Seimat word does not exhibit regular phonological correspondences and, moreover, the cuscus is not native to the Ninigo Lagoon. Seimat *koxa*, then, is best attributed to borrowing from Bipi.

5. EVIDENCE FOR A WESTERN ISLANDS SUBGROUP

Ross (1988:341-342) proposes three phonological innovations which define a 'Western Admiralties Family':

(1) POC/PAd medial *-s- underwent lenition in Aua, Wuvulu and Seimat, but possibly not in Kaniet Ø.

(2) POC/PAd *j merged with the *fortis* grade of POC/PAd *s as PWAd *s.

(3) POC/PAd *r was apparently backed to PWAd *x, to judge from its reflexes Aua, Seimat *h*, Wuvulu *k* and Kaniet Ø.

Since innovation (1) apparently does not include all of the languages of the Western Islands (WI) it cannot serve the purpose of demonstrating a WI subgroup. Although innovation (2) does seem to be shared by all WI languages, it is hardly distinctive, since a similar merger is found in many other Oceanic languages. The weight of Ross's evidence for a WI subgroup thus appears to fall on a single phonological innovation, the backing of POc *r to what probably was a velar fricative.

The existence of a WI subgroup within the larger Admiralty group is supported by a number of lexical or semantic innovations which strengthen the argument presented by Ross. Among those noted in a casual inspection of the available material are the following apparent lexical innovations, of which L1-L7 are treated as replacement innovations:

L1. POc *nraun ni qulu* > PWI *urou* 'hair of the head': W *uko*, S, K *uku* (<assimilation).

L2. POc *maya* > PWI *lexo* 'tongue': S *leho*, K *leholeho*.

L3. POc *mata* > PWI *pula* 'eye': W/A, S *pula*, K *pule*.

L4. POc *panij* > PWI *pau* 'wing': W/A, S *pau-*.

L5. POc *moñak* > PWI *wia* 'fat, grease': A, S *wia*.

L6. POc *qusan* > PWI *maunu* 'rain': W/A *maunu* 'rain', S *maun* 'sky; raincloud'.

L7. POc *tokon* > PWI *fao* 'punting pole': W/A *fao*, S *ha*.

L8. PWI *sisi* 'swim': W *tiki*, A *tixi*, K(D) *le-sisi*.

L9. PWI *loloa* 'dirty': W/A *loloa*, S *lolo*.

L10. PWI *saloa* 'firewood': W/A *taloa*, S *salo i ah*.

L11. PWI *tua* 'coconut flower spathe': W *tuatua*, S *su*.

L12. PWI *wasusu* 'blow the nose': W *wasusu*, S *wasu-ini*.

L13. PWI *sawa* 'fish corral': W *tawa*, S *xaw*.

A single semantic innovation can be added to the above examples:

S1. POc *panij* 'wing' became PWI *pani* 'hand': W/A, K *pani*.

6. THE INTERNAL RELATIONSHIPS OF THE LANGUAGES OF THE WESTERN ISLANDS

Space does not permit an extensive discussion of the internal relationships of the languages of the Western Islands. Blust (1978:34) provisionally suggested a binary division, with Wuvulu-Aua in one branch, and Seimat-Kaniet in the other. Ross (1988:316) instead proposes a three-way split, with Wuvulu-Aua forming the only clear-cut group.

I now agree with Ross that there is little evidence for a subgroup containing Seimat and Kaniet. Rather, the languages of the Western Islands appear to divide into three primary branches: 1) Wuvulu-Aua, which are either divergent dialects of a single language, or two very closely related languages (roughly on the order of Malay and Minangkabau in western Indonesia), 2) Seimat, and 3) two distinct languages which were earlier spoken in the Anchorite and Kaniet Islands. These groupings are justified both by lexicostatistical percentages derivable from the Appendix, and by evidence of exclusively shared innovations. The lexicostatistical percentages, for whatever they are worth, appear in Table 19.[16]

TABLE 19: LEXICOSTATISTICAL RELATIONSHIPS OF WESTERN ISLANDS LANGUAGES

	Kaniet (D)	Kaniet (T)	Seimat	Aua
Wuvulu	31.1	25.5	28.6	69.1
Aua	30.2	27.3	30.2	
Seimat	30.4	32.6		
Kaniet	53.8			

As can be seen, the only groups that emerge clearly from these percentages are 1) Wuvulu-Aua, which consists of two communities that score very near the 'language limit' (the boundary between language and dialect), and 2) the two Kaniet lists, which appear to be closely related, but unquestionably distinct languages. There thus appears to be justification only for proposing a Western Islands subgroup which consists of three primary branches: 1) Wuvulu-Aua, 2) Seimat, and 3) the languages that for want of further information must be known to history as Kaniet (T) and Kaniet (D).

7. CONCLUSIONS

It should be obvious from the remarks made here that further work is needed on the phonology of Wuvulu and Aua, both of which show an exceptional amount of variation, including some features of 'free' variation that may turn out to have interesting consequences for general linguistic theory. Nothing further can be done on Kaniet, which evidently is extinct, but further checking is needed to distinguish nasal from oral vowels in Seimat. With regard to subgrouping, seven of the ten innovations which Ross (1988) proposes in support of an Admiralty subgroup do not bear close scrutiny, including all three of his proposed phonological innovations. This leaves just three morphosyntactic innovations from his original set. However, the existence of an Admiralty subgroup is not in dispute, since at least 37 PAdm lexical innovations, nine PAdm morphological innovations (or lexical items reflecting a morphological innovation), and seven PAdm lexical items with idiosyncratic

---

16   Based on the following cognate counts: 1. W:K(D) 28/90, 2. W:K(T) 24/94, 3. W:S 53/185, 4. W:A 121/175, 5. A:K(D) 26/86, 6. A:K(T) 24/88, 7. A:S 54/176, 8. S:K(D) 29/89, 9. S:KT 28/92, 10. K(T)/K(D) 35/65.

phonological changes from POc can be added to the published morphosyntactic evidence. Contrary to the views of some earlier writers, the languages of the 'Western Islands' – despite their superficial distinctness – clearly shared an immediate common ancestor with the languages of Manus and its satellites in the eastern Admiralties.

APPENDIX: COMPARATIVE WORD LIST

This appendix provides the equivalents of 196 meanings on a modified 200-word Swadesh list for 1. Wuvulu, 2. Aua, 3. Seimat, and 4. Kaniet, as recorded both by Thilenius (T), and Dempwolff (D). The orthography follows from the analysis provided in the main body of the paper. Cognate decisions are coded by letter and tabulated at the end of the data set. In general, names for body parts and kinship terms require a possessive suffix, and transitive or imperative verbs take -/ia/. The thematic consonants which appear on such forms in Wuvulu and Aua, and the thematic vowels which appear in Seimat are given in parentheses.

		WUVULU	AUA	SEIMAT	K (T)	K (D)
001.	hand	*pani* (A)	*pani* (A)	*mina* (B)	*pani* (A)	*pani* (A)
002.	left	*mawi* (A)	*mawi* (A)	*kalamaw* (A)	*mʷaw* (A)	——
003.	right	*maʔau* (A)	*maʔau* (A)	*manaw* (B)	*ayi* (C)	——
004.	foot/leg	*pine-* (A)	*piai-* (B)	*ae-* (C)	*ae-* (C)	*pañae* (D)
005.	walk	*oʔa-lii* (A)	*poporei* (B)	*nahĩ* (C)	*laulauu* (D)	*le-au* (E)
006.	road	*tala* (A)	*tala* (A)	*awa i sal* (A)	*sala-e* (A)	*senano* (B)
007.	come	*mai* (A)	*no-mai* (A)	*nahĩma* (A)	——	*cam* (B)
008.	turn	*fanunumai* (A)	*pixupixui* (B)	*toheni* (C)	——	——
009.	swim	*tiki* (A)	*tixi* (A)	*nunu* (B)	——	*le-sisi* (A)
010.	dirty	*loloa* (A)	*loloa* (A)	*lolo* (A)	——	——
011.	dust	*luafu* (A)	*pora* (B)	*axuan* (C)	——	——
012.	skin	*inu* (A)	*uliinu* (A/B)	*uli* (B)	*hui* (C)	*anowa* (D)
013.	back	*uku* (A)	*uxu* (A)	*tehĩto* (B)	——	*lohu* (C)
014.	belly	*ali* (A)	*loxi* (B)	*tia* (C)	*ja* (D)	*ace* (E)
015.	bone	*kui* (A)	*ruiinu* (A)	*kui* (A)	*kui* (A)	*mabo* (B)
016.	guts	*pepea* (A)	*laloiau* (B)	*puhũa* (C)	——	——
017.	liver	*patio* (A)	*aʔe* (B)	*ate* (B)	——	——
018.	breast	*tutu* (A)	*tutu* (A)	*susu* (A)	*susu* (A)	*susu* (A)
019.	shoulder	*foka* (A)	*fore* (A?)	*wahe* (B)	*safo* (C)	*safo* (C)
020.	know	*apa(?)* (A)	*naxamu* (B)	*tioi* (C)	*kemeo* (D)	——
021.	think	*nakanaka* (A)	*naxa-u* (A)	*namiloi* (B)	——	——
022.	fear	*maʔau* (A)	*maʔau* (A)	*mamata* (A)	——	*salemot* (B)
023.	blood	*kaka* (A)	*rara* (A)	*kaka* (A)	——	*kaha* (B)
024.	head	*taba* (A)	*taba* (A)	*patu* (B)	*sao* (C)	*saueŋ* (D)
025.	neck	*ua* (A)	*ua* (A)	*kinawe* (B)	*putuu* (C)	*pucu ua* (A/C)
026.	hair	*uko* (A)	*paloa* (B)	*uku* (A)	*uku* (A)	*uxu* (A)
027.	nose	*nuke* (A)	*nuxe* (A)	*weixu* (B)	*matasu* (C)	——
028.	breathe	*ona fawenau* (A)	*fawenau* (A)	*hanaw* (A)	*ñoamu* (B)	——
029.	smell	*ato* (A)	*ato* (A)	*aso-i* (A)	*kañ* (B)	——

030.	mouth	*umu* (A)	*umu* (A)	*awa* (B)	——	*awa* (B)
031.	tooth	*lifo* (A)	*lifo* (A)	*nisu* (B)	*ihoñ* (C)	*ifo* (A)
032.	tongue	*kawe* (A)	*rawerawe* (A)	*leho* (B)	*lewolewo* (B)	*leholeho* (B)
033.	laugh	*fali* (A)	*ina fali* (A)	*mal* (B)	*fahe* (A)	*fahi* (A)
034.	cry	*ai* (A)	*ina ʔai* (A)	*taŋ* (A)	*taŋe* (A)	*taŋi* (A)
035.	vomit	*mumuʔa* (A)	*mumuʔa* (A)	*mutumut* (A)	——	*mutam* (A)
036.	spit	*ui* (A)	*ui* (A)	*puke* (B)	*tuhayu* (C)	*moloam* (D)
037.	eat	*anana* (A)	*muta* (B)	*aŋ* (A)	*sio* (C)	*siau* (C)
038.	chew	*kawe(ʔ)* (A)	——	*naket-i* (B)	——	——
039.	cook	*unu* (A)	*unu(m)* (A)	*salek-i* (B)	*umun-i* (A)	——
040.	drink	*inu* (A)	*inu* (A)	*un* (A)	*numam* (B)	*num* (B)
041.	bite	*talu* (A)	*talu* (A)	*atalah-i* (B)	*ole-an* (C)	
042.	suck	*inu* (A)	*inu* (A)	*susu-i* (B)	——	
043.	ear	*ali(a)* (A)	*alia* (A)	*taxiŋa-* (A)	*kahiña* (A)	*kahina* (A)
044.	hear	*kuai* (A)	*u-ruai* (A)	*hoŋ* (B)	*meyoŋ* (C)	——
045.	eye	*pula* (A)	*pula* (A)	*pula* (A)	*pule* (A)	*pule* (A)
046.	see	*maʔa* (A)	*maʔa* (A)	*paha-i* (B)	*kileŋa* (C)	——
047.	yawn	*mamawa* (A)	——	*maw.* (A)	——	*memawa* (A)
048.	sleep	*maʔiku* (A)	*mefi* (B)	*mati* (A)	*ole-masa* (C)	*matu* (A)
049.	lie down	——	*eno* (A)	*eŋ* (A)	——	——
050.	dream	*mefi* (A)	*mefi* (A)	*paxaŋoŋ* (B)	——	——
051.	sit	*kuta* (A)	*xuta* (A)	*to* (B)	——	*uta* (C)
052.	stand	*ufalakai* (A)	*ufalaxai* (A)	*tu* (B)	*ole-tutun* (C)	——
053.	person	*kamaʔa* (A)	*ramaʔa* (A)	*seilon* (B)	——	——
054.	man	*mamane* (A)	*wawane* (A)	*wawan* (A)	*mʷane* (A)	*mʷan* (A)
055.	woman	*pifine* (A)	*pifine* (A)	*hehin* (A)	*fefin* (A)	*fefin* (A)
056.	child	*naʔu* (A)	*naʔu* (A)	*natu* (A)	*kaya* (B)	*aga* (C)
057.	husband	*ako* (A)	*aro* (A)	*axoa* (A)	——	——
058.	wife	*ako* (A)	*aro* (A)	*axoa* (A)	*fefin* (B)	*fefin* (B)
059.	mother	*ina* (A)	*ina* (A)	*tina* (A)	*tinian* (A)	*tinea* (A)
060.	father	*ama* (A)	*ama* (A)	*tama* (A)	*tama* (A)	*tama* (A)
061.	house	*umu* (A)	*umu* (A)	*iŋ* (B)	*ama(hi)* (C)	*ama* (C)
062.	roof	*boboʔai* (A)	*aʔo* (B)	*kai api* (C)	*tonae* (D)	*ato* (B)
063.	name	*aka* (A)	*axa* (A)	*axa* (A)	——	——
064.	say	*wake* (A)	*wareware* (A)	*kakak* (B)	*kuakua* (C)	*geiu* (D)
065.	rope	*wau* (A)	*wao* (A)	*tal* (B)	——	——
066.	tie	*kokoʔin* (A)	*xoxoʔin* (A)	*hiot-i* (B)	——	*le-kauusi* (C)
067.	sew	——	*tama(?)* (A)	*sawit-i* (B)	——	——
068.	needle	*tawi* (A)	——	*sasawit* (A)	——	——
069.	hunt	——	*tete* (A)	*nahĩ teletel* (B)	——	——
070.	shoot	*nafa(?)* (A)	*nafa(?)* (A)	*hapiki* (B)	——	——
071.	stab	*otome* (A)	*pataruru* (B)	*tapuhĩ* (C)	——	——
072.	hit	*afu(k)* (A)	*afu(r)* (A)	*xai* (B)	——	——
073.	steal	*topaʔai* (A)	*fafanao* (B)	*xuxuina* (C)	——	*mafana* (D)
074.	kill	*foʔa* (A)	*foʔafamaʔe* (A)	*telei* (B)	——	——

075.	die	ma²e (A)	ma²e (A)	mat (A)	memat(A)	memat(A)
076.	live	mama²a(A)	a²inama²e(B)	moihin (C)	——	——
077.	scratch	nefi (A)	pote (B)	axut-i (C)	——	——
078.	cut	oko(f) (A)	folo²o(f) (B)	kot-i (C)	hamati(D)	——
079.	wood	manumanu (A)	aiai (B)	pata (C)	——	——
080.	split	fala(k)(A)	fala(r)(A)	saŋa-i (C)	——	——
081.	sharp	talu (A)	wararo (B)	aŋi-an (C)	——	——
082.	dull	lo²etalu (A)	ia²a wararo (B)	tumuku (C)	——	——
083.	work	biki (A)	biri (A)	nahi˘ (B)	——	——
084.	plant	fako (A)	——	seini (B)	——	——
085.	choose	ma²i (A)	——	——	——	——
086.	grow	amapu(A)	——	xelexele (B)	——	——
087.	swell	popola (A)	popola (A)	hulo (B)	——	——
088.	squeeze	api(?)(A)	petu (B)	hunu-i(C)	——	——
089.	hold	paloko (A)	uto(n) (B)	akeken-i (C)	——	——
090.	dig	aki (A)	axi(f)(A)	tahĭwi (B)	——	——
091.	buy	pono(?)(A)	——	kahu-i(B)	——	——
092.	open	onolao (A)	——	——	puet (B)	——
093.	throw	tumi(n)(A)	tixi(n)(B)	to-i (C)	fataam(D)	——
094.	fall	pati (A)	pati (A)	putaput (B)	——	xobu (C)
095.	dog	pono (A)	puopi (B)	sinen (C)	——	bĭlu (D)
096.	bird	fĭfĭlau (A)	manumanu (B)	manexux(B)	manu (B)	pahu (C)
097.	egg	a²olu(A)	a²olu(A)	atol (A)	atahu-l(A)	atohu-n (A)
098.	feather	pukuo (A)	lami(B)	ole (C)	ugu-n̄ (D)	——
099.	wing	pau (A)	pau (A)	pau (A)	pani (B)	——
100.	fly	fĭlau(A)	fĭlu (A)	ŋoŋ (B)	——	——
101.	rat	balafai(A)	balaa(A)	usuh (B)	——	——
102.	meat	pikio (A)	pirio (A)	xixio (A)	——	——
103.	fat	pau (A)	wia (B)	wia (B)	——	——
104.	tail	wawa (A)	wawa (A)	koloh (B)	——	——
105.	snake	wa²a (A)	wa²a (A)	weiko (B)	——	——
106.	worm	wa²a maunu (A)	wa²a wa²a(A)	wāt (A)	——	——
107.	louse	fou²u (A)	fua u²u (A)	lil (B)	——	uto (A)
108.	mosquito	baibai (A)	namu(B)	nam (B)	ñamu (B)	ñam(B)
109.	spider	ulo (A)	——	pulil (B)	——	——
110.	fish	nia (A)	nia (A)	xixi (B)	i (C)	kaña (D)
111.	rotten	wakaku (A)	wafa (B)	kohan (C)	——	——
112.	branch	kaka (A)	rara (A)	pehe (B)	——	——
113.	leaf	kau (A)	rau (A)	kay pata (B)	——	kau-n (A)
114.	root	waka (A)	waxa (A)	wahā(A)	——	——
115.	flower	ape (A)	fota (B)	palawa (C)	——	——
116.	fruit	fua (A)	fua (A)	hua (A)	——	——
117.	grass	lilimoka (A)	xua (B)	pahōa (C)	——	——
118.	earth	pie (A)	pie (A)	pekeun (B)	seano (C)	sean (C)
119.	stone	muko (A)	muro (A)	hat (B)	fatu (B)	fatu(B)

120.	sand	pie (A)	pie (A)	pekeun (B)	seano (C)	xealo (D)
121.	water	kanu (A)	ranu (A)	kan (A)	a-kanu (A)	——
122.	sea	aki (A)	ari (A)	tax (A)	tasi (A)	tasi-n (A)
123.	salt	aki (A)	ari (A)	——	——	——
124.	forest	polu (A)	polu (A)	nemaux (B)	lobon (C)	leponu (D)
125.	sky	pafea (A)	monurawe (B)	maun (C)	aon (D)	——
126.	moon	pula (A)	pula (A)	paŋapaŋ (B)	paŋapaŋ (B)	pagepaŋ (B)
127.	star	piʔu (A)	piʔu (A)	kohot (B)	lamat (C)	halaŋ (D)
128.	cloud	uʔukafu (A)	——	maun (B)	bulubuel (C)	woxewoxe (D)
129.	fog	hau (A)	poraʔano (B)	oah (C)	——	——
130.	rain	maunu (A)	maunu (A)	akah (B)	halaŋ (C)	——
131.	thunder	wikuku (A)	paxaxa (B)	kuhuh (C)	nunut (D)	bafe (E)
132.	lightning	ukuku (A)	utila (B)	usil (B)	uti (C)	——
133.	wind	apitilo (A)	auna (B)	aupol (C)	aŋi (D)	aŋiŋ (D)
134.	blow	uku(f) (A)	ixu(f) (A)	ahoah (B)	——	——
135.	hot	babai (A)	tilatila (B)	kekean (C)	afiafi (D)	——
136.	cold	waiwa (A)	maxixi (B)	makian (B)	uasisi (C)	——
137.	dry	mamaka (A)	mamaxa (A)	paxepaxen (B)	——	——
138.	wet	kokofa (A)	——	waxexan (B)	mabu (C)	——
139.	heavy	kakapa (A)	raraba (A)	kawatan (B)	——	——
140.	fire	afi (A)	afi (A)	ah (A)	afi (A)	afi (A)
141.	burn	alu-ia (A)	ruʔa (B)	lu-i (A?)	——	——
142.	smoke	aku (A)	aru (A)	axu-an (A)	asu-i (A)	mamahu (B)
143.	ash	walu (A)	maʔuʔu afi (B)	paloŋ (C)	mamahu (D)	asuiŋ (E)
144.	black	akaka-na (A)	axaxa (A)	polun (B)	bokobok (C)	poebog (D)
145.	white	poʔi (A)	poʔi (A)	papaxaxun (B)	lauta (C)	susum (D)
146.	red	koa (A)	roa (A)	kakan (B)	lelef (C)	laula-n (D)
147.	yellow	poia (A)	——	aŋoaŋon (B)	——	aŋanŋana (B)
148.	green	mali-ana (A)	mamahuiana (B)	koki (C)	——	——
149.	small	putiko (A)	tariri (B)	kokol (C)	makole (C)	koxole (C)
150.	large	bawa-na (A)	bawa-na (A)	lalap (B)	mebakil (C)	bakin (C)
151.	short	weloku (A)	taru (B)	kukunan (C)	botobuat (D)	wutuwuatu (D)
152.	long	mala (A)	mala (A)	weluwelun (B)	naunau (C)	nau-na (C)
153.	thin	apapa (A)	lalaxia (B)	maelu (C)	——	——
154.	thick	akaʔaka (A)	——	kilakïlan (B)	——	——
155.	narrow	putiko (A)	tariri (B)	omiomin (C)	——	——
156.	wide	litatana-a (A)	bawa-na (B)	mamanahan (C)	——	sau (D)
157.	sick	uki (A)	fiʔi (B)	moloan (C)	heis (D)	heis (D)
158.	shy	mafa (A)	mafa (A)	hïena (B)	oatu (C)	——
159.	old	lapunu (A)	mina (B)	salaimat (C)	——	——
160.	new	——	nupela (A)	haun (B)	——	tefaun (B)
161.	good	nakawani (A)	faiʔa-na (B)	solian (C)	loalo (D)	magaña (E)
162.	bad	afelo (A)	afelo (A)	lialun (B)	maitie-n (C)	——
163.	true	faʔua (A)	faʔua (A)	salan (B)	——	——
164.	night	poi (A)	poi (A)	i-poŋ (A)	bobuau (B)	fueñ (C)

165.	day	akewa (A)	axewa (A)	ŋain (B)	jooi (C)	yoŋiye (D)
166.	year	—	—	ahaŋ (A)	—	—
167.	when?	aika (A)	aira (A)	lokon (B)	—	—
168.	hide	opaʔai (A)	—	mumuna (B)	—	—
169.	climb	fane (A)	fane (A)	han (A)	—	—
170.	at/on	—	—	patul (A)	—	—
171.	in/inside	lalo (A)	lalo (A)	leili (B)	—	—
172.	above	—	—	patul (A)	malagañ (B)	—
173.	below	—	—	ahitake (A)	—	—
174.	this	fe-ni (A)	fe-ni (A)	ie (B)	—	—
175.	that	fe-na (A)	fe-na (A)	io (B)	—	—
176.	near	kafiʔi (A)	paʔimai (B)	xoixohin (C)	—	—
177.	far	kao-a (A)	rau-a (A)	xauxauan (A)	sai (B)	—
178.	where?	ia (A)	ia (A)	ia (A)	—	keano (B)
179.	I	au (A)	au (A)	ŋa (A)	—	ŋa (A)
180.	you	o (A)	oi (A)	o (A)	—	o (A)
181.	he/she	ina (A)	ina (A)	i (B)	—	i (B)
182.	we (INC)	aia (A)	aia (A)	kako (B)	—	—
183.	you (PL)	ama (A)	ama (A)	mu-to (B)	—	—
184.	they	lao (A)	lao (A)	la-to (A)	—	—
185.	what?	tamanu (A)	tani (B)	la (C)	—	seno (D)
186.	who?	ini (A)	ini (A)	aita (B)	—	xalo (C)
187.	all	koʔou (A)	minaraʔou (A)	hatesol (B)	—	—
188.	and	ma (A)	ma (A)	ma (A)	—	—
189.	if	—	—	na (A)	—	—
190.	how	bata nai (A)	—	ukekia (B)	—	—
191.	no/not	loʔe (A)	—	tap (B)	tago (C)	taxo (C)
192.	count	wakei (A)	wa-warei (A)	wexei (A)	lebonot (B)	—
193.	one	kia (A)	e-ai (B)	tehu (C)	tef (C)	texu (D)
194.	two	-kua (A)	e-xua-i (A)	hūo-hu (A)	ua (A)	ua-fu (A)
195.	three	olu (A)	olu-ai (A)	tolu-hu (A)	tohu (A)	tohu (A)
196.	four	fa (A)	unaroa (B)	hinalo (C)	fa-f (A)	fa-fu (A)

REFERENCES

Army General Survey Report, 1943. Washington, D.C.: United States Government, Department of Defense.

Benton, Richard A., 1968, Numeral and attributive classifiers in Trukese. *Oceanic Linguistics* 7:104-146.

Blust, Robert, 1978, *The Proto-Oceanic palatals*. Memoir No. 43. Wellington: The Polynesian Society.

1981, Variation in retention rate among Austronesian languages. Paper presented at the Third International Conference on Austronesian Linguistics, Denpasar, Bali.

1984, Malaita-Micronesian: an Eastern Oceanic subgroup? *Journal of the Polynesian Society* 93:99-140.

1991, Sound change and migration distance. In Robert Blust, ed. *Currents in Pacific linguistics: papers on Austronesian languages and ethnolinguistics in honour of George W. Grace*, 27-42. PL, C-117.

Dempwolff, Otto, 1904, Über aussterbende Völker. (Die Eingeborenen der 'westlichen Inseln' in Deutsch-Neu-Guinea.) *Zeitschrift für Ethnologie* 36:384-415.

1905, Beiträge zur Kenntnis der Sprachen von Deutsch-Neuguinea. *Mitteilungen des Seminars für orientalische Sprachen* 8:182-254.

Ferguson, Charles A., 1963, Assumptions about nasals: a sample study in phonological universals. In Joseph H. Greenberg, ed. *Universals of language*, 53-60. Cambridge, Mass.: M.I.T. Press.

Grace, George W., 1955, Subgrouping of Malayo-Polynesian: a report of tentative findings. *American Anthropologist* 57:337-339.

Greenberg, Joseph H., 1978, Generalizations about numeral systems. In Joseph H. Greenberg, ed. *Universals of human language*, vol.3: *Word structure*, 249-295. Stanford, California: Stanford University Press.

Hambruch, Paul, 1908, Wuvulu und Aua (Maty- und Durour-Inseln). *Mitteilungen aus dem Museum für Völkerkunde*, 2/1. Hamburg: Lucas Gräfe & Sillem.

Healey, Alan, 1976, Austronesian languages: Admiralty Islands area. In S.A. Wurm, ed. *New Guinea area languages and language study*, vol. 2: *Austronesian languages*, 349-364. *PL*, C-39.

Hooper, Robin, 1985, Proto-Oceanic *qi. In Andrew Pawley and Lois Carrington, eds *Austronesian linguistics at the 15th Pacific Science Congress*, 141-167. *PL*, C-88.

Mead, Margaret, 1930, *Growing up in New Guinea: a comparative study of primitive education*. New York: William Morrow.

Meyer, O., 1932, Missionar und Wissenschaft. In J. Hüskes, ed. *Pioniere der Südsee*, 185-196. Salzburg: Herz-Jesu Missionhaus.

Milke, Wilhelm, 1958, Zur inneren Gliederung und geschichtlichen Stellung der ozeanisch-austronesischen Sprachen. *Zeitschrift für Ethnologie* 83:58-62.

Moseley, H.N., 1877, On the inhabitants of the Admiralty Islands, etc. *Journal of the Royal Anthropological Institute of Great Britain and Ireland* 6:379-429.

Nevermann, Hans, 1934, Admiralitäts-Inseln. In Georg Thilenius, ed. *Ergebnisse der Südsee-Expedition 1908-1910*, IIA, vol.3. Hamburg: Friederichsen, de Gruyter.

Pawley, Andrew K., 1972, On the internal relationships of Eastern Oceanic languages. In R.C. Green and M. Kelly, eds *Studies in Oceanic culture history* 3, 1-142. Pacific Anthropological Records 13. Honolulu: Bernice P. Bishop Museum.

Ray, Sidney H., 1891, Note on the people and languages of New Ireland and the Admiralty Islands. *Journal of the Royal Anthropological Institute of Great Britain and Ireland* 21:3-13.

Ross, M.D., 1988, *Proto Oceanic and the Austronesian languages of western Melanesia*. *PL*, C-98.

Schnee, Heinrich, 1901, Beitrag zur Kenntnis der Sprachen im Bismarck-Archipel. *Mitteilungen des Seminars für orientalischen Sprachen* 4:229-279.

Schooling, Stephen and Janice Schooling, 1980, A preliminary sociolinguistic and linguistic survey of Manus Province, Papua New Guinea. Mimeo. Ukarumpa: Summer Institute of Linguistics.

Smythe W.E., 1970, Melanesian, Micronesian, and Indonesian features in languages of the Admiralty Islands. Edited by A. Healey. In S.A. Wurm and D.C. Laycock, eds *Pacific linguistic studies in honour of Arthur Capell*, 1209-1234. *PL*, C-13.

n.d., Seimat grammar and vocabulary. MS.

Thilenius, Georg, 1903, Ethnographische Ergebnisse aus Melanesien: die westlichen Inseln des Bismarck-Archipels. *Abhandlungen der Kaiserlichen Leopoldisch-Carolinischen Deutschen Akademie der Naturforscher* 80, 103-406. Halle: Ehrhardt Karras.

Wurm, S.A. and Shirô Hattori, eds, 1981, *Language atlas of the Pacific area*, part 1: *New Guinea area, Oceania, Australia*. Canberra: The Australian Academy of the Humanities in collaboration with the Japan Academy. *PL*, C-66.

Z'Graggen, John A., compiler, 1975, Comparative wordlists of the Admiralty Islands languages. Collected by W.E. Smythe. *Workpapers in Papua New Guinea Languages* 14:117-216.

POc *mata: MANY WORDS, HOW MANY MEANINGS?

ANN CHOWNING

1. INTRODUCTION

In 1977 R.H. Barnes published an article[1] that, although inspired by his research into Kédang of eastern Indonesia, dealt with precisely the problem I am discussing here. If I read it, however, I had forgotten it. The immediate inspiration for this paper came from other sources. One was the assembling of lexical materials for three languages spoken in West New Britain (Papua New Guinea): Lakalai (Bileki, West Nakanai), Sengseng and Kove. Most of these materials, apart from basic vocabulary collected for comparative purposes, resulted from my attempts to acquire a speaking knowledge of each language in order to carry out anthropological research. In Lakalai, however, Ward Goodenough and I have also been trying to assemble a publishable dictionary of the language. I was struck by the fact that in all three languages, a term which I wrote as *mata* encompassed a notably wide and diverse range of meanings compared with most other lexical items, even though sets of apparent homonyms are abundant in all three languages. (Incidentally, in this respect they differed from the other Oceanic (Oc) language I had worked with, Molima of Milne Bay Province – a problem I shall return to below.)

Secondly, when I was working on a paper on Lakalai counting classifiers (Chowning 1991a), the comparative data in other Austronesian (An) languages pointed to the frequency with which *mata* forms had this function. Indeed, Pawley (1972) reconstructed one for Proto Eastern Oceanic (PEO) (see discussion below). I had not recorded this meaning for Lakalai *mata*, but did check during a return trip, and added the counting classifier to the range of meanings of *mata* in that language. Finally, I was also interested in Pawley's (1991) discussion of Proto Oceanic (POc) 'complex lexemes', including those involving *mata*. Pawley's list showed that Lakalai, among the languages that he had examined, had a relatively high number of these last. Unfortunately when I was back in Lakalai I failed to ask whether some of the specific complex lexemes he reconstructed for POc were reflected in Lakalai, but my further attempts to define Lakalai *mata* have profited from some of the reconstructions in his handout.

1.1 RECONSTRUCTED FORMS

To return to the three languages with which I began, I should note that although they are spoken within a very small geographical area, they are not closely related to each other (Chowning 1976). Pairs of them, and occasionally all three, share a handful of lexical items

---

[1] I am indebted to James Urry for calling this source to my attention.

that cannot be attributed to POc and that may be limited to New Britain and its vicinity. The vast majority of shared cognates, however, can be derived from POc. In view of the stability of the Proto Austronesian (PAn) word for 'eye' (see Grace 1967:292-294), little of interest would be forthcoming if all the *mata* forms seem to derive from this meaning. I doubt that such is the case, however. An examination of *mata*-like forms reconstructed for POc, Proto Polynesian (PPn) and PAn pointed to solutions for some of my problems but still left many questions unanswered. The linguists who have postulated the reconstructions differ among themselves regarding the number of separate forms involved. The pertinent reconstructions known to me are the following:

Grace (1969) – POc:[2]

mata	eye
mwata	snake, worm
mwata	point, cutting edge, sharp projection, end
Also *mata(q)*	raw, new

Grace and Lincoln (1976) – POc:

mata	association of people, community
mata	eye
mata	snake
mata	point, sharp (but including cases such as Motu where the term means 'the top of anything')
mata	raw, new
Also *mataka*	edge (however, the full form is attested only in Motu, where it means 'sharp, sharp-pointed')

Cashmore (1969) – PEO:

$mata_1$	face, eye
$mata_2$, *imata*	in front of

Biggs, Walsh and Waqa (1970) – PPn:

$mata_1$	eye, face
$mata_{1a}$	blade, cutting edge, point
$mata_{1b}$	mesh of net
$mata_2$	raw, green, unripe
$mata_3$	association or grouping of people

Before turning to Pawley's complex lexemes, I need to comment on these reconstructions. Firstly, I shall not be concerned with the adjectival form translated 'raw, new, unripe'. Grace seems to have been correct in initially suggesting that it ended with *q* (Ross 1988), but even in those languages in which it has lost the final consonant, it does not seem to have influenced the meanings of the nouns which are my principal concern. In what follows, I shall ignore this particular form (which, as it happens, is not reflected in any of the languages I have worked with).

Secondly, I can readily understand why Milke, Grace's source for the 1969 forms, suggested that the words for 'snake' and 'point, etc.' were both *mwata*. I suspect that he thought they had a common derivation. Since then, and contra Grace and Lincoln (1976), it

---

[2]   I have changed Grace's original spelling of *ŋm* to *mw* to conform with current usage.

has become clear that the protoform for 'snake' should indeed be *mwata* (Ross 1988), but I know of no evidence to suggest that the same protoform produced the 'point' terms, which seems to reflect only *mata*. See, for example, Kove *mota* 'snake', *mata* 'tip, point, etc.' I think it quite likely that, especially in western Oceania where snakes abound, and particularly in languages where *mwata* is reflected as *mata*, the speakers might well associate the sharpness of the serpent's tooth with that of a spear or arrow, but I shall assume, for the present, that the terms derive from different protoforms.

The case for a *mata* form meaning 'association or grouping of people' is somewhat unclear, partly because it usually if not always seems to appear in compounds. I shall reconsider it below.

We are then left with a limited number of forms. In view of my own difficulties, I was interested to see how different linguists subgrouped or separated particular meanings. For example, I should have taken it for granted that the meaning 'in front of' derives from the 'face, eye' meaning given separately by Cashmore (but perhaps she did this only because of the variant *imata*). By contrast, I was even more surprised that the numbering system used by Biggs, Walsh and Waqa indicates that they consider the 'blade, point' meaning a subcategory of 'face, eye' (as the others cited clearly have not) while also including 'mesh of a net' as another subcategory. I shall indicate below why I think this grouping is unlikely.

The final set of reconstructions to cite are Pawley's complex lexemes, composed of *mata* plus another noun, which may or may not be linked to it by a possessive marker. Here I am not concerned with the special meanings of the compounds, as a point to be considered later, but with any clues these reconstructions may give us to the semantic range of *mata* forms alone.

Pawley (1991) – POc:

mata ni aŋin	direction of the wind
mata ni ika	painful sore on sole or palm
mata ni kubeŋa	mesh of net
mata ni qaso	sun
mata ni Ruma	doorway
mata ni susu	nipple
mata ni waiR	spring, source of water
matasawa	landing place, passage through reef

Plus Proto Central Pacific (PCP):

matadravu	portable fireplace used on large canoes

1.2 FORMS IN THREE WEST NEW BRITAIN LANGUAGES

We may compare these lists with the meanings attributed to *mata* forms in present-day languages. The following show the range in the three West New Britain languages listed above. Almost certainly every one of these is incomplete, since they were simply acquired from usages I (and others, in the case of Lakalai) happened to record. As regards complex lexemes, it should be noted that only Lakalai has the postposed genitive construction attributed by Pawley and most others to POc; in Sengseng and Kove the possessor precedes the object possessed, though in Kove the third person singular possessive pronoun *ai* precedes the possessor. In all of these languages, however, possessives dealing with parts of

the body (or parts of other things) are suffixed to the noun. I have listed *mata* forms here as if they occur without these suffixes.

LAKALAI *mata*

A.   noun:
1. eye
2. point
3. top or cover
4. hole; gap; channel, passage; doorway, door, gate
5. source, origin
6. date or time of an event; message setting a date
7. scoop net for birds; noose of snare
8. insect bite
9. kind, variety

B.   adjective: sharp

C.   verb: to look at, look for, to turn the eyes towards; to have a particular appearance

D.   counting classifier: for holes (notably those in which megapodes lay), nooses and circles

E.   complex lexemes:

la-mata-la-bolo	a long-lived pig, known to everyone (*bolo* 'pig')[3]
la-mata-la-buu-la-havi	top of the fireplace: title for important man
la-mata-la-haro	sun; watch, clock
la-mata-la-havi	shelf above the fireplace
la-mata-la-humu	place where firewood is stored, above the oven
la-mata-la-uve	cut end of taro 'stick' incorporating the top of the corm
la-mata-la-valua	an unmarried woman whom men keep looking at admiringly (*valua* 'men')
la-mata-le-latu-la	afterbirth (*latu* 'offspring')

See also *matahe* 'anus', possibly derived from *mata* + *tahe* ('excrement'). Haplology is common in Lakalai.

I have not treated as complex lexemes two that appear on Pawley's list, *la-mata-la-luma* 'door, doorway' and *la-mata-la-sakalu* 'passage through the reef', because the meanings can clearly be derived from no. 4. Our team recorded the words for 'nipple' and 'breast' as being the same (*susu*), as was also the case in Kove. I did not ask about 'mesh of net', but see *la-matariki* [4] 'a fine-mesh net' (the only example in Lakalai of a reflex of POc *diki* 'small').

SENGSENG *mata*

A.   noun:
1. eye; face

---

3   In Lakalai, all nouns take a marker *la-* or *e-*. The genitive marker is assimilated to the former but appears as *l-* before the latter. Very probably the genitive marker is derived from *ni*.

4   I am aware that, particularly in Polynesia, this is the term for the Pleiades and often for the season associated with its first appearance. See, however, Marshallese *mejeriki* 'small seine' (Abo et al. 1976).

2. point
3. head (of drum)
4. focus of infection, as eye of a boil
5. kidney
6. sprout, bud

B. preposition: in front of, in the presence of

C. adjective: *matan* – 'barely sprouted?'

D. complex lexemes: in addition to a number in which *mata* is followed by modifiers to indicate sharpness or dullness of a point or edge, there are at least the following:

mata-kupkup – 'holes in stones in which white clay (*kupkup*) is found'

mata-mlek – 'blaze of fire' (*mlek* 'to light'; note that in Sengseng the distinction between nouns and verbs is often problematic)

See also *mata-yau*, defined only in Tok Pisin (TP) as *ai bilong paia*.

There also exist a number of adjectives beginning with *mata* in which the term seems to indicate 'surface' (e.g. words for 'smooth' and 'soft').

KOVE *mata*
A. noun:
1. eye; face, appearance
2. point, tip, edge; sharpness
3. pool (TP *raunwara*) in bush or sea (abode of ghosts)
4. hole in leaf (only)
5. ends or sections of islet
6. date of event
7. net gauge
8. person characterised by a particular kind of behaviour (TP *man bilong*)
9. kind

With suffixed 'prepositions': *mata-iya* 'in front of', *mata-iai* 'at the edge of'.

B. verb: to see

C. complex lexemes:
iha-mata   lit. 'fish eye': swelling of extremity that ends in development of 'eye' with pus

waro(ai)mata   sun

This range may be compared with the very limited use of *mata* in Molima, where I recorded only 'eye', 'top (of beer bottle)', *susu mata-na* 'areola', and *mata-na-ya* 'in front of', together with *matana* 'net gauge'. This point is of interest only because Molima seems to contain much more vocabulary derived from POc than does Sengseng.

1.3 AIMS AND METHODS

Before proceeding further, I need to clarify my own attitude towards the apparent plethora of meanings. It is possible to assume that originally there existed only one *mata term, which

if correctly defined would enable us to understand the apparent multiplicity of referents in daughter languages. Barnes attempted this approach in 1977 as regards the PAn form. He quotes Holmer (1966, cited in Barnes 1977:304), whom I have not been able to consult, as saying with specific reference to this term that "there is no reason to doubt, on the mere grounds that these ideas now constitute fundamentally different notions among us, that they are, or have at one time been felt to be, identical concepts". Even with this encouragement, however, Barnes was unable to come up with a satisfactory cover definition, though he makes some interesting suggestions to which I shall refer below. At the same time, he points out that "speakers of any given language do not think that *mata* and its derivatives correspond to a single concept, and we had best regard it as effectively polysemous". He adds (1977:301), however, that "the diverse applications...seem to affect each other in use, sometimes giving rise to conscious metaphor". I agree with both these points, while lacking the data to confirm the suggestion about metaphor. At present, working only from contemporary languages, I think it is only possible to postulate at least two quite separate meanings. These are 'eye' and '(sharp) point or edge'. The question is then how many more separate forms/meanings need to be postulated, and how many can be derived from others.

In writing this paper, I have several aims. One is to decide which of the 'meanings' I originally assigned to *mata* forms in the New Britain languages form a logically coherent group, in terms of plausible extensions of a putatively original meaning, so that they can be presented under a single heading in a dictionary. (Here I have to be aware of the possibility that the links may not be apparent to present speakers of the languages concerned.) In deciding plausibility, I have made use of data from languages that are not Austronesian, as have others, notably Barnes. Secondly, I have tried to see which of the 'meanings' recorded for the New Britain languages are found in other Oc languages. Here I am particularly interested in those that are not easily derived from the meanings already ascribed to the protoforms. Along the way, I pay some attention to meanings recorded for other languages that do not appear in my New Britain data. The ultimate aim of these comparisons is to ask whether more than two POc (and perhaps PAn) protoforms need to be reconstructed.

1.4 THE COMPARATIVE EVIDENCE

I examined all the dictionaries that I could find of Oc languages, plus those of one non-Oceanic An language, Malay. I am also indebted to Niko Besnier and Paul Geraghty for relevant data from their unpublished dictionaries of Tuvalu and Fijian. My procedure was, first, to look for a term that resembled *mata*, and then, if that failed, to seek the word for 'eye' and expand the search from there. I ignored vowel length in Polynesian languages.[5] On the whole I also ignored compounds that seemed to begin with *mata* if the second component was not defined elsewhere in the dictionary. I included reduplicated forms, notably *matamata*.

The available data tended to be of three sorts. First were the cases in which the languages seemed to contain no forms derivable from *mata*. Only two of these languages, to be discussed below, received further consideration. By far the largest number of cases were languages in which the only meanings given for *mata* forms duplicated the meanings reconstructed for POc. I suspect that some of these languages had other meanings for *mata* that had not been recorded, but usually have no evidence to support my assumption.

---

5   Winifred Bauer tells me that it varies between dialects in Maori.

However, Malinowski, (as Barnes (1977:306-307) makes clear), recorded a variety of meanings for the term in Kiriwinan (Kilivila), whereas Senft's Kilivila dictionary (1986) definitely falls into my second category. Finally, a handful of dictionaries, dealing with languages as far apart as Jabêm and Niue (and including the well-known examples of Maori and Fijian, also discussed by Barnes), had a considerable range of entries under the *mata* forms. Sometimes I was uncertain as to whether they all belonged together, especially in the case of a South-East Solomons language like Kwaio (see Keesing 1975), where the form had been reduced to *maa* and might have fallen together with terms derived from a different protoform, like the protoform meaning 'shame'. Nevertheless, I compared all the apparent *mata* forms with those recorded for other languages, in the hope of getting a good idea of the range of possible meanings as well as to ascertain which ones occurred frequently. As I indicated above, I have here ignored forms translated as 'raw, unripe' and 'snake', on the assumption that they derived from protoforms other than *mata*.

2. POSSIBLE EXTENSIONS

2.1 'EYE'

The apparent extension of the eye term to designate the whole face is so widespread that it is tempting to attribute the double meaning not only to POc but to PAn. There are two reasons to abstain. Firstly, Grace reconstructed another 'face' term, *nako(n),* for POc. Codrington (1885:66), who surprisingly included 'face' but not 'eye' in his comparative vocabulary, said that what he called *nago* forms are distributed from "Sesake in the New Hebrides to Alite in the Solomon Islands". (He also noted the use of *mata* for both 'eye' and 'face' in other languages.) Ray (1907:408) thought that *nao* forms in several Central Papua Languages were also cognate. I am not sure about these, but despite the difference in the final vowel, am inclined to derive Lakalai *lagu* 'face' from the same protoform. It seems that the reflexes of *nako(n)* were widespread in Melanesia. Furthermore, the extension of the word for 'eye' to mean 'face' is said to occur in many parts of the world. Brown and Witkowski (1983:72,82) say that the same term is used for 'eye' and 'face' in "approximately 40 per cent of the world's languages" and that "[l]anguages typically expand unmarked terms for highly salient eye to face".[6] Whether the extension from eye to face occurred independently in many Oc languages or should indeed be attributed to POc is impossible for me to resolve. If the latter, perhaps the *nako(n)* term belongs to a somewhat later stage, and may have been invented for a language in which *mata* terms had an increasing and confusing range of meaning. In some languages, possibly including Sengseng (and certainly Maori and Tuvalu), *mata* also means 'surface'. This seems to be a 'natural' extension from 'face', and was a meaning attributed to 'face' in Middle English (Little et al. 1959:666).

As I mentioned above, I assume that 'front, in front of' derive from the 'eye/face' meaning, just as all the verbs referring to sight clearly derive from the 'eye' meaning. (In Lakalai, -*lagu* is a locative meaning 'in front of'.) In both Sengseng and Kove, apologies and reproaches (to children) for walking in front of someone take the form "Your eyes" and "My eyes!" Something similar is recorded for Tuvalu (Besnier 1993) and Tikopia (Firth 1985). Bowden (1992), in a recent discussion of Oc locatives, points out that the 'front' meaning for *mata* forms appears in many languages but is not nearly so common as 'eye/face'. He concludes (p.32) that: "The only hypothesis that adequately accounts for this is the one that

---

6   I am indebted to Ross Clark for calling this reference to my attention.

proposes that *mata meant 'eye/face' in Proto Oceanic and that various daughter languages somehow extended the use of the word to talk not only about a body part which is inherently at the front of the human body, but also to talk about other things that were at the front, or in front of something else". I agree, while noting that mata forms, according to his own data, can mean both 'eye' and 'front' without also meaning 'face'. It is especially common in Polynesian languages for mata forms to mean 'beginning' or 'to precede', or both. These may be extensions from 'front', though for the former, 'source' is also a possibility, and for the latter, 'tip' (see below).

Another common meaning that may well derive from 'eye' is 'opening' (especially one through which light shows?) and 'hole' more generally. Obviously this possibility would occur to any English speaker; as the definition in Middle English (Little et al. 1959:664) indicates, the eye of a needle is only the most common of several such presumed extensions. As with the 'doorway' case (noted in Lakalai and by Pawley), however, there seem to have been two possibilities available to speakers of Oc languages who derived a word for 'aperture/hole' from a body part: eye or mouth. Lakalai chose the former, Sengseng and Kove the latter. Both strike me as 'natural' extensions, the latter perhaps more so for large holes and those that do not admit light. I also tend to believe that if mata acquired the 'hole' meaning, the language would be unlikely also to have a homonym meaning 'tip/point'. This was why I was bothered by the subcategories for PPn. Unfortunately I did not think to ask how la-mata-la-salu (salu 'needle') would be interpreted in Lakalai. This might be the only case in which context would not make it clear which meaning was intended. Incidentally, Barnes (1977:306) seems to be concerned by the use of mata forms for openings that are not round, such as the meshes of a net or, in Malay, the space between the rungs of a ladder. I do not find this a problem; doorways are also not usually round. But as regards roundness, it is possible to compare the use of mata in Lakalai for a snare with the English terms for certain loops and rings, including the 'eye' in a hook-and-eye.

The fact that in Lakalai and other languages, mata designates not only 'doorway' but the door that closes it may, as Winifred Bauer suggested to me, have something to do with the fact that eyes open and shut; I do not, however, know any language in which mata includes the eyelid. Nevertheless it seems possible that the use of mata for lids, caps, a drumhead, etc., is an extension from 'door'. This extension might also explain the use of mata in Lakalai for 'afterbirth'. Note that these are words not for a tip or top that is an intrinsic part of an object (and therefore probably not derived from the 'tip' meaning), but for something that caps it or closes it off. I assume that the Tok Pisin ai bilong sospen 'lid of saucepan' reflects this usage. It may be that the Lakalai terms for the rafters above fireplaces also extend this idea. (These are the places in which goods are stored so that smoke will keep them dry and free from insects.)

There are other extensions clearly based on resemblance to eyes, as in Sengseng (and Kwaio) 'kidneys'. This is a possibility for the term for 'nipple' and probably for Molima 'areola'; in that language 'nipple' is susu mata-gabu-na (gabu 'nose'), but see below. When I first read Blust (1974:87) on the fish-eye term for a particular kind of sore, my experience in treating such sores in Kove made me think it was only a descriptive term, easily thought up independently. The comparative evidence, showing how narrowly it tends to be limited to sores on the hand or foot, has changed my mind; I agree with Pawley that this is a complex lexeme, though I suspect that the obvious resemblance helps explain its adoption or retention in Kove despite the shift in the structure of the genitive. (I doubt Blust's assumption that the original primary referent was a corn rather than a sore that is depressed.)

A hole filled with liquid, like one that shows light, is of course more eye-like than an empty one. It may be an easy step from using a *mata* term for a spring of water to using it as a general term for a source (compare French). This general 'source' meaning is attested in a number of languages, including Hawaiian (Pukui & Elbert 1957), and I suggest that it also accounts for the term translated as 'direction of the wind', since 'direction' indicates where the wind is coming from, not where it is going. It is tempting to assume that the *mata* in *mata ni qaso* is also depicting the sun as the source of the day (light), but comparing the sun directly to an eye seems equally plausible. Blust (1974:9), however, in discussing this term also mentions the other meanings that he attributes to PAn *maCa*: "center, most important part (of the day)". Again, the distribution of this term throughout the An-speaking world indicates that Pawley is right to call it a complex lexeme. I would assume that for most speakers a dead metaphor is involved, but again I am interested in the fact that Kove retained the terms while reversing their order. Blust (p.5), however, points out that this is also the case in different parts of Indonesia.

Two of the complex terms in Lakalai, the ones referring to pigs and men, may perhaps have some connection to 'cynosure', and so directly to eyes, but might also be related to the 'source' meaning.

I think it likely, incidentally, that both Kove *mata* and Molima *matana* 'net gauge' are derived from the 'mesh of a net' usage. This possibility raises the question of whether I was right (Chowning 1991b) to attribute the term for the implement to POc.

I have assumed that *mata* 'eye' is likely to extend its meaning in two directions. One, as noted above, is towards verbs having to do with sight – 'look', etc. The other, perhaps but not necessarily via the 'face' extension, has to do with appearance, and this may be correlated with a verb meaning 'to look like'. In Fijian, as well as appearance, *mata* refers to the pattern on barkcloth and similar objects, and this is also true of Malay and other languages. The question then is whether one of these extensions or compounds indicating that one is manifesting a particular emotion by, for example, looking suspicious or greedy, could have led to the Kove meaning of a person with certain characteristics, whether or not these are reflected in appearance. For Tuvalu Besnier (1993) speaks of "many compounds [beginning with *mata*] that designate... psychological traits, or personal habits or quirks", as well as personal appearance and emotions. The same range is found in Niue (McEwen 1970:201), where terms beginning with *mata-* are translated 'mischievous', 'unscrupulous', etc. In Fijian, Geraghty (pers.comm.) translates the *mata(mata)* prefix used in similar terms 'addict' or 'fanatic', and gives numerous examples, including *matamatawai* 'compulsive bather'. Although it might be that the 'source' meaning is relevant, this is not a meaning given for *mata* in either Tuvalu or Niue. Another possibility is that the eyes are the seat of desire, as is reportedly the case in the Trobriands (Barnes 1977, citing Malinowski). My Kove examples could be interpreted as indicating that the characteristic is tied to desire, but I do not know of a connection between the eyes and desire for Kove, Tuvalu or Niue.[7] Geraghty (pers.comm.) notes that in some Fijian communalects *mata* is "a preverbal particle...meaning 'want to'".

---

[7]   Interestingly, John Lynch (pers.comm.) reports that in Papua New Guinea, a person fond of a particular thing may be called "beer face" or "money face".

2.2 'TIP, POINT'

By contrast with 'eye' and its possible derivatives, the 'tip' meaning seems always to have had an adjectival connotation of sharpness. In addition, it is commonly used for sharp edges, as of an adze (and nowadays a metal knife). Extensions seems to have been made in two directions: one to edges and boundaries, whether or not they are sharp, and one to projections of all sorts. 'Nipple' seems as likely to derive from 'point' as from 'eye'.[8] At one extreme the projections include pimples and, as in Lakalai, insect bites; at the other, particularly in Polynesia, headlands. (In Melanesian languages I know, headlands are more likely to be called 'noses'.)

The question of which assumed primary meaning of *mata* is paramount also arises in the case of its use for 'bud, sprout', at least in those instances in which the sprout emerges from something perceived as eye-like, as in the case of yams and, less conspicuously, coconuts. (Compare the 'eye' of the potato.) My own inclination is nevertheless to assume that the salient features are sharpness and protuberance. In Kiriwinan, *mata* designates not only the blunt end of the yam from which the sprout emerges but also the end of the tendril (Malinowski 1935:140-141).

2.3 OTHER MEANINGS

2.3.1 'DATE'

Though in both Lakalai and Kove dates were set by tying knots in a leaf, I do not think this practice is relevant, nor is it likely that a reference to the term for 'sun' is involved, since counting is done by days (or nights), not by 'suns'. Barnes (1977:305, citing Brandstetter) says that *mata* is used in some Indonesian languages for 'segments of time', but I am not sure (from the example given) how close the connection is.

Nevertheless *mata* for 'time or date of an event' is found in several Oc languages. One meaning of the Lau term is 'time, season', and *mata* forms appear in a number of Kwaio compounds as a time designation. In Kapingamarangi (Lieber & Dikepa 1974) the term can mean 'occasion when, a period of time', precisely as in Lakalai. In Kusaiean (Lee 1976) it designates 'beginning period of', and in Gedaged (Mager 1952) 'the initial point of time or space'. These last two definitions suggest links to the 'beginning' meaning, though *mata* does not indicate beginning in Lakalai or Kove. (See below Pawley's suggestion about the use of *mata* for counting days.) Although the evidence is scanty and scattered, I am willing to suggest that one of the meanings that should be reconstructed for POc *mata* is 'the date of an event'.

2.3.2 COUNTING CLASSIFERS

These are found in many Austronesian languages, and similar ways of classifying apply to possessives in much of Micronesia and to most adjectives in Kiriwinan. Lakalai makes limited use of them, with only about 30 recorded so far, including several pairs of synonyms. As regards *mata*, Lakalai also has a simple system in that all the objects so counted are visibly alike. More commonly, the classifier lumps together everything called by

---

8   It has also been suggested to me that the nipple is primarily viewed as the source of milk, which is of course called by the same word as 'breast' in most Oc languages.

mata terms, however disparate they might be. In Trukese (Goodenough and Sugita 1990:155), for example, it includes objects worn on the eyes, such as goggles, as well as spear points. A conspicuous case is that of Arosi (Fox 1970), in which the objects range from needles and stakes to slings and armlets. On the other hand, in Fijian and a number of Polynesian languages *mata* is particularly used for counting fish, often by tens. (It may be relevant that at least in Tokelau, *mata* is also the term for a spear and the verb used for spearing fish.) In Tuvalu the classifier is used to count, by tens, not only fish but taro corms and gardenias – all roundish, perhaps, but not much alike otherwise. Wrestling with the problem as regards PEO, Pawley (1972:35-36) suggests that "it is likely that **mataqi* was selected by nouns denoting fish and certain other compact or unitary objects, or groups composed of a number of individual elements or smaller parts (e.g. villages, clans) and possibly terms for objects which are parts of a whole or of a sequence (e.g. words, days)".[9]

Although they are not used in counting, *mata* forms in many other languages have some of the range that Pawley was referring to, which is also relevant to the reconstruction of the PPn term for 'grouping of people'. There are languages in which *mata* can refer to any round object or, according to Churchill (1911:382), "globular objects as large as the eye or as small as the bud on a tree or a drop of rain". For him, the connection with 'eye' is obvious. But the objects can be much smaller – in Fijian, a grain of sand or salt. Geraghty (1993) gives one definition of *mata* as 'grain, unit, dot'. One might wonder whether the 'point' meaning is relevant in these cases. In Jabêm, the term designates not only heaps, as of taro, but groups of people, and the same applies to Gedaged.[10] While it is possible to postulate some connection with heaps as being globular like eyes or projecting from a surface, I feel reluctant to suggest that this is a case of extension (though Streicher (1982:352) derives both meanings from 'eye'). It seems that on the one hand, *mata* terms might be used to designate units of an aggregate, and on the other, the aggregate itself. Fijian is a case in which both processes operate. Particularly but not exclusively in Central Pacific languages, the aggregate is likely to be a group of people. The remoteness of this use, if not that of 'unit', from 'eye' makes it seem reasonable to attribute Biggs, Walsh and Waqa's *mata₃* 'grouping of people', to POc as well as PPn.

2.3.3 'KIND'

In addition to Lakalai and Kove, I have found one other language spoken in Melanesia in which what looks like a *mata* form means 'kind'. This is Lavongai of New Ireland, as originally described by Father Stamm (Beaumont 1988:121). Here *mata* is 'eye, face', *matag* is 'before', and *matan* is 'kind, time' (as in 'how many times?'). Although Lakalai and Kove use different words for 'time' in this sense, the 'kind' definition is intriguing. Lavongai is not closely related to Lakalai, though both are classified by Ross as Meso-Melanesian.

In at least one Micronesian language, Woleaian, a meaning given for *mata* is 'kind'. Examples given include 'a kind of work' and 'kinds of stones', and the authors (Sohn and Tawerilmang 1976:95) suggest that the kinds of things so classified are usually inorganic. It

---

9   This last possibility is of course intriguing as regards the 'date' meaning, although at least in Lakalai the term can also be used to encompass more than a day, as in *la-mata-la-marisa* 'time when whitebait (*marisa*) appear'.

10   John Lynch (pers.comm.) tells me that "in Bislama *hip* not only refers to heaps or piles of things, but also groups of people". Compare TP *bung*, *bungim* as regards the 'naturalness' of such a range of meanings.

seems at least a possibility that the use of *mata* forms for 'kind' was a further step from a system in which the range of objects counted by derivatives of *mata/*mataqi was extremely diverse.

2.3.4 UNCERTAIN CASES

I shall not deal with those that do not appear in the New Britain languages, but just note that the data presented so far leave unexplained the Lakalai complex lexeme for a leader, and the Sengseng ones for terms relating to fire. For the latter case, Barnes's translation of *mata* as 'focus', and Blust's as 'center, core, most important part' may be relevant. I have no explanation for the Lakalai term, nor have I found pertinent data from other languages.

3. CONCLUSION

Barnes argues vehemently that, even though he cannot relate all his Kédang *mata* terms to each other, for An languages in general at least the 'eye' and 'point' terms are related, and reproaches Malinowski for sometimes treating them as homonyms (with reference to yams). He bolsters his argument in two ways, first by arguing (p.308) that: "The human or animal eye occupies a leading, projecting, prominent location in the organism; and we may readily discern a similarity of idea...between eye and tip". If we except Pekinese and pugs, I find his suggestion that eyes project bizarre; this is the characteristic of the nose, as many languages, including Molima, indicate. He also suggests (p.308) that because it is applied to the face, "*mata* falls into the series including...headland, top, summit". But I would argue that it does not. Except when it is pointed, the top or tip of something is not normally called by a *mata* term.[11] Sympathetic though I am to Barnes's attempts to derive all the meanings ascribed to *mata* from one, I do not think it can be done. One piece of evidence might, however, support Barnes. This is that in at least two languages, Cheke Holo of the Solomons (White et al. 1988) and Kwamera of Vanuatu (Lindstrom 1986), the same word meant both 'eye' and 'point, tip' but was not cognate with *mata*.[12] Unless a *mata* form was replaced in these languages because of word taboo, it may indeed be that the speakers of these languages saw a relation between the concepts involved, and if so, speakers of POc or PAn may have done the same. In any case, I agree with Firth (1985:246) that the 'tip' meaning may "merge" with those derived from 'eye' in references to 'front, forepart', just as the 'sprout' meaning is likely to include both 'hole, source' and 'tip'; and see the discussion of 'nipple' above.

At present, but increasingly tentatively for the later forms, I suggest the following reconstructions for POc:

*mata*₁	eye, face (= surface?); opening, aperture; focus, place from which a sprout emerges, core of boil; circular or globular object; source, origin, beginning; door, lid, cover; front, in front of
*mata*₂	sharp; point, tip, edge, end; protuberance; sprout
*mata*₃	group, collection, association of people; unit in a collection

---

[11]   In an early dictionary of TP, however, Murphy (1954:68) gives as one of the meanings for *hai* (his spelling) 'the very summit or top'.

[12]   Kwamera has one term that apparently is cognate but a synonym that apparently is not (John Lynch, pers.comm.)

mata₄   kind of object; person with certain characteristics

mata₅   date of an event; point in time

I should, however, be delighted with suggestions to collapse some of these. As regards Pawley's complex lexemes, I would accept all except 'doorway', which seems to me transparent in meaning, and would add one more:

     *mata ni qupi / *mata ni talo   cut-off portion of yam or taro from which new plant
                                             regenerates

Note that, with appropriate alterations in spelling, all of the complex lexemes can probably be assigned to PAn, but so far as I know at present, this is true only of **mata₁* and **mata₂* among the simple forms.

    A final point to consider is why some languages, of which Molima is an example, did not share the proliferation of *mata* terms so characteristic of others. I can only suggest that perhaps speakers of different languages are not equally tolerant of the confusion that can result when what sounds like one word can be interpreted in so many different ways. Molima notably lacks homonyms by comparison with the three West New Britain languages.

REFERENCES

Abo, Takaji, Bryon W. Bender, Alfred Capelle and T. DeBrum, 1976, *Marshallese-English dictionary*. PALI Language Texts: Micronesia. Honolulu: University Press of Hawaii.

Barnes, R.H., 1977, *Mata* in Austronesia. *Oceania* 48/4:300-319.

Beaumont, C.H., ed., 1988, *Lavongai materials. PL*, D-82.

Besnier, Niko, 1993, *Tuvaluan-English, English-Tuvaluan dictionary*. MS.

Biggs, Bruce, D.S. Walsh and J. Waqa, 1970, Proto-Polynesian reconstructions with English to Proto-Polynesian finder list. *Working Papers in Linguistics,* Department of Anthropology, University of Auckland.

Blust, Robert A., 1974, Proto-Austronesian syntax: the first step. *Oceanic Linguistics* 13:1-15.

    1984, A Mussau vocabulary, with phonological notes. *Papers in New Guinea linguistics* No.23:159-208. *PL*, A-69.

Bowden, John, 1992, *Behind the preposition: grammaticalisation of locatives in Oceanic languages. PL*, B-107.

Brown, Cecil H. and Stanley R. Witkowski, 1983, Polysemy, lexical change and cultural importance. *Man* 18:72-89.

Cashmore, Christine, 1969, Some Proto-Eastern Oceanic reconstructions with reflexes in Southeast Solomon Islands languages. *Oceanic Linguistics* 8/1:1-25.

Chowning, Ann, 1976, Austronesian languages: New Britain. In S.A. Wurm, ed. *New Guinea area languages and language study*, vol.2: *Austronesian languages*, 365-386. *PL*, C-39.

    1991a, Classifiers in Lakalai counting. Paper presented at the Sixth International Conference on Austronesian Linguistics, Honolulu.

    1991b, Proto Oceanic culture: the evidence from Melanesia. In Robert Blust, ed. *Currents in Pacific linguistics: papers on Austronesian languages and ethnolinguistics in honour of George W. Grace*, 43-75. *PL*, C-117.

Churchill, William, 1911, *The Polynesian wanderings*. Washington: Carnegie Institution of Washington.

Codrington, R.H., 1885, *The Melanesian languages*. Oxford: Clarendon Press.

Firth, Raymond, 1985, *Tikopia-English dictionary*. Auckland: Auckland University Press and Oxford University Press.

Fox, C.E., 1970, *Arosi-English dictionary. PL*, C-11.

    1974, *Lau dictionary. PL*, C-25.

Geraghty, Paul, 1993, *Mata* in Fijian. Typescript.

Goodenough, Ward H. and Hiroshi Sugita, 1990, *Trukese-English dictionary, Supplementary Volume: English-Trukese and index of Trukese word roots*. Philadelphia: American Philosophical Society.

Grace, George W., 1967, Effect of heterogeneity in the lexicostatistical test list: the case of Rotuman. In Genevieve A. Highland et al., eds *Polynesian culture history: essays in honor of Kenneth P. Emory*, 289-302. Bernice P. Bishop Museum Special Publication 56. Honolulu: Bishop Museum Press.

1969, A Proto-Oceanic finder-list. *Working Papers in Linguistics, University of Hawaii* 2:39-84.

Grace, George W. and Peter C. Lincoln, 1979, Proto-Oceanic cognate sets. Computer printout.

Keesing, R.M., 1975, *Kwaio dictionary*. *PL*, C-35.

Lee, Kee-dong, 1976, *Kusaiean-English dictionary*. PALI Language Texts: Micronesia. Honolulu: University Press of Hawaii.

Lieber, Michael D. and Kalio H. Dikepa, 1974, *Kapingamarangi lexicon*. PALI Language Texts: Polynesia. Honolulu: University Press of Hawaii.

Lindstrom, Lamont, 1986, *Kwamera dictionary: Nikukua Sai nagkiariien Nininife PL*, C-95.

Little, William et al., 1959, *The shorter Oxford English dictionary* (3rd edn). Oxford: Clarendon Press.

McEwen, J.M., 1970, *Niue dictionary*. Wellington: Department of Maori and Island Affairs.

Mager, John F., 1952, *Gedaged-English dictionary*. Columbus, Ohio: Board of Foreign Missions of the American Lutheran Church.

Malinowski, Bronislaw, 1935, *Coral gardens and their magic*, vol.1: *The description of gardening*. New York: American Book Company.

Murphy, John J., 1954, *The book of Pidgin English* (4th edn). Brisbane: W.R. Smith and Paterson.

Pawley, Andrew, 1972, On the internal relationships of Eastern Oceanic languages. In R.C. Green and M. Kelly, eds *Studies in Oceanic culture history* 3:1-142. Honolulu: Bishop Museum Press.

1991, Handout for reconstructing complex lexemes: the case of Proto Oceanic compounds with **mata* and **tau*. Paper presented at the Sixth International Conference on Austronesian Linguistics, Honolulu.

Pukui, Mary K. and Samuel H. Elbert, 1957, *Hawaiian-English dictionary* (2nd edn). Honolulu: University of Hawaii Press.

Ray, Sidney H., 1907, *Reports of the Cambridge Anthropological Expedition to Torres Straits*, vol.3: *Linguistics*. Cambridge: Cambridge University Press.

Ross, Malcolm D., 1988, *Proto Oceanic and the Austronesian languages of western Melanesia*. *PL*, C-98.

Senft, Gunter, 1986, *Kilivila: the language of the Trobriand islanders*. Berlin: Mouton de Gruyter.

Sohn, Ho-min and Anthony F. Tawerilmang, 1976, *Woleaian-English dictionary*. Honolulu: University Press of Hawaii.

Streicher, J.F., 1982, *Jabêm-English dictionary*. *PL*, C-68.

Tokelau dictionary, 1986. Apia, Western Samoa: Office of Tokelau Affairs.

White, Geoffrey M. in collaboration with Francis Kokhonigita and Hugo Pulomana, 1988, *Cheke Holo (Maringe/Hograno) dictionary*. *PL*, C-97.

LAU'UNA: ANOTHER AUSTRONESIAN REMNANT ON THE SOUTH-EAST COAST OF PAPUA NEW GUINEA

Tom Dutton

1. INTRODUCTION[1]

It was only relatively recently that remnant populations of speakers of Austronesian languages were 'discovered' dotted along the south-east coast of the Papua New Guinea mainland in an area that had previously been thought to be occupied solely by speakers of Papuan languages (Dutton 1976). These 'discoveries' represented significant finds not only because of the interesting comparative-historical linguistic information contained in them but also because of the sociohistorical events implied by them. Not included in the discussion at the time of the earlier 'discoveries' was evidence from the "tribe" called "Lau'una" that was published in the *Annual Report for the Territory of Papua 1917-18*. It is the purpose of this paper to present this material and discuss it. In particular the paper will seek to answer the following questions:

1) What was the linguistic status of Lau'una? Was it a dialect of some language or was it a language in its own right? If the latter, to which other language or languages was it most closely related?

2) What does the evidence tell us about the sociolinguistic history of the area?

2. THE LINGUISTIC CONTEXT

South-east mainland Papua New Guinea and its offshore islands are occupied by speakers of both Austronesian (An) and non-Austronesian (NAn) or Papuan languages. The An languages are all closely related and form what Ross (1988) calls the Papuan Tip Cluster, a subgroup of Oceanic, itself a higher level subgroup of An.[2] The Papuan Tip Cluster is composed of two subgroups, the Nuclear Papuan Tip Network and the Peripheral Papuan Tip Network (Ross 1988:194) – see Map 1. At the time of European contact Lau'una lay

---

[1] My thanks to my departmental colleagues and John Lynch for comments on an earlier version of this paper.

[2] This cluster is one of four clusters of western Melanesia and is distinguished from the others by seven phonological innovations five of which are common to two other clusters (Ross 1988:207). However, the merger of Proto Oceanic (POc) *$\tilde{n}$ with *n in all items except POc *$\tilde{n}amuk$ 'mosquito' is an innovation shared exclusively by the Papuan Tip languages.

---

geographically within the area occupied by languages of the Peripheral Papuan Tip Network and within that in the Central Papuan family. Its nearest neighbours were Keapara to the west and Ouma to the east. Beyond those were Sinagoro, Motu and others further west and Magori, Yoba and Bina to the east – see Map 1. In Ross's view these Central Papuan languages "have been linguistically separate from the rest of the Papuan Tip Cluster, and especially from those of the Nuclear Papuan Tip network, for a long time relative to the history of the cluster" (Ross 1988:194). Significantly, their closest surviving relatives are probably not their "nearest geographical neighbours in the Suauic network, but members of the Kilivila/Louisiades network, particularly Nimoa and Sudest" (Ross 1988:194).

At the time of European contact Lau'una was also surrounded by Papuan languages that belong to the Mailuan Family, one of many families that cover the south-eastern part of mainland Papua New Guinea (Wurm & Hattori 1981). These included Domu, Morawa and Magi (or Mailu) the largest member of the family (Dutton 1971, 1982) – see Map 2.
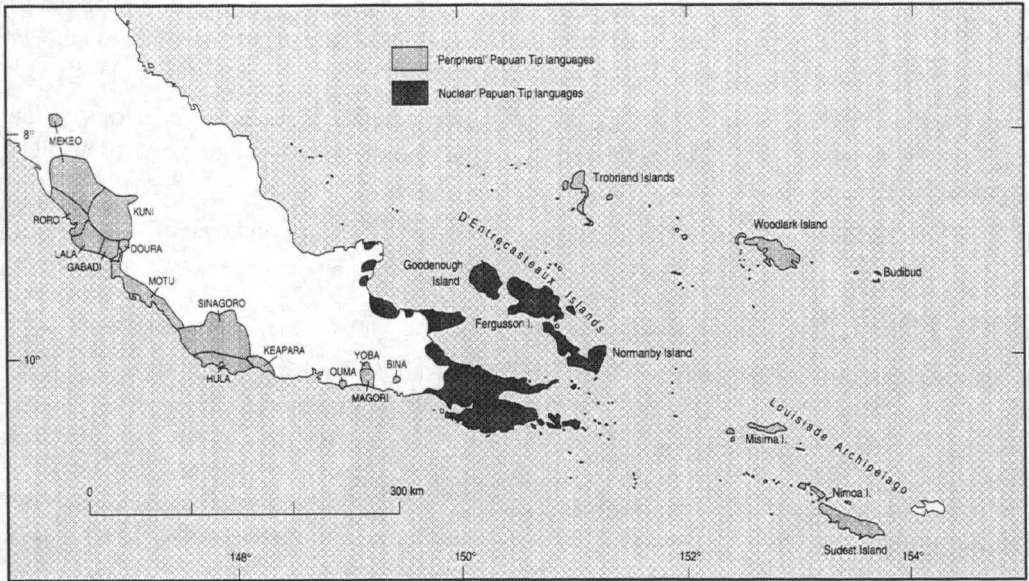
MAP 1: THE MAJOR SUBGROUPS OF THE PAPUAN TIP CLUSTER
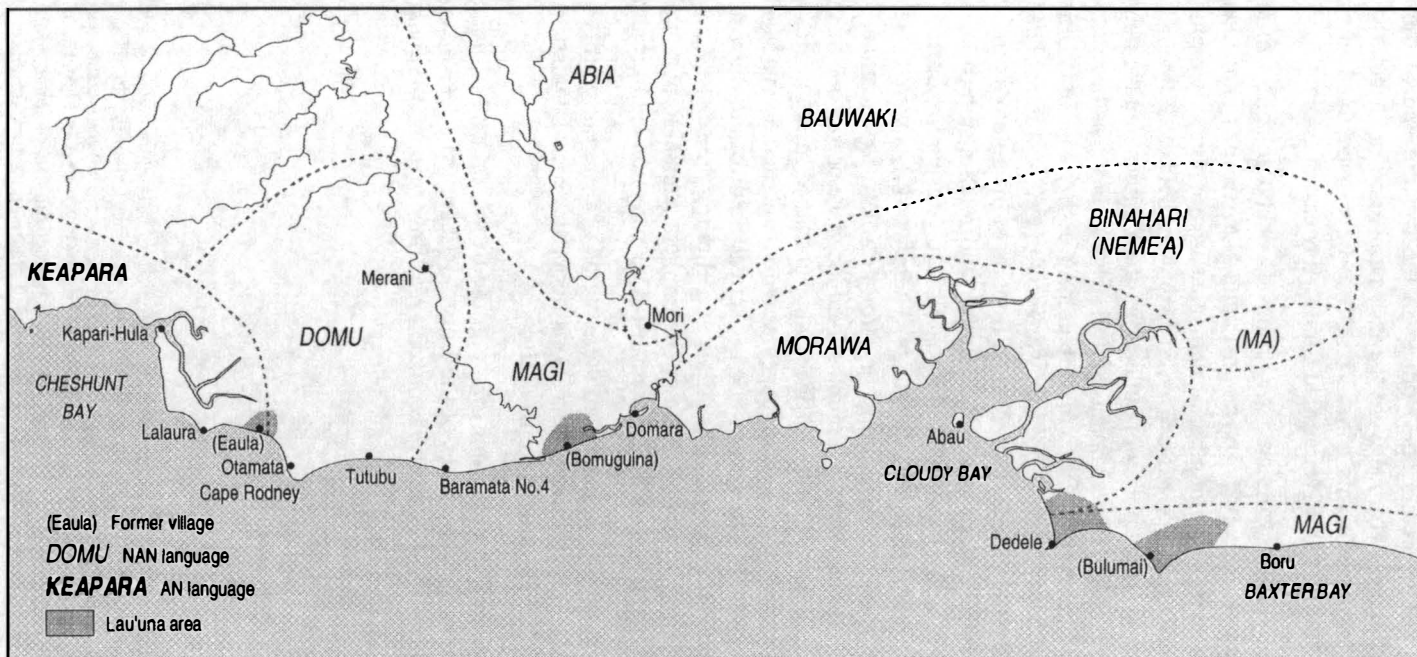
MAP 2: THE LA'UNA-SPEAKING AREA

ABIA

BAUWAKI

BINAHARI
(NEME'A)

KEAPARA

Merani

Mori

(MA)

DOMU

MORAWA

MAGI

Kapari-Hula

CHESHUNT
BAY

Abau

Domara

Lalaura

(Eaula)

(Bomuguina)

CLOUDY BAY

Otamata

Tutubu

Cape Rodney

Baramata No.4

MAGI

Dedele

Boru

(Eaula) Former village

(Bulumai)

BAXTER BAY

DOMU NAN language

KEAPARA AN language

Lau'una area

3. THE LAU'UNA WORD LIST

In 1917 the Resident Magistrate at Abau, a sub-district of the then Eastern Division of the Territory of Papua, Mr E.M.Bastard, collected a word list of some 130 items from two men who lived at Eaula village near Cape Rodney in the western end of the sub-district.[3] According to Bastard these two men were the last members of a "tribe" that he says was called "Lau'una". Members of this tribe are said to have once lived in the villages of Bulumai, Dedele and Bomguina River around Cloudy Bay east of Eaula.

The word list that Bastard collected was a basic vocabulary one similar to that still collected by linguists for survey purposes in Papua New Guinea and other parts of the Pacific, except that it contained a number of items that are not normally included in modern lists of this size – see Appendix 1. Such word lists were collected by early Government Officers as part of Government policy of collecting information about the languages spoken in areas being brought under Government control. That policy was begun by Sir William MacGregor, the first governor of the former colony of British New Guinea (later the Territory of Papua) in 1890. These word lists were sent in to Government headquarters with patrol reports and were published in the Annual Reports of the colony-cum-Territory. They were used to make observations about the number and relationship of "dialects" to one another and to begin to make sense of the, at that time, confusing linguistic scene in which every village seemed to speak its own language. These word lists were collected using the lingua franca Police Motu either directly or through a native policeman or some other interpreter employed to translate from it into the local language or into one that speakers were thought to know. In any case the field officers were untrained in linguistics although they had received some directives on how languages were to be written down (MacGregor 1889-90:117). Consequently while they were good practical fieldworkers they naturally made mistakes (even as better trained linguists still do) in eliciting their lists. And as these were also generally retranscribed for publication in Government Annual Reports the potential for further errors to creep in increased. The present list is no exception in this regard.

An analysis of the list shows that it contains items of different quality and value for linguistic analysis and for making observations about the sociolinguistic history of the Lau'una. The following categories of items occur:

a) those that are clearly elicitation errors, e.g. the forms for 'club' (*oloba*) and 'spear' (*oloba*) are the same, as are the names of the fingers ('finger (first)' *kebukebu-na*, 'finger (second)' *kebukebu-na*, 'finger (third)' *kebukebu-na*, 'finger (fourth)' *kebukebu-na).* The

---

3   Although I have written to Wari Iamo to check this with modern Lalaura villagers I have not yet received a reply. There is, however, circumstantial evidence to suggest that Lalaura is the modern counterpart of Eaula. This evidence is: a) Lalaura has only come into existence since Eaula disappeared from maps of the area – Eaula and not Lalaura is shown on Grist's map (1926) and in his table of list of villages speaking the different languages of the area; b) Eaula is phonetically suspiciously similar to Lalaura; c) Eaula is shown on Grist's map as just east of present-day Lalaura and is therefore likely to be on Lalaura land; d) 'Eaula' could be someone else's version of 'Lalaura', although not Magoric or Oumic ones as Malcolm Ross suggested it might be because they have an *r:l* correspondence with Keapara – see chart.

words for 'chief' (*auwolo*) and 'man' (*belegauwa*) are confused, as are those for 'I' (*oni'iau*) and 'thou' (*iau*),[4] and the word for 'food' (*ganina'imi'au*) is a complex form, probably a verb involving the word for 'yam' (*gani*);

b) those for which no data are available from other languages with which to compare and which do not reflect any POc or other established or proposed reconstruction, viz. 'club' (*oloba*) and different types of clubs ('club (disc)' *pai'ila*, 'club (pine)' *iau'ona*, 'club (star)' *gelebele*, 'club (wooden)' *apuna*), the numbers 'seven' (*aulau'i'wapuna*), 'nine' (*aulabai'wapuna*), 'twenty' (*pakananalu'a*), 'sorcerer' (*mega'auna*), 'spittle' (*ani'u*), and 'spring' (of water) (*nu'anu'a*);

c) those that have no apparent cognates in other languages in the area and which do not reflect any established or proposed POc or other reconstruction. These items include 'arrow' (*onogoli'a*), 'canoe' (*lebaleba*), 'child' (*koloakoloa*), 'club' (*oloba* (also 'spear')), 'coconut' (*egai'a*), 'face' (*gale-na*), 'flower' (*laku'a*), 'lip' (*muruna*), 'liver' (*molemole*), 'night' (*bemukunai'a*), 'nine' (*aulabaiwapuna*), 'paddle' (*pau'u*), 'sea' (*bu'abu'a*), 'shield' (*madi*), 'shoulder' (*lekalipa-na*), 'smoke' (*muko*), 'taro' (*ke'u*), 'wallaby' (*bai'au*), 'wind' (*walau*), 'yam' (*gani*), and 'thou' (*iau*). Most (perhaps all) of these also probably represent elicitation errors (e.g. the forms for 'canoe, child, coconut, flower, paddle, shield, taro, wallaby' and 'wind' may be words for different stages of growth or different types of implements, animals, plants etc.). Another, 'liver', refers to an internal organ that cannot be pointed to in elicitation sessions and is therefore easily confused with the heart and kidneys;

d) those that have apparent cognates in other languages but which do not reflect any established or proposed POc or other reconstruction. At least two of these, 'banana' and 'sweet potato', are probably borrowings because they include unexpected *ts* as reflexes of relevant established or proposed reconstructed sounds. The full list of words in this category is given in Appendix 2;

e) those that have apparent cognates in other languages and which reflect POc or other proposed or established reconstructions. These include several words which appear to have been badly transcribed during preparation for publication and which have been corrected for present purposes. These words are 'nose' (*ilu-na*), 'three'(*oi'oi'i*), and 'father' (*ama-ku*).[5]

The first four of these categories account for more than half of the list. Only category (e) items are of any use for comparative purposes, however, because of the uncertainty about what the others represent. Nevertheless there is sufficient evidence in this category to be able to make some decisions about the linguistic status of Lau'una vis-a-vis other languages in the area.

---

4 This confusion is not surprising given that it is easy and common to misinterpret an investigator's request for the pronoun 'you' as a request for 'I', especially, as is usually the case, the investigator points at the speaker to indicate 'you' and to himself/herself to indicate 'I'.

5 Thus, for example, *iluma* 'nose' should definitely be *iluna* (because the final syllable *na* is the inalienable 3rd person singular possessive suffix in Lau'una), *o,i-oi-i* 'three' should obviously be *oi'oi'i* (because the comma is otherwise unexplained), and *amuku* 'father' should most probably be *amaku* (otherwise the first *u* is totally unexpected on historical-comparative grounds).

Finally the list unfortunately contains no grammatical information that is of diagnostic value for subgrouping in this case. The only evidence it does contain is that Lau'una lacks a reflex of the POc article *a/*na. However, as this is an innovation common to all other Papuan Tip languages and that separates the Papuan Tip Cluster from others in western Melanesia it contributes nothing to the subgrouping of Lau'una.

The only morphological information that the list contains is that inalienable possession is marked in Lau'una by *-ku* for 'my' and *-na* for 'his, her, its'. However, like the one grammatical item that the list contains this is of no diagnostic value for subgrouping Lau'una as these are common suffixes in Oceanic languages.

4. ANALYSIS OF THE DATA

As already noted Lau'una lay within the geographical bounds of the Central Papuan family. On those grounds it is suspected of belonging to that family, either as a separate language or as a dialect of one of the other member languages. However, to establish its status we need to compare it with other languages that are most likely to be related to it. In practice this means looking for shared innovations in phonology and lexicon that indicate that Lau'una had a common history with one or more other languages in that family at some previous time. Should it turn out to be the case that Lau'una is a Central Papuan language or dialect this fact automatically confirms it as a Papuan Tip and Oceanic language. Should that not turn out to be the case then we will need to look for most likely candidates amongst other languages further afield. But initially our aim will be to test the Central Papuan hypothesis.

For comparative purposes I have taken the material directly from Bastard's list except, as noted in Appendix 1, I have changed his '-' to an apostrophe to represent glottal stop and used hyphens to mark off suffixes, e.g. *ali-ku* 'blood' (lit. blood-my). I also corrected the scribal errors noted above and in comparing Bastard's items with those from other relevant languages below I use material contained in fieldnotes collected by me in the 1960s and 1970s, together with that in Ross (1988), and in his unpublished comparisons on which his 1988 work was partly based.

The following abbreviations are used for languages that are referred to in the comparisons below:

(a) Papuan languages

Dom	Domu
Laua	Laua
Mgi	Magi (or Mailu)
Mor	Morawa

(b) Austronesian languages

Bin	Bina
Kea	Keapara
Kea(A)	Aroma dialect of Keapara
Kea(H)	Hula dialect of Keapara

Kea(L)	Lalaura dialect of Keapara
Kea(M)	Maopa dialect of Keapara
Kea(W)	Wanigela dialect of Keapara
Lau	Lau'nua
Mag	Magori
Mag(D)	Deba dialect of Magori
Mag(M)	Magori dialect of Magori
Mis	Misima
Mtu	Motu
Oum	Ouma
Sin	Sinagoro
Sin(B)	Balawaia dialect of Sinagoro
Sin(T)	Taboro dialect of Sinagoro
Sua	Suau
Sua(G)	Gadaisu dialect of Suau
Sua(Is)	Island dialect of Suau
Sua(K)	Konemaiava dialect of Suau
Sua(L)	Laimodo dialect of Suau
Tub	Tubetube
Yob	Yoba

5. THE POSITION OF LAU'UNA AMONGST THE AUSTRONESIAN LANGUAGES OF SOUTH-EAST PAPUA NEW GUINEA

An analysis of the available material suggests:

1) that Lau'una belonged to the Central Papuan language family; and

2) that it was either a divergent dialect of Keapara or a language very closely related to Keapara, its neighbour to the west.

These conclusions are supported by the following phonological and lexical evidence.

5.1 PHONOLOGICAL EVIDENCE

It is not possible to be very precise about the sound system of Lau'una given the available materials. It would appear from the orthography used in transcribing the words given in the word list that it was a simple system similar to that of other An languages in the immediate area. Thus it seems to have had a five-vowel system (i, e, a, o, u) and a set of consonants which included:

– voiced (*b*, *d*, *g*) and voiceless stops (*p*, *k* and perhaps glottal stop);[6]
– a labialised voiceless stop *kw*;
– two nasals (*m* and *n*);
– a liquid *l*;
– a semivowel *w*.

---

6   The way some words are transcribed in the published word list suggests that speakers were saying them slowly, and deliberately separating syllables (especially those with vowels in sequence) by glottal stops, so that the glottal stops in them are suspicious. For example, *bu'ina* 'hair', *lai'ia* 'path', *oi'oi'i* 'three'.

Some evidence also suggests that some orthographic *b*s and *g*s probably represented fricatives, notably, [β] and [ɣ] respectively. In that case Lau'una probably had a set of fricative phonemes, perhaps including or instead of the voiced stops *b* and *g*; it would certainly have been an unusual language for this part of the world if it had had no fricatives.

Other relevant observations are:

i) *t* only occurs in three words all of which are probable borrowings (because *t*, as already noted, is not an expected reflex of any POc or other lower level reconstructed sound): *aliwata* 'banana', *motela* 'sweet potato' and *aweta* 'woman';

ii) *s* only occurs in *aisiaisili* 'four' and *bisu* 'star' both of which are probable borrowings (because *s* is not an expected reflex of any POc or other lower level reconstructed sound);

iii) *f* only occurs in *iafai afana* 'foot, hand'[7] and probably represents a variant of *p* or *w*;

iv) *v* only occurs in *dovele* 'moon', a borrowing from nearby Papuan languages;

v) *r* only occurs in *muruna* 'lip' and is probably a variant of *l*;

vi) all syllables are open and there are no consonant clusters (assuming that *kw* is counted as a unit phoneme).

No genetic or historical conclusions can be drawn from this evidence, however. It is as reflexes of reconstructed sounds that these phonemes become significant. The chart below, based on Table 30 in Ross (1988:205-206), gives the set of regular consonantal correspondences that underlie the reconstruction of proto-consonantal phonemes at Proto Central Papuan (PCP), Proto Papuan Tip (PPT) and Proto Oceanic (POc) levels and show the Lau'una reflexes of those consonants; vowels are not included because like vowels correspond very well in all languages, as can be seen from other evidence presented below.

It is clear from the chart that Lau'una shares a number of phonological innovations with Central Papuan languages that distinguish them from other Papuan Tip ones. There are six such innovations inherent in the correspondences given in this chart. These are:

1) POc *r* and *R* > PPT *r* > PCP *l*
2) POc *l/_i,u* > PPT *l/_i, u* > PCP *i*
3) POc *l/_e,a,o* > PPT *l/_e,a,o* > PCP *y*
4) POc *ñ* > PPT *ñ* > PCP *ñ*
5) POc *s* and *c* > PPT *s* > PCP *r*
6) POc *k* (lenis) and *q* > PPT *q* > PCP *y*

To these can be added a seventh that Pawley (1973:49, innovation 6) noted in discussing the postion of the Central Papuan languages vis-a-vis other An languages of south-east Papua New Guinea, viz. POc word-final consonants in absolute final position (i.e. when not followed by a suffix) are lost in PCP whereas they are sporadically retained in PPT. In particular:

POc *-R* > PPT *-r* > PCP ∅
POc *-n* > PPT *-n* > PCP ∅
POc *-k* > PPT *-k* > PCP ∅

---

7   Judging by the structure of *iafai afana* it probably meant 'sole of foot' and 'palm of hand'.

CHART: CONSONANT CORRESPONDENCES IN CENTRAL PAPUAN LANGUAGES
(AFTER ROSS, 1988: TABLE 30)

	*p fortis	*p lenis	*b	*m	*mw	*w	*t	*r, *R
POc	*p	*p	*b	*m	*mw	*w	*t	*r, *R
PPT	*p	*v	*b	*m	*mw	*w	*t	*r
PCP	*p	*v	*b	*m	*mw	*w	*t	*l
Mekeo	f	p; p, f/_u	f	m	m	f	?-, Ø-; -?-	n
Mekeo (West)	.	b; b, p/_u	p	m	m	o	?-, Ø-; -k-	n
Kuni	f	b	f	m	m°	v	k; s/_i	l
Roro	p	b; Ø/a_u	p	m	m, m°	w, b	h; h, s/_i	r
Lala	p	v	b	m	m, m°	v	k; s/_i	l
Gabadi	p, v	v; Ø/_o, u	b	m	m°	v, u	k; s/i	r
Doura	p	h	b, p	m	.	v	k; s/_i	r
Motu	p	h	b	m	m, m°	v	t; s/_i, e	r
Sinagoro (B)	p	v; γ, Ø/o, u	b	m	m°	w, v	t; s/_i, e	l, r
Sinagoro (T)	f	v; γ, Ø/o, u	b	m	m°	v	t; s/_i, e	r
Keapara (Hula)	p	v; Ø/a_u	p	m	m	w	Ø, ?, k	l
Keapara (Aroma)	p	v; Ø/a_u	p	m	m	w	Ø, ?	l
Ouma	p	v; Ø/_u	b	m	.	v, Ø	t, h, ?; h, s/_i	r
Magori	p	v; Ø/_u	b	m	m°	v	t	r
Yoba	p	v; Ø/_u	b	m	m°	v, w	t; s/_i	r
Bina	p	v; Ø/_u	b	m	m°	v, w	t; s/_i	l
Lau'una	p(?)	b	b	m	m?	?	Ø	l

	*d, *dr, *j	*l/_i, u	*y; *l/_e, a, o	*Ø-	*n	*ñ
POc	*d, *dr, *j	*l/_i, u	*y; *l/_e, a, o	*Ø-	*n	*ñ
PPT	*d, *j	*l/_i, u	*y; *l/_e, a, o	*Ø-	*n	*ñ
PCP	*d	*i	*y	*Y/*_a	*n	*ñ
Mekeo	-?-	i	l	l-	n	.
Mekeo (West)	k; s/_i	i	Ø-; -l-	.	n	.
Kuni	k; s/_i	i	y	y-	n; Ø/i, e_a	.
Roro	k;	i	Ø-; -e-	Ø-	n	
Lala	t; d/_i	i	l	Ø-	n	
Gabadi	g; d/i	i	Ø-; -r-	Ø-	n	
Doura	t	i	r	Ø-	n	
Motu	d	i	l	l-	n	n
Sinagoro (B)	d, r	i	Ø-; -γ-	Ø-	n	n
Sinagoro (T)	d	i	i	i-	n	n
Keapara (Hula)	r	i	Ø-; -r-	Ø-	n	.
Keapara (Aroma)	r	i	ð-; -r-	ð-	n	.
Ouma	d	i	Ø-: -e-	Ø-	n	n
Magori	d; t, d/_i	i	y-; -e-	Ø-	n	.
Yoba	d; d, s/_i	.	y	Ø-	n	n
Bina	d	.	y	Ø-	n	n
Lau'una	?	i	i (=y?)	?	n	n[1]

[1] With vowel lowering

Note: Sinagoro (B) = Sinagoro (Balawaia) (Kolia 1975); Sinagoro (T) = Sinagoro (Taboro) (my data).

POc	*s, *c	*k fortis	*k, *q lenis	*g
PPT	*s	*k	*q	*g
PCP	*r	*k	*ɣ	*g
Mekeo	k	∅-; -ʔ-	∅	∅
Mekeo (West)	g; j/_i	∅	∅	∅
Kuni	d	∅	∅	∅
Roro	t; s/_i, u	∅, ʔ	∅, ʔ	∅, ʔ
Lala	d	∅	∅	∅
Gabadi	g; d/i	ʔ, ∅	∅, ʔ	ʔ, ∅
Doura	t	ʔ, ∅	∅	∅, ʔ
Motu	d	k	∅, ɣ	g
Sinagoro (B)	r, d	k	ɣ	ɣ, g
Sinagoro (T)	d, r	k	ɣ	g
Keapara (Hula)	r	k	ɣ/_i, e, u; ∅/_a, o	k
Keapara (Aroma)	r	∅-; -ʔ-	∅/_i, u; ɣ/_e, a, o	k
Ouma	r	ʔ-, k-, ∅-	ʔ, g; ∅-	g
Magori	k-; -r-, -k-	ʔ-, k-, ∅-; -ʔ-	ʔ, g	g
Yoba	ʔ	k	ʔ, ∅	g
Bina	ʔ	k	∅	g
Lau'una	l[1]	ʔ	g	k

[1]No evidence for POc *c

POc	*ŋ		
PPT	*ŋ	*kw	*gw
PCP	*ŋ	*kw	*gw
Mekeo	n, ∅	o-; -ʔo-	∅ °-; -f-
Mekeo (West)	n, ∅	.	.
Kuni	∅; n/_i	∅°-; -v-	-v-
Roro	∅, n; n/_i	∅-	∅-
Lala	∅, n; n/_i	v-	∅°-; -∅-
Gabadi	∅, n	∅°-	∅°-; -ʔ°-
Doura	∅; n/_i	.	∅°-
Motu	∅, ɣ	kw	gw
Sinagoro (B)	ɣ	kw	ɣw
Sinagoro (T)	ɣ; ∅/#_	kw-	gw
Keapara (Hula)	ɣ	kw-	kw-
Keapara (Aroma)	ɣ	w-	kw
Ouma	ʔ; n/_i	.	g°
Magori	∅	.	g°
Yoba	∅; n/_i	.	.
Bina	∅; n/_i	.	∅-
Lau'una	ʔ	kw	ʔ

The following data support Lau'una's position:

INNOVATION 1: POc *r and *R > PPT *r > PCP *l

branch   POc *raqan > PPT *raqa > PCP *raya > Lau laga
leaf   POc *raun > PPT *rau > PCP * rau > Lau lau (< gau-lau-na 'leaf' (lit. tree-
            leaf-its)
milk   POc *Rata(q) > PPT *rata > PCP *lata > Lau la
sago   POc *rabia > PPT *rabia > PCP *labia > Lau labia

INNOVATION 2: POc *l/_i, u > PPT *l/_i,u > PCP *i

arm   POc *lima 'hand' > PPT *lima > PCP *ima > Lau ima
ear   POc *talinga > PPT *talinga > PCP *taiya/*tainga > Lau ega 'feather/hair'
            POc *pulu 'body hair' > PPT * vulu 'body hair' > PCP *vui > Lau bu'i

INNOVATION 3: POc *l/_e,a,o > PPT *l/_e,a,o > PCP *y

[No evidence.]

INNOVATION 4: POc *ñ > PPT *ñ > PCP *n

mosquito   POc *ñamuk > PPT *ñamuqa > *PCP *namo > Lau nemo

INNOVATION 5: POc *s and *c > PPT *s > PCP *r

breast   POc *susu > PPT *susu > PCP *ruru > Lau lulu
elbow   POc *siku > PPT *siu > PCP *riu > Lau lu'i
navel   POc *buso > PPT *buso > PCP *buro > Lau bulo
outrigger   POc *saman 'outrigger float' >PPT *sarima > PCP *ralima 'outrigger float' >
            Lau ladima (allowing for the unexplained d (< *l) in Lau)

INNOVATION 6: *k (lenis) and *q > PPT *q > PCP *y

hill   POc *koro 'interior hills' > PPT *qoro[8] > PCP *[yolo]yolo > Lau gelo
            (although the e is unexplained, perhaps mistranscribed).
tree   POc *kayu > PPT *kaiu > PCP *yau 'tree' > Lau gau (< gau-upu 'forest')

INNOVATION 7: POc word-final consonants lost in PCP

(i) POc *-R > PPT *-r > PCP Ø

lime   POc *qapuR > PPT *qavur > PCP *yavu > Lau bu'ina (assuming that the
            missing expected first syllable *ga is unexplained)
sail   POc *layaR > PCP *laya > PCP yaya > Lau lai'ia, Mag(M) lai'a

(ii) POc *-n > PPT *-n >PCP Ø

leaf   POc *raun > PPT *rau > PCP * rau > Lau lau (< gau-lau-na 'leaf' (lit. tree-
            leaf-its)

(iii) POc *-k > PPT *-k > PCP Ø

dog   PWO[9] *kwawak > PPT *kwa[i]wak > PCP *kwa[i]wa > Lau kwa'iba

---

8   This item is reconstructable from PCP evidence even though no non-Central Papuan cognates have been
    found yet (Ross, pers.comm.).
9   Proto Western Oceanic.

The chart also shows that Lau'una's phonemes have undergone three innovations separate from other Central Papuan languages. Although other languages may have undergone different ones none has undergone all three. These innovations are:

INNOVATION (A): The merger of POc *r and *s as Lau *l*

(i) POc *r > Lau *l*

branch   POc *raqan > PPT *raqa > PCP *daya > Lau *laga*, Sua *laga*
leaf   POc *raun > PPT *rau > PCP * *lau* > Kea(H) *lau*, Kea(W) *lau* 'feather', Lau
           lau (< *gau-lau-na* 'leaf' (lit. tree leaf-its)
sago   POc *rabia > PPT *rabia > PCP *labia > Sin(T) *labia*, Kea(H,M) *lapia*, Lau
           labia

Comment: *Aloba* 'fire'(cf. Sin *karava*, Kea(H) *kalova*, Kea(A) *'alova*, Kea(W) *galova*, Kea(L) *alova*, Oum *arova*, Yob *karova*, Bin *kaloa*) reflecting PCP *alova* 'fire' is also a probable witness. However, so far no corresponding higher level reconstruction has been suggested.

(ii) POc *s > Lau *l*

elbow   POc *siku > PPT *si-u > PCP *ri-u > Lau *lu'i*
navel   POc *buso > PPT *buco(co),*buso/* vuso > PCP *buro > Lau *bulo*
outrigger POc * >PPT *sarima > PCP *ralima 'outrigger float' > Lau *ladima*, Oum
           larima aua (allowing for the unexplained *d* (< PCP *l) in Lau)
sun   POc *qaso > PPT *qaso > PCP *yaro > Sin *yaro*, Kea(H,A) *aro*, Kea(W)
           garo, Kea(L) *yaro*, Lau *galo*

INNOVATION (B): The merger of POc *k* (lenis) and *q as Lau *g*

(i) POc *k* (lenis) > Lau *g*

hill   POc *koro 'interior hills' > PPT *qoro > PCP *[yolo]yolo > Lau *gelo*
           (although the *e* is unexplained, perhaps mistranscribed)
tree   POc *kayu > PPT *kaiu > PCP *yau 'tree' > Lau *gau* (< *gau-upu* 'forest')

(ii) POc *q > Lau *g*

branch   POc *raqan > PPT *raqa > PCP *daya > Mtu *rigi*, Sin *rega*, Kea(W) *taga*,
           Lau *laga*, Sua *laga*
leg   POc *qaqe > PPT *qaqe > PCP *yaye > Kea(W,L) *gaye*, Lau *gage*, Yob *gogu*
mat   POc *qeba > PPT *qeba > PCP *yeba > Lau *gepa* , Oum *eba*, Mag *eba*, Mgi,
           Dom, Mor *eba*, Laua *heba*
sun   POc *qaso > PPT *qaso > PCP *yaro > Sin *yaro*, Kea(H,A) *aro*, Kea(W)
           garo, Kea(L) *yaro*, Lau *galo*
wife   POc *qasawa 'spouse' > PPT *qasawa > PCP *yarawa > Lau *galawa*

INNOVATION (C): The merger of POc *p* (lenis) and *b as Lau *b*

(i) POc *p* (lenis) > Lau *b*

feather/hair POc *pulu > PPT * *vulu* > PCP * *vui* > Kea(W,L) *vui*, Lau *bu'i*
lime   POc *qapuR > PPT *qavur > PCP *yavu > Lau *bu'ina* (assuming that the
              missing expected first syllable *ga is unexplained)
settlement   POc *panua > PPT * *vanua* > PCP * *vanua* > Sin(B), Kea(M) *vanua*, Sin(T),
              Kea(H) *vanuya*, Lau *banu'a* 'village'

stone	POc *patu* > PPT *vatu* > PCP *vatu* > Kea(H,A,W,L) *vau*, Lau *bau'u*
sugarcane	POc *topu* > PPT *tovu* > PCP *tovu* > Lau *obo*

(ii) POc *b* > Lau *b*

navel	POc *buso* > PPT* *vuso* > PCP *buro* > Lau *bulo*
sago	POc *rabia* > PPT *rabia* > PCP *labia* > Mtu *rabia*, Sin(T) *rabia*, Sin(T) *labia*, Lau *labia*, Sua(Is) *labia*

The first of these innovations is peculiar to Lau'una. The second is shared with Oum and Mag (sporadically) and the third is not shared by any other Central Papuan language. This means that Lau'una had undergone a period of separate development from all other Central Papuan languages. Even so, this does not necessarily mean that it was a separate language; it could equally have been a divergent dialect of some Central Papuan language. We shall return to this question below after lexical evidence has been considered.

5.2 LEXICAL EVIDENCE

About 13 per cent of the words in this list represent apparent lexical innovations, assuming, as is indicated in §3, that more than half of the Lau'una word list is unreliable or otherwise unusable for comparative purposes. Should this latter assumption turn out to be partly or wholly false (e.g. if surviving speakers were found at some time and interviewed) the number of innovations would almost certainly be greatly expanded.

The proposed lexical innovations include items which are of an unexpected form in Lau'una but which have apparent cognates in other languages which reflect an established or proposed POc or other reconstruction. These include:

ali-ku 'blood', for expected *lala*:
> POc *draRaq* 'blood' > PPT *rara* > PCP *lala* (Mtu *rara*, Sin *rara*, Kea(H,A) *rala*, Kea(W,L) *lala*, Oum *rara*, Mag *rara*)

bisu 'star', for expected *bii(g)u*:
> PCP *viti(g)u* 'star' (Mtu *hisiu*, Sin *vitiuyu*, Kea(H) *γivu*, Kea(A) *givu*, Kea(W) *viu*, Kea(L) *viu*, Mag *visi'u*)

bu'ai'a 'crocodile', for expected *bugaia*:
> POc *puqaya* 'crocodile' > PPT *vuqaya* > PCP *vuγaya* (Mtu *huala*, Sin(T) *γuγaia*, Kea(W) *vuara*, Oum *ua'ai*, Mag *uae*, *u'wa'i*)

bu'ina 'lime', for expected *gabu*:
> POc *qapuR* > PPT *qavur* > PCP *γavu* (Mtu *ahu*)

gelo 'hill', for expected *golo*:
> POc *koro* 'interior hills' > PCP *γolo* (Mtu *ororo*, Sin *γoro*, Kea(H,A) *olo*, Kea(W,L) *γolo*, Oum *oro'u*, Yob *worei*, Mag *oro*, Bin *oloi*, Sua(G) *woroi*)

iliga-a 'bone', for expected *uliga*:
> PPT *turiqa* 'bone' > PCP *tuli* (Mtu *turia*, Sin *turiya*, Kea(H,A,W,L) *iliya*, Mag *tiria*)

ipi-na 'skin',[10] for expected **gabi*:
> PPT **kwapir* > PCP **kwapi* (Mtu *kopi*, Sin *kepi*, Kea(H,A,L) *opi*, Kea(W) *gopi*, Oum *opi*, Yob *kopi*, Mag(M) *opi*, Mag(D) *kopi*)

ladima 'outrigger', for expected **lalima*:
> PPT **sarima* 'outrigger float' > PCP **ralima* (Mtu *darima*, Sin *dalima*, Kea(H) *rarimararima*, Kea(W) *ralima*, Oum *larima aua*, Sua(Is) *sarima*)

lakalaka 'butterfly', for expected **garabebe* (The Lau form is a form of this with the first two syllables metathesised and with an unexplained *g* > *k* change.):
> PPT **qarabembem*

lepa-na 'head', for expected **leba*:
> PPT **deba* > PCP **deba* (Sin *deba*, Kea(H,A,L) *repa*, Kea(W) *tepa*)

lu'i-na 'elbow', for expected **liu* (of which the recorded form is a metathesised version):
> POc **siku* > PPT **siqu* > PCP **riyu* (Mtu *diu*, Sin *diyuni*, Kea(A) *rui*, Yob *iu*, Sua(K) *siu*)

makama 'fly', for expected **nakama*:
> PCP (Ross) **nagama* (Sin *nagama*, Kea(H,A,L) *nakama*, Kea(W) *rakama*, Mag *nagama*, (? Yob *gogoma*, Bin *kogama*))

ulube 'rat', for expected **gulube*:
> PPT **qusuve* > PCP *yuruve* (Oum *ureve*, Mag *o'ure* < POc **kusupe(q)* 'rat')

These are again good evidence of independent developments in Lau'una because they show idiosyncratic developments that include:

a) metathesis ('butterfly, elbow');
b) unexpected consonants ('crocodile, fly, head, outrigger, star');
c) unexpected loss of syllables ('lime') and perhaps consonants ('rat', 'skin');
d) unexpected vowels ('blood, bone, hill, skin').

6. THE POSITION OF LAU'UNA AMONGST THE CENTRAL PAPUAN LANGUAGES

It was pointed out above that the historical phonological evidence shows that Lau'una underwent a period of separate development from other Central Papuan languages but that that did not necessarily mean that it was a separate language; it could just as well have been a distinct and rather divergent dialect of some language. There is unfortunately no principled way in which to distinguish between these two possibilities using the historical linguistic evidence just presented. Deciding what to call a language and what to call a dialect is difficult enough even when there are speakers available. Then we usually appeal to such uncertain and scalar criteria as mutual intelligibility or unintelligibility, phonological, grammatical and lexical similarity or dissimilarity.[11] There are, however, several pieces of evidence bearing on the above question. These are:

---

10   It may well be that this was *gabi* as expected, especially if the initial *g* was a fricative, as such *g*s are notoriously difficult for Europeans to hear. In that case this item would not count as a lexical innovation. Similar observations hold for *ulube* 'rat'.

11   Intelligibility testing is the only way to test for dialect/language differences. It cannot be predicted from sound change statistics or vocabulary counts as Grimes (1988) shows, except where the differences are so

– phonological evidence;
– lexical evidence;
– contemporary observations.

6.1 PHONOLOGICAL EVIDENCE

If we look at the chart of CP consonant reflexes of POc and other reconstructions again we see that Lau'una has most reflexes of consonants in common with Keapara, especially its eastern dialects Wanigela and Lalaura. That is, Lau'una and these dialects have undergone the greatest number of similar changes. This evidence suggests that Lau'una was most closely related to Keapara although it is still not clear at what level, dialect or separate language level. Data supporting this observation, in addition to that already presented above, are:

a) POc *t* > Lau Ø

ear	POc *talinga* > PPT *talinga/tainga* > PCP *tainga* > Mtu *taia*, Kea(W,L) *eya*, Lau *ega*
eye	POc *mata*, PPT *mata* > PCP *mata* > Kea(H,A,W,L) *maa*, Lau *ma*
father	POc *tama* > PPT *tama* > PCP *tama* > Kea(H,A,W,L) *ama*, Lau *amu* (allowing for the unexplained final *u* (< *a*), most probably a scribal error)
mother	POc *tina* > PPT *tina* > PCP *tina* > Kea(H,A,W,L) *ina*, Lau *ina*
snake	POc *mwata* > PPT *mwata* > PCP *mota* > Sin *mota*, Kea(A,W,L) *ma*, Lau *ma* , Oum *mo*, (?)Yob, Mag *mota*
stone	POc *patu* > PPT *vatu* > PCP*vatu* > Kea(H,A,W,L) *vau*, Lau *bau'u*

b) POc *dr* and *d* > Lau *l*

Although there is no evidence of these changes there is of PPT *d* > Lau *l*, notably:

head	PPT *deba* > PCP *deba* > Kea(H,A,L) *repa*, Lau *lepa*

c) POc *g* > Lau *k*

my	POc *gu* > PPT *gu* > PCP *gu* > Kea(A) *ku*, Lau *ku*

d) PPT *kw* > * Lau *kw*

dog	PWO *kwawak* > PPT *kwa[i]wak* > PCP *kwa[i]wa* > Sin *kwaiva*, Kea(H) *kwaea*, Lau *kwa'iba*

6.2 LEXICAL EVIDENCE

This evidence is very much weaker than the phonological evidence because Lau'una usually has apparent cognates in more than one Central Papuan language. A lexicostatistical analysis of these correspondences shows that Lau'una shares approximately 81% apparent cognates with Keapara, 67% with Sinagoro, 49% with Motu, 41% with Ouma and Magori and lesser percentages with other relatives. For well-known reasons these percentages can

great (e.g. where the similarity in vocabulary is below 60%) as to make it relatively certain that one is dealing with a language rather than a dialect difference. The reason why high similarity in vocabulary is a poor indicator of intelligibility is that there are other factors besides similarity in vocabulary that affect intelligibility (e.g. phonological differences, differences in function words and affixes, bilingual proficiency).

only be taken as a very rough estimate of the relationship of Lau'una to these other languages. However, given that 81% is lexicostatistically in the dialect range[12] and that the highest agreement is with Keapara, this evidence suggests, especially when taken together with the phonological evidence just presented, that Lau'una was most probably a dialect of Keapara rather than a separate language.

6.3 CONTEMPORARY OBSERVATIONS

The only available contemporary observations made about the status of Lau'una were made by Grist in 1925-26. In that report he implies that Lau'una was a dialect of Keapara. Thus he grouped Eaula (where the last two speakers of Lau'una were recorded) together with villages between Vilirupu and Kapari-Hula as speaking "Keakara", or what we now refer to as Keapara. On p.92 of his report he also said that "the language of the Aroma people...is spoken as far east as...Cape Rodney", that is, several miles east of where Eaula is shown on his map.

6.4 CONCLUSION

Given that the contemporary observation evidence suggests that Lau'una was a dialect of Keapara while the phonological and lexical evidence is ambiguous as to whether it was a dialect or separate language, a conservative interpretation of the two kinds of evidence is that Lau'una was most probably a dialect of Keapara, but a rather divergent one, if it is not a separate language very closely related to it. As such it represented the easternmost member of the chain of dialects that make up the present-day Keapara language.

7. SOCIOHISTORICAL IMPLICATIONS

The linguistic observations just made when taken together with other evidence suggest that:

1) The Lau'una were in contact with Papuan speakers amongst whom they were living prior to European contact. This is evident from the words for 'moon' (*dovele*), 'river' (*guina*), 'water' (*agama*) and 'woman' (*aweta*) of which 'moon' and 'woman' were most probably borrowed from Magi and the remaining two ('river' and 'water') from Domu or Morawa. But there are not as many Papuan borrowings in this material as might be expected given the social situation the Lau'una were in at the time of European contact, viz. a dying tribe living in or attached to Papuan villages. However, the contact between Lau'una speakers and Papuans appears to have been of a different kind from that experienced by their relatives to the east, Ouma, Magori, Yoba and Bina, which contain substantially more Papuan borrowings. At least this is what appears to be indicated by the Lau'una vocabulary which does not contain the density of borrowings that, for example, Magori vocabulary does (Dutton 1982). Nor does its phonology appear to have been affected as one would expect if Lau'una speakers were shifting to a local Papuan language.

---

12   In lexicostatistic surveys communalects were classified into dialects of a language if they shared more than about 81% basic vocabulary with one another and as languages of the same family if they share between 28% and about 81% of basic vocabulary. See Wurm and Laycock (1961-62) for further details.

2) The Lau'una were part of a chain of Central Papuan An languages that once occupied the coastal area between Cheshunt Bay in the west and Amazon Bay (perhaps even Orangerie Bay) in the east, an area that is now occupied by Papuan-language-speaking members of the Mailuan family (Dutton 1971). But even though speaking a separate dialect or language the Lau'una maintained contact with their linguistic relatives, particularly those immediately to the west, the Keapara. This is evident in the following set of words:

ega-na 'ear', for expected **aiga*:

POc **talinga* 'ear' > PPT **talinga* > PCP **tainga* (Mtu *taia*, Sin *seya*, Kea(H) *kea*, Kea(A,W,L) *eya*, Oum *ta'a*, Yob *taia*, Bin *taia*, Sua *taina*)

kone 'land', for expected **gone*:

POc **qone* 'beach' > PPT **qone* > PCP **kone* (Mtu *kone*, Sin *kone*, Kea(H) *kone*, Oum *'one*)

mala-na 'tongue', for expected **maia*:

POc **maya* 'tongue' > PPT **maya* > PCP **maya* (Mtu *mala*, Sin *mea*, Kea(H,A) *mae*, Kea(W) *mara*, Kea(L) *matha*, Bin *mana*, Sua *mana*)

numa 'house', for expected **luma*:

POc *Rumaq* > PPT **rumaq* > PCP **ruma* (Mtu *ruma*, Sin, Kea(H,A,W,L), Oum *numa*, Yob, Mag *ruma*, Bin *numa*, Sua *ruma*)

u'u 'louse', for expected **guu*:

POc **kutu* 'hair louse' > PPT **qutu* > PCP **yutu* (Mtu *utu*, Sin *yutu*, Kea(H,A,W) *yuu*, Kea(L) *uu*)

At the same time they must have had some contact with their more distant relatives in what is now the Milne Bay Province further to the east. This is clear from their word for 'pig' *buluka* which is a typical nuclear Papuan Tip form (cf. Tub *buluka* < PPT **burukwa* 'pig') although the expected reflex of that form in Lau is **bulukwa*.[13]

At some time in the past, however, the Domu people from the bush inland of Cheshunt Bay (Grist 1926:92) moved to the coast where they were later joined by Magi speakers about two hundred years ago (Grist 1926; Thomson 1975) – see map 3. Thus Grist (1926:92) noted:

> The migration of the Magi speaking people from Mailu Island westward along the littoral, is very noticeable. Originally the village of Domara (now at the mouth of the Domara River) was at Dedele and Bulimai [sic.] Points. They are now separated from the main Magi villages by the Morawa. There is constant friction between these people, as the Domara being more progressive and intelligent, continually attempt to encroach on the Morawa lands.

In my view this linguistic evidence supports a picture I have outlined elsewhere based on evidence from four other remnant An languages further east of Lau'una (Dutton 1982). In this view the coastline and offshore islands between Amazon Bay and Cloudy Bay was once occupied by An settlers speaking languages ancestral to Ouma, Magori, Yoba and Bina (and probably others). This area provided an ideal environment for An settlers – access to offshore reefs and islands, a good rainfall with many freshwater streams flowing into the sea, plentiful supplies of sago, coastal hills providing defensive and defensible building sites

---

13 Ouma *bula ma'ani* is not a probable source because it itself is a likely borrowing as its expected form is **buru[o,a]*.

if needed, and access to virgin land. Mailuan family language speakers generally lived inland on the foothills of the main range and on hills that come down towards the coast between Cloudy Bay and Amazon Bay. These different groups of people gradually came into close contact with each other, the Papuans presumably attracted by the Austronesians' technology and trading activities. Eventually the Papuans learned the crafts and trading secrets of their seafaring An 'friends'. Then the relationship between them changed to such an extent that the Austronesians were attacked and forced to flee the coast and offshore islands to survive. At the time of European contact only small numbers of these An language speakers remained and most of those were to be found attached to Papuan-language-speaking villages (specifically Magi-speaking ones) in the area they formerly occupied. Lau'una was one of these groups.

However, as already noted the kind of contact Lau'una speakers had with their Papuan neighbours appears to have been of a different kind from that of their relatives further east. There are two possible reasons for this. One is that the Lau'una were overwhelmed rather rapidly by Magi speakers as they expanded westwards two or three hundred years ago, and were dispersed and/or absorbed by them, leaving no trace except for the two speakers who had shifted to the An village of Eaula. Alternatively the Lau'una were able to maintain their separateness for a long time without feeling threatened by local Papuans and hence feeling no necessity to learn Magi as a second language or to shift to it to survive as the Magori, Ouma, Yoba and Bina did further east. In any case they would seem to have died out without trace save for the 130-item vocabulary discussed in this paper unless descendants are still to be found in Lalaura or in Papuan villages further east around Cloudy Bay and additional evidence can be obtained from them. I hardly need to point out the necessity for further investigation here.
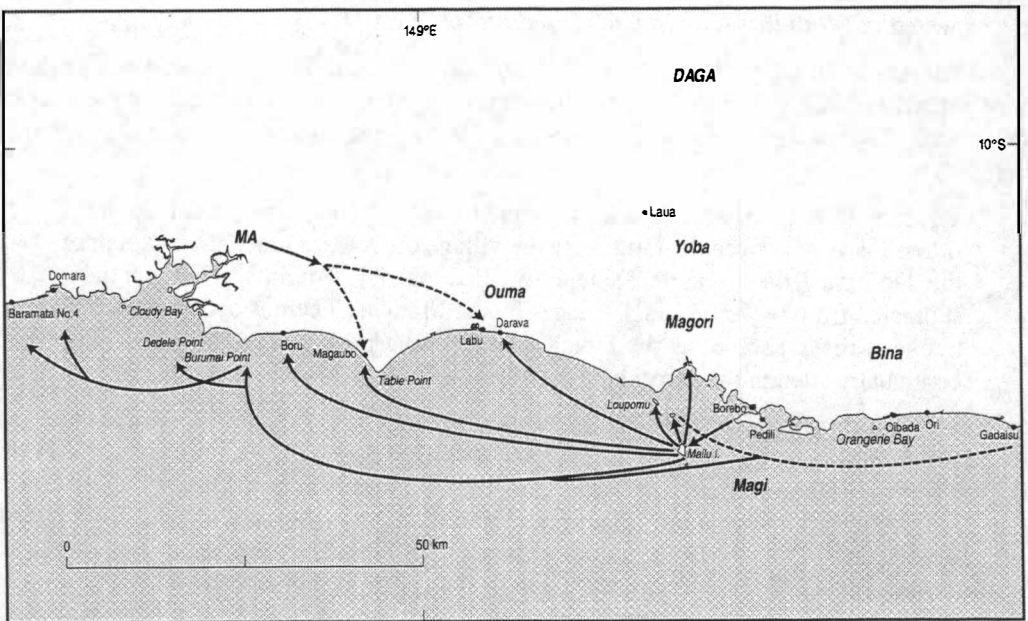
MAP 3: RECENT KNOWN PREHISTORICAL MOVEMENTS OF SPEAKERS OF MAILUAN
LANGUAGES

8. CONCLUSION

In this paper I have described and analysed items from a short word list collected from the last speakers of the Lau'una 'tribe' in mainland South-East Papua New Guinea. The analysis shows that the Lau'una probably spoke a divergent dialect of Keapara, if not a language very closely related to it, immediately to the west but distinguished from it and other Central Papuan languages by a number of phonological and lexical innovations.

These results have both practical and theoretical implications. Firstly, Lau'una's history helps elaborate our knowledge of the pre-contact history of south-east Papua New Guinea. Until it, Magori, Ouma, Yoba and Bina were 'discovered' there was a large gap on our linguistic maps in the distribution of An speakers along that coastline. This area was mistakenly thought to be occupied only by Papuan speakers. The discovery of these remnants has changed that and suggests that that area was probably once more fully populated by Austronesians, perhaps even completely. It also raises questions about the distribution of Austronesians in other parts of the Papua New Guinea area currently occupied by Papuan-language-speaking populations (e.g. the north-east coast of the Oro (formerly Northern) Province west of Dyke Ackland Bay). If Austronesians once occupied this coastline, or parts of it, evidence of the contact between them and speakers of Binanderean languages who now occupy it should be able to be found in the vocabularies of those languages, assuming that the contact was of the right kind. Further evidence of the kinds of results that can be expected is to be found in Ross's (1992) comparison of Papuan languages in the Madang Province. However, much more remains to be done to help elaborate the sociolinguistic prehistory of the Papua New Guinea area.

APPENDIX 1: THE LAU'UNA WORD LIST

Note: This list is presented as printed in Bastard (1917-18) except that I have alphabetised it and converted Bastard's '-' to an apostrophe to represent glottal stop and used '-' as a morpheme boundary marker. Obvious transcription errors in words for 'nose', 'three', 'father' and 'fly' have also been corrected – see footnote 5. Items not generally found on modern short survey basic vocabulary lists are underlined.

arm	*ima-na*	cassowary	*kilapu*
arrow	*onogoli'a*	<u>chief</u>	*auwolo*
ashes	*abu*	child	*koloakoloa*
bag	*poi'a*	<u>club</u>	*oloba*
<u>bamboo</u>	*kapakapa*	<u>club</u> (disc)	*pai'ila*
banana	*aliwata*	<u>club</u> (pine)	*iau'ona*
belly	*uli-na*	<u>club</u> (star)	*gelebele*
betel nut	*uli'a*	<u>club</u> (wooden)	*apuna*
bird	*manu*	cockatoo	*alai'i*
blood	*ali-ku*	coconut	*egai'a*
bone	*iliga-na*	crocodile	*bu'ai'a*
bow	*gaugauna*	dog	*kwa'iba*
branch	*laga-na*	ear	*ega-na*
breast	*lulu-na*	egg	*gau'u'i*
butterfly	*lakalaka*	eight	*aulabai*
canoe	*lebaleba*	elbow	*lu'i-na*

eye	*ma-na*	no	*kapalui*
face	*gale-na*	nose	*iluma*
father	*amu-ku*	one	*apuna*
feather	*bu'i-na*	outrigger	*ladima*
finger	*lilikebu-na*	paddle	*pau'u*
finger (first)	*kebukebu-na*	path	*lai'ia*
finger (fourth)	*kebukebu-na*	pig	*buluka*
finger (second)	*kebukebu-na*	rain	*guba*
finger (third)	*kebukebu-na*	rat	*ulube*
fire	*aloba*	river	*guina*
fish	*magani*	root	*walakoko*
five	*ima*	sago	*labia*
flower	*laku'a*	sail	*lai'ia*
fly	*makama*	sea	*bu'abu'a*
food	*ganina'imi'au*	seven	*aulau'i'wapuna*
foot	*iafai'afa-na*	shadow	*iauba'iauba*
forest	*gau'upu*	shield	*madi*
four	*asiasili*	shoulder	*lekalipa-na*
fowl	*polo*	six .	*aulau'i*
friend	*walawala-ku*	skin	*ipi-na*
hair	*bu'i-na*	smoke	*muko*
hand	*iafai'afa-na*	snake	*ma*
head	*lepa-na*	sorcerer	*mega'auna*
hill	*golo*	spear	*oloba*
hornbill	*bina*	spittle	*ani'u*
house	*numa*	spring	*nu'anu'a*
I	*ono'iau*	star	*bisu*
land	*kone*	stone	*bau'u*
leaf	*gaulau-na*	sugarcane	*obo*
leg	*gage-na*	sun	*galo*
lime	*bu'i-na*	sweet potato	*motela*
lip	*muru-na*	taitu [yam]	*ai'u*
liver	*molemole*	taro	*ke'u*
louse	*u'u*	ten	*kapanana*
man	*belegauwa*	Thou	*iau*
mat	*gepa*	three	*oi, oi'i*
milk	*la*	thumb	*lilipala*
moon	*dovele*	tobacco (European)	*kuku*
mosquito	*nemo*	tobacco (native)	*kukulau-na*
mother	*ina-ku*	tongue	*mala-na*
mouth	*poka-na*	tooth	*luwa-na*
navel	*bulo-na*	tree	*kapagauna*
neck	*gaigo-na*	twenty	*pakananalu'a*
night	*bemukunai'a*	two	*lualua*
nine	*aulabai'wapuna*	village	*banu'a*
nipple	*la-na*	wallaby	*bai'au*

war	*be'ali*	wind	*walau*
water	*agama*	woman	*aweta*
wife	*galawaku*	yam	*gani*

APPENDIX 2: LAU'UNA LEXICAL ITEMS THAT HAVE APPARENT COGNATES IN OTHER LANGUAGES OF THE AREA BUT WHICH DO NOT REFLECT ANY ESTABLISHED OR PROPOSED POc OR OTHER RECONSTRUCTION

bag	*poi'a* (cf. Mtu *bosea*, Oum *bo'oea*, Yob *oisa*, Sua(L) *botsea* 'basket')
bamboo	*kapakapa* (cf. Mag(M) *kabakaba*)
banana	*aliwata* (cf. Sin *γarivata*)
	Comment: most probably a borrowing because *t* does not occur in Lau'una as an inherited sound
belly	*uli-na* (cf. Mis *(buli) buli* 'excrement')
betel nut	*uli'a* (cf. Sin(B) *γuria*, Kea(H,A) *γuria*, Kea(M) *uria*)
bow (and arrows)	*gaugauna* (cf. Mag *kalupisiri*, Sua(G) *kaupitiri*)
cassowary	*kilapu* (cf. Sin *gidabu*, Kea(A,W) *kirapu*)
cockatoo	*alai'i* (cf. Mtu *karai*, Sin(B) *kalai*, Kea(H) *kalai*)
egg	*gau'u'i* (cf. Mtu *γatoi*, Sin *γatoi*, Kea(H,A) *aoi*, Kea(A,W,L) *γaoi*, Yob *kat(o)i*, Mag *ato'i*)
chief	*auwolo* (cf. Oum *taunauwole*)
	Comment: the *au* part of this form reflects POc **tau* 'person, human being' (cf. Lau *belegauwa* 'man' with Kea(A) *vele*, Mag *vele taunu* 'chief')
fish	*magani* (cf. Sin *maγani*, Kea(H) *mani*, Kea(A) *maani*, Kea(W) *magani*, Kea(L) *maγani*)
	Comment: *magani* and related forms are not reflexes of POc **ikan* 'fish' (Ross, pers.comm.) though there is an argument that it derives from POc **ma-kani* 'stative-eat' (Lynch, pers.comm.)
mouth	*poka-na* (cf. Sin *boka*, Kea(A) *poka*, Mag *oa*, Sua(G,L,K) *moka*)
neck	*gaigo-na* (cf. Mtu *aio*, Kea(H) *aigo*)
one	*apuna* (cf. Kea(H) *kopuna*, Kea(A) *opuna*, Kea(W) *γopuna*, Kea(L) *apuna*, Yob *una*)
rain	*guba* (cf. Mtu *guba* 'storm', Kea(H,A,W,L) *kupa*)
root	*walakoko* (cf. Sin *γoka* (?))
shadow	*iauba'iauba* (cf. Mtu *laulau*, Mag *iau-na*)
six	*aulau'i* (cf. Mtu *tauratoi*, Sin *tauratoi*)
sweet potato	*motela* (cf. Sin *mote*, Kea(H) *motea*, Mag *modeli*)
	Comment: most probably a borrowing from Kea(H) because *t* does not occur in Lau'una as an inherited sound
ten	*kapanana* (cf. Sin *gabanana*)
yam (taitu)	*ai'u* (cf. Mtu *taitu*)

These data represent strong evidence of independent developments in Lau'una because they do not have suspiciously identical forms in other languages (as the phonological evidence discussed above suggests they generally should not) or because they represent semantic shifts (as, for example, in 'bag', 'belly' and 'rain'). Excluded from this evidence are two others, 'hornbill' (*bina* (cf. Mtu, Mag, Mgi, Dom, Mor *bina*)) and 'tobacco' (*kuku*

(cf. Mtu, Oum, Yob, Mag, Bin, Sua, Mgi, Dom, Mor, Laua *kuku*)) which are suspicious of being real borrowings because not only do identical forms occur in An languages in the area but they also occur in Papuan languages nearby. They are, moreover, types of items (so-called 'cultural' items) that are particulary susceptible to borrowing.

REFERENCES

Bastard, E.M., 1917-18, Vocabulary: Lau'una. *Annual Report for the Territory of Papua for the year ending 30.6.1918*, 89.

Dutton, T.E. (Tom), 1971, Languages of South-East Papua: a preliminary report. *Papers in New Guinea linguistics* No.14, 1-46. *PL*, A-28.

1976, Magori and similar languages of south-east Papua. In S.A.Wurm, ed. *New Guinea area languages and language study*, vol.2: *Austronesian languages*, 581-636. *PL*, C-39.

1982, Borrowing in Austronesian and non-Austronesian languages of coastal south-east mainland Papua New Guinea. In Amran Halim, Lois Carrington and S.A.Wurm, eds *Papers from the Third International Conference on Austronesian linguistics*, vol.1: *Currents in Oceanic*, 109-177. *PL*, C-74.

Grimes, Joseph E., 1988, Correlations between vocabulary similarity and intelligibilty. *Notes on Linguistics* 41:19-33.

Grist, R.W., 1926, Languages of the Abau district. *Annual Report for the Territory of Papua, 1925-26*, 92-97.

MacGregor, W., 1889-90, System of orthography for native names of places (adopted by H.M.'s Lords of the Admiralty and the Royal Geographical Society). *Annual Report for British New Guinea, 1889-90*, 117.

Pawley, Andrew, 1973, The relationships of the Austronesian languages of Central Papua: a preliminary study. In T.E. Dutton, ed. *Studies in languages of Central and South-East Papua*, 3-105. *PL*, C-29.

Ross, M.D., 1988, *Proto Oceanic and the Austronesian languages of western Melanesia. PL*, C-98.

1992, Reconstructing the linguistic prehistory of the Madang Province, Papua New Guinea. Unpublished seminar paper, Department of Linguistics, Research School of Pacific Studies, The Australian National University.

Thomson, N.P., 1975, The dialects of Magi. *Papers in New Guinea linguistics* No.18, 37-90. *PL*, A-40.

Wurm, Stephen A. and Shirô Hattori, 1981, *Language atlas of the Pacific area*, part 1: *New Guinea area, Oceania, Australia.* Canberra: The Australian Academy of the Humanities, in collaboration with the Japan Academy. *PL*, C-66.

Wurm, S.A. and D.C. Laycock, 1961-62, The question of language and dialect in New Guinea. *Oceania* 32:128-143.

PROBLEMS WITH PROTO CENTRAL PACIFIC

PAUL GERAGHTY

1. INTRODUCTION[1]

The theory that the languages of Fiji, Rotuma and Polynesia form a closed subgroup was first proposed by Grace (1959). He later (1967) named the subgroup "Central Pacific", and the name has become generally accepted. Many linguists and prehistorians (see Geraghty 1983:352), have accepted the Central Pacific (CP) hypothesis, and a number of Proto Central Pacific (PCP) lexical items have been reconstructed in Blust (1976), Geraghty and Pawley (1981), and Geraghty (1983, 1986, 1990). The idea is particularly appealing since it seems to mesh well with the prehistorical scenario, delineated by archaeologists, of an initial occupation of the Fiji-West Polynesia area by Lapita people, whose culture remained relatively uniform for the first thousand years or so of occupation. It was initially assumed that the language spoken by these Lapita people, Proto Central Pacific, developed as a unity then split into three branches, Proto Fijian, Proto Polynesian and Proto Rotuman. Proto Fijian then split into Proto Western Fijian and Proto Eastern Fijian, and has continued splitting ever since to form the current Fijian quasi-continuum; Proto Polynesian split into Proto Tongic and Proto Nuclear Polynesian and has likewise continued splitting; and Proto Rotuman developed into Rotuman (Pawley & Sayaba 1971; Pawley 1972).

2. TOKALAU FIJIAN

Unfortunately, this very attractive hypothesis is not strongly supported by the data. In Pawley (1972), 15 exclusively shared innovations were proposed in support of the Central Pacific subgroup. In Geraghty (1983:352-366), I argued that most of these proposed innovations were invalid for some reason, and that those that do appear to be valid tend to demonstrate a close relationship between Polynesia and Eastern Fiji, and most especially the extreme eastern part of Fiji, comprising eastern Vanualevu and the Lau Group, which I termed "Tokalau Fijian". The following explanation was offered (pp.379-381):

> Under the present Proto Central Pacific hypothesis, this distribution of exclusively shared lexical items is hard to explain. If Proto Central Pacific broke up into Proto Polynesian and Proto Fijian, and Proto Fijian subsequently underwent further division, then there is no cause for any particular daughter language of Proto Fijian to show a closer relationship with Polynesian languages

---

than any other. The only explanation compatible with the Proto Central Pacific hypothesis – that the shared items are loans – seems unlikely, because of the large number of grammatical morphemes involved. Nor is the situation explicable by the other possible strictly genetic hypothesis: Tokalau Fijian cannot be subgrouped with Polynesian, since Tokalau Fijian is unquestionably a Fijian language.

The genetic model, therefore, is supplemented to explain the relationships observed, by allowing a language to change its subgroup membership over time. Thus it is claimed that Tokalau Fijian, although it clearly subgroups now with other Fijian languages (that is, shares most innovations), originally subgrouped with Polynesian.

The implications of this interpretation (p.381) for the prehistory of the area are that:

> The Lapita people, who came to Fiji with a homogeneous material culture, had initially also a homogeneous language, but that a dialect chain developed within Fiji before the settlement of Polynesia, and it was speakers of the dialect of Tokalau Fiji (Proto Tokalau Polynesian) who settled Polynesia.

Subsequent archaeological work has added some weight to this proposal, with Best (1984:653-654) arguing that Lakeba (in Tokalau Fiji), initially an outpost of the Fijian islands to the west, subsequently (up to about 500 BC) shows greater affinity to western Polynesia, only to revert to being culturally part of the Fiji group. The Tokalau Fijian origin of the first settlers of Polynesia is supported by the study of placenames (Geraghty 1993, note 37), and my ongoing Proto Central Pacific lexicon project is turning up more and more corroboratory linguistic data.

The thrust of this argument is not, of course, that there was no such language as Proto Central Pacific (Pawley (1979) lists a number of plausible innovations), but that there is relatively little strong evidence for it, since the ancestors of the Rotuman, Fijian and Polynesian languages developed for some time as part of the same dialect continuum; and that, at least in Fiji, the subsequent development of the chain involved fusion as well as fission. This means that when we go about reconstructing Proto Central Pacific, there is a problem: a form that is witnessed in Fijian and Polynesian may not actually date back to Proto Central Pacific, but be a product of the close relationship between Tokalau Fiji and Polynesian. However, it should be fairly easy to spot the odd man out, if it is (a) confined to Tokalau or Eastern Fiji, and/or (b) one of a pair of 'competing' forms, and/or likely to be borrowed (i.e. a non-basic, non-grammatical form such as the name of an artefact or cultivated plant). At the same time, the possibility must be allowed that an innovation of Tokalau Fijian, or any other post-PCP stage, could spread over all of Fiji. It has been demonstrated, for instance, that at least one important phonological innovation, the simplifying of certain vowel clusters, spread throughout Fiji (with the partial exception of some communalects in the extreme north and north-east) *after* the application of an important syntactic change that uniquely characterises Western Fijian, the change from suffix to prefix possession for part-terms (Geraghty & Pawley 1981).

The purpose of this paper is to present further evidence that the relationships among the Central Pacific languages are more complex than previously believed.

3. ROTUMAN

I do not intend to delve in depth into the position of Rotuman among the Central Pacific languages, but to summarise briefly the 'state of the art'. The most plausible explanation for the linguistic facts regarding Rotuman is similar to that proposed for Proto Polynesian: that it belonged to part of a Central Pacific continuum, presumably located in Fiji. Pawley (1979) presents evidence for subgrouping Rotuman with Fijian rather than Polynesian, and in particular the western part of the PCP dialect chain. My own assessment of Pawley's evidence, considered along with the results of subsequent research, is that the innovations Rotuman shares with Fijian languages appear to be distributed fairly evenly between Western Fiji and Vanualevu (especially the north coast). Since it appears that Vanualevu was heavily influenced in recent prehistory by languages of the coastal south-east Vitilevu prestige area (Geraghty 1983:383,386), I would tentatively propose that Rotuman derived from Vanualevu at a time when that area was more similar to Western Fijian. The following evidence has come to light since Pawley (1979):[2]

SHARED WITH ALL FIJI:

Rot, Fij *ogo* 'k.o. fish, *Sphyraena barracuda*'; irregular change from PCP *$*?ono$ (cf. PSS *$*ono$).

Rot *jija*, Fij *sise* 'k.o. fish, Hemiramphidae'; irregular change from PCP *$*ije$ (< PEO *$*Rije$).

Rot *?ora* '(eye) smart, (throat) choke', Fij *ora* 'choke'; cf. PEO *$*la?oRa$ 'choke', PPn *$*la?oa$; also Rot *lava* 'choke', may be Pn loan.

SHARED WITH WEST FIJIAN AND VANUALEVU:

Rot, Nalea, Gonedau *$*z > s$, e.g. *$*moze$ 'sleep' > *mose*; elsewhere in Fiji *moce*, PPn *$*mohe$.

SHARED WITH WEST FIJIAN:

PCP *$*ñ >$ Rot, WF *y* (Geraghty 1986).

PCP *$*gw >$ Rot *v*, Nadi, Vuda *w*, e.g. *$*tagwane$ 'male' > Rot *vavane* 'husband', Nadi, Vuda *tawane*.

Rot *ta?i* 'a match for, just like', *?itake* 'perhaps, as if, resemble', WF *kodaki*, *vodaki*, *wetaki* 'resemble, like'.

SHARED WITH VANUALEVU:

Rot *se* 'to' may be cognate with North-East Vanualevu *(i)ce-* 'to'. The latter is used only with pronouns and personal names, not with placenames and common nouns, as the Rotuman is; but *se* also appears to have a nominal origin, cf. *sine*, *sini* 'to him, her, it, them'

Rot *katV* 'not' may be related to Vanualevu *maqa (n)i*, though the loss of *ma-* is irregular and Rot-*t* unexplained.

---

4. POLYNESIAN OUTLIERS

In a recent paper on Proto Central Pacific fish names (Geraghty 1994), the first detailed study of any part of the Proto Central Pacific lexicon, I observed that, among Polynesian languages, the Outliers appear to share a large number of forms with Fijian. A similar observation was made 150 years ago by Horatio Hale (1846:186-187), the linguist and ethnologist of the United States Exploring Expedition:

> It is remarkable that in this brief vocabulary [of Tikopia] several words are found which are not Polynesian, and which seem to be of Vitian [Fijian] origin, as *sori*, to give (Vit. *soli*); *ŋasau*, arrow (Vit. *ŋasau*, a reed, hence, an arrow); *muna*, to speak (Vit. the same); *tinana*, mother (Vit. *tinana*, his mother); *furau*, a stranger (Vit. *vura*, a visitor – *vulaŋi*, a stranger).

Although *tinana* is a shared retention, and *furau* should be *forau*, and is not related to the Fijian forms, the other three are valid comparisons, even if not demonstrably shared innovations. Below are listed further forms which appear to show a close relationship between Fiji and the Outliers, sometimes also including East Futuna and Tuvalu.

SHARED INNOVATIONS:

tau--na kin-term reciprocal (EUv(?), Tuv, Ren, Anu, Tik), Fij (Vanualevu) *tau--na*; cf. PPn **fai--na* (Nuk, Sik, Lua, Tak, Ren, Mel (*fei-*), WFu (*fei-*)) < PEO **vai--n(a,i)* (Fij *vei--ni*, Rot *hai--gi*), PSS **vai--na* (Saa, Are); this latter is also a shared retention.

kawe a'b (opposite-sex sibling) (Lua, Pil, Anu, Tik, Mel, WFu), Fij *weka-* (Eastern Vitilevu, Lau, Kadavu); cf. PEO **mwane-*; this may be a shared retention, other Pn languages reflecting the innovative compound **tua-fafine/gaʔane*.

lie 'nit' (Nuk, Lua, Nkr, Ren, Tik, WFu), Fij *li(cs)e*; cf. PPn **li(hs)a* 'nit' (also Tuv, Sik, Tak) < PEO **lica*; some South-East Solomons forms also show final *-e*.

fago 'wake up (so)' (Tuv, Nuk, Kap, Sik, Lua, Tak, WFu), Fij *vago-n*; PPn **fagu* < PEO **vagu-n*; but also PNV **vago-n*.

sē 'flower' (EFu, Sik, Tik, Mae, WFu), Fij *sē-*; PPn **fuga* (Sam, Tok) < PEO **vuga*; cf. also Nak *sesē* – if genuinely cognate, this represents a shared retention; but the geographical and genetic distance between Fiji and Nakanai (New Britain) raise some doubt as to the validity of this comparison.

ʔoti 'all' (Pil, Ren, WFu), Fij *oti* (Rewa); PPn **ʔoti* 'finished' < PCP **ʔoti*.

mī 'urinate' (Tik), Fij *mī*; PPn **mimi* (but Haw *mī*) < PEO **mimi*.

SHARED RETENTIONS:

soli 'give' (EFu, Anu, Tik, Mae, WUv), Fij *soli*; cf. PSS **soligi* 'assign (portion of food)'; (Are) 'give, grant, permit'.

sali 'flow' (EFu, Tuv, Kap, Nuk, Ren, Sik), Fij *sali*, Rot *jali/ga* 'gutter, channel', PEO **sali*.

tinana 'mother' (EFu, Kap, Lua, Sik, Nkr, Tak, Ren, Anu, Tik, Mae, WFu, WUv), Fij *tina-na* 'his/her mother', PEO **tina-*; in other Pn languages reflecting this form it refers to a female animal.

tamana 'father' (EFu, Tok, Tuv, Kap, Lua, Nkr, Tak, Anu, Tik, Mae, WFu, WUv), Fij *tama-na* 'his/her mother', PEO **tama-*; cf. Sam *tamā*.

Vkina(i) 'to it +' (Nuk *akina*, Kap *kinai*, Ren *kinai*), Fij *kina, kinia*, PEO **(k)ini-a*; cf. PPn **ai*, Rot *e*.

EQUIVOCAL BUT INTERESTING:

samu 'beat with stick' (Lua, Tak), Fij *samu-t*, Rot *jau* 'beat (clothes, water in fishing)'.

muna 'speak, say' (Sam 'answer back', Tuv 'word, speech, say', Tik 'speak, say', Mae 'say'), Fij *muna-k* 'speak (Lau), say (Cakaudrove), swear at (Koro)'.

gasau 'arrow' (EFu, Ren, Tik, Mel; WFu *gasau/jiri*), Fij *gasau*. Also in Tongan, but possibly Fijian loan; perhaps Fijian loan in Outliers too.

kolī 'dog' (Anu, Tik, Mel), Fij *korī, kolī*; other Pn, including Outliers, reflect PPn **kulī*.

sake 'kick' (Ren, Tik), Fij *caqe*; EFu, Tuv, Sam 'raise leg or foot', Puk 'trip with hand or foot'.

fuli 'chase (Tuv), flee (Tik)', Fij *vuli* 'flee' (Eastern Vanualevu, Vanuabalavu).

kole 'speak, scold' (Tik), Fij *kole* 'speak' (North-East Vanualevu); cf. WF *kwalekwalē* 'myth, legend'.

nau 'term of address for mother' (Anu, Tik, Mae), Fij *nau* (Vanualevu, Lomaiviti).

tala 'change (clothes)' (Tuv, Kap 'wear', Sik, Lua, Tak 'wear (loincloth)', Tik 'put on (clothes)'), Fij *dara* 'put on, wear (clothes)', Rot *tatara* 'lift off, slip on (clothes)' (possibly Pn loan); cf. Aro *dara* 'put on (ring, shirt)'.

These comparisons can be accounted for by positing a period after the settlement of Polynesia when the Polynesian languages were beginning to acquire their distinctness, yet were still to some extent a part of the Central Pacific continuum. At this stage, the language ancestral to the Outliers (or at least some of them) was closer to Fiji in this continuum than was the language ancestral to the non-Outlier languages. This theory is not inconsistent with the evidence of early loans between Fiji and Polynesia (Geraghty 1993), and may explain the split reflexes of certain PCP phonemes in Proto Polynesian. For instance, I have been reconstructing PCP **x* for what is reflected as Fijian /k/ and PPn **?* (Geraghty 1986:305). There is no apparent external source for PCP **x* distinct from **k*, so it is economical to attribute the PPn **?* reflexes to borrowing from an area of Fiji in which **k* had become glottal stop, as is the case in much of eastern Vanualevu today (Geraghty 1983:58). The same explanation may be applied to the split reflexes of PCP **r*, **j* and **c/z* (Geraghty 1986).

It would be appropriate now to re-examine the question of the possessive suffixes found in the Outliers, which have been attributed to analogical remodelling on Melanesian languages. It is possible that they are retentions from a dialect of the Proto Polynesian continuum.

5. CONNECTIONS BEYOND CENTRAL PACIFIC

The classic argument against the reality of a proposed subgroup is the existence of many competing forms, that is, two or more forms that can be reconstructed for the same function or meaning. I have found very few, if any, competing pairs in one of which Rotuman or Polynesian appears to share an innovation with a non-Central Pacific language. In this section I present instances where one of the competing forms appears to be an innovation shared by Fiji and a non-Central Pacific language, beginning with those with the widest distribution in Fiji. In a number of these, parallel development is a possible explanation.

WIDESPREAD IN FIJI:

PCP *nivo- 'tooth' (PPn *nifo, PSS *(ln)ivo-, PNV *livo-); Fij bati-, cf. widespread Vanuatu bati-.

PCP *vavine 'female' (PPn *fafine, Rot haina, PEO *vavine); Fij (ya)lewa, cf. Kwaio lekwa 'female cuscus opposum'.

PCP *manivi 'thin' (PPn *manifi, Rot mahini (met.), PEO *manivi); Fij māmare, maremare, cf. Vanuatu maremare (Tangoa).

PCP *ʔaco 'day, daylight, sun' (PPn *ʔaho 'daylight', *ʔaso 'day', Rot asa 'sun', PEO *ʔaco 'sun, day'); Fij siga, cf. Kwaio, Ulawa diga 'day' (also Kir ririga 'clear sunlight, sunshine'), cf. POc *sinaR 'shine'.

PCP *kami Ixp (first person exclusive plural independent pronoun) (PPn *kima- (met.), Rot ʔami-, PEO *kami); Fij kaimam(iu), kemam(iu), cf. Vanuatu kamam(iu), PMc *kamami.

PCP *koe II1 (second person singular independent pronoun) (PPn *koe, Rot ʔae/a, PEO *koe); Fij iko, cf. Vanuatu (n)iko, Are iʔo.

PCP *-rua 2 (dual pronoun suffix) (PPn *-rua, Rot -ra, PEO *-rua); Fij -ru, cf. Vanuatu -ru.

PCP *tuaka- a'a+ (elder same-sex sibling) (PPn *tuakana, Fij tuaka-na, PNV *tuaka-); Fij tuka- (Western, parts of Eastern Vitilevu), cf. PSS *t(ou)xa-.

WIDESPREAD IN WESTERN FIJI:

Given that Western Fiji is geographically closest to potential sources of non-Central Pacific intrusion, it is remarkable that I have so far found no evidence of apparent intrusive replacements widespread in Western Fiji. One possible exception to this generalisation is the corpus in which PEO *R is retained as /l/ (Geraghty 1990:89-91), which is largely confined to more westerly areas of Vitilevu (with one startling exception, which will be discussed below), and can be only partially explained by vocalic conditioning.

WIDESPREAD IN EASTERN FIJI:

PCP *waʔe- 'leg, foot' (PPn *waʔe, PEO *waʔe-); Fij tua-, cf. Solomons tua- (Ngg, Vat, Aro), Vanuatu tua- (Shepherds, Nguna, Efate), cf. PEO *tuʔa 'bone'.

PCP *ʔone 'sand' (PPn *ʔone, PEO *ʔone); Fij nuku, cf. Kwaio nuʔu 'margins of sand', Arosi nunuʔu 'sand' < PEO *nuku 'island, settlement'; *ʔone is reflected as Fij one in numerous placenames and Nadrogā (Western Fiji) ha/wene 'sand', wene 'sand for temper (in pottery)'.

PCP *-rua 2 (dual pronoun suffix) (PPn *-rua, Rot -ra, PEO *-rua); Fij -(d)ruka (Kadavu, Vanualevu), cf. Guadalcanal -ruka.

PCP *lima- 'hand, arm' (PPn *lima, Fij -lima, liga-, PEO *lima-); Fij taba- (North-East Vitilevu), cf. Solomons taba- (Mal, Lau). Parallel development possible, cf. PEO *taba- 'shoulder' (Are aba-, Port Sandwich rapa-, Eastern Fiji taba-); also PMc *tapa 'cheek', WF taba 'skin, bark, shell', Lau (Fiji) taba- 'side', PPn *tapa 'edge'.

PCP *(cs)iku-, *iku- 'tail' (PPn *(s)iku, PEO *(s)iku-); Fij bui- (South-East Vitilevu, Kadavu, Lau), cf. Vanuatu bue- (Efate, Shepherds).

There are also a number of such shared innovations that have a very limited distribution, suggesting perhaps a different historical explanation.

The pronouns of the Western Fijian language Waya are formed in a strikingly unusual manner for an Oceanic language, with the number (dual or paucal) marker preceding, rather than following, the base (Geraghty 1983:198; Pawley & Sayaba 1990). This order is not found in any other Central Pacific language, but is found in two other regions of Eastern Oceania: in Bugotu, Nggela and parts of Guadalcanal in the South-East Solomons (Tryon & Hackman 1983); and in Sinesip (Ray 1926), Lembinwen and Benour (Tryon 1976) in Malakula, Vanuatu. Moreover, as noted in Geraghty (1983:364), the actual form of the Wayan paucal number marker, vati-, could reasonably be interpreted as deriving from an earlier *vati- 'four' (although 'three' is the number from which the marker is usually derived in Oceanic languages); the word for 'four' in all Central Pacific languages is derived from *vā, reflexes of *vati being found only in non-Central Pacific languages. While it is not impossible that these anomalies developed independently in Waya, it is more likely that they are connected with the similar phenomena in Vanuatu and/or the Solomons, in which case Waya would either be descended from an intrusive language from the west, or would be a remnant of a language more closely related to Vanuatu and/or Solomons languages, which was once more widespread in Western Fiji.

The PCP reflex of PEO *mw can be securely reconstructed as *gw (Geraghty 1986:306-307). However, two lexical items in the Eastern Fijian communalect of Nadrau (in central Vitilevu) show a bilabial reflex: umane 'male' and madina- 'maternal uncle' (Geraghty 1983:44,49-50). In languages of Melanesia, *mw is reflected as a bilabial much more frequently than as a velar, and the bilabial is often accompanied by /u/, either as /mu/ (or /mw/) or as /um/ (e.g. Bugotu umata 'snake'). Strictly speaking, then, both PCP *gw and *(u)m may be reconstructed. It is possible, but highly unlikely on phonological grounds, that Nadrau /(u)m/ reflects PCP *gw. So we have a situation similar to pronouns of Waya, suggesting that Nadrau is either an intrusive language or a relic area.

The third instance of an apparent intrusion concerns the name of a food plant, so is more likely to be simply a loanword. Nonetheless the circumstances of its introduction are curious, since its referent appears to be native to Fiji, and PCP *talice (Terminalia catappa) is a solid reconstruction, with relexes in Polynesia, Rotuma and both Western and Eastern Fijian. Yet through most of Fiji the form tāvola is found, which is cognate with PNV *tavoRa (Geraghty 1990:90). The /l/ reflex of *R suggests that this term was borrowed from a Solomons language, but I have yet to find a cognate form in the Solomons.

APPENDIX: ABBREVIATIONS OF LANGUAGE NAMES

Anu	Anuta	PMc	Proto Micronesian
Are	'Are'Are	Pn	Polynesian
Aro	Arosi	PNV	Proto North Vanuatu
EFu	East Futunan	PPn	Proto Polynesian
EUv	East Uvean	PSS	Proto South-East Solomonic
Fij	Fijian	Puk	Pukapuka
Haw	Hawaii	Ren	Rennellese
Kap	Kapingamarangi	Rot	Rotuman
Kir	Kiribati	Saa	Sa'a
Lua	Luangina	Sam	Samoan
Mae	Emae	Sik	Sikaiana
Mal	Malakula	Tak	Takū
Mel	Mele-Fila	Tik	Tikopia
Nak	Nakanai	Tok	Tokalau
Ngg	Nggela	Vat	Vaturanga (Ndi)
Nkr	Nukuria	Tuv	Tuvalu
Nuk	Nukuoro	WF	West Fijian
PCP	Proto Central Pacific	WFu·	West Futunan
PEO	Proto Eastern Oceanic	WUv	West Uvean
Pil	Pileni		

REFERENCES

Best, Simon B., 1984, Lakeba: the prehistory of a Fijian island. PhD thesis, University of Auckland.

Blust, Robert A., 1976, A third palatal reflex in Polynesian languages. *Journal of the Polynesian Society* 85:339-358.

Davidson, J.H.C.S., ed., 1990, *Pacific Island languages: essays in honour of G.B. Milner*. London: School of Oriental and African Studies/Honolulu: University of Hawaii Press.

Geraghty, Paul, 1983, *The history of the Fijian languages. Oceanic Linguistics* Special Publication 19. Honolulu: University of Hawaii Press.

1986, The sound system of Proto-Central-Pacific. In Paul Geraghty, Lois Carrington and S.A. Wurm, eds *Focal II: papers from the Fourth International Conference on Austronesian Linguistics*, 289-312. *PL*, C-94.

1990, Proto-Eastern Oceanic *R and its reflexes. In Davidson, ed. 1990:51-93.

1993, Pulotu, Polynesian homeland. *Journal of the Polynesian Society* 102:343-384.

1994, Proto Central Pacific fish names. In A.K. Pawley and M.D. Ross, eds *Austronesian termonologies: continuity and change*, 141-169. *PL*, C-127.

Geraghty, Paul and Andrew Pawley, 1981, The relative chronology of some innovations in the Fijian languages. In Jim Hollyman and Andrew Pawley, eds *Studies in Pacific languages and cultures in honour of Bruce Biggs*, 159-178. Auckland: Linguistic Society of New Zealand.

Grace, George W., 1959, *The position of the Polynesian languages within the Austronesian (Malayo-Polynesian) language family*. Memoir 16, *International Journal of American Linguistics*. Bernice P. Bishop Museum Special Publication 46.

1967, The effect of heterogeneity in the lexicostatistical test list: the case of Rotuman. In Highland et al., eds 1967:289-302.

Green, Roger and M. Kelly, eds, 1972, *Studies in Oceanic culture history*, vol. 3. Pacific Anthropological Records 13. Honolulu: Bernice P. Bishop Museum.

Hale, Horatio, 1846, *United States Exploring Expedition, 1838-1842...ethnography and philology*. Philadelphia: Lee & Blanchard.

Highland, G.A. et al., eds, 1967, *Polynesian culture history: essays in honor of Kenneth P. Emory*. Bernice P. Bishop Museum Special Publication 56. Honolulu: Bishop Museum Press.

Pawley, Andrew K., 1972, On the internal relationships of Eastern Oceanic languages. In Green and Kelly, eds 1972:1-142.

1979, New evidence on the position of Rotuman. *Working Papers in Anthropology, Archaeology, Linguistics, Maori Studies* 56. Department of Anthropology, University of Auckland.

Pawley, Andrew K. and Timoci Sayaba, 1971, Fijian dialect divisions: Eastern and Western Fijian. *Journal of the Polynesian Society* 80:405-436.

1990, Possessive-marking in Wayan, a western Fijian language: noun class or relational system? In Davidson, ed. 1990:147-171.

Ray, S.H., 1926, *A comparative study of the Melanesian island languages*. Cambridge: Cambridge University Press.

Tryon, D.T., 1976, New Hebrides languages: an internal classification. *PL*, C-50.

Tryon, Darrell and B.D. Hackman, 1983, Solomon Islands languages: an internal classification. *PL*, C-72.

PROTO OCEANIC POSSESSIVE-MARKING

JOHN LYNCH

This paper is an attempt to refine the possessive-marking system which has been reconstructed for Proto Oceanic. I will explore in some detail the origin of the passive possessive construction in Oceanic languages, and will argue that Proto Oceanic had a wider range of general (or neutral or 'alienable') possessive markers than has been reconstructed to date.[1]

1. SOME BACKGROUND

Most Oceanic languages make a distinction between *direct* possessive constructions (like the Fijian example (1) below),[2] in which the possessive pronoun is affixed – usually suffixed – to the possessed noun, and *indirect* possessive constructions (like the Fijian examples (2) to (5) below), in which the pronoun is affixed to some other morpheme which I will refer to as a *possessive marker* (called a *classifier* by Lichtenberk (1985) and Ross (1988), inter alia); and this distinction is reconstructable for Proto Oceanic.

(1) **Fijian**
     na   ulu-mu
     ART   head-2SG
     your (singular) head

(2)   *na   me-mu   bia*
      ART   MKR.DRINK-2SG   beer
      your (singular) beer

---

[1] I would like to thank Terry Crowley, Paul Geraghty, Frank Lichtenberk, Fa'afo Pat and Malcolm Ross for assistance with data and/or comments on an earlier draft of this paper, and especially Andrew Pawley for suggesting numerous improvements.

[2] In examples, 'Fijian' refers to Standard Fijian. Where there is a series of examples from the same language, the language name is only given in the first of that series. Abbreviations used in morpheme glosses in examples are:

ART	article	NOM	nominaliser
CAUS	causative	OBJ	object
DRINK	drink possession	PASS	passive possession
FOOD	food possession	PL	plural
GEN	general possession	POSS	possessive
INCH	inchoative possession	REAL	realis
LOC	locative	SG	singular
MKR	possessive marker	TRANS	transitive

(3)   *na   ke-mu   madrai*
       ART MKR.FOOD-2SG bread
       your (singular) bread

(4)   *na   ke-mu   itukutuku*
       ART MKR.PASS-2SG story
       your story (the one told about you)

(5)   *na   no-mu   vale*
       ART MKR.GEN-2SG house
       your (singular) house

Earlier treatments of systems like this described them in terms of *noun classes* (see Pawley & Sayaba (1990) for a discussion of this). So a description of Fijian using this hypothesis would state that kinship terms, body parts, parts of things and some other nouns involving a close association between possessor and possessed belong to a class of nouns which are possessed by construction type (1), nouns which are the names of drinks go with (2), foods with (3), things done to one with (4), while the nouns which are used with (5) form a general, residual class.

It was also recognised, however, that possession with *some* nouns could be expressed by means of more than one construction, and that these nouns thus 'belonged' to more than one noun class. For example:

(6)   **Fijian**
       na   me-mu   niu
       ART MKR.DRINK-2SG coconut
       your (singular) coconut, as a drink

(7)   *na   ke-mu   niu*
       ART MKR.FOOD-2SG coconut
       your (singular) coconut, as food

(8)   *na   no-mu   niu*
       ART MKR.GEN-2SG coconut
       your (singular) coconut, as neither food nor drink

It was partly to explain this kind of overlap between noun classes that what Pawley and Sayaba refer to as the "relational analysis" developed (see Lichtenberk 1983b). According to this, the construction type which is used depends not on the class membership of the noun but on the nature of the semantic relation between possessor and possessed. A construction like (2), for example, is used when the possessor has drunk, is drinking or intends to drink the beer, *not* because *bia* belongs to a particular class of nouns in Fijian; and this of course explains why *niu* can participate in each of the constructions (6), (7) and (8).

The reaction against the noun class analysis was at times taken to extremes – perhaps most notably in the verbal analysis proposed by Lynch (1982), for which "most proponents of the relational analysis have shown little enthusiasm" (Pawley & Sayaba 1990:152). Pawley and Sayaba (p.170) go on to say that:

> Those of us who in the 1970s so cavalierly threw out the older [noun-class] analysis on the basis of some new evidence, without taking the trouble to check

carefully the scope of this new evidence, showed a certain measure of arrogance and sloppy scholarship.

And they come to the conclusion that there is a "middle road" which combines the virtues of both analyses. The following statement (Pawley & Sabaya 1990:167) refers specifically to Wayan Fijian, but is applicable to many Oceanic languages:

> The selection of possessive marker is not governed solely by either the semantic relation principle or the noun class principle. Possessive-marking of many nouns accords with semantic relations – but there are numerous exceptions... Furthermore, certain nouns are restricted to a single type of possessive-marking and it is difficult to find a convincing semantic basis for these restrictions. Some nouns, therefore, belong to strict noun classes.

As far as the Proto Oceanic (POc) possessive *system* is concerned, then, the following statements reflect views fairly generally held by Oceanic scholars:

1.   Proto Oceanic distinguished between direct and indirect construction types.

2.   The direct construction type involved the suffixation of pronominal elements directly to the possessed noun.

3.   Indirect constructions involved the suffixation of pronominal elements to a possessive marker.

It is also widely held that Proto Oceanic distinguished a small number of indirect construction types, each of which employed a different possessive marker.[3] Most scholars (e.g. most recently Lichtenberk 1985) would hold that there were three possessive markers:

(a)   *drink* possession, which was marked by POc **ma-*;

(b)   *food* and *passive* (sometimes called *subordinate*) possession, both marked by POc **ka-*;

(c)   *general* possession, marked by POc **na-*.

The Fijian possessive markers *me-*, *ke-* and *no-* in examples (2) - (8) are held to directly reflect these Proto Oceanic markers.

As far as these markers are concerned, there is very strong evidence indeed for the reconstruction of POc **ka-* marking food possession, with reflexes in most parts of the Oceanic region (Pawley 1972, 1973; Lichtenberk 1985; Ross 1988). Pawley (1973:161), for example, gives reflexes of this marker in Manam, Tolai, Motu, Suau (New Guinea area), Babatana, Roviana, Gela, Sa'a (Solomon Islands), Mota (northern Vanuatu) and Waya (Fiji), and the list could be expanded to include languages spoken in central and southern Vanuatu, Micronesia and eastern Fiji – in fact, at least one language in virtually every major subgroup of Oceanic reflects **ka-*.

It was for a long time not clear whether the marker **ma-* should be reconstructed at the level of Proto Oceanic, or only at some lower level (like Proto Eastern Oceanic – see Pawley

---

3   Construction types or possessive markers mark possessive relations that I will term *food*, *drink*, *passive* and *general*. These are deliberately general labels: other terms could be, and have been, used. I do not intend to elaborate on the detailed semantics of these categories here, except where relevant to a particular argument.

1972, 1973). Lichtenberk (1985:118-119) and Ross (1988:185), however, believe (and I agree) that there is sufficient evidence for the reconstruction of POc *ma-*, reflexes of which are found in Fiji, northern and central Vanuatu, southern Vanuatu, Utupua and Vanikoro, and perhaps most significantly – because this had not been noted before – in a number of languages in the New Guinea area (Tabar, Lihir, Duke of York and possibly Tomoip).[4]

It is with the markers involved in passive and general constructions that much of the remainder of this paper will be concerned.

2. PASSIVE POSSESSION

As mentioned earlier, probably all Oceanic scholars would support the view that POc *ka-* marked food possession, and most would hold that passive possession was also marked by *ka-* (see, for example, the Fijian examples (3) and (4) above). And although there is debate as to whether these were two homophonous morphemes *ka-1* and *ka-2* (e.g. Pawley 1973), or whether there was a single morpheme *ka-* with two related functions (e.g. Lichtenberk 1985), the reconstructability of *ka-* as a passive possessive marker has not really been called into question.

Pawley (1973:162), for example, reconstructed the passive *ka-* as marking

> other relationships which are difficult to connect semantically with the edible one. Actions over which the possessor has no control (where he is the patient, target, or involuntary experiencer) were evidently marked as such by the use of *ka-*.

The evidence given by Pawley for this reconstruction was rather smaller in quantity and range than that supporting the reconstruction of the food possessive marker *ka-*, but was still from reasonably widespread languages from different first- or higher-order subgroups of Oceanic: Tolai, Dobu, Gela, Mota and Fijian.

Lichtenberk (1985:119), who proposes the reconstruction of *ka-* as a single morpheme marking both food and passive, has this to say in support of his polysemous reconstruction:

> To my knowledge, in every language that has a direct-indirect possessive type contrast, subordinate possession is expressed in one of two ways: (i) by means of the direct construction, or (ii) by means of an indirect construction where the classifier is formally identical to that used in the alimentary/food construction. There is no language that has a formally-unique subordinate classifier. Furthermore, there are no languages with an indirect subordinate construction but no alimentary/food construction. On the other hand, there are many languages that have an alimentary/food classifier but no subordinate classifier. If one assumes that POC had two *ka* classifiers, then one has no explanation for the non-random loss of one of the two forms. Under this assumption, if a language has lost one of the two classifiers, it is always the subordinate one, never the food one that is lost.

---

[4]   I accept the general subgrouping of Oceanic detailed in Ross (1988), and will take it that forms can be reconstructed for Proto Oceanic if reflexes are found in one or more Western Oceanic subgroups *and* one or more subgroups of Central-Eastern Oceanic (Lynch & Tryon 1985), providing that borrowing is not involved and that, if there is evidence from only two subgroups, the western and eastern subgroups are not contiguous.

I believe that the evidence supporting the reconstruction of *ka- as a marker of passive possession *at the Proto Oceanic level* (whether as a homophonous form or as a second function of the food possession marker) is not as strong as previous studies might suggest. In order to substantiate this claim, I will first look at what kinds of non-food possession appear to be marked by reflexes of *ka- in some Oceanic languages, and I will then present a number of examples, of different kinds, which in one way or another suggest that passive possession may have been marked quite differently from food possession in Proto Oceanic.

2.1 PASSIVE AND POC *ka-

I will begin with an examination of the semantics of passive possession and *ka- marking in Fijian, partly because Geraghty has explained the notion of passive possession so clearly, and partly because the Fijian semantics and form have in this case often been taken to continue Proto Oceanic morphology with mimimal change.[5] Geraghty (1983:248-250) says that:

> In passive possession, the head is either a sentence of which the possessor is the inanimate subject, or a deverbal noun derived from an underlying structure in which the possessor is not the actor. That is, with a deverbal noun (which is usually *i*-prefixed), if the actor of the underlying sentence is expressed, it is active possessed, whereas the underlying patient (or other nonactor) is passive possessed.

He contrasts the following pairs to illustrate this:

(9)   **Fijian**
  a. *no-mu i-talanoa*   *ke-mu i-talanoa*
     the story you tell   the story about you

  b. *no-mu i-taba*   *ke-mu i-taba*
     the photograph you have   the photograph of you

  c. *no-mu i-vacu*   *ke-mu i-vacu*
     your punch (which you give) your punch (which you receive)

He then goes on to define food possession ("eat" possession, in his terms), as follows:[6]

> In eat possession, the possessor eats or suffers the head nominal...The 'suffer' meaning has been neglected in previous descriptions, probably because it is not common; but it is important because it constitutes the middle ground between passive and eat possession, and helps explain why the two types are usually

---

5   Crowley (1985:135), for example, has this to say about this problem: "I...note an occasional tendency for scholars to fall into a kind of "Eastern syndrome", in which the reconstructed protolanguage [i.e. Proto Oceanic] looks more like Fijian and other Eastern Oceanic languages of the same basic type, than some of the structurally different (and diverse) Oceanic languages of western Melanesia".

6   Terry Crowley (pers.comm.) has pointed out to me the fact that Bislama *kakae* 'eat' is also used in the 'suffer' sense, and that this may reflect substrate influence. Examples from Crowley (1990) include *kakae bolet* (eat bullet) 'get shot', *kakae han* (eat hand) 'get punched', and *kakae kalabus* (eat prison) 'receive a prison sentence'.

marked in the same way. It would be reasonable to consider the following as examples of passive possessed deverbal nouns:

> SF *kemu i-caqe*   your kick (you are kicked)
> *kemu i-roba*   your slap (you are slapped)

were it not for the fact that they appear to be somehow related to the verb *kana* 'eat, suffer', as exemplified in these attested sentences:

> *kana i-caqe*   suffer kicking, get kicked
> *kana i-roba*   suffer slapping, get slapped
> *kana vosa*   get told off (*vosa* 'talk')
> *kana uca*   get drenched by the rain (*uca* 'rain')

Geraghty (1983:249) also notes that some uses of passive possession in Fijian might be "lexically determined": note, for example, the contrast between *no-mu i-tau* 'your friend' and *ke-mu meca* 'your enemy'. However, he has since pointed out (pers.comm.) that lexical conditioning might not be involved after all: one can choose one's friends, but one has less choice as to who one's enemies are, which might possibly explain why *meca* is passively possessed.

Crowley (1982:216-218) discusses "subordinate" possession in Paamese. The food possessive marker is *ā-* (<POc *ka-*), and *ā-* is also used

> when there is a particularising, characteristic relationship holding between the referent of one nominal phrase and other [sic]...[and] when [the nominal phrase] has animate reference.

He notes that two basic kinds of semantic relationships are involved here. The first is a *benefactive* relationship, which

> is that relationship which holds with nouns referring to something that is specially reserved for a particular individual or to be used in some way on or for that individual and no-one or nothing else.

For example:

> (10)   **Paamese**
> *ā-m āi*   your stick (which you are going to be hit with)
> *ahol ām*   your intended spouse (reserved from birth)
> *ipu ā-m*   your loss/disadvantage (in playing a game)

The second is a *characteristic* relationship,

> which means that relationship in which the possessor is criterially characterised by being associated with the referent of the possessed nominal phrase

For example:

> (11)   *manu ā-k*   my (unusually large or numerous) sores
> *ā-k mesaien*   my disease
> *haiali ā-n uīt*   an octopus' suckers

Contrast, for example, *manu ā-k* in (11) with *manu ona-k* 'my (ordinary, unremarkable) sore', which uses general possession.

Mota is another language which Pawley cites as reflecting *ka- as a marker of both food and passive possession, the reflex here being ga-. Codrington (1885:271) says that, in comparison with other possessive markers, "there is a closer relation signified by ga, generally of food", and he goes on (p.272):

> ga—This word only accidentally resembles the word gana to eat; the radical notion in it is of something which is in a very close relation to the one who has it, and things to eat are so regarded. When it is said gan o tano his ground, gar o nolmeat their edge of reef, it may be because food is got there, which makes the place a peculiar possession; but there are uses of the word which have no reference to food. A charm prepared for any one's destruction is nagana, gan o talamatai; an arrow meant to kill some one is gan o qatia; ni me nanan o tamatetiqa, nagaku, he loaded a gun, for me, to shoot me with. So also rain, sunshine, wind, calm, procured by a weather-doctor, is nagana his, gan o wena, loa, lan, taro.

Finally, in a number of Papuan Tip languages, there is a distinction between two indirect constructions, which "indicate as a rule general and closer possession, the closer possession including foods" and usually being marked by a reflex of *ka- (Capell 1943:228). Capell (p.229) notes that, in Dobu, for example,

> the closer possessive is used in four ways: (i) an object intended for anybody; while 'ina barau is the magic he uses, 'ana barau is that of which he is the victim; (ii) articles of clothing...; (iii) where the thing possessed is an abstract characteristic, such as the name; (iv) an unessential part of an object, such as the fence round a house.

I have quoted at some length from these accounts of *ka-marking and passive possession, partly because there are very few good descriptions of this aspect of grammar in Oceanic languages, and partly because these descriptions help to clarify the range of semantic relations associated with so-called "passive possession". Passive possession, and the "non-food" use of reflexes of *ka-, seem to involve (at least) the following in the languages I have discussed:

(a)   possession by the underlying object of a deverbal noun;

(b)   the benefactive sense mentioned by Crowley, which I take to be similar to the "suffer" meaning in Fijian or the "object intended for anybody" in Dobu;

(c)   the "essential characteristic" relationship (also found in Fijian, as in ke-mu levu 'your size').

2.2 PASSIVE NOT MARKED BY *ka-

I return now to the quote from Lichtenberk (1985:119) given in §2. There are two points I want to make here. The first relates to his statement that "there are many languages that have an alimentary/food classifier but no subordinate classifier". I assume this to mean that there are languages which reflect *ka- as a food-marker but which do not use this morpheme in passive constructions of any of the three types given above, but mark passive in a different construction (which is also used to express some other relationship).

One example of this comes from Fiji itself. Although most varieties of Fijian mark food and passive possession identically (e.g. with *ke-* in Standard Fijian) the varieties spoken in Lau and Vanua Balavu behave differently. In these varieties, *ke-* marks food possession only; both passive and general possession are marked by *o-* (Geraghty 1983:247).

The languages of Central Papua behave differently again: they reflect POc *ka-* as a food marker (as in (13)), but mark passive possession with a direct construction (like (14)), as the following Aroma examples (Lynch 1973) show:

(12)   **Aroma**
       (ðau)   ama-ku
       (I)   father-1SG
       my father

(13)   *(ðau)   ɣa-ku   ɣaniɣani*
       (I)   MKR.FOOD-1SG   food
       my food

(14)   *(ðau)   rauparaupa-ku*
       (I)   picture-1SG
       my picture (one depicting me)

(15)   *(ðau)   ɣe-ku   rauparaupa*
       (I)   MKR.GEN-1SG   picture
       my picture (one in my possession, or which I painted or photographed)

Even though *ka-*marking is 'available' to Aroma speakers, it is not used to mark passive possession.

Manam presents a similar case. Although there is a food possessive marker *'ana-* (reflecting *ka-?), direct constructions are used with "verbal nouns expressing events or states. The possessor NP can express either the performer or the undergoer of an action or an object in a state" (Lichtenberk 1983a:281). For example:

(16)   **Manam**
       údi   tanóm-a-di   'u-pá'a-di.
       banana   plant-NOM-3PL.POSS   2SG.REAL-miss-3PL.OBJ
       You missed the planting of the bananas.

So there are languages which mark food possession with a reflex of *ka-*, and which also mark passive possession, but do so by using some other construction type.

I now want to move on to Lichtenberk's statement that "subordinate possession is expressed in one of two ways" – direct or food constructions – and that "there is no language that has a formally-unique subordinate classifier". There are examples from southern Vanuatu and New Caledonia which appear to contradict this claim. For example, all Tanna languages have direct constructions, and they mark food possession with a reflex of Proto Tanna *n-ɣa-* (<POc *ka-* with an accreted article), as illustrated by the following examples:

(17)   **Lenakel**   *nam-n*
       Kwamera   *naram-n*
                       tongue-3SG
                       his/her tongue

(18) **Lenakel**   *nuw nɨk-n*
      Kwamera   *nuk sanɨ-ni*
             yam MKR.FOOD-3SG
             his/her yam (to eat)

However, passive possession in these languages is marked with a distinct construction, which uses either the locative preposition or the transitive postclitic (only the former being exemplified here). Compare (19), a general possessive construction, with (20), a passive construction:

(19) **Lenakel**   *nouanage taha-k*
      Kwamera   *kwanage sa-iou*
             story   MKR.GEN-1SG
             my story (which I tell)

(20) **Lenakel**   *nouanage la-k*
      Kwamera   *kwanage ira-k*
             story   LOC-1SG
             my story (which is told about me)

While these are not possessive *classifiers* in Lichtenberk's strict sense of the term, constructions like (20) are parallel in every way with other kinds of possessive constructions (e.g. in taking possessive pronominal suffixes).

Cèmuhî, a New Caledonian language, is similar, though not identical, to the languages of Tanna in this regard.[7] There are five possessive markers used in indirect constructions (Rivierre 1980:151ff.), among them *tè-*, marking general possession, including most nouns referring to food; *hê-*, used with some part terms, clothes and some nouns referring to food; and *ko-*, which Rivierre (1980:152) says marks a relationship of close connection, or a passive relationship, with no conscious or voluntary participation by the possessor.[8] Contrast the general constructions (21) - (23) with the passive construction (24):

(21) **Cèmuhî**
      a   mwa   tè-m
      ART house MKR.GEN-2SG
      your house

(22) *ûjaa   tè-m*
      sugarcane MKR.GEN-2SG
      your sugarcane

(23) *amo hê-n*
      post MKR-3SG
      its post (as of a house)

(24) *a   cinu   ko-ng*
      ART illness MKR.PASS-1SG
      my illness

---

7   Tone-marking has been omitted from the Cèmuhî data cited here because of typographical difficulties in combining it with other diacritics marking vowel quality.

8   In the original French: "Relation de rattachement d'une chose à une autre; relation subie, sans participation consciente ou volontaire". Note also that Cèmuhî *ko-* does *not* derive from POc *ka-*.

Food and things associated with food may be possessed with the markers *tè-* or *hê-*, or by a direct construction, but *not* with *ko-*. Cèmuhî therefore, like the Tanna languages, *does* have a formally unique passive marker.

2.3 RETHINKING PASSIVE POSSESSION

So where does this leave us? There appear to be four categories or relationships intertwined here:

(a)   food, and things to do with food;

(b)   possession by the underlying object of a verb;

(c)   benefactive relationships, things done to or for one;

(d)   essential characteristics.

In languages like Fijian and Paamese, all four are marked identically, by a reflex of **ka-*. In other languages, relationships (b), (c) and (d) are marked either by direct possession, or by some other construction which does not involve **ka*-marking.

It seems to me that sense (b) – possession by an underlying object – ought on logical grounds to have been marked by a direct construction in Proto Oceanic: if the object of a verb were marked with a suffix to the verb, then the nominalisation of that verb would, presumably, simply have retained the suffix, which would be reinterpreted as a possessive suffix. Note the following examples from Hula (Fa'afo Pat, pers.comm.); in (26), reduplication of *yia* 'see' marks a nominalisation:

(25)   **Hula**
  Pe-yia-ku.
  3SG.PAST-see-1SG.OBJ
  He saw me.

(26)   *Au   yiayia-ku   na   pe-va-paru-ku.*
  I   see.NOM-1SG.POSS TRANS 3SG.PAST-CAUS-infuriate-1SG.OBJ
  My being looked at infuriated me.

A similar argument could be made about sense (c) – benefactive relationships – since a dative, or indirect object, is also frequently indexed on verbs by an object suffix.

On the other hand, sense (d) – essential characteristics – is somewhat different. It is difficult to see why *object* suffixes might be involved here, but not difficult at all to suggest that essential characteristics, like other more tangible parts of a person or thing, should be possessed in a direct construction.

Given all of this, I would propose first that the four relationships above were marked, *in Proto Oceanic*, as follows:

(a)   food: **ka-*

(b)   possession by object: Direct

(c)   benefactive: Direct

(d)   essential characteristics: Direct

This would explain why Papuan Tip languages like Aroma, for example, use direct possession for relationships (b), (c) and (d): this is a retention from Proto Oceanic. But we also need to explain why other Papuan Tip languages, like Dobu for example, mark relationships (b), (c) and (d) with a reflex of *ka-. Why is *ka-marking used for this function in *some* Oceanic languages but not in others which are reasonably closely related to them?

Now Ross (1988:273-274) reconstructs for Proto Meso-Melanesian the *general* possessive marker *ka-, with reflexes in a number of languages in New Britain and New Ireland. In these languages, the Proto Oceanic food marker *ka- underwent lenition to *ya- (reflected as a- in Tolai, for example). Ross suggests that the Proto Western Oceanic *benefactive preposition* *ka- then expanded its usage, becoming an alternant to the general marker *ta- (see §3.4), and that *ka- subsequently became reinterpreted as a general possessive marker in these languages.

What is also likely is that the benefactive preposition *ka- expanded its usage in other ways: that is, specifically to mark the benefactive relationship (c) above, but also to mark the very similar relationships (b) and (d) (possession by a direct object, and possession of an essential characteristic). That is, given the drift away from direct possession that Geraghty refers to, it became convenient to 'hang' benefactive/passive possession onto a benefactive preposition. If we label the food possessive marker *ka-[F] and the benefactive preposition *ka-[B], then the developments in *some* Oceanic subgroups could be diagrammed as follows:

		Proto Oceanic				
(a)	food:	*ka-[F]			>	*ka-
(b)	possession by object:	Direct	>	*ka-[B]	>	*ka-
(c)	benefactive:	Direct	>	*ka-[B]	>	*ka-
(d)	essential characteristics:	Direct	>	*ka-[B]	>	*ka-

The formal (near) identity of the two markers would explain why the constructions have been collapsed in so many languages.

3. GENERAL POSSESSION

General possession refers to the category of indirect possession which is not specifically marked as food, drink, passive (or as some other specific type in those Oceanic languages which have other types). While the generally accepted view is that general possession was marked by POc *na-, there have been other proposals put forward. Pawley (1973:148), for example, mentions the possibility that the Proto Oceanic preposition *ta marked "locative and perhaps possessive relation", and notes (1973:165) that a possessive marker *a- might also be reconstructed. Ross (1988:185) believes that "it seems probable that POC in fact had a somewhat larger collection of such classifiers, and that it is the most frequently used which have survived", and suggests (pp.185-187) that there is evidence supporting the reconstruction of *ta-, *sa-, *ne- and *le-, all of which he believes were probably markers of general possession. In examining these claims in this section, I will argue that Proto Oceanic may indeed have had a wider range of general possessive markers.

3.1 THE MARKER *na-

The most widely accepted reconstructed general active possessive marker is *na- (Pawley 1972, 1973; Lichtenberk 1985). The major problem with this reconstruction is the variability of the vowel in its supposed reflexes. For instance, Pawley (1972:86) initially reconstructed Proto Eastern Oceanic *no-. Many of the Eastern Oceanic languages in Pawley's study (particularly those of northern Vanuatu) *do* show no-, but others have a different vowel, for example, Lakon has na-, while Bugotu, Gela and Vaturanga have ni-; and Lichtenberk (1985:117) cites Bugotu ni-, Manam ne-, Kubokota na-, Fijian no- and Duke of York nu- as illustrations of the variability of the vowel in the reflexes of this form.

Pawley (1973:160) subsequently reconstructed the Proto Oceanic general possessive marker as *na- rather than *no-, since this reconstruction "allows more economical explanation of deviant reflexes, which can be regarded as exhibiting assimilation to neighboring high vowels before most of the pronominal suffixes". However, Ross (1988) disagrees with Pawley's (and presumably Lichtenberk's) view on the assimilation of the vowel in *na-. In proposing a Proto North New Guinea (PNNG) general possessive marker *ne- distinct from POc *na-, he finds (p.186) Pawley's explanation of the variability in the vowel of *na- to be

> less than wholly satisfactory for two reasons: (i) there is little evidence, at least in W[estern] M[elanesia], that the classifier *ka- undergoes parallel assimilations; and (ii) whilst there are clearly languages where the vowel of the classifier is assimilated to the vowel of the following suffix, this does not explain why, for example, we find reflexes of *ne- spread across the North New Guinea cluster, but nowhere else in WM Oceanic.

Ross' argument, however, is weakened by two of his own reconstructions. Firstly, although he argues (p.186) that *ne- "displaced other general classifiers within the North New Guinea network", and was thus distinct from *na- rather than a development from it, he does not appear to hold the same view about the Proto North-West Solomonic (PNS) general classifier *no-. He does not, for example, propose *no- alongside *na- and *ne- as another Proto Oceanic general classifier; and this implies – to me, at least – that he derives PNS *no- from POc *na-, presumably as a result of assimilation to the high back vowel in following possessive suffixes (like *-gu 1SG and *-mu 2SG). It is thus a little difficult to accept that PNNG *ne- was distinct from POc *na-, while PNS *no- was not. And it seems highly unlikely that Proto Oceanic had two *distinct* general possessive markers as similar in form as *na- and *ne-. What seems more likely is that POc *na- became *ne- at some early stage in the development of the North New Guinea Cluster, just as it became *no- in some early stage of North-West Solomonic, and that *both* of these developments came about as a result of assimilation to the high (back) vowels in the possessive suffixes.

Secondly, Ross states that "there is little evidence...that the classifier *ka- undergoes parallel assimilations" in Western Melanesian languages. However, he refers in the same work to the Proto North-West Solomonic food possessive marker *ye- (< POc *ka-) which does show the same vowel assimilation as *ne- (Ross 1988:252).[9] It would appear, then, that reflexes of the form ne- in Western Oceanic languages do derive from *na, and that we

---

9   On p.255 of the same work, this form is cited as PNS *ya-. Malcolm Ross (pers.comm.) indicates that this is a typographical error and that the reconstruction should be *ye-.

should accept Pawley's argument that vowel assimilation was involved in many languages in the phonological shape of the marker *na-.[10]

3.2 THE MARKER *a-

Pawley (1973:165) has suggested that there is some evidence supporting the reconstruction of a Proto Oceanic general possessive marker *a-: "such a form is reflected in widely distributed Oceanic languages, often preposed to the *na- possessive". Apart from giving examples of the prefixed usage in Mota, however, he does not mention any of the "widely distributed Oceanic languages" in which *a- might be reflected.

A number of languages of the Papuan Tip Cluster show a general possessive marker which would derive from *a-: for example, Tawala, Paiwa, Are, Ubir and Wedau have a-, while Kurada, Bwaidoga and Anuki have ya- (with accreted initial y) (Capell 1943:228ff).[11] Suau and many of the Central Papuan languages have the general marker e-, which contrasts with the food marker a- (<POc *ka-); this e- may derive from *a-, with the vowel shifting to e in order to disambiguate it from the food marker, which had become a after regular loss of *k. Sinagoro and the Hula-Aroma chain of dialects, however, have the general marker ye-, which shows not only the vowel shift but also initial y. This may be an accretion, either as part of a process by which y was accreted word-initially before a vowel in some words in these languages (Lynch 1978b), or else as a paradigmatic assimilation to the food marker ya- (in which y is the regular reflex of the *k of *ka- in these languages).

Reflexes of putative POc *a- are also found in Micronesian languages. Thus Kiribati (Groves, Groves & Jacobs 1985:57ff.), which has only one category of indirect possession, uses the marker a-:

(27)   **Kiribati**
        a-u   katii
        MKR-1SG   gun
        my gun

Ponapean, which has a typically large "Micronesian-type" set of possessive classifiers, has ah- (i.e. /aː/) as the general classifier (Rehg 1981:112ff.).

Given also the reconstruction of Proto Polynesian *a 'marker of dominant/active possession', there thus seems to be sufficient evidence to support the reconstruction of POc *a- as a general possessive marker.

---

[10]   Complicating the matter further is Reid's (1983) proposal that what Pawley reconstructs as *na- may actually derive from Proto Austronesian *anu 'thing', and that the form of the POc marker was not *na- but *ano-. Interestingly, Ross (1988:274) refers to a number of languages in the New Britain/New Ireland area which have a general possessive marker of the form anu-: "Siar, Duke of York, Kandas, Bilur, Label anu-, Patpatar, Konomala nu-...Tomoip anV-". Pawley himself (1973:165-166) had raised the possibility of reconstructing another Proto Oceanic general possessive marker *a- (to which I will turn in a moment), noting that it was often preposed to *na-; this would be an alternative explanation for the initial vowel in this marker (though not for the quality of the second vowel).

[11]   Some of the language names given here are different from those given by Capell: in this paper, I follow the language names given in Ross (1988).

3.3 ON THE ORIGIN OF THE MARKERS *na AND *a

There is a view that at least some (Proto) Oceanic possessive markers derive from prepositions (see parts of the discussion in §3.1 and §3.4). However, while it seems reasonable to propose that POc *ta, which I will discuss in the next section, derived from the locative preposition *ta, it is rather more difficult to suggest a preposition from which *na and *a might be derived: *na, of course, may be related to the attributive preposition *ni, but on formal grounds it is difficult to suggest a prepositional source for *a.

What I suggest here as at least a possibility is that the possessive markers *na- and *a- are formally related to, or derive from, the Proto Oceanic common article. Crowley (1985) shows that there were probably two kinds of noun-marking in Proto Oceanic: kin terms and human nouns were generally unmarked, while non-human and inanimate nouns were generally marked by an article. As far as the form of this article is concerned, there is evidence supporting the reconstruction of both *na and *a: these "may have been allomorphs of the same morpheme, or...may have been morphemes with distinct (but nevertheless closely related) meanings" (Crowley 1985:181). Crowley (p.182) is unable to resolve this question, and "simply refer[s] to *na/*a, on the understanding that this is to be ambiguously interpreted".

Now in many Polynesian languages, pronominal possessive forms are suffixed to a morpheme which contains the initial consonant of the definite article plus *a* or *o*, so the notion that articles have a function within the possessive system is not something 'un-Oceanic'. It is not unreasonable to suggest, therefore, that something similar may have happened in Proto Oceanic: that is, that *na-mu / *a-mu (MKR.GEN-2SG) 'your', for example, was originally *na-mu / *a-mu (ART-2SG) 'yours, the one of yours' (roughly similar, say, to French *le tien*). Geraghty (1983:252) notes some parallels in Fiji between the forms of the common article and the general possessive marker:

> In a large area of Eastern Fiji, comprising Lau, Koro (Lomaiviti), and all of Vanua Levu except the Northeast, the phrase-initial common article is not *na* but *a*. It is a curious fact that this area is almost identical with the area in which the neutral-active [i.e. general] possessive marker is not the widespread Eastern *no-*, but *o-*.

The merit of this proposal is that it, in effect, reduces the number of general possessive markers that have to be reconstructed: *if* the articles *na and *a are the same morpheme, then the possessive markers *na- and *a- reflect one original form, not two.

3.4 THE MARKERS *ta- AND *sa

Both Pawley (1973:148) and Ross (1988:103) believe that the Proto Oceanic locative preposition *ta- may also have had the function of marking possession. Pawley notes its use as a general possessive marker in Roviana, and as a marker of possession of a place in some languages of northern Vanuatu, as in Raga *atat a-ta Mota* 'man of Mota'; and he also states (p.165) that it is possible that the Nada (=Budibud, Milne Bay) general possessive marker *to-* may derive from this form.

Ross (1988) makes reference to the following forms in Western Melanesia:

(a)   Proto Ngero *to- "general possessive marker", with reflexes in Kove, Bariai, Gitua and Malalamai;

(b)   reflexes of *ta- with possessive suffixes in Kaulong and Sengseng (New Britain) marking general possession;

(c)   reflexes of *ta- marking general possession in a number of languages of the Meso-Melanesian group (e.g. Nakanai and Tigak).

He also has drawn my attention to a Proto Admiralties possessive marker *ta- (pers.comm.).

Both Ross and Pawley also refer to the close relationship between the preposition/possessive marker *ta- and the ablative prepositional verb *tani (along with similar relationships between prepositions like *pa- and *ki- and the prepositional verbs *pani and *kini); while Chowning (1978:1140-1141), in discussing the preposition ta in a number of New Britain languages, says that:

> This is the same form that has been discussed above, as taking a suffixed personal pronoun, under 'possessives'. As a separable preposition with a variety of meanings...it appears as ta in Tolai...and, if I am correct about cognacy, to(ni) (indicating only possession) in Kove.

In addition to these data, it is possible that the first syllable of the general possessive markers in Lenakel (taha-) and Whitesands and North Tanna (raha-) derive from POc *ta-.[12] There thus appears to be sufficient evidence to reconstruct for Proto Oceanic a general possessive marker *ta-.

There is also a reasonable amount of evidence supporting the reconstruction of a Proto Oceanic general possessive marker *sa-. Ross (1988:185-186) states that

> scattered reflexes of a possessive classifier *sa- are found in Takia (Bel family, North New Guinea cluster), Torau and Mono-Alu (North-West Solomonic linkage), and Atchin and Port Sandwich (Malekula, Vanuatu).

Note, for example, the contrast between the general marker sa- and the food marker e- in the following examples from the Alu variety of Mono-Alu (Ross 1988:250):

(28)   **Alu**
        sa-gu   numa
        MKR.GEN-1SG house
        my house

(29)   soipa e-na   toitoi
        Soipa MKR.FOOD-3SG banana
        Soipa's banana

In addition to the reflexes mentioned by Ross, one can point to the Kwamera general possessive marker sa(i)- (which has a bimorphemic alternant sava-). Kwamera also prefixes

---

12   For Tanna languages listed here and later, Lenakel data are from Lynch (1978a), Kwamera data from Lindstrom (1986), and data on North Tanna and Whitesands from my own fieldnotes. General possessive markers in Tanna languages appear to be (historically) bimorphemic: e.g. the Lenakel marker taha- has allomorphs ti- and ta- in various contexts (see Lynch 1978a). See also the discussion on Proto Oceanic sa- in this section.

sa- to most other possessive markers: examine the following comparisons (noting that Proto Tanna **y* is regularly lost in Kwamera):[13]

		Food	Drink
(30)	Proto Oceanic	**ka-*	**ma-*
	Proto Tanna	**na-ya-*	**n-mwV-*
	Lenakel	*nɨk-*	*nɨmw-*
	Kwamera	*sana-*	*sanmwu-*

The second syllable of the general marker in Lenakel (*taha-*) and Whitesands and North Tanna (*raha-*) may also derive from POc **sa-*.

The Paamese possessive marker *so-* may be formally cognate with these forms. However, its semantics are slightly different: Crowley (1982:213) notes that *so-* marks "the social relationship that holds when the relationship is determined by traditional law or custom", and is used with nouns referring to one's home, village, patrilineage, land and things growing or living on it, and domesticated animals. It contrasts with the general possessive marker *ono-* (< POc **na-* or **a-na-*).

Now Ross and Pawley have both suggested that **ta* derives from a locative preposition (and see examples of locative possession in Raga with *ta-* above). But there is an alternative hypothesis. Ross (1988:357ff.) reconstructs for Proto Western Oceanic the indefinite article **ta*, but mentions that there are some languages in this area where reflexes of **ta* serve as the numeral 'one'. Note that **sa* has also been reconstructed with the meaning of 'one', and reflexes of **sa* also function as indefinite articles in some languages (e.g. Proto Polynesian). If the argument in the previous section is valid – that **na* and **a* derive from the common article – then we would be able to extend the proposal further: *articles* in Proto Oceanic were able to take possessive suffixes, and when they did they 'became' possessive markers. The contrast between **na-/*a*-marking and **ta-/*sa*-marking may have been one of definite versus indefinite, although the data do not clearly show this.

3.5 A MARKER **le-*?

Before drawing this section to a conclusion, it should be pointed out that Ross (1988:186-187) has raised the question of whether a general possessive marker **le-* should also be reconstructed for Proto Oceanic. He notes that reflexes of this form are widespread in the North New Guinea network, occurring in Medebur and a number of members of the Ngero/Vitiaz family (including Kove, Bariai, Kilenge, Lamogai, Arawe and Uvol), and states (p. 186) that:

> In most languages which reflect it today, it is the general classifier, having displaced both **ne-* and **na-*, but in two languages of the cluster it contrasts with the general possessive classifier, and appears to be associated in both Mangap... Medebur with inchoative possession.

This inchoative usage is exemplified in (31):

---

[13] Proto Tanna reconstructions are from my own notes. Note that Proto Tanna accreted the article (< POc **na*) before most possessive markers. The Kwamera forms in (30) are thus historically trimorphemic, *sana-*, for example, deriving ultimately from POc **sa-na-ka-*.

(31)   **Mangap**
        leŋ   *ke*
        MKR.INCH-1SG   wood
        a stick for me

Possible reflexes of this putative possessive marker "also occur in Sudest *le-* (Papuan Tip cluster) and Wayan Fijian" (Ross 1988:187) – although in fact almost all western varieties of Fijian have the general marker *le-* (although this may well be an irregular development of *ne-*, < POc *na*). I am not sure whether this is sufficient evidence for a Proto Oceanic level reconstruction, and will not refer to it any further here. However, further research may turn up other reflexes which would strengthen the case.

4. SUMMARY

The conclusions reached in the preceding section, then, are that four general possessive markers (**na-*, **a-*, **ta-*, and **sa-*) can be reconstructed for Proto Oceanic and that these may well have derived from articles. In particular, it appears that **na-/*a-* may have marked *definite* general possession, and that **ta-/*sa-* may have marked *indefinite* general possession. The hypothesis presented here, then, is that the Proto Oceanic possessive-marking system may well have been quite different from what has previously been reconstructed, and may have been as follows:

Category	Marked by
'Inalienable' (kin, part)	Direct Possession
Passive/Benefactive/Characteristic	Direct Possession
Drink	**ma-*
Food	**ka-*
General (Definite?)	**na-/*a-*
General (Indefinite?)	**ta-/*sa-*

Both the previously reconstructed possessive-marking system itself, as well as the morphemes reconstructed within that system, bear a striking resemblance to those of Fijian and other (non-Polynesian) Eastern Oceanic languages. The suggestion made in this paper is that Proto Oceanic was rather less 'Fijian-like' in this respect than we have been led to believe.

REFERENCES

Capell, A., 1943, *The linguistic position of south-eastern Papua.* Sydney: Australasian Medical Publishing Co.

Chowning, Ann, 1978, Comparative grammars of five New Britain languages. In S.A. Wurm and Lois Carrington, eds *Second International Conference on Oceanic Linguistics: proceedings. PL*, C-61:1129-1157.

Codrington, Robert, 1885, *The Melanesian languages.* Oxford: Clarendon Press.

Crowley, Terry, 1982, *The Paamese language of Vanuatu. PL*, B-87.

    1985, Common noun phrase marking in Proto-Oceanic. *Oceanic Linguistics* 24:135-193.

    1990, *An illustrated Bislama-English and English-Bislama dictionary.* Vila: Pacific Languages Unit and Vanuatu Extension Centre, University of the South Pacific.

Geraghty, Paul A., 1983, *The history of the Fijian languages. Oceanic Linguistics* Special Publication No.19. Honolulu: University of Hawaii Press.

Groves, Terab'ata R., Gordon W. Groves and Roderick Jacobs, 1985, *Kiribatese: an outline description. PL*, D-64.

Lichtenberk, Frantisek, 1983a, *A grammar of Manam. Oceanic Linguistics* Special Publication No.18. Honolulu: University of Hawaii Press.

1983b, Relational classifiers. *Lingua* 60:147-176.

1985, Possessive constructions in Oceanic languages and in Proto-Oceanic. In Andrew Pawley and Lois Carrington, eds *Austronesian linguistics at the 15th Pacific Science Congress. PL*, C-88:93-140.

Lindstrom, Lamont, 1986, *Kwamera dictionary: Nikukua sai nagkiariien Nininife. PL*, C-95.

Lynch, John, 1973, Verbal aspects of possession in Melanesian languages. *Oceanic Linguistics* 12:69-102.

1978a, *A grammar of Lenakel. PL*, B-55.

1978b, Proto-Central Papuan: a reassessment. Mimeograph, University of Papua New Guinea.

1982, Towards a theory of the origin of the Oceanic possessive constructions. In Amran Halim, Lois Carrington and S.A. Wurm, eds *Papers from the Third International Conference on Austronesian Linguistics*, vol.1: *Currents in Oceanic. PL*, C-74:243-268.

Lynch, John and D.T. Tryon, 1985, Central-Eastern Oceanic: a subgrouping hypothesis. In Andrew Pawley and Lois Carrington, eds *Austronesian linguistics at the 15th Pacific Science Congress. PL*, C-88:31-52.

Pawley, Andrew, 1972, On the internal relationships of Eastern Oceanic languages. In R.C. Green and M. Kelly, eds *Studies in Oceanic culture history*, 1-142. Pacific Anthropological Records 13. Honolulu: Bernice P. Bishop Museum.

1973, Some problems in Proto-Oceanic grammar. *Oceanic Linguistics* 12:103-188.

Pawley, Andrew and Timoci Sayaba, 1990, Possessive-marking in Wayan, a Western Fijian language: noun class or relational system? In Jeremy H.C.S. Davidson, ed. *Pacific Island languages: essays in honour of G.B. Milner*, 147-171. London: School of Oriental and African Studies, University of London; Honolulu: University of Hawaii Press.

Rehg, Kenneth L., 1981, *Ponapean reference grammar*. Honolulu: University of Hawaii Press.

Reid, Lawrence A., 1983, The sources of POC genitive constructions. Paper presented at the Austronesian symposium of the Fifteenth Pacific Science Congress.

Rivierre, Jean-Claude, 1980, *La langue de Touho: phonologie et grammaire du cèmuhî (Nouvelle-Calédonie)*. Langues et Civilisations à Tradition Orale 38. Paris: SELAF.

Ross, M.D., 1988, *Proto Oceanic and the Austronesian languages of western Melanesia. PL*, C-98.

PROTO OCEANIC TERMS FOR FISHING AND HUNTING IMPLEMENTS

MEREDITH OSMOND

1. INTRODUCTION[1]

This paper takes a close look at terms for fishing and hunting implements attributable to Proto Oceanic (POc) with a view to reconstructing a small portion of the culture of POc speakers. These are the people from whose language all the 450 or so Austronesian languages of Oceania are derived, and who, it seems likely on both linguistic and archaeological grounds, lived in the region of the Bismarck Archipelago possibly around 1600 BC.

2. METHOD

I follow the usual methods of historical linguistics, working from a base of cognate sets whose members show recurrent sound correspondences and are semantically linked.[2] Each cognate is identified by membership of a particular subgroup. Depending upon the subgroups represented within a set, reconstructions can be made either at POc level or at recognised lower-level interstages.

2.1 SUBGROUPING ASSUMPTIONS

My subgrouping assumptions are as follows: within Oceanic I recognise a minimum of three groups, each of which represents either a first-order subgroup or, possibly, a collection of first-order subgroups: Western Oceanic, Admiralties (Adm), and Eastern Oceanic.

Western Oceanic is as determined in Ross (1988). It consists of all the Austronesian languages of Papua New Guinea excluding the Admiralties-St Matthias group, together with the northern half of the Solomons as far as the southern end of Santa Ysabel. Western Oceanic consists of three lower-order subgroups: the North New Guinea (NNG), Papuan Tip (PT) and Meso-Melanesian (MM) language clusters.

The Admiralties-St Matthias group, also as set out in Ross (1988), is here regarded as a single first-order subgroup.

---

[1] I am particularly indebted to Andrew Pawley for many useful comments on early versions of this paper. I am also grateful to Malcolm Ross and Robert Blust for comments on a later version, and to John Lynch who provided a number of additional cognates.

[2] The sound correspondences used include those established for Western Oceanic and the Admiralties by Ross (1988), for the south-east Solomons by Tryon and Hackman (1983), for Vanuatu by Clark (1986), for the Central Pacific by Geraghty (1986), and for Polynesia by Biggs (1978).

All Oceanic languages east of the above, without prejudice to the question of whether these form a single subgroup, are included as Eastern Oceanic. Well-attested subgroups within this region include South-East Solomonic (SES), North/Central Vanuatu (NCV), South Vanuatu (SV), New Caledonia (NC), Nuclear Micronesian (Mic), and Central Pacific (CP) (divided for convenience into Fijian (Fij) and Polynesian (Pn) languages).

Protolanguages earlier than POc include Proto Austronesian (PAn), Proto Malayo-Polynesian (PMP), and Proto Central-Eastern Malayo-Polynesian (PCEMP) as defined by Blust (1980). Other protolanguages referred to include Proto Western Oceanic (PWO), Proto Eastern Oceanic (PEO), and Proto South-East Solomons (PSS).

A reconstruction is generally accepted as POc if we have cognates from at least two first-order subgroups of Oceanic, or from an Oceanic language and an external, non-Oceanic (nonOc), Austronesian language. However, we have discounted putative reconstructions where cognates, although from different subgroups, are restricted to areas geographically adjacent, such as the north-west and south-east Solomons, where the possibility of borrowing is high.

2.2 RECONSTRUCTION OF MEANING

There is ample linguistic evidence that the speakers of POc were fishermen and seafarers. The POc Lexicon Project presently being undertaken at the Australian National University[3] has collected cognate sets supporting POc reconstructions for over eighty fish names and an additional forty terms for shellfish. This paper adds a further twenty terms for various fishing techniques used. We also know that POc speakers utilised plant resources from forested areas, both as building materials for their houses and canoes, and as food. Ross (this volume) offers evidence of the range of their lexicon for food plants. The forested areas are also the habitat for a number of animals, birds and reptiles that were hunted for food, and terms for many of these have been reconstructed. Here we attempt to establish terms for the hunting implements and techniques used.

If we are to use reconstructed terms as a basis for reconstructing a culture, a primary concern is establishing a precise definition for these terms. As an illustration of the problems involved, I have reconstructed five POc terms broadly glossed as 'spear'. Multiple terms for implements within one language imply that these items were used extensively and possibly in specialised ways. Can we throw light on these specialised ways? Unfortunately for comparative linguists, some of the word lists and dictionaries available settle for minimal glosses – 'spear' or 'net'. What we need to know is: What is the level of reference? Is it a term for all spears, or perhaps all pointed projectiles including arrows and darts? Or does it refer to a particular kind of spear? Is it noun or verb or both? If a noun, does it refer to both the instrument and the activity? Most word lists are frustratingly short on detail. For this kind of detail, ethnographies have proved a more fruitful source of information than many word lists.

Another problem is inherent in the dangers of sampling from over 450 languages. Presumably the greater the number of languages, the greater are the possible variations in meaning of any given term, and the greater the chances of two languages making the same semantic leaps quite independently. Does our (sometimes quite limited) collection of cognates

---

3   Under the direction of Andrew Pawley and Malcolm Ross in the Research School of Pacific and Asian Studies.

provide us with a clear unambiguous gloss, or have we picked up an accidental bias, a secondary or distantly related meaning? Does *x* refer to fishhook or the material from which the fishhook is made? Does *y* refer to the slingshot or the action of turning round and round? This problem is possibly greater in the field of artefact terms than for instance in the field of fish terms or plant names, where the referent has a naturally-occurring form.

My approach to the selection of gloss is multi-pronged. A reconstructed gloss is:

(a) derived from the 'semantic profile' of glosses of all collected cognates;

(b) considered in relation to other glosses reconstructed in the same semantic field. For example, are terms complementary (bow implies arrow; seine net implies floats and weights)? Are there different levels of classification – supergeneric, generic, specific etc.?

(c) considered in the light of the geographical and physical resources of the region;

(d) considered in the light of descriptions of current (or recent) hunting and fishing techniques of Oceanic communities, particularly as given in a number of early ethnographies;

(e) considered in relation to archaeological evidence where available. For example, certain artefact types are present in Lapita archaeological assemblages associated with Austronesian languages.

2.3 PRESENTATION OF COGNATE SETS

My method in setting out the data is to follow each reconstruction with a selection of putative cognates, ideally representing both geographic (i.e. subgrouping) spread and semantic range. These have been identified by both language name and subgroup. I have at times referred to lexical reconstructions at interstages later than POc, drawing on reconstructions made by Geraghty at the Proto Central Pacific (PCP) level, and by Biggs and his associates at the University of Auckland for Proto Polynesian (PPn) as well as presenting some new reconstructions for lower-order interstages. Reconstructions for stages higher than POc are from Blust's ongoing Austronesian Comparative Dictionary (ACD) computer files unless otherwise indicated.[4]

Orthographies have been regularised as in Ross (1988). The prenasalised *g,* written as *g* in standard Fijian and Samoan, and elsewhere as *ng* becomes ŋ, while standard Fijian *c* and *q* become *ð* and *g* respectively.

---

4 Sources of data for this study are:
   (1)   those listed in Appendices A and B of Ross (1988);
   (2)   computer files of North/Central Vanuatu data compiled by Ross Clark, and of Polynesian (POLLEX) data compiled by Bruce Biggs and others (both at the University of Auckland); Blust's Austronesian Comparative Dictionary (ACD) at the University of Hawaii;
   (3)   computer files of dictionaries in progress provided by members of the Summer Institute of Linguistics. Languages and those who compiled/supplied the dictionary are as follows: Buang (Bruce Hooley), Bwaidoga [Iduna] (Joyce Huckett), Dami (George Elliott), Ramuaaina [= Duke of York] (Lisbeth Fritzell and Robyn Davies), Gapapaiwa (Ed and Catherine McGuckin), Levei-Drehet [= Khehek] (Stephan Beard), Manam (Stephen and Kim Blewett), Lukep [= Pono] (Jeff and Sissie D'Jernes), Siar (Larry Erdman), Takia (Salme Bugenhagen, Judy Rehberg, Curtis Thomas), Tawala (Bryan Ezard), Teop (David Snyder), Tinputz (Roman Hostetler);
   (4)   computer files of dictionaries in progress provided by Debbie Hill (Longgu) and Malcolm Ross (Takia);
   (5)   other dictionary or word list sources as listed in the references.

3. RECONSTRUCTIONS

3.1 NETS

Most Oceanic languages have a wide range of terms for different kinds of nets. These include terms for hand nets, casting nets, seine nets, long-handled nets for catching flying fish, and so on. Many languages have terms for nets for catching birds, and occasionally for larger animals such as pigs and wallabies. Presumably there were POc terms for a wider range of nets than the three we have reconstructed.

PMP *lawa(n,q)* 'k.o. fishnet'

POc *lawa(n,q)* 'k.o. fishnet'

Adm:	Loniu	*law*	k.o. long narrow fishnet
SES:	Arosi	*rawa*	small net
SES:	Sa'a	*lawa*	the name of a creeper from which twine for nets is made
Fij:	Std Fijian	*lawa*	fishing net
Fij:	Wayan	*lawa*	fishing net

PMP *puket* 'dragnet; to surround, engulf' (Blust 1972a)

POc *pukot* 'fishing net, seine'

NNG:	Kove	*puo*	fishing net
PT:	Motu	*huo*	kangaroo net
MM:	Bali	*vuγot(o)*	fishing net
SES:	Arosi	*huʔo*	large net, seine net
SES:	Sa'a	*huʔo*	seine net

POc *kubena* 'fishing net'

MM:	Tolai	*ubene*	fish net; any net or net-like thing; spider's web
Adm:	Mussau	*uena*	fishing net
SES:	Arosi	*ʔubena*	large net
NCV:	Nguna	*kupwena*	fishing net
SV:	Lenakel	*ná/kapun*	fishing net
Pn:	Tuvalu	*kupeŋa*[5]	large heavy net for communal fishing
Pn:	Tongan	*kupeŋa*[5]	fishing net: generic
Pn:	Rennell	*kupeŋa*[5]	net: generic (usually refers to fishing net)

There is fairly strong evidence that *pukot* referred to a large seine or dragnet, although in some SES languages it now tends to function as a generic. Compare Sa'a *huʔo ni moke* 'casting net' with Lau *moge* 'handnet used in shallow water'. The second term, *lawa*, possibly referred to a small net. The third term, *kubena*, is the most widespread term of the three, and arguably the best bet for a POc generic term for fishing nets. My files list more than forty cognates from all major subgroups. In Tuvalu (Koch 1984:30) the *kupeŋa* is "a primitive kind of net...large and heavy and knotted from rolled coconut fibre twine...affixed to two poles tied together at one end forming an acute angle; large cowrie shells are fixed

---

[5]   ŋ for expected *n*.

under the edge of the third side". Two men hold the poles, and the net is tilted so the fish can swim into it. In parts of Polynesia, the term is used as a generic. On Niuatoputapu (Tonga), *kupeŋa* is the term used for all netting techniques, as opposed to *tau* (angling) or *uku* (diving) (Dye 1983:252-254). Dye lists *kupeŋa fakamamaha* 'netting with the ebbing tide'; *kupeŋa ʔava* 'netting for ʔava (milkfish)'; *kupeŋa hokohoka*, in which a handled net is used in rough surf; *kupeŋa sili pulou*, where the common throw net, about three metres across, is used to catch bait fish; and so on. In Rennell the term evidently subsumes all kinds of nets. Although Elbert (1975) defines *kupeŋa* as 'fine-meshed fishing net', he includes *kupeŋa tape peka* 'flying fox snaring net', as well as six kinds of fishing nets labelled with compound terms beginning with *kupeŋa*. The same general term *kupeŋa* 'net, traditionally of hibiscus fibre' is found in Tikopia, with particular types named as compounds (*kupeŋa tā save* 'pole net for flying fish', *kupeŋa fukifuki* 'pole net for reef work') and *mata kupeŋa* referring to net mesh.

A number of other terms have been reconstructed to a lower level. They include:

PWO *(n,R)eke* 'fishing net'

PT:	Motu	*reke*	fine fishing net, seine
MM:	Bali-Vitu	*neke*	fishing net; fish trap

PSS *kalu* 'fishing net'

SES:	Lau	*galu*	fishing net
SES:	Sa'a	*karu*	fishing net

PPn *tili* 'k.o. hand net; to cast, throw, fish with a casting net'

Pn:	E. Futuna	*tili*	a scoop net
Pn:	Tongan	*sili*	fish with casting net

The techniques that involve large nets usually require use of floats and sinkers. We have a reconstruction for net float:

POc *uton* 'float of fishing net'

PT:	Bwaidoga	*uto/ga*	floats on a fishing net
NNG:	Gitua	*uton*	fish net float
MM:	Nakanai	*uto*	handle or stick of fish net
SES:	Lau	*uo*	float for a net
NCV:	Mota	*uto*	to come above the surface in water
Fij:	Std Fijian	*utouto*	float of fishing net
Pn:	Tongan	*uto*	floaters of fish net
Pn:	Rarotongan	*uto*	float for net

There is also a competing form that co-exists with *uton* in the Central Pacific, PCP *futa* (Rotuman *hufa* 'float on a fishing net', Tikopia *futa* 'net float').

The only terms I can locate for sinker are reflexes of POc *patu* 'stone', or the name of the cowrie shell which is sometimes used as a sinker:

PMP *buliq* 'cowrie shell'

nonOc	Yamdena	*fuli*	k.o. shellfish

POc *buli(q)* 'cowrie shell; cowrie shell used as net sinker'

SES:	Sa'a	*puli*	cowrie shell, used as sinker for nets
Pn:	Tuvalu	*pule*	cowrie shell used as sinkers

Other reconstructions that can be included within the vocabulary of nets are:

POc *sika* 'netting needle, thorn'

PT:	Kilivila	*va/sia*	needle
Fij:	Std Fijian	*sika ni lawa*	netting needle
Mic:	Kiribati	*rika*	netting needle
Pn:	Hawaiian	*hi?a*	net needle

POc *mata* 'mesh of net'

NNG:	Kove	*mata*	net gauge
PT:	Molima	*mata/na*	net gauge
SES:	Arosi	*mā*	hole; opening; mesh of net
SES:	Kwaio	*mā*	k.o. fish weir; space through which birds frequently fly, where traps are set up
Pn:	Maori	*mata*	mesh of net

POc *mata*, with the central meaning 'eye', extends to a range of concepts that carry the idea of an opening, a window, something allowing access (see Chowning, this volume). Evidence is that it is used in connection with nets in both Western Oceanic, as 'net gauge', and Eastern Oceanic, as 'mesh of net'. Presumably the POc term embraced the idea of 'mesh of net' in both places, but has now moved semantically sideways in Western Oceanic to refer to the instrument used to maintain uniform mesh when net-making. Another term for net gauge is found in Eastern Oceanic:

PCP *qava* 'net gauge'

Fij:	Std Fijian	*yava ni lawa*	net gauge
Pn:	Samoan	*afa*	net gauge
Pn:	Rennell	*?aha*	net gauge

3.2 SCARELINE

Some communities use a scareline for fishing, in which leaves are tied to a long rope which is drawn through the water. A term for this has been reconstructed to PCP level:

PCP *rau* 'dragline, scareline, made from rope and coconut leaves'

Fij:	Wayan	*rau sole*	barrier of leaves used in a *sole rau* or *ara-rau* fish drive
Pn:	Tongan	*au*	long fishing net made of rope and coconut leaves
Pn:	Tikopia	*rau*	sweep with a net

3.3 ANGLING IMPLEMENTS

PMP *hapen* 'fishing line'

POc *apon* 'fishing line'

MM:	Petats	*ahon*	string
Adm:	Levei-Tulu	*ǰap*	fishing line
Fij:	Std Fijian	*ðavo*	to fish with rod (and line)
Pn:	Samoan	*afo*	fishing line

PMP *kawil* 'hook' (Blust 1972b), 'fish hook' (Dahl 1976)

POc *kawil* 'hook; fishhook'

NNG:	Kairiru	*qawil*	fishhook
MM:	Tangga	*auil*	fishhook
MM:	Roviana	*gaili*	fishhook made from pearlshell and turtle shell, used in trolling
Adm:	Baluan	*kow*	fishhook
SES:	Arosi	*ʔawi*	hook
SV:	Anejom	*in/ɣowoj*	fishhook
Fij:	Wayan	*kau*	fishhook of any kind
Pn:	Tuvalu	*kau*	fishhook, generic

This term is widely attested. I have over fifty cognates containing specific reference to fishhooks, occurring in all major subgroups. In Tuvalu it is used as a generic, followed by the name of the fish for which it is appropriate – *kau galata*, *kau palu*, etc.

POc *ta(g,k)o* 'barbless(?) fishhook'

MM:	Bola-Harua	*toga*	fishhook
MM:	Nakanai	*togo*	fishhook
MM:	Maringe	*tʰaɣo*	fishhook
SES:	Bugotu	*taɣo*	fishhook
SES:	Lau	*aʔo*	fishing rod
Pn:	Rarotongan	*toko*	fishhook (no barb)

The extension of a meaning from a material to something made from that material is very common across languages (viz. English glass/ a glass, cork/ a cork). Examples occur in Oceanic languages as well (E. Fijian *gasau* 'a reed; an arrow', Tolai *vat* 'a stone, a sinker'). POc speakers evidently made fishhooks from a variety of shells, and in some daughter languages the term for a particular shell has become the term for a fishhook (made from that shell?). For instance, POc *kima* 'clamshell' is reflected in a number of Papuan Tip languages as *kimai* 'fishhook'. A similar example is:

POc *(q)una* 'tortoiseshell, fishhook'

NNG:	Lamogai-Rauto	*a/una*	fishhook
MM:	Tinputz	*una*	hook; fishhook
SES:	Longgu	*una*	fishhook
SES:	Arosi	*una(na)*	tortoiseshell
Pn:	Tikopia	*una*	carapace of marine turtle

Lower-level reconstructions for fishhook include:

PSS *vinatu* 'fishhook'

SES:	Lau	*finau*	hook
SES:	Birao	*vinatu*	fishhook

PPn *ma(a)ta?u* 'fishhook'

Pn:	Tongan	*māta?u*	fishhook
Pn:	Hawaiian	*makau*	fishhook

We have evidence, both archaeological and linguistic, that trolling lures were also widely used. This technique of dragging a line through the water, with a lure of mother-of-pearl or similar bright shell, is used to catch bonito and other pelagic fish from large paddling or sailing canoes.

POc *bayan* 'fish bait, trolling lure, trolling hook'

MM:	Duke of York	*bain*[6]	bait
MM:	Teop	*beana*	bait
MM:	Mono-Alu	*beana*	bait
SES:	'Are'are	*pasa*	a barbless bonito fishhook
SES:	'Are'are	*pā*	fish bait
SES:	Sa'a	*pasa*	bonito lure of clamshell
SES:	Sa'a	*pā*	bait
SES:	Arosi	*bā*	bait for fish, food to entice into a trap
SV:	Lenakel	*nə/pien*	bait
Fij:	Wayan	*bā*	trolling line with lure
Fij:	Wayan	*baya*	earthworm (earthworms are used for bait)
Fij:	Std Fijian	*bā*	Tongan variety of fishhook (*vakasavu bā* 'to troll')
Fij:	Std Fijian	*baða*	worm (hence bait for fishing)
Pn:	Tongan	*pā*	fishhook, especially for catching bonito
Pn:	Samoan	*pā*	pearlshell lure; spinner including lure and hook
Pn:	Tuvalu	*pā*	bonito lure, generally made from mother-of-pearl shell
Pn:	Tokelau	*pā*	generic term for trolling hook (*pa si malau, pa si aseu*, etc.); all are made with pearlshell shanks and turtleshell points

It would appear that in some South-East Solomonic languages and also in Fiji, reflexes of POc *bayan* have split into doublets, evidently to distinguish 'bait' from 'trolling lure'. Because there is crossover of meaning, with the long-vowel form referring to bait in one region and trolling lure in the other, it is assumed that the two splits occurred independently. Nor can the possibility of borrowing be discounted.

---

6   It is also possible that *bain* is a metathesised form of *bani* 'bait, fodder'. (See following cognate set.)

PCEMP *pani(ŋ)* 'bait; fodder'

nonOc	Manggarai	*paniŋ*	bait; to bait; to feed chickens
nonOc	Ngadha	*pani*	fodder, as for pigs

POc *bani* 'bait, fodder'

PT:	Tawala	*bani*	bait
PT:	Gapapaiwa	*bam*	bait (N); feed (V); attract s.th., s.o.
PT:	Molima	*(bani)bani*	to fish with hook and line
NNG:	Gitua	*bani*	bait
MM:	Duke of York	*ban*	bait (N); use for bait
Mic:	Ponapean	*pahn*	bait, lure

An alternative form, POc *baŋi*, is reconstructable on the basis of Javanese and Samoan cognates:

PMP *baŋi* 'bait'

nonOc	Javanese	*baŋi*	bait

POc *baŋi* 'bait'

Pn:	Samoan	*paŋi*	coconut bait for flying fish (obsolete)

3.4 FISH TRAP

PMP *bubu* 'fish trap' (Blust 1972a)

POc *pupu* 'basketry fish trap'

MM:	Nakanai	*vuvu*	k.o. fish trap
Adm:	Lou	*pup*	bamboo basket trap for fish
Fij:	Std Fijian	*vuvu*	long narrow fish trap made of bamboo
Mic:	Kiribati	*ū*	trap for moray eel

The term is widely attested. It is noteworthy that we have no Polynesian cognates. Instead we find PPn *fīnaki* (Rarotonga *hinaki* 'fish trap'; Maori *hinaki* 'eel trap').

3.5 FISH WEIR

POc *paRa* 'fence, wall, enclosure'

Adm:	Mussau	*(bala)bala*	fence
Fij:	Wayan	*bā ni ika*	fish weir
Pn:	Tongan	*pā*	fence, wall, enclosure, especially for fish trap, made of stone or sticks
Pn:	Rarotongan	*pā*	fish weir of stone walls

The POc term *paRa* 'fence, wall, enclosure' has evidently acquired an additional specialised meaning in Eastern Oceanic, where it refers to a fish trap made of stone or sometimes of sticks. (The Lou (Admiralties) term *pas* 'stone fish corral' has unexplained *-s*, and at this stage cannot be accepted as a cognate.) In Oceania, walls of stone or coral are

constructed across channels in the reef to catch fish on a falling tide. In the Cook Islands (Rarotonga), *pā* has become a generic. Buck (1927:298) writes that:

> Most of the *pa* are very old, having been laid down far back in pre-European times. The channels were studied and the course taken by fish observed. The lines of the walls were laid down with such skill and accuracy that any departure from them ends in failure. The walls are made of loose coral rock. The most important weirs are named, and are owned by particular families. No outsider can use a weir without permission from the hereditary owners.

He describes various types of weirs, for example, *pa kiokio* (roughly Z-shaped), *pa tute* (temporary), and *pa tuakirua* (V-shaped with opening towards the sea).

3.6 FISH POISON

PMP **tuba* '*Derris* fish poison' (Dempwolff 1938)

POc **tupa* '*Derris* fish poison'

PT:	Molima	*tuva*	*Derris*
PT:	Kilivila	*tuva*	poisonous root used for fishing
MM:	Bali-Vitu	*tuva*	*Derris* root
SES:	Sa'a	*uha, uhe*	*Derris* root
Fij:	Wayan	*tuva*	vine, *Derris* sp., pounded to obtain fish poison

POc **puna* 'vine used for fish poison'

MM:	Tolai	*vun*	root with which fish are poisoned; to kill or benumb fish with poison of this name
MM:	Roviana	*buna*	littoral vine (macerated and thrown into rock pools, it stupefies fish)
Adm:	Lou	*pun*	vine used for fish poison
SV:	Lenakel	*no/un*	fish poison

From North New Guinea and New Ireland we have been able to reconstruct a lower-level term:

PWO **maRi* '*Derris* root'

NNG:	Gitua	*waro/mali/ŋ*	*Derris* root
MM:	Nalik	*malmal*	*Derris* root

The method of stunning fish by throwing pounded *Derris* root into pools is widespread, and the three terms seem to have identical reference, although *Derris eliptica* is not mentioned specifically in relation to **puna*. Describing the technique used by Sa'a speakers, a South-East Solomons language, Ivens (1927:389) writes that

> fish in streams are poisoned by a preparation. The bark of the edible Barringtonia tree, the one with red flowers, is stripped off and heated in the fire to bring out its bitter qualities. It is then beaten into shreds with stones in water and thrown into the place chosen. Along with it they use the grated nuts of the barringtonia

speciosa [sic.], a littoral tree...A third ingredient is made from pounded sections of a creeper called *uhe*, the juices of which are very bitter.

The last ingredient is obviously a variant of *uha*, a reflex of POc *tupa*.

The kernel of the fruit of *Barringtonia asiatica* (POc *putun*) is used for poisoning water in Samoa, while the Fijians use the outer portion of the same fruit (Blackwood 1935:354-355), but I have not been able to reconstruct a term for this.

3.7 TORCH FISHING

PMP *damaR* 'resin, torch, light' (Dempwolff 1938)

POc *(d)rama(R)* 'torch; to fish at night with torch'

Adm:	Lou	*ka/ram*	torch
Adm:	Lou	*ramram*	fish at night by torchlight
Fij:	E. Fijian	*rāmarāma*	lamp of coconut shell filled with oil
Pn:	Tongan	*ama*	to fish at night by torchlight; torch made of coconut spathes bound together
Pn:	Maori	*rama*	torch; eeling with torches
Pn:	Samoan	*lama*	torch; fishing with torches

Night-fishing is still a popular and widespread activity throughout the region. To attract the fish, a torch is used which consists of coconut spathes bound together to burn slowly over a long period. In many languages the same term refers both to the torch and to the activity. In Tonga *lama* can simply be prefixed to the names of other fishing techniques to indicate that it is carried out at night (e.g. *lama fakasiosio* 'to go spear-fishing at night').

3.8 POINTED WEAPONS

Most Oceanic languages contain a number of terms for spear, and it is probable that POc was no exception. There are various ways in which spears can be physically distinguished. There may be a distinction between fishing, fowling and fighting spears. Often, but not always, fishing spears have three or more prongs. Shorter spears can be used for thrusting, longer spears for hurling. Spears can be multi-barbed, have a single barb, or be barbless. They can be made with a head that separates from the shaft. Every language community will name its spears according to combinations of these and possibly other properties. Although we have been able to reconstruct perhaps six POc terms, and several more at a lower level, it has been difficult to distinguish between them, other than to single out *tara* and *kusur* as probably fish spears. At the generic level – and that is itself a flexible category which can include arrows, and possibly other pointed weapons such as darts and spikes – *io* seems to have the widest distribution in Western Oceanic, although it does not appear east of the Solomons. For the Central Pacific, *sao(t)* seems the most likely generic term.

PMP *saet* 'spear; to spear'

nonOc	Palauan	*táod*	three-pronged fish spear

POc *sao(t)* 'spear; to spear'

Fij:	Wayan	*sā*	spear; harpoon
Fij:	Rotuman	*jao*	spear
Pn:	Tongan	*tao*	spear; javelin
Pn:	Rennell	*tao*	spear or dart for fishing, fighting, fowling
Pn:	Hawaiian	*kao*	dart; fish spear; javelin; spike as on the tail of a stingray
Pn:	Rarotongan	*tao*	short throwing spear

POc *io* 'spear, arrow'

PT:	Anuki	*io*	spear
PT:	Motu	*io*	spear
NNG:	Lukep	*yu*	arrow; spear traditionally used for pig hunting and fighting
NNG	Manam	*io*	long lance (wooden spear point has prongs on four sides)
MM:	Konomala	*iu*	shoot; arrow
MM:	Tangga	*iu*	fish spear
SES:	Lau	*īo*	a war arrow; a poisoned spear

As a subset of the above, a group of NNG languages have inserted a medial consonant derived from epenthetic glides: Kove *iðo* 'spear'; Bariai *ido* 'arrow'; Gitua *izo* 'spear'; Wogeo *iwo* 'spear'. This appears to be an areal feature, but not attributable to a common protolanguage.

PMP *baŋkaw* 'barbless spear'

POc *bako* 'spear'

MM:	Hoava	*ba/bao*	spear
SES:	Malango	*bao*	spear
SES:	W. Guadalcanal	*bao*	spear

(In all these languages, *k* is regularly lost.)

POc *kusur* 'fish spear'

MM:	Nakanai	*k(o,u)si*	multi-pronged fish spear
MM:	Notsi	*kucil(a)*	arrow
MM:	Siar	*kusur*	fish spear
MM:	Meramera	*kusul(u)*	fish spear
MM:	Kandas	*(kabo)kusur*	fish spear
MM:	Laghu	*kuroho*	spear
SV:	Kwamera	*kahar-kahár*	type of arrowhead made of three prongs, used for spearing fish
Pn:	Tuvalu (Nanumaga)	*koho*	thrusting spear

POc *tara* 'fish spear'

PT:	Molima	*tala/beya*	spear with double or triple point
PT:	Molima	*tala/dabadaba*	k.o. spear
MM:	Tolai	*ta/tara*	fish spear

Adm:	Mussau	*tala/ŋai*	fish spear
Pn:	Niuean	*tala*	sharp-pointed object; barb; prong
Pn:	Rapanui	*tara*	horn; thorn; spur
Pn:	Mangareva	*tara*	spine; horn; thorn
Pn:	Anuta	*tara*	fishhook barb

It would seem from Western Oceanic and Mussau glosses that the original POc meaning of *tara* is probably 'fish spear'. Pn glosses indicate a later narrowing of meaning to 'barb' or 'prong'.

POc *soka* 'to pierce; stab'

NNG:	Kove	*sokasoka*	sharpened stake set where a pig jumps
MM:	Notsi	*coka*	stab
MM:	Tabar	*co/coka*	to shoot (fish)
MM:	Tangga	*sok*	to spear s.o.
SV:	Lenakel	*suk*	spear (generic: war, fishing, hunting)
Fij:	Std Fijian	*ðoka*	to pierce, usually with a spear

The following are lower-level reconstructions for spear:

PEO *saRi* 'k.o. spear'

| NCV: | Paamese | *sali* | spear |
| Fij: | Wayan | *saisai* | arrow or spear with three or more prongs, used for fish, bats, etc. |

PEO *sua* 'spear; to spear'

SES:	Nggela	*sua*	spear without barbs
SES:	Lau	*sua*	a spear
SES:	Kwaio	*sua*	spear
Fij:	Std Fijian	*sua*	to stab; pierce with a spear (retaining hold of the weapon); to husk a coconut

We know from the archaeological record that the Lapita people traded in obsidian, a volcanic glass originating from Manus Island in the Admiralties group, and Talasea on the north coast of New Britain. It was a material coveted for use as a sharp tool and for spear and arrow tips. Yet, as far as I know, there is no soundly-based POc term for obsidian. A possible contender is:

POc *nadi* 'flint; obsidian'

PT:	Motu	*nadi*	a stone
SES:	Nggela	*nandi*	flint
SES:	Bugotu	*nadi*	flint
SES:	Arosi	*nagi*	flint, obsidian
SES:	Sa'a	*ŋädi*	obsidian, flint

We have one lower-level term:

PWO *qa(r,R)i(ŋ)* 'obsidian'

| PT: | Duau | *kalīlia* | arrow |
| NNG: | Gedaged | *yaliŋ* | obsidian |

MM:	Nakanai	*hali*	obsidian; razor formerly made of obsidian
MM:	Meramera	*ali*	obsidian

There is also a further POc reconstruction more tenuously linked to the material:

POc **koto* 'obsidian head of spear or arrow; lancing implement'

NNG:	Dami	*oto*	spear
MM:	Tolai	*koto*	piece of stone (obsidian) or glass or shell used as a lance
SES:	Kwaio	*ʔoto*	hit and perforate
SES:	Arosi	*koto*	to spear

The bow, although evidently not as widespread as the spear, is used both for fighting and, in a smaller version, for shooting birds and other small game.

PMP **busuR* 'hunting bow' (Blust 1972a)

POc **pusuR* 'bow'

PT:	Kuni	*budu*	arrow
NNG:	Kis	*us*	arrow
MM:	Petats	*husul*	bow.
NCV:	S.E. Ambrym	*his*	bow and arrow
Fij:	Wayan	*vuðu*	bow

PMP **panah* 'shoot' (Dempwolff 1938)

POc **panaq* 'bow; to shoot'

NNG:	Tuam	*paneg*	bow
NNG:	Medebur	*pan*	bow
MM:	Tolai	*panak*	bow for shooting
Fij:	Std Fijian	*vana*	to shoot with arrow or gun
Pn:	Tongan	*kau/fana*	bow
Mic:	Kiribati	*bana*	shoot at fish with band of rubber and long arrow

PAn **deles* 'bowstring'

nonOc	Paiwan	*zelet*	bowstring

POc **lolo(s)* 'bowstring'

SES:	'Are'are	*i-roro*	bowstring
SES:	Sa'a	*i-lolo*	bowstring
Fij:	Std Fijian	*ka/lolo*	bent to one side by excessive burden on shoulder
Pn:	Tikopian	*karoro*	bowstring
Pn:	Tahitian	*aroro*	stay to mast of canoe

The Fijian and the Tahitian cognates have strayed semantically, yet still retain the idea of something held so tautly that it distorts.

Lower-level reconstructions include:

PWO *tup(i,u)* 'bow; arrow'

| PT: | Dobu | *tupu* | bow, arrow |
| MM: | Roviana | *tupi* | arrow or dart |

PWO *puri* 'bow'

NNG:	Bilibil	*hui*	bow
NNG:	Takia	*fui*	bow
MM:	Varisi	*vuri*	bow

PWO *bele* 'arrow; spear'

NNG:	Sio	*biri*	arrow
MM:	Duke of York	*bele*	fish spear; arrow
MM:	Vaghua	*bele*	spear

PEO *tikwa* 'dart'

NCV:	Mota	*tiqa*	blunt arrow for birds
Fij:	Std Fijian	*tiga*	reed dart
Pn:	Tikopian	*tika*	k.o. arrow thrown in game

3.9 CLUB

Across the Pacific, the kind of weapon that is labelled 'club' varies from the great knobbed, obsidian-studded roots that can be seen in the Bishop Museum in Honolulu, the flat round stone clubs of the Motu (*gahi*), and the smaller, lighter throwing clubs of Fiji (*i ula*: Clunie 1977), to the Kiribati *kati-bobuki* – about four feet long, pointed at both ends, used for warding off a spear, making a thrust, or wielding as a club (Hudson 1841, quoted in Koch 1986:249), which might equally be classified as a shield or lance. I consider these to be more or less marginal examples of what is basically a blunt, heavy instrument, wielded in the hand for bludgeoning.

In the South-East Solomons, Fiji and Polynesia at least (I have little information from Western Oceania), clubs have an importance beyond that of simply weapons. They often carry ceremonial weight. Many are heirlooms with names and magical powers. Special reverence is accorded the war club. To the extent that it is possible to distinguish war clubs from hunting clubs, I do not intend to delve further into the culture and terminology of the former. It is my guess that hunting clubs would have carried less cultural significance, and as a result, been labelled more broadly. Two terms have been reconstructed.[7] In each case I have included all known cognates. It will be apparent that neither reconstruction is particularly soundly based. Nor do their cognates offer conclusive information as to the shape, material or specific function of each club.

---

7   A putative third construction, POC *nalanala*, 'club' (from Motu *tanala* 'egg-shaped stone club', Tolai *nalnal* 'battle axe', Maringe *nalanala* 'wooden club', Longgu *nalanala* 'club') is discounted on the basis of evidence that it is a borrowing from the Pidgin spoken along the east coast of Australia last century, this in turn deriving from *ŋalaŋala* 'a hardwood club used in fighting and hunting', a term from the language spoken around Sydney at the time of the first settlement (Jaki Troy, pers.comm.).

POc *paru* 'club, to club'

PT:	Molima	*pulu/mai*	war club, used to kill by hitting throat or back of neck
MM:	Teop	*varu*	club
NCV:	Paamese	*vaulev*	club
SV:	Lenakel	*nə/pəraau*	club wielded by the leader of various dances in a *nəkoviaar* (dance cycle)
Fij:	Std Fijian	*ravu-t-a*	to club s.o. or s.th.

POc *gapi* 'stone? club'

PT:	Motu	*gahi*	flat stone club
SES:	Fagani	*γafe*	club
SES:	Lau	*afui*	k.o. club

3.10 SLINGSHOT

POc *maga* 'stone; sling; slingshot'

MM:	Bali Vitu	*ta/maga*	slingshot
MM:	Bali Vitu	*magamaga*	sand
MM:	Bulu	*ta/maga*	slingshot
SES:	Talise	*maka/ra*	stone
Pn:	Tongan	*maka/ta*	sling (*maka* 'stone, rock')
Pn:	Tikopian	*maka*	stone for sling; sling for hurling stones
Pn:	Rarotongan	*maka*	throw; hurl; sling; a sling
Pn:	Tahitian	*ma?a*	to sling; a sling

POc *kalo* 'sling; to turn round and round'

MM:	Bilur	*alo*	slingshot
SES:	Arosi	*?aro/rabu*	a sling (*?aro* 'to turn round and round', *rabu* 'to strike or knock s.th.')

Slingshots would have been used for hunting birds, flying foxes and perhaps the cuscus. Although it is assumed that ordinary well-shaped stones were used, Green (1979:39) has documented a pointed-end Tridachna shell slingstone from Main Reef Islands circa 1000 BC.

3.11 TRAIL AND PITFALL SPIKES

PMP *suja* 'bamboo trail or pitfall spike' (Blust 1976)

POc *suja* 'sharpened stake set in ground to stop or wound animals or enemies'

SES:	Arosi	*suda*	stake set slanting and sharpened in a pit for the enemy

The setting of sharp spikes or slivers of wood or bamboo, hardened in the fire, either directly into a path, or at the bottom of a pit, is also known in Fiji (E. Fijian *soki*, 'spike'; *lovosa* 'pitfall man trap'), but I cannot locate any other Oceanic reflexes of PMP *suja*. Nonetheless, given the external evidence, the reconstruction must stand. It may be that this was primarily a

warfare technique, and that a different term is used for the pit-trapping without spikes of pigs and smaller ground animals like lizards.

3.12 SNARE TRAP

POc *saRi* 'noose, snare'

SES:	Arosi	*tari*	noose
SES:	Kwaio	*toli*	snare; noose, rope with noose
NCV:	Mota	*tar*	to lay, as a net
Fij:	Std Fijian	*dai*	snare or trap for catching animals
Fij:	Wayan	*tai*	snare or trap for catching animals

Birds are caught for food throughout the region, often by netting or by ground snares, fashioned from a spring-laden twig and a noose. Although I can locate many terms which refer to snare, noose and bird trap, the cognate sets collected are disappointingly few. A lower-level set is:

PPn *sele* 'snare; tie up'

Pn:	Tongan	*tau/hele*	trap; snare
Pn:	Samoan	*sele*	snare for catching fish; tie up
Pn:	Nukuria	*sele*	to catch with lassoo or noose
Pn:	Tuvalu	*sele*	a baited noose on the beach used for catching small birds

3.13 BIRDLIME

Another widespread method of catching birds involves the use of birdlime. Hooley describes the technique used by Buang speakers in the Huon Gulf region of New Guinea:

> The sap of this tree (*dag^wem*) is used as birdlime for catching birds. The sap is collected in a length of bamboo and is then heated over a fire. When it is boiling a stick is dipped in and twisted and the sap adhering to it is chewed to make it soft and then wrapped in cordyline leaves. The sap is then spread on a suitable tree branch so that when birds come to eat the fruit of that tree they are caught. (from word list held on computer file at ANU)

Blust (1983-84:96) has reconstructed Proto Western Malayo-Polynesian *pikat* or *piket* 'birdlime' and *mamikat* or *makiket* 'snare birds with birdlime', but I have not been able to locate any Oceanic reflexes. The reconstruction given below evidently refers generally to gum or resin, although in one instance, in Arosi, it is the first element in a compound, *buruhasi*, meaning 'bird trap'. The second element, *hasi*, means 'to stick'.

PMP *pulut* 'paste; glue' (Dempwolff 1938)

PMP *bulit* or *pulit* 'stick; glue; paste; caulk'

POc *bulit* 'gum; resin'

MM:	Tolai	*bulit*	gum of any tree, especially that used for putty or gum
SES:	Arosi	*buru/hasi*	bird trap; gum of banyan or other tree put at intervals along a pole

SV:	Lenakel	*noua-neha/p^wiit*	sap, glue
Fij:	Std Fijian	*bulu/buluti*	sticky, cloggy, of soil
Fij:	Rotuman	*pulu*	gum; sap
Pn:	E. Uvean	*pulu*	resin

4. ARCHAEOLOGICAL EVIDENCE

Now that the linguistic evidence has been reviewed, we can turn to the question of the extent to which this is corroborated by archaeological findings. Archaeology can, in some cases, provide convincing evidence for use of a particular implement at a particular time and place in the past. However, hot wet climates do not deal kindly with organic materials, and perishable artefacts are rarely preserved. The following is a brief summary of archaeological findings relevant to the fishing and hunting activities of POc speakers.

There is a measure of agreement between linguists and archaeologists that the movement of people carrying the Lapita cultural complex from western Melanesia out into the Pacific coincided with the spread and subsequent break-up of Proto Oceanic. Just as linguists believe that the POc homeland was somewhere in the region of the Bismarck Archipelago (Grace 1961; Pawley & Green, R. 1973, 1984; Pawley & Ross 1995; Ross 1988), so do archaeologists believe that the same region was the dispersal centre of Lapita in Oceania (Green 1979; Spriggs 1995). It was in western Melanesia that the distinctive style of settlement pattern we refer to as Lapita first appeared. It was accompanied most visibly by a decorative pottery style, but other defining characteristics included a particular style of stone adze, a wide-ranging trade network in obsidian, and the first appearance of domestic animals – the pig, dog and chicken, along with the Polynesian rat, all of Asian origin. These features have permitted the bearers to be traced as they moved eastwards and out into the Pacific (Green 1991; Spriggs 1995). There is a clear correlation of the distribution of Lapita with the distribution of Oceanic languages.

Evidence for Lapita people's diet and (indirectly) for food procurement techniques is found in Lapita middens. (Green (1979:32) states that:

> The gathering of a wide range of shellfish from the lagoon and reef, and the taking of many fish from the same locations, is evident in most Lapita sites in which such materials survive.

He reports (p.37) that dugong and turtle remains have been found on the Eloaue sites on Mussau. (Eloaue is a low, flat coral island south-east of the high island of Mussau.)

> The hunting of a few birds is indicated by bird bones of uncertain type...The bush turkey or megapod has been identified among the bird bones...as has the flying fox...Wallabies and cuscus were included in the diet at Eloaue, with Polynesian rats recorded for several sites.

As far as artefacts are concerned, Spriggs (forthcoming) lists the following as occurring in Lapita sites in Melanesia: quadrangular adzes, polished stone chisels, tattoo chisels, pearlshell knives, trolling hooks, one-piece trochus shell fishhooks and obsidian-stemmed tools. Green (1979:39) documents a bone spear-point and pointed-end slingstones from Main Reef Islands circa 1100 BC.

A pertinent observation on the connection between present-day fishing techniques and those of the early Lapita settlers is made by Kirch and Yen (1982) in their study of the

prehistory of Tikopia. They have assembled a collection of one-piece fishhooks and three distinctive early trolling hooks made from trochus shell, which are associated with Lapita sites in Tikopia. They note (p.243) that:

> While we must be cautious in interpreting archaeological fishhooks on the basis of ethnographic observations of the use of modern metal hooks, the data are suggestive that Tikopia utilised a similarly broad range of angling strategies in prehistoric times. Group I hooks would have been best suited to catching small fry on the fringing reefs. Group II hooks, the most varied, were likely used for more than one strategy, and towline and bottom-fishing techniques, among others, seem likely. The largest specimens, Group III, would seem to have been intended for towline capture of carniverous pelagic fish or bottom fishing for large groupers, *Ruvettus*, and the like. Such an interpretation of the angling gear is consistent with the range of fish taxa identified in the Tikopia faunal material.

Kirch and Yen (p.245) have also been able to identify shells and stones from a Lapita site as net weights and line sinkers:

> Tikopia women frequently scour the reef flats with small two-handled dip nets, *te kuti*, the edge of which is weighted with small *Cypraea* shells. Such shells have the dorsum removed to facilitate lashing...Two line sinkers were [also] found, each consisting of a natural cobble...with an artificially pecked groove running laterally round the stone. Such grooved cobbles are still used on occasion by Tikopia fishermen.

How, then, does the limited archaeological evidence square with linguistic findings? Taking the data topic by topic, we have seven POc terms that relate to netting:

lawa(n,q)	k.o. fishnet
pukot	fishing net, seine
kubena	net, generic term?
uton	net float
buli(q)	cowrie shell used as net sinker
sika	netting needle
mata	mesh of net

Although the netting itself will not endure, we have limited physical evidence of dragnetting in the form of cowrie shell net weights.

With regard to angling, we have:

apon	fishing line
kawil	fishhook
ta(g,k)o	barbless? fishhook
(q)(a)una	tortoiseshell; fishhook
bayan	trolling lure
bani, *baŋi*	bait; fodder

Lapita fishhooks of various sizes provide the strongest supporting archaeological evidence for a range of angling techniques, including fishing with small hooks for use on the fringing reef, towline fishing with lure for surface feeders, and bottom fishing with hooks and weights for bottom feeders. Most hooks so far found are of snailshell, pearlshell and trochus shell, although linguistic evidence supports clamshell and tortoiseshell. Presumably all of

these were used, as well as the less durable coconut shell, fishbone and *Pemphis acidula* wood, which are in use today.

It is unlikely that the remainder of our fishing terminology, with the possible exception of the stone fish weirs, can ever be supported by archaeological evidence:

*pupu	basketry fish trap
*baRa	fence (fish weir only in PCP)
*tupa	*Derris* fish poison
*puna	vine used for fish poison
*(d)ramaR	torch; to fish at night with torch

The pointed weapon terminology consists of:

*sao(t)	spear; to spear
*soka	to pierce; stab
*io	spear
*bako	spear
*kusur	fish spear
*tara	fish spear
*nadi	flint; obsidian
*pusuR	bow
*panaq	bow; to shoot
*lolo(s)	bowstring

The only archaeological evidence we have for spears, bows and arrows, darts, etc. would seem to be bone spear points and some obsidian flakes whose purpose is not made clear.

I can find no archaeological evidence for any kind of club, our two terms notwithstanding:

*paru	club; to club
*gapi	stone? club

However, for the slingshot we have the pointed-end tridachna shell slingstone from Main Reef Islands documented by Green (1979):

*maga	sling; slingshot; stone
*kalo	sling; to turn round and round

The trail and pitfall spikes, the snare trap and the bird lime lack any supporting evidence from archaeology.

*suja	sharpened stake set in ground
*saRi	noose; snare
*bulit	gum, resin (bird lime?)

In his 1976 paper, Blust has demonstrated some of the ways in which the comparative method of linguistics may complement, corroborate or contradict the independent testimony of archaeology. Although we can look to archaeology to confirm the hypothesis that durable artefacts will be found in sites associated with Oceanic-speaking communities, there is little hope of archaeological recovery of the perishable artefacts in question. Here linguistics adds an extra dimension to research on the prehistory of Oceania.

REFERENCES

Biggs, Bruce, 1978, The history of Polynesian phonology. In S.A. Wurm and Lois Carrington, eds *Second International Conference on Austronesian Linguistics: proceedings*, 691-716. *PL*, C-61.

Blackwood, Beatrice, 1935, *Both sides of Buka Passage*. Oxford: Clarendon Press.

Blust, Robert, 1972a, Proto Oceanic addenda with cognates in non-Oceanic Austronesian languages: a preliminary list. *Working Papers in Linguistics, University of Hawaii* 4/1:1-43.

1972b, Additions to 'Proto-Austronesian addenda' and 'Proto-Oceanic addenda with cognates in non-Oceanic Austronesian languages'. *Working Papers in Linguistics, University of Hawaii* 4/8:1-17.

1976, Austronesian culture history: some linguistic inferences and their relations to the archaeological record. *World Archaeology* 8/1:19-43.

1980, Austronesian etymologies. *Oceanic Linguistics* 19:1-181.

1983-84, Austronesian etymologies – II. *Oceanic Linguistics* 22-23:29-149.

forthcoming, *A Lou vocabulary with phonological notes. PL*, Series A.

n.d., Austronesian comparative dictionary. Computer file. University of Hawaii.

Buck, P.H. (Te Rangi Hiroa), 1927, *The material culture of the Cook Islands*. New Plymouth, N.Z.: Thomas Avery.

Capell, A., 1991, *A new Fijian dictionary*. Suva: Government Printer. (1st edn 1941)

Chowning, Ann, n.d., *Molima wordlist*. MS.

n.d., *Nakanai wordlist*. MS.

Churchward, C.M., 1940, *Rotuman grammar and dictionary*. Australasian Medical Publishing Co.

1959, *Tongan dictionary*. London: Oxford University Press.

Clark, Ross, 1986, Proto-North-Central Vanuatu interim listing. Computer printout, Department of Anthropology, University of Auckland.

Clunie, Fergus, 1977, *Fijian weapons and warfare*. Suva: Bulletin of the Fiji Museum No.2.

Codrington, R.H. and J. Palmer, 1896, *A dictionary of the language of Mota, Sugarloaf Island, Banks' Islands*. London: Richard Clay and Sons Ltd.

Crowley, Terry, 1992, *A dictionary of Paamese. PL*, C-121.

Dahl, Otto C., 1976, *Proto-Austronesian* (2nd rev. edn). Scandinavian Institute of Asian Studies Monograph Series 15. London: Curzon Press.

Dempwolff, Otto, 1938, *Vergleichende Lautlehre des austronesischen Wortschatzes, 3: Austronesisches Wörterverzeichnis. Zeitschrift für Eingeborenen-Sprachen*, supplement 19. Berlin: Dietrich Reimer.

Dye, Tom, 1983, Fish and fishing on Niuatoputapu (Tonga). *Oceania* 53/3:242-271.

Elbert, Samuel H., 1975, *Dictionary of the language of Rennell and Bellona*. Copenhagen: The National Museum of Denmark.

Firth, Raymond, 1985, *Tikopia-English dictionary*. Auckland: Auckland University Press/Oxford University Press.

Fox, Charles E., 1955, *A dictionary of the Nggela language (Florida, British Solomon Islands)*. Auckland: Unity Press.

1974, *Lau dictionary. PL*, C-25.

1978, *Arosi dictionary*. Revised edition with English-Arosi index prepared by Mary Craft. *PL*, C-57.

Geertz, P., 1970, *'Are'are dictionary. PL*, C-14.

Geraghty, Paul, 1986, The sound system of Proto-Central-Pacific. In Paul Geraghty, Lois Carrington and S.A. Wurm, eds *Focal II: papers from the Fourth International Conference on Austronesian Linguistics*, 289-312. *PL*, C-94.

Grace, George, 1961, Austronesian linguistics and culture history. *American Anthropologist* 63:359-368.

Green, Roger C., 1979, Lapita. In Jesse D. Jennings, ed. *The prehistory of Polynesia*, 27-61. Canberra: Australian National University Press.

1991, The Lapita cultural complex: current evidence and proposed models. *Pacific Prehistory Association Bulletin* 11:295-305.

Ivens, W.G., 1927, *Melanesians of the South-East Solomon Islands*. London: Kegan Paul, Trench, Trubner.

1940, *A dictionary of the language of Bugotu, Santa Isabel Island, Solomon Islands*. London: The Royal Asiatic Society.

Keesing, Roger, 1975, *Kwaio dictionary. PL*, C-35.

Kirch, Patrick Vinton and D.E. Yen, 1982, *Tikopia: the prehistory and ecology of a Polynesian outlier*. Bernice P. Bishop Museum Bulletin 238. Honolulu: Bishop Museum Press.

Koch, Gerd, 1984, *The material culture of Tuvalu.* Suva: Institute of Pacific Studies of the University of the South Pacific. (Originally published in 1961 as *Die Materielle Kultur der Ellice-Inseln.*)

1986, *The material culture of Kiribati.* Trans. Guy Slatter. Suva: Institute of Pacific Studies of the University of the South Pacific. (Originally published in 1965 as *Materielle Kultur der Gilbert-Inseln.*)

Lindstrom, Lamont, 1986, *Kwamera dictionary. PL*, C-95.

Lister-Turner, R. and J.B. Clark, 1930, *Revised Motu grammar and vocabulary.* Port Moresby: Government Printer.

Lithgow, Daphne and David Lithgow, 1974, *Dictionaries of Papua New Guinea*, vol.1: *Muyuw language.* Ukarumpa, PNG: Summer Institute of Linguistics.

Lynch, John, 1977, *Lenakel dictionary. PL*, C-55.

Mager, John F., 1952, *Gedaged-English dictionary.* Columbus, Ohio: Board of Foreign Missions of the American Lutheran Church.

Parker, G.J., 1970, *Southeast Ambrym dictionary. PL*, C-17.

Pawley, Andrew and Roger C. Green, 1973, Dating the dispersal of the Oceanic languages. *Oceanic Linguistics* 12:1-67.

1984, The Proto-Oceanic language community. *The Journal of Pacific History* 19/3:123-146.

Pawley, Andrew and Malcolm D. Ross, 1995, The prehistory of Oceanic languages: a current view. In Peter Bellwood, James J. Fox and Darrell Tryon, eds *The Austronesians: historical and comparative perspectives.* Canberra: Department of Anthropology, Research School of Pacific and Asian Studies, Australian National University.

Pawley, Andrew and Timoci Sabaya, forthcoming, *Words of Waya: a dictionary of the Wayan dialect of the Western Fijian language. PL*, Series C.

Pukui, Mary Kawena and Samuel H. Elbert, 1971, *Hawaiian dictionary.* Honolulu: University of Hawaii Press.

Rickard, R.H., 1888, *A Kuanua dictionary.* Rabaul: Methodist Mission Press. (Revised by Fellmann 1918, Linggood 1939, Wright 1964.)

Ross, M.D., 1988, *Proto Oceanic and the Austronesian languages of western Melanesia. PL*, C-98.

Senft, Gunter, 1986, *Kilivila: the language of the Trobriand Islanders.* Berlin: Mouton de Gruyter.

Spriggs, Matthew, 1995, The Lapita culture and Austronesian prehistory in Oceania. In Peter Bellwood, James J. Fox and Darrell Tryon, eds *The Austronesians: historical and comparative perspectives.* Canberra: Department of Anthropology, Research School of Pacific and Asian Studies, Australian National University.

forthcoming, What is Southeast Asian about Lapita? In T. Akazawa, ed. *Proceedings of the First World Conference on Prehistoric Mongoloid Dispersals.* Oxford: Oxford University Press.

Tryon, D.T. and B.D. Hackman, 1983, *Solomon Islands languages: an internal classification. PL*, C-72.

Waterhouse, J.H.L., 1949, *A Roviana and English dictionary.* Revised and enlarged by L.M. Jones. Sydney: Epworth Printing and Publishing House.

White, Geoffrey M., 1988, *Cheke Holo (Maringe/Hograno) dictionary. PL*, C-97.

Williams, H.W., 1971, *A dictionary of the Maori language* (7th rev. edn). Wellington, N.Z.: Government Printer.

PROTO OCEANIC TERMS FOR REEF AND SHORELINE INVERTEBRATES

ANDREW PAWLEY

1. INTRODUCTION

The Oceanic Lexicon Project at the Australian National University seeks to compile a thesaurus of lexical reconstructions by semantic fields for Proto Oceanic (POc) and later interstages.[1] I report here on work in progress in one semantic field: terms for invertebrates found on reef and shoreline. Gathering invertebrates on and around the intertidal zone is an almost daily activity in most Pacific Island communities living on the coast and provides an important food source. The bulk of reef foraging is done by women, although in most societies diving for crayfish and deep water molluscs is traditionally men's work.

The paper tackles the following questions: (1) What terms for the semantic field in question can be attributed to POc? (2) How do the number and the semantic categories of the lexemes reconstructable for POc compare with those attested in well-described contemporary languages? (3) Which sorts of terms have been most/least stable and why?

A body of known cognate sets in this field exists for Proto Oceanic, Proto Central Pacific (PCP), Proto Polynesian (PPn) and certain other subgroups, which I was able to draw on and add to.[2] In the comparisons that follow previous lexical reconstructions are acknowledged. It should be noted however that the list of cognates and lower-order reconstructions that follow such acknowledgements may differ from those cited by the author in question.

---

[1] The project is based in the Department of Linguistics, Research School of Pacific and Asian Studies, under the direction of Malcolm Ross and myself, with the part-time research assistance of Meredith Osmond. Among the reasons for doing the thesaurus are (a) to organise reconstructions in a form that will be immediately useful to people interested in Pacific culture history and (b) to refine semantic reconstructions by considering each cognate set as part of a lexical field or system, thereby (c) providing material for studies of semantic and cultural change. I am grateful to Meredith Osmond for help in compiling the list of cognate sets, to Ann Chowning, John Lynch and Malcolm Ross for valuable comments on a draft of the paper, to Ann Chowning for providing data on New Britain languages and to Paul Geraghty for providing data on Viwa terms and for helpful discussion of the Wayan material.

[2] As well as the files of the Oceanic Lexicon Project, the following were particularly important sources for reconstructions and/or cognate sets: for PPn the 1993 version of the POLLEX files compiled by Bruce Biggs, and Ross Clark's unpublished thesaurus of PPn lexical reconstructions; for Central and North Vanuatu languages Clark's revised (1994) unpublished list of reconstructions and cognate sets. A number of Proto Central Pacific (PCP) reconstructions appear in Geraghty (1986, 1990). A number of reconstructions for marine invertebrates in POc and earlier stages are scattered through various papers by Blust, especially Blust (1972a, 1972b, 1980, 1983-84, 1986, 1989). Milke (1968) contains a few relevant POc reconstructions.

In citations of cognate sets the following abbreviations are used for names of subgroups and protolanguages:[3]

Adm	Admiralty Islands
CP	Central Pacific (Fijian, Polynesian, Rotuman)
Fij	Fijian
Mic	Nuclear Micronesian
MM	Meso-Melanesian (C. and E. New Britain, New Ireland, W. Solomons)
NCV	North and Central Vanuatu
NNG	North New Guinea (from Sepik to E. New Britain and Huon Gulf)
PAn	Proto Austronesian
POc	Proto Oceanic
PCP	Proto Central Pacific
PMM	Proto Meso-Melanesian
PMP	Proto Malayo-Polynesian
PPn	Proto Polynesian
Pn	Polynesian
PT	Papuan Tip (S.E. Papua and Central Province of PNG)
PWMP	Proto Western Malayo-Polynesian
PWOc	Proto Western Oceanic (comprising MM, NNG and PT)
SES	South-East Solomonic (Guadalcanal, Nggela, Bugotu)
SV	Southern Vanuatu

I attribute a lexeme to Proto Oceanic if it has reflexes (i) in both Oceanic and non-Oceanic members of the Austronesian family, (ii) in two or more of the following five putative subgroups or collections of languages: (a) Admiralties, (b) Western Oceanic (defined in Ross (1988) as comprising Meso-Melanesian, North New Guinea and Papuan Tip), (c) South-East Solomonic, (d) Nuclear Micronesian, (e) other Oceanic languages, comprising principally those of Vanuatu, New Caledonia-Loyalties and the Central Pacific group).

Evidence that reef foraging has been important at least since Proto Oceanic times is found in two cognate sets noted by Ross Clark which yield the pair of POc reconstructions given below.[4]

POc *paŋoda 'gather seafood on the reef' (Clark 1991)

PT:	Gapapaiwa	*vanota*	net prawns
PT:	Motu	*haoda*	to fish
SES:	Bugotu	*vagoda*	hunt for shellfish on the reef
SES:	Nggela	*vangonda*	collect food on the reef
SES:	Sa'a	*hangoda*	haliotis, abalone
NCV:	Mota	*vangona*	catch fish with a line, get shellfish, etc. for a relish

---

3   For discussion of subgrouping issues and for bibliographical details of the standard sources for languages cited in this paper, see Ross (1988 and this volume), Geraghty (1986, 1990) and Pawley (1972).

4   In these two reconstructions I have substituted *d* for the POc phoneme that Clark writes as *nt*. It should be noted, apropos of the glosses cited here, that the English folk taxon 'shellfish' means different things to different people. Nearly all New Zealanders and many Australians and English people use this term to mean 'edible molluscs with external shells', whereas others, including most people from the USA, use it to mean '(edible) crustaceans and molluscs with external shells'.

NCV:	Nguna	*pa/vangona*	gather/fish for shells and seafish; look for shellfish
NCV:	S.E. Ambrym	*paegor*	to fish
NCV:	Lonwolwol	*foŋoor*	look for fish
NCV:	Uripiv	*e-vangorr*	forage on the reef
Pn:	Tongan	*faangota*	to fish, or to search for shellfish (or any kind of *fiŋota*)
Pn:	Rennellese	*haangota*	to fish or gather shells, esp. by women on the reef
Pn:	Mele-Fila	*faagota*	gather shellfish, etc., on the reef
Mic:	Marshallese	*yagedd*	go fishing

POc **pinaŋoda* 'seafood gathered on the reef' (Clark 1991)

(where -*in*-in **pinaŋoda* is a nominalising infix, often deriving a noun denoting the thing acted on or produced by the verb)

MM:	Tolai	*vinagonoi*	generic name for sea-shells
PT:	Molima	*igoda*	collect shellfish
PT:	Kilivila	*vigoda*	shell (clams, snails)
CVN:	Nguna	*vinagoda*	shell, shellfish
Pn:	Niuean	*fiŋota*	shellfish; to gather shellfish
Pn:	Tongan	*fiŋota*	sea creature of any kind other than vertebrates: shellfish, crustaceans, cuttlefish, jellyfish, eels, sea-snakes, sea-slugs, starfish, etc., and even sea-weeds
Pn:	Niuean	*fingota*	shellfish, to gather shellfish
Pn:	Samoan	*fiigota*	general term for edible molluscs and invertebrate sea animals
Pn:	Takuu	*fiinota*	various kinds of shellfish and seafoods gathered by women

2. ZOOLOGICAL AND WAYAN CLASSIFICATIONS OF REEF AND SHORE INVERTEBRATES

I began the inquiry by looking at names for reef and shoreline invertebrates in an Oceanic language for which detailed lexical information is available: Wayan, a dialect of the Western Fijian language.[5] Wayan is spoken on two small islands, Waya and Viwa, about 25 km apart on the western margin of Fiji. Wayan speakers do a lot of reef foraging and distinguish by name some 230 marine invertebrate taxa.[6] About 140 of these names apply to molluscs (at least 103 gastropods, 34 bivalves and 4 cephalods), about 45 to crustaceans, about 20 to Echinoderms, about 12 to Coelenterates and about 5 to marine worms.

---

5   Pawley (1994), Pawley and Sayaba (n.d.).
6   As well as terminal taxa, which usually correspond to Berlin's levels of folk generics and folk species this figure of 230 includes higher-order or generic taxa such as *cici* and *manumanu qwāqwā*.

The Wayan data seemed a promising place to start because they should give us an idea of the likely size and taxonomic structure of the POc vocabulary in this field – provided, that is, we assume that (i) POc speakers were able to exploit a reef and shore environment fairly similar to that inhabited by Wayans, (ii) Wayan's knowledge and use of this sort of environment shows strong continuities with that of POc speakers. These assumptions ought to be testable against the comparative lexical evidence. The discovery that Wayan retains a considerable portion of the (independently attested) reconstructed POc vocabulary for marine invertebrates would be strong evidence for continuity in knowledge and use of the coastal environment by speakers of the interstage between POc and Wayan.[7] And in that case we may look to the Wayan material to make inferences about how exhaustive our current list of reconstructions of the POc terminology is and what sorts of terms are missing from the list.

Before we consider the Wayan taxonomy a few words need to be said about the way marine invertebrates are classified in modern biological science and how this classification squares with folk taxonomies in general. Biology offers a complex phylogenetic taxonomy of invertebrates based on current views of their evolutionary relationships and morphological characters. The invertebrate family tree distinguishes more than 20 levels of grouping from kingdom down to species. Here we need only note those distinctions which will be useful in organising the material from Austronesian languages.

kingdom ANIMALIA

phylum ARTHROPODA
    class CRUSTACEA
        order Decapoda
            tribes Palinura and Astacura: crayfish and lobsters
            tribe Anomura: hermit crabs, coconut crabs, mangrove shrimps, etc.
            tribe Brachyura: true crabs
        suborder Natantia: true prawns and shrimps

        OTHER CRUSTACEANS
        order Stomatopoda: mantis shrimp (Pseudosqilla), etc.
        order Thoracia: barnacles
        other shrimp-like animals

phylum MOLLUSCA
        order Gastropoda: univalves or snail-like shellfish
        order Bivalvia (Pelecypoda): bivalves, clam-like shellfish
        order Cephalopoda: octopus, squid, nautilus
        order Amphineura: chitons

phylum ECHINODERMATA
        class Echinoidea: sea-eggs or sea-urchins
        class Asteroidea: starfish
        class Ophiuroidea: brittle-starfish
        class Holothuroidea: sea-cucumbers (bêche-de-mer or holothurians)
        class Crionoidea: sea-lilies and feather stars

---

7   Archaeological research indicates that bearers of the Lapita culture spread very rapidly eastwards from north-western Melanesia across central and southern Melanesia after 3500 BP, reaching Fiji, Tonga and Samoa by 1000 BP (Green 1979, Kirch 1992, Spriggs 1991). This culture can be associated with Austronesian speakers and specifically with the Oceanic subgroup (Pawley & Green 1984).

phylum CNIDARIA (COELENTERATA)
        class Anthozoa: corals, anemones
        class Scyphozoa: jellyfish

WORM-LIKE PHYLA: annelids, nemerteans, acanthoceaphalans

PHYLUM PORIPHERA: sponges

Folk taxonomies of animals are invariably much shallower than those recognised by zoologists. Berlin (1992) has recently discussed at length the organising principles underlying folk taxonomies of plants and animals. He concludes that the maximum depth is around six levels of inclusiveness. This, he says, is attained only for domains including domesticated species and varieties. In taxonomies treating only wild plants and animals the maximum number of distinct levels recorded by Berlin is four. For some domains the number actually distinguished is often fewer. However, there are some important points of likeness between scientific and folk taxonomies both in respect of the kinds and ranking of taxa and in the conventions for naming taxa. Early work on folk taxonomies customarily ranked higher- and lower-order folk taxa, such as the series English 'animal', 'bear', 'grizzly bear' and 'polar bear' using the bland names as 'primary', 'secondary', 'tertiary', etc. Berlin suggests that we need to supplement this mechanical reckoning of rank levels with a method of ranking which, like that of zoology and biology, reflects the various qualities or characteristics of taxa. He argues that all taxa can be assigned to one or another of the following ranks.

1. *Kingdom.* A single primary taxon, one that subsumes all others in a large class, such as 'plant' or 'animal' in the taxonomies of some English speakers. Taxa of this status are typically named by a unitary lexeme (a simple lexeme or idiom as opposed to a transparent compound or phrase). In many language communities there are no overt kingdom level taxa (i.e. no terms corresponding to 'plant' or 'animal').

2. *Life form.* A taxon that corresponds to a highly distinctive morphotype that is not included in any other taxon than kingdom, that includes many (sometimes hundreds) of lower-order taxa that share the characteristic morphology and ecological adaptation of the type, and is named by a unitary lexeme. English examples are 'tree', 'vine', 'fish', 'bird' and 'insect'.

3. *Intermediate.* A taxon that is subsumed under a life form, comprises a small number of 'generics' (see 4) that show marked similarities to each other and often correspond to botanical or zoological families, and if named, is named by a unitary lexeme. Intermediate taxa are often covert (i.e. unnamed but recognised in other ways).

4. *Generic.* A taxon that is subsumed under a life form, marked off by multiple characters of morphology and behaviour or ecological adaptation, and named by a unitary lexeme. Furthermore, when referring to an individual animal or plant in normal discourse, the folk generic name is preferred to all others, although people may use a lower-order term when they want to emphasise contrast with another animal or a higher-order term when they want to emphasise its relationship to other taxa. In a typical folk taxonomy there are usually hundreds of folk generics. Examples of English generic taxa are 'oak', 'pine', 'pig', 'owl', 'hawk', 'frog', 'trout', 'mullet'.

5. *Specific.* A folk generic sometimes divides into folk specifics, usually just a few taxa which contrast in a limited number of features with sister specifics. In the case of wild

animals and plants, such specifics are the terminal (lowest-order) taxa. They are usually (though not always) named by transparent compounds, one element being the generic, the other a descriptive word or phrase. English examples are 'barn owl', 'sooty owl', 'mako shark', 'hammerhead shark', 'red mullet', 'grey mullet'.

6. *Varietal.* In the case of domesticated animals and plants, folk species are often divided into varieties. The names are always compounds, consisting of the specific plus a descriptive modifier.

As folk taxonomies of animals go, the Wayan classification of aquatic animals is extremely complex, some domains having a depth of six contrasting levels – two levels more than Berlin's model recognises as the known maximum for taxonomies of non-domesticated animals. Wayan high-order taxa are shown in Table 1.

TABLE 1: WAYAN AQUATIC ANIMAL HIGH-ORDER TAXA
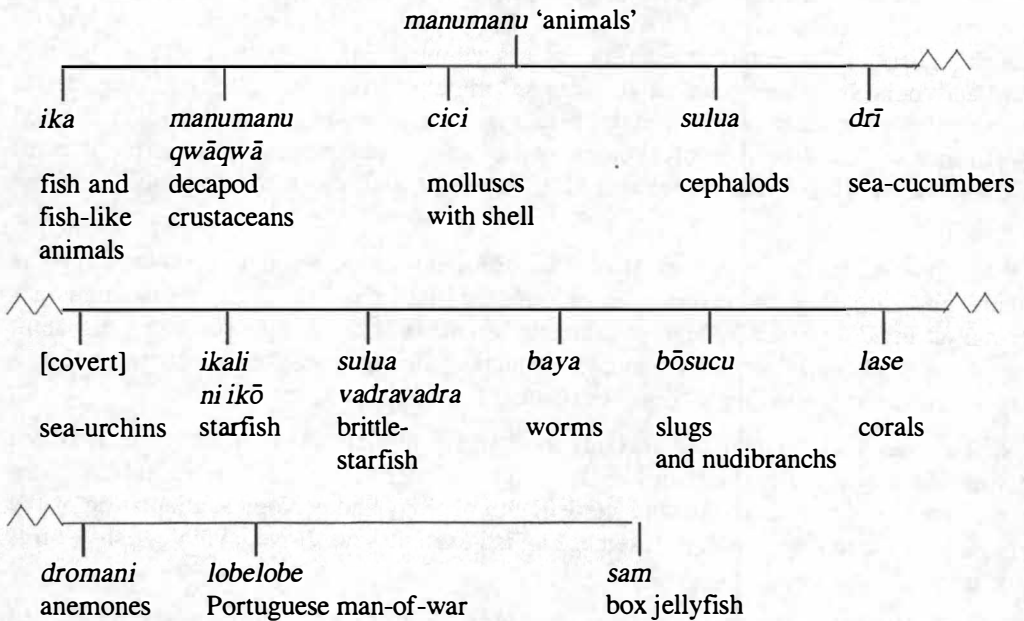
The Wayan higher-order taxa (equivalent to Berlin's 'life forms') differ in various ways from those found in both zoological and English folk classifications of marine life. Corals and anemones are assigned to separate primary taxa, as are each of the two jellyfish. Slugs and nudibranchs form a separate primary taxon from molluscs with shells. Sea-cucumbers, starfish and brittle-starfish are assigned to separate primary taxa. There is no overt taxon uniting the various sea-urchin taxa. On the other hand, in several cases Wayan categories correspond more closely to zoological ones than English folk categories do. For example, the decapods are grouped together in a single taxon (*manumanu qwāqwā*) apart from other crustaceans; true crabs (Brachyura) are distinguished from hermit and coconut crabs (Anomura). There is no name covering all and only sea-urchins but these animals represent a covert category, which Wayans readily identify by certain descriptive phrases such as *manumanu laulau ni cakau* 'spiky animals of the reef'.

Most of the aquatic invertebrate taxa are subclassified further. Table 2 gives some information about the subtaxa of *manumanu qwāqwā*, a taxon which ranks as a 'life form' in the sense of Berlin.

TABLE 2: IMMEDIATE SUBTAXA OF *manumanu qwāqwā* 'DECAPODS'

manumanu qwāqwā decapod crustaceans

ura crayfish and prawns	*uga* hermit and coconut crabs	*tolā* *Thallasina anomala* mud lobster	*cabacaba* *Paribacus*, Moreton Bay bug	*seka* true crabs	*vidividi* mantis shrimp
urau crayfish / *ura* prawns	*uga tolou* hermit crabs / *uga vule* coconut crab			about 20 taxa incl. *tubā* land crabs (*Cardisoma*, *Sesarma* spp.)	
				laroi dark yellow, goes far inland / *tubā dū* common land crab	

The following table gives information about another Wayan high-order category, *cici*, in its extended sense of all molluscs with shells.

TABLE 3: IMMEDIATE SUBTAXA OF *cici* 'MOLLUSCS WITH SHELLS'

cici molluscs with shells

cici gastropods, about 100 taxa, some with several subtaxa. For example:		*tavē* bivalves, about 30 taxa, some with several subtaxa. For example:
ega generic for Strombidae	*tavui* conches	*vāsua* *Tridacna*, giant clams
ega dū *ega lewasausau* *ega ni vatu* *ega ni volivoli*	*tavui dū* *tavui drasa* *tavui drisi* *tavui raurau* *tavui sogasoga*	*vāsua cavucavu* *vāsua kativatu*

The casual studies I have made of other Austronesian languages, using dictionaries and ethnological reports, suggest that the size and taxonomic structure of the Wayan terminology is probably fairly typical of Austronesian-speaking maritime communities. Unfortunately, we cannot say more than this because systematic comparative data are lacking. Cognate sets presented in §3 will therefore be grouped under Western zoological headings. I will touch on questions concerning higher-order taxa in Proto Oceanic in the final section.

3. COGNATE SETS FOR MARINE INVERBRATES

The individual sets of cognates cited below are usually not exhaustive. Most comprise a selection of cognates designed to illustrate their distribution across important subgroups and geographic regions.

class CRUSTACEA
order DECAPODA
tribes ASTACURA (true crayfish and lobsters) and PALINURA (spiny lobsters)
suborder NATANTIA (true prawns and shrimps)

PMP *qudaŋ 'prawns and crayfish' (Dempwolff 1938)

POc *quraŋ 'generic for prawns and shrimps, crayfish and lobsters'

NNG:	Manam	*uro*	crayfish
PT:	Motu	*ura*	crayfish
MM:	Nalik	*uraŋ*	crayfish
SES:	'Are'are	*ura*	shrimp, crayfish, prawn
SES	Arosi	*ura*	a small prawn
SES:	Sa'a	*ura*	crayfish, prawn
NCV:	Mota	*ura*	crawfish
NCV:	Namakura	*'ira*	crayfish, shrimp
Fij:	Wayan	*ura*	generic for prawns and shrimps and in extended sense, also for lobsters
PPn		**qura*	crayfish (POLLEX)
Pn:	Tongan	*'uo*	generic for crayfish and prawns
Pn:	Samoan	*ula*	crayfish
		ula-tai	a saltwater shrimp
		ula-a-vai	a freshwater shrimp
Mic:	Kiribati	*ura*	lobster

POc *luRa 'small shrimp' (Geraghty 1990)

Fij:	(unspecified)	*lua*	a small shrimp
Mic:	Ponapean	*luur*	a small shrimp
Mic:	Mokilese	*luur*	a small shrimp

Compare also:

MM:	Sengseng	*e-lus*	freshwater shrimp

order DECAPODA
tribe PALINURA
Family SCYLLARIDAE

PCP *cabacaba* 'Paribacus sp. (Scyllaridae), slipper lobster'

Fij:	Wayan	*cabacaba*	*Paribacus* sp., slipper lobster
PPn		*tapatapa*	Moreton Bay bug (POLLEX)
Pn:	E. Futunan	*tapatapa*	Moreton Bay bug
Pn:	Kapingamarangi	*tapatapa*	*Paribacus antartica*, sand lobster
Pn:	Nukuoro	*dabadaba*	slipper lobster
Pn:	Tikopian	*tapatapa*	large edible prawn (unidentified), up to 20 cm

Compare also:

PT:	Misima	*sapapa*	k.o. saltwater lobster, lacking long feelers

The Misima form probably refers to *Paribacus* and suggests POc *(s,j)aba(s,j)aba*, with loss of a syllable in Misima.

order DECAPODA
suborder ANOMURA
families PAGURIDAE and COENOBITIDAE (hermit and coconut crabs)

POc *qayuyu* 'coconut crab, *Birgus latro*' (Blust 1972a)

Adm:	Mussau	*aiu*	coconut crab
	Yapese	*'ayu:y*	coconut crab
SES:	Sa'a	*esusu*	coconut crab (*Birgus latro*)
SES:	Arosi	*asusu*	coconut crab
SES:	Bauro	*auu*	coconut crab
NCV:	Lonwolwol	*au*	the small sand crab that runs into the sea at one's approach
CP:	Rotuman	*aruru*	large crab able to husk a coconut
PPn		*quuquu*	coconut crab (*Birgus latro*) (POLLEX)
Pn:	E. Futunan	*'uu'uu*	coconut crab (*Birgus latro*)
Pn:	Kapingamarangi	*uu*	coconut crab

PMP *(k,q)umaŋ* 'hermit crab' (Blust 1980)

POc *qumwaŋ* 'hermit crab'

NNG:	Manam	*guma*	hermit crab
NNG:	Numbami	*gubaŋa*	hermit crab
NNG:	Takia	*gum*	hermit crab
PT:	Molima	*gumana*	hermit crab
PT:	Gapapaiwa	*gumaya*	hermit crab
MM:	Tabar	*guma*	hermit crab
Fij:	Bauan	*uga*	hermit crab

Fij:	Wayan	*uga*	generic for hermit and coconut crabs
PPn		**quŋa*	hermit crab sp. (POLLEX)
Pn:	Tongan	*'unga*	hermit crab
Pn:	Rennellese	*'unga*	hermit crab

order DECAPODA
suborder BRACHYURA (true crabs)

PMP **qalimaŋaw* 'mangrove crab' (Blust 1980)

POc **qaRimaŋo* 'large mangrove crab, poss. *Scylla* spp. (Portunidae)'

NNG:	Kove	*alimango*	mangrove crab
PT:	Molima	*kalimana*	mangrove crab
SES:	Lau	*alimaŋo*	largest sp. of crab, found on outer reef, black
SES:	Arosi	*arimaŋo*	very large crab with paddles, found in mangrove swamps
Mic:	Ponapean	*elimóŋ*	· mangrove crab
Mic:	Carolinean	*alimoŋ*	large sea crab with red-orange shell
Pn:	Samoan	*alimaŋo*	a crab, *Lupea* sp.

POc **kape* 'crab taxon, prob. a rock crab'

Adm:	Lou	*kah*	shell of crab or bivalve mollusc
NNG:	Sengseng	*kahe*	crab
NNG:	Poeng	*kape*	crab
SES:	Nggela	*gave*	reef crab
SES:	Arosi	*'ahe*	first element, serving as generic classifier, in names of different species - e.g. *'ahe/haruta* 'a large sea crab'; *'ahe/roma* 'a red crab'; *'ahe/to'o* 'a small land crab'
SES:	Sa'a	*'ahe*	a crab
NCV:	Mota	*gave*	several spp. of crab
NCV:	Raga	*gave*	crab (generic)
NCV:	Paamese	*æh*	kind of crab found on rocks
NCV:	Nguna	*kaave*	sp. of rock crab, black

PMP **kaRakap* 'prob. *Grapsus* sp., rock crab' (Blust 1989)

| | Palauan | *kesako* | k.o. land crab |
| | Chamorro | *hagahaf* | rock crab |

POc **kaRaka(p)* 'k.o. crab, prob. *Grapsus* sp.' (Geraghty (1990:61) reconstructs Proto Eastern Oceanic **kaRaka* 'k.o. crab')

NNG:	Takia	*karag*	crab
NNG:	Gedaged	*kazag*	k.o. crab
Fij:	Bauan	*qaka*	mangrove crab

Fij:	W. Fijian	*kakaka*	k.o. land crab

Compare also:

Mic:	Kiribati	*kakawa*	k.o. small crustacean

PMP **kaRuki* 'sand crab, *Ocypoda* sp.' (cf. Blust 1983-84)

POc **kaRu(i)ki* 'prob. *Ocypoda* sp., ghost crab, small white land crab with white back found on sandy beaches'

NNG:	Hote	*kaluk*	crab
NNG:	Manam	*garuku*	(type of little) crab
NNG:	Kove	*karoki*	middle-sized crab found in holes on beaches
MM:	Bali-Vitu	*karoki*	crab
PCP		**kauiki*	ghost crab, *Ocypoda* sp.
CP:	Rotuman	*'avi'i*	sand crab
Fij:	Bauan	*kauke*	ghost crab
Fij:	Wayan	*koke*	*Ocypoda* sp., ghost crab
Pn:	Samoan	*'avi'i*	sand crab, *Ocypoda* sp.
Pn:	Tikopian	*kaviki*	ghost crab, *Ocypoda* sp.
Mic:	Kiribati	*kauki*	ghost crab
Mic:	Marshallese	*karuk*	white sand crab

Geraghty (1990:62) reconstructs Proto Eastern Oceanic **kaRuiki* to account for the agreement between Chamorro *haguiki* and the Central Pacific forms.

The previous reconstruction has an apparent doublet, showing **-pe* instead of **-ki* in the final syllable:

POc **kaRupe* 'prob. *Ocypoda* sp., ghost crab'

SES:	Arosi	*karuhe*	burrowing sand crab
NCV:	Mota	*garuwe*	a flattened crab
NCV:	Nguna	*kaapwe*	ghost crab
NCV:	Port Sandwich	*xauv*	beach crab

POc **kuka* 'k.o. crab (prob. living in mangrove swamp, poss. *Sesarma* sp.)'

MM:	Tolai	*kuka*	crab; coconut crab
MM:	Maringe	*kokha*	hermit crab
SES:	Arosi	*kuka*	generic term for crab
SES:	'Are'are	*'u'a*	mud crab
NCV:	Lewonwon	*lo/kuk*	crab (generic)
Fij:	Bauan	*kuka*	small red and black crab, found in mangrove swamp
PPn		**kuka*	mangrove crab (POLLEX)
Pn:	Samoan	*'u'a*	common mangrove crab, *Sesarma* sp.

POc **rakum(u)* 'k.o. crab'

Adm:	Lou	*roum*	a crab
PT:	Muyuw	*lakum*	a crab

PT:	Gapapaiwa	*rakum*	crab type
NNG:	Manam	*rakum*	(type of big red) crab
MM:	Tabar	*raku*	crab
NCV:	S.E. Ambrym	*oum*	land crab
Mic:	Ponapean	*rokumw*	sp. of small land crab

Compare also:

NNG:	Kove	*laumu*	k.o. crab, said to be western dialect for sand crab called *karoki* in eastern dialect

POc **tubaRa* 'generic for large land crabs' (Geraghty 1990)

PT:	Motu	*dubara*	small land crab
MM:	Tolai	*tubara*	land crab
SES:	'Are'are	*opara*	a crab
CVN:	Mota	*tipara*	k.o. land crab
CP:	Rotuman	*fupa*	land crab
Fij:	Wayan	*tubaa*	land crab, *Cardisoma* sp; generic for several species of land crab
PPn		**tupa*	land crab (POLLEX)
Pn:	Samoan	*tupa*	land crab sp. with large claws
Pn:	Tongan	*tupa*	k.o. land crab

phylum MOLLUSCA
class GASTROPODA (univalves)

PMP **sisi(q)* 'edible snail' (doublets **sisuq*, **susuq*) (Blust 1980)

POc **sisi(q)* 'prob. generic for gastropods, but certainly referred to various small, snail-like gastropods'

PT:	Molima	*sisi/'alo*	a brown bivalve, small and edible, found in tidal flats
NNG:	Takia	*sisei*	generic term for all varieties of sea-shells
MM:	Nakanai	*e-sisi*	a shellfish
SES:	'Are'are	*sisi-*	first element in compounds for kinds of gastropods
SES:	Arosi	*sisi/apiro*	limpet
SES:	Lau	*sisi/afufu*	mollusc sp.
SES:	Nggela	*hihi/vuhi*	freshwater snail sp., *Nerita brevispina*
NCV:	S.E. Ambrym	*ses*	shellfish of family Neritidae
NCV:	Tolomako	*sise, sisi*	shellfish
CP:	Rotuman	*sisi*	edible shellfish, the periwinkle
Fij:	Bauan	*sici*	1. *trochus* spp. 2. first element in various compounds naming kinds of gastropods and a few bivalves

Fij:	Wayan	*cici*	1. generic for gastropods (univalves)
			2. generic for molluscs with shells
PPn		**sisi*	a univalve mollusc (POLLEX)
Pn:	Niuean	*hihi*	first element in compound names for some gastropods
Pn:	Samoan	*sisi*	name given to small snails in general (Milner); freshwater molluscs (Pratt)
Pn:	E. Futunan	*sisi*	small shellfish spp. (Neritidae and Naeticidae)
Pn:	Tikopian	*sisi*	marine and land snails incl. *Melampus* and *Nerita* spp.

Compare also:

| PT: | Motu | *dudu* | name of a shellfish |

family TROCHIDAE

PMM **game* 'possibly *Trochus niloticus*'

MM:	Bali-Vitu	*game*	k.o. shellfish: *Trochus niloticus*
MM:	Tabar	*gam*	shellfish (poss. from Tok Pisin *gam*)
MM:	Tanga	*gem*	a bivalve, poss. a small *Toigans*

Compare also:

| Adm: | Mussau | *(kame)kame* | bait |

POc **lalai* 'trochus or pearl shell'

Adm:	Mussau	*(lai)lai*	pearlshell (poss. from Tok Pisin/Tolai *lalai*)
NNG:	Kove	*lalai*	pearlshell (poss. from Tok Pisin *lalai*)
MM:	Bali	*lailai*	pearlshell (poss. from Tok Pisin/Tolai *lalai*)
MM:	Tolai	*lalai*	*Trochus* spp., armlet made from trochus shells
SES:	Longgu	*lalai*	trochus shell, *Trochus niloticus*

family STROMBIDAE (strombs, spiders, conches, but not trumpet shell)

PMP **Raŋa, Raŋak* or *Raŋar* 'the spider conch: *Lambis lambis*' (Blust 1989)

POc **Raŋa* '*Lambis* spp., esp. spider conch: *Lambis lambis*' (Geraghty (1990) reconstructs Proto Eastern Oceanic **Raŋa* for this)

| PT: | Bwaidoga-Iduna | *laga* | *Lambis scorpius, Strombus sinuatus* |

NNG:	Mangap-Mbula	*rāŋga*	spider shell
MM:	Tabar	*raŋ*	*Lambis truncata sebae*
MM:	Cheke Holo	*chega*	spider conch incl. *Lambis* sp.
SES:	Arosi	*raŋa*	spider shell, with long spines
NCV:	Mota	*ŋara*	(metath.) spider shell
Fij:	Bauan	*yaŋa*	generic name for some varieties of shellfish: *Pterocera* and *Lambis* sp.
Fij:	Wayan	*eŋa*	generic for Strombidae and *Lambis truncata*
Mic:	Kiribati	*neaŋ*	spider shell: *Lambis* sp.
Mic:	Pulawat	*leyag*	spider shell

family TURBINIDAE

PWMP **qaliliŋ* 'cat's eye shell' (some reflexes indicate initial **w*) (Blust 1980)

POc **qaliliŋ* 'turban (cat's eye or greensnail) shell: *Turbo petholatus*'

MM:	Duke of York	*kaliliŋ*	shell fish
SES:	Lau	*s/alili*	*Turbo petholatus*
SES:	'Are'are	*r/ariri*	a small shellfish, with cat's eye
NCV:	S.E. Ambrym	*lili*	operculum of green snail
NCV:	Namakura	*'alil*	cat's eye shell
PPn		**qalili*	cat's eye shell (*Turbo* sp.) (POLLEX)
Pn:	Tongan	*'elili*	a shellfish with cat's eye
Pn:	Rennellese	*'agigi*	turban shells as used for spoons
Pn:	Samoan	*alili*	a mollusc: *Turbo* sp.
Pn:	Tikopian	*alili*	greensnail; *Turbo* spp. incl. *T. marmoratus*, *T. bargyrostomus*, *T. setosus*
Pn:	Rennellese	*'agigi*	turban shells, *T. petholatus*

POc **matabuku* '*Turbo* spp.'

MM:	Cheke Holo	*phupuku*	*Trochus incrassatus*
SES:	Lengo	*matapuku*	Turbinidae
Fij:	Wayan	*matabuku*	*Turbo* spp., poss. incl. *T. chrysostoma*, *T. argyrostoma*, *T. necnivosus*

Compare also:

| SV: | Anejom | *na/pek* | *Turbo marmoratus* |

cf. POc **mata* 'operculum', **buku* 'lump, knot'

family CYMATIIDAE (conches)

PMP **tambuRiq* 'conch shell trumpet (doublet **tambuRi*)', (Blust 1989)

POc *tapuRi(q)* 'triton shell: *Charonia tritonis* (and prob. allied spp.)'

PT:	Kilivila	*tauya*	triton
NNG:	Kove	*taule*	triton
MM:	Nalik	*tafuru*	triton shell
MM:	Tabar	*taburi*	*Turbo marmoratus*
MM:	Patpatar	*tahur*	triton shell
MM:	Bali-Vitu	*tavure*	triton shell
Adm:	Mussau	*taue*	triton shell
SES:	Nggela	*tavuli*	triton shell
SES:	Arosi	*ahuri*	conch shell, triton
NCV:	Lonwolwol	*taviu*	conch shell (and sound)
NCV:	Nguna	*tavui*	triton shell
Fij:	Wayan	*tavui*	Triton's trumpet and allied spp.
Fij:	Bauan	*davui*	Triton's trumpet
Mic:	Kiribati	*tau*	triton conch

families CYPRAEIDAE (cowries) and OVULIDAE (egg and spindle cowries)

PMP *buliq* 'cowrie shell' (Blust 1980)

POc *buli(q)* 'cowrie'

PT:	Molima	*buli*	cat's eye (operculum of shell)?
NNG:	Takia	*bul*	k.o. shellfish: *Ovula ovum*, white egg cowrie
MM:	Tabar	*(buri)buri*	big cowrie shell
MM:	Cheke Holo	*buli*	cowrie shell
SES:	Nggela	*mbuli*	generic for all cowries
SES:	Lau	*buli*	white cowrie, *Ovula ovum*
SES:	Sa'a	*puli*	cowrie shell, used as sinkers for nets
NCV:	Nguna	*pule*	cowries
Fij:	Bauan	*buli*	cowrie shell
Fij:	Wayan	*bulibuli*	cowrie shell: generic term for Cypraeidae and Ovulidae
PPn		*pule*	cowrie
Pn:	Samoan	*pule*	cowrie
Mic:	Ponapean	*pwili*	cowrie shell

It seems likely that POc * *buli(q)* was used (i) specifically for *Ovula ovum*; (ii) generically for all Cypraeidae.

family MURICIDAE (murexes)

POc *buRua* '*Murex* sp.' (Geraghty 1990)

PT:	Bwaidoga	*hewahewa/bulu*	*Murex ramosus* shell
MM:	Tolai	*burua*	*Murex palma rosa*

| MM: | Nakanai | *e-buru* | cone-shaped shellfish |
| Fij: | Wayan | *bua* | *Murex* spp. |

Compare also:

| NNG: | Kove | *vuru* | cone shells and ornaments made from these |

class BIVALVIA (clams, oysters, etc.)

family CARDIIDAE (cockles)

POc **kaRi* 'bivalve sp., prob. cockle, used as a scraper' (Geraghty 1990)

NNG:	Manam	*'ori'ori*	pearl shell, traditionally used to scrape coconuts; coconut grater, scraper
SES:	Nggela	*gali*	species of mollusc, *Asaphis* sp. (eaten)
SES:	Sa'a	*ali*	cockle
NCV:	Mota	*gar*	cockle; to scrape
NCV:	Raga	*gari*	cockleshell; used as a scraper
Fij:	Bauan	*kai*	generic name of bivalve shellfish
		kai/koso	generic for several bivalves

family MYTILIDAE (mussels)

POc **kasi* 'a mussel or cockle, used as food grater or scraper (also *v.* 'to scrape')'

PT:	Tawala	*kahi*	pearl shell
MM:	Nakanai	*kasi*	mussel or clam; mussel shell used as knife
CP:	Rotuman	*'asi*	cockle, shell much used for scraping
PPn		**kasi*	bivalve shellfish (Asaphidae) (POLLEX)
Pn:	Tongan	*kahi*	name of a mussel
Pn:	Samoan	*'asi*	a mussel, *Arca* sp.
Pn:	Nukuoro	*gasi*	*Asaphis dichotoma*
Pn:	Tikopian	*kasi*	bivalve mollusc (*Asaphis violascens* Forskal), possibly other related bivalves also; shell used as cutting or scraping implement

Compare also:

| Mic: | Carolinian | *ghaatil* | very small clams (thumb-sized) used in soups |

POc *kuku* 'mussel sp., used as food grater or scraper'

Adm:	Lou	*kuki*	shell used to scrape coconut
NNG:	Takia	*kuk*	shellfish: *Anadara* sp., cockleshell
NNG:	Kove	*kuku*	little black horse mussel
SES:	Nggela	*gugu*	mollusc sp.
NCV:	Lonwolwol	*huhu*	a sharpened shell, for scraping
Fij:	Bauan	*kuku*	generic for mussels, incl. *Mediola lithgohaga*
PPn		**kuku*	mussel sp. (Mytilidae) (POLLEX)
Pn:	Niuean	*kuku*	a small black mussel
Pn:	E. Futunan	*kuku*	mussel sp. (Mytilidae)
Pn:	Rarotongan	*kuku*	mussel sp., *Mytilus edulis*
Pn:	Rennellese	*kuku*	*Tellina discus*

Blust (1972a:10) relates POc *kuku* to PAn **kuDkuD* 'rasp, file', noting reflexes such as Tagalog *kudkod*, Toba Batak *hurhur* 'grated', Ngadju Dayak *kukur* 'rasp, grater'.

OSTREIDAE (oysters), PTERIIDAE (wing and pearl oysters) and ISOGNOMONIDAE (hammer oysters)

POc *japi* 'k.o. bivalve (possibly gold-lipped pearl shell: *Pinctada maxima*); ornament made from this'

NNG:	Manam	*sai*	pearl shell spoon
MM:	Roviana	*davi*	pearl shell
SES:	Bugotu	*davi*	gold-lipped pearl shell
SES:	'Are'are	*tafi*	pearl shell, ornament made of same
SES:	Arosi	*dahi*	gold-lipped pearl shell
PCP		**jiva*	pearl oyster (metathesis)
Fij:	Bauan	*civa*	pearl oysters (same range as Wayan)
Fij:	Wayan	*civa*	pearl oysters, including blacklipped pearl (*Pinctada margaritifera*), giant wing oyster (*Avicula* sp.) and hammer oysters (*Malleus* spp.)
Pn:	Tongan	*sifa*	pearl shell breastplate
Pn:	Rarotongan	*ti'a*	pearl shell breastplate
Pn:	Niuean	*tifa*	mother of pearl shell and ornament
PT:	Keapara Hula	*ravivi*	clamshell
NNG:	Gegaded	*jaz*	gold-lip pearl

Compare also:

PT:	Keapara Hula	*ravivi*	clamshell
NNG:	Gegaded	*jaz*	gold-lip pearl

PAn **tiRem* 'oyster' (Dempwolff 1938)

POc **tiRom* 'oyster'

Adm:	Lenkau	*tireŋ*	k.o. shell
NNG:	Kove	*tiro*	small inedible oyster found on stones and mangroves
		tiromu	oyster (edible)
PT:	Motu	*siro*	oyster
MM:	Lakalai	*tiro*	mangrove oyster
SES:	Nggela	*tilo*	k.o. mollusc
SES:	'Are'are	*ito*	an oyster living on roots of mangroves
SES:	Kwaio	*ilo*	oyster
Fij:	Bauan	*dio*	rock oyster
PPn		**tio*	oyster sp. (POLLEX)
Pn:	E. Futunan	*tio*	rock oyster
Pn:	Tongan	*sio*	rock oyster

POc **yaro(q)* 'oyster, possibly pearl oyster sp.' [cf. POc **waro*]

NNG:	Biliau	*yaryar*	oyster shell; blacklip pearl oyster shell (*Pinctada maxima*)
SES:	Lengo	*aro*	oyster

PINNIDAE (pen shells)

POc **sapulu(q)* 'bivalve mollusc: *Pinna* sp.'

NNG:	Kove	*ravulu*	k.o. razor shell
SES:	Nggela	*havulu*	k.o. mollusc: *Pinna* sp.
SES:	Bugotu	*havulu*	scallop (Ivens: label dubious)
SES:	'Are'are	*tahuri*	a black mussel
SES:	Sa'a	*tahuru*	a black mussel
Fij:	Bauan	*savulu*	a shellfish, *Pinna squamosa*

POc **waro( )* 'pen or pearl shell' [cf. POc **yaro*]

SES:	Nggela	*aro*	*Avicula margaritifera*; scapula
SES:	Arosi	*waro*	black-lipped pearl
Fij:	Wayan	*waro*	pen shell, poss. *A. margaritifera*

TRIDACNIDAE (giant clams)

POc **kima* 'giant clam, *Tridacna* spp.'

PT:	Molima	*'ima'ima*	a shell which is used as a scraper
PT:	Wedau	*kimei*	clam shell
PT:	Tawala	*kima*	clam shell
MM:	Tabar	*kima*	clam
SES:	Nggela	*gima*	*Tridacna gigas*
SES:	Sa'a	*'ime*	giant clam variety
SES:	Longgu	*'ima*	large clam
NCV:	Mota	*gima*	giant clam variety

| SV: | Lenakel | *gima* | clam |
| Mic: | Kiribati | *kima* | large bivalve |

CHITONS

POc *tadruk(i,u)* 'Chiton' (Geraghty 1986)

SES:	Nggela	*tandugi*	chiton
Fij:	Bauan	*tadruku*	chiton
Fij:	Wayan	*tadruku*	chiton

OTHER SHELLFISH OF UNCERTAIN FAMILY

? POc *(b,p)asua* '?oyster or giant clam sp.'

SES:	Arosi	*hau wasua*	oyster (initial *w-* unexpected)
PCP		*(b,v)aasua*	*Tridacna* spp.
Fij:	Wayan	*vaasua*	giant clam, *Tridacna* spp.
Fij:	Bauan	*vaasua*	giant clam, *Tridacna* spp.
PPn		*paasua*	*Tridacna* clam sp. (POLLEX)
Pn:	Sikaiana	*paasua*	clam
Pn:	Tokelauan	*paaua*	poisonous shellfish attached under shelving coral
Pn:	Nukuoro	*baasua*	*Tridacna maxima*
Pn:	Tahitian	*paahua*	*Tridacna elonga*
Pn:	Rarotongan	*pa'ua*	clam, oyster
Pn:	Marquesan	*pahua*	oyster sp.
Pn:	Maori	*paaua*	*Haliotis* spp.
		paaua raupara	a large oyster

Although the bulk of the Central Pacific evidence points to PCP *(b,v)aasua* as denoting giant clams, *Tridacna* spp., there is a much stronger POc candidate for this genus, namely *kima*. The form *kima* is not reconstructable for PCP and it appears that its place in the semantic system was taken by *(b,v)asua*. The Arosi comparison is problematic, and may be a borrowing from a Pn source, but it provides a bit of evidence, consistent with some Eastern Pn witnesses, that *(b,v)asua* may once have referred to a smaller class of bivalves than Tridacna.

PCP *tuasi* 'bivalve taxon'

Fij:	Bauan	*tuasa*	a bivalve, poss. *Arca* sp. (final -*a* irregular)
	Wayan	*tuaci*	Tellin and Sanguin spp.
Pn:	Tongan	*tuahi*	k.o. shellfish
Pn:	Rennellese	*tuai*	spoon, formerly made of shell

POc or PWOc *bio* 'k.o. mollusc'

NNG:	Gitua	*(bio)bio*	pearl shell
MM:	Tabar	*bio*	k.o. shellfish: Strombidae
MM:	Bola	*bio*	pearl shell

| MM: | Maringe | *bio* | nautilus shell |
| SES: | Bugotu | *bio* | nautilus (poss. borrowed from Maringe) |

POc **sisira* 'a small mollusc or a barnacle'

MM:	Maringe	*sisira*	seashell, *Cypraea tigris*
SES:	'Are'are	*sisire*	a small shellfish that clings to mangrove roots
SES:	Arosi	*sisire*	barnacle
SES:	Lau	*sisile*	1. barnacles, 2. very small molluscs (generic)
SES:	Sa'a	*sisile*	a shellfish

Compare also:

| MM: | Roviana | *zere* | barnacle |

class CEPHALOPODA
superfamily COLEOIDEA (octopods, squid, nautilus, etc.)

PMP **kuRita* 'octopus' (Demwpolff 1938)

POc **kuRita* 'octopus' (prob. generic)

Adm:	Titan	*kwit*	octopus
Adm:	Mussau	*uita*	octopus
PT:	Kilivila	*kuita*	octopus
PT:	Motu	*urita*	octopus
MM:	Tabar	*urita*	octopus
MM:	Sursurunga	*kurit*	octopus
MM:	Tolai	*urita*	octopus
SES:	Tolo	*hulita*	octopus
SES:	Arosi	*'uria*	a small octopus, squid
NCV:	S.E. Ambrym	*uit*	octopus, squid
NCV:	Raga	*guita*	octopus
Fij:	Bauan	*kuita*	cuttlefish, octopus

PMP **nus* 'squid, cuttlefish (doublet, **kanuqus*)' (Blust 1986)

| Malay | | *nus* | generic for cephalopods |
| Roti | | *nus* | octopus, squid |

POc (1) **nusa,* (2) **nus* 'squid (*Loligo* spp.) and/or cuttlefish (*Sepia* spp.)'

(1) **nusa* is reflected by the following:

Adm:	Mussau	*nusa*	small squid
PT:	Motu	*nuse*	small octopus (*-s-* irregular)
NNG:	Bariai	*gusa*	squid
NNG:	Manam	*nuri*	squid
MM:	Nakanai	*luso*	cuttlefish
MM:	Bulu	*guta*	squid

MM:	Maringe	*nuho*	cuttlefish
SES:	Nggela	*nuho*	squid
SES:	Arosi	*nuto*	octopus, squid, smaller than *monagi*
SES:	Lau	*nuto*	squid
Mic:	Pulawat	*ŋiit*	cuttlefish

(2) **nus* is reflected by the following:

Adm:	Titan	*ñu*	squid
CP:	Rotuman	*nu*	squid
Fij:	Wayan	*sulua-nuu*	squid (cf. *sulua* 'octopus')
PPn		**ŋuu*	squid (POLLEX)
Pn:	Tongan	*ŋuu-feke*	squid, cuttlefish (cf. *feke* 'octopus')
Pn:	Nukuoro	*ŋuu*	squid
Pn:	Maori	*ŋuu*	squid (*Sepia apama*)

POc **mwanagi* or **mwamwagi* 'squid (*Loligo* spp.) or cuttlefish (*Sepia* spp.)'

Adm:	Penchal	*mwamwak*	large red squid
Adm:	Titan	*mwámwak*	a type of large squid
PT:	Motu	*managi*	large octopus with shell
NNG:	Lamogai-Rautoa	*wonek*	squid
NNG:	Akolet	*e-vuñek*	squid
NNG:	Apalik	*oyuk*	squid
SES:	'Are'are	*manaki*	cuttlefish
SES:	Arosi	*monagi*	a cuttlefish, larger than *nuto*
SES:	Sa'a	*monaki*	cuttlefish
SES:	Lau	*wawaki*	octopus sp.

Compare also:

NNG:	Kove	*mokave*	octopus

phylum ECHINODERMATA
superfamily ECHINOIDEA (sea-urchins)

POc **gina( )* 'k.o. sea-urchin'

NCV:	Raga	*gine/hi*	sea-urchin sp.
NCV:	Namakura	*qina*	sea-urchin sp.
NCV:	Nguna	*gida*	sea-urchin sp. (final -*d* irregular)
Fij:	Bauan	*qina*	k.o. sea-urchin (*Echinus* sp.)
Fij:	Wayan	*qina*	k.o. sea-urchin with long spikes
PPn		**kina*	sea-urchin (POLLEX)
Pn:	Niuean	*kina*	sea-urchin
Pn:	Samoan	*'ina*	sea-urchin
Pn:	Maori	*kina*	generic for sea-urchins

POc **sala(ŋ,n)* 'k.o. sea-urchin with long black spines, poss. *Diadema setosa*'

Adm:	Mussau	*raraŋ(a)*	sea-urchin
PT:	Motu	*dala*	sea-urchin
PT:	Kilivila	*sanana*	sea-urchin
NNG:	Manam	*sala*	black long-spined sea-urchin; *Diadema setosa*
MM:	Kove	*rarala*	sea-urchin with long black spines
SES:	Nggela	*hala*	an echinus, sea egg
NCV:	Paamese	*sal eimas*	rock beauty (*Diadema* sp.); sea urchin with long black spines

POc **saRawaki* 'k.o. sea-urchin, poss. *Echinometra* sp. or spp.'

NNG:	Takia	*sarwag*	sea-urchin
Fij:	Bauan	*caawaki*	k.o. sea-urchin with short spikes
Fij:	Wayan	*caawaki*	k.o. sea-urchin with brittle shell and without spines, poss. *Tripneustes* sp.
PPn		**saawaki*	sea-urchin with short spines (POLLEX)
Pn:	Samoan	*saava'i*	k.o. sea-urchin
Pn:	Rennellese	*saabaki*	sea-urchin (*Echinometra* sp.)

Compare also:

PT:	Molima	*salawa'e'e*	a purple crab

PCP **vana* 'sea-urchin (prob. *Diadema* sp.)'

CP:	Rotuman	*vænæ*	k.o. sea-urchin
Pn:	PPn	**wana*	sea-urchin sp. (POLLEX) (prob. *Diadema* sp.)
Pn:	E. Futunan	*vana*	sea-urchin with long black spines
Pn:	Tikopian	*vana*	needle-spined sea-urchin (*Diadema* sp.)
Pn:	Samoan	*fana*	sea-urchin
Pn:	Tokelauan	*vana*	*Diadema* sp., black sea-urchin with long brittle poisonous spikes

superfamily ASTEROIDEA (starfishes)

PMP **saŋasaŋa* 'starfish' (Blust 1986)

POc **saŋasaŋa* 'a starfish' (cf. POc **saŋa* 'bifurcation, crotch')

Adm:	Lou	*saŋesaŋ*	starfish
Adm:	Titan	*caŋacaŋ*	starfish
Adm:	Nauna	*caŋacaŋ*	starfish
Adm:	Nyindrou	*sakasak*	starfish
NNG:	Poeng	*kamva/sangsang*	starfish, forked

Compare also:

Fij:	Bauan	*ba-saga*	1. branchy, 2. starfish

superfamily HOLOTHUROIDEA (sea-cucumbers, bêche-de-mer)

POc *(p,b)ula* 'sea-cucumber'

MM:	Tabar	*pura*	sea-cucumber
MM:	Bali-Vitu	*bula*	sea-cucumber
MM:	Nehan	*pul*	sea-cucumber
MM:	Tanga	*pul*	first element in compound terms for sea-cucumbers
Fij:	Wayan	*vula*	a sea-cucumber with spots, poss. *Holothuria argus*

Coelenterates

phylum CNIDARIA
class ANTHOZOA (sea-anemones and corals)

POc *dr(o,u)man(a,e)* 'anemone and/or leech'

PT:	Dobu	*domana*	leech
PT:	Motu	*doma*	leech
MM:	Tolai	*domol*	leech
NCV:	Mota	*rumwane*	a sea-anemone
CP:	Rotuman	*nunami* (metath.)	anemone
Fij:	Wayan	*dromani*	generic for anemones
PPn		*lumane*	sea-anemone (POLLEX)
Pn:	Samoan	*lumane*	anemone
Pn:	Tongan	*uumana*	anemone
Pn:	W. Futunan	*rumane*	sea-anemone
Pn:	Mele-Fila	*arumani*	anemone

POc *laje* 'generic for coral, esp. branching corals' (cf. Milke 1968)

PT:	Motu	*lade*	k.o. coral
NNG:	Gedaged	*lad*	k.o. coral, short and flat
MM:	Maringe	*glae/laje*	coral
SES:	Nggela	*lande*	generic for branching corals
SES:	Lau	*lade*	coral
SES:	Arosi	*rade*	coral
NCV:	Mota	*las*	live coral of branching kinds
CP:	Rotuman	*laes*	coral, lime
Fij:	Wayan	*lase*	generic for branching corals
Fij:	Bauan	*lase*	common branchy coral
Pn:	E. Futunan	*lase*	lime

PCP *bulewa* 'an organism growing on rocks or floating on sea, poss. brown rock coral'

Fij:	Bauan	*bulewa*	k.o. coral, clinging to rocks, eaten by fish

Fij:	Wayan	*bulewa*	slimy brownish organism, on rocks and floating on sea, eaten by fish; regarded as a plant
PPn		**pulewa*	marine substance/creature with stone-like or rough exterior (POLLEX)
Pn:	Kapingamarangi	*purewe*	(1) sandpaper-like growth on coral, (2) coral variety
Pn:	Uvea	*puleva*	k.o. bêche-de-mer (sea-cucumber)
Pn:	Mangarevan	*pureva*	roe of fish, yellow scum floating on the sea from about 17-21 Feb., eaten by fish
Pn:	Hawaiian	*puulewa*	k.o. stone, used as sinker

WORM-LIKE PHYLA

POc **bayan* 'bait, worm'

MM:	Duke of York	*baina*	bait
MM:	Tanga	*ba*	bait
MM:	Teop	*beyana*	bait
MM:	Mono-Alu	*beyana*	bait
MM:	Cheke Holo	*baina*	bait
NCV:	Mota	*pea*	bait
NCV:	Raga	*bea*	bait
SV:	Lenakel	*na-bian*	bait
SES:	'Are'are	*pa*	fish bait
SES:	Sa'a	*paa*	bait
SES:	Arosi	*baa*	bait for fish
Fij:	Bauan	*baca*	worm, bait for fishing
Fij:	Wayan	*baya*	worm, bait

This last cognate set should not be confused with that pointing to POc **baya( )* 'trolling lure, probably made of pearl shell', although the two may ultimately be related. Reflexes of the two sets show somewhat different though not always regular phonological developments in daughter languages (e.g. Sa'a *paa* 'bait', *pasa* 'lure' and Wayan *baya* 'worm', *baa* 'lure').

POc **ibo* 'k.o. sandworm, poss. *Sipunculus* sp.'

MM:	Roviana	*ibo*	small seaworm, much used for bait
Fij:	Bauan	*ibo*	large edible seaworm
Fij:	Wayan	*ibo*	a sandworm
Pn:	Samoan	*ipo*	edible sandworm, *Sipunculus* sp.
Pn:	Nanumea	*ipo*	sp. of worm found on the beach
Mic:	Kiribati	*ibo*	a sandworm, *Sipunculus indicus*

Compare also:

| MM: | Teop | *iobo* | seaworms (-*o*- unexpected) |

Although this cognate set formally matches PMP *imbaw* 'marine mollusc sp.' (Blust 1980:77) the latter reconstruction rests on cognates in two Western Malayo-Polynesian languages which in each case refers to bivalves.

Proto Remote Oceanic *weli* 'marine worm, prob. venomous, poss. a fireworm'

NCV:	Raga	*weli*	small irridescent centipede
NCV:	Uripiv	*na-wel*	palolo worm
PPn		*weli*	centipede; venomous seaworm sp. (POLLEX)
Pn:	E. Futunan	*veli*	a venomous creature found on the reef
Pn:	Tongan	*veli*	a hairy worm that lives mostly in water
Pn:	Mangarevan	*veli*	marine annelid like a centipede
Pn:	Hawaiian	*weli*	a holothurian
Pn:	Maori	*weri*	centipede
Pn:	Tahitian	*veri*	centipede

Compare also:

PT:	Dobuan	*pwali/keke*	millipede
PT:	Molima	*pwali/keke*	poisonous millipede

Note that a well-supported PMP and POc reconstruction for 'centipede' exists, namely *qalipan* and this was continued in Fijian as *qaliva* 'millipede', suggesting that the Maori and Tahitian reflexes of *weli* involve semantic shift.

SOME OTHER RELEVANT COGNATE SETS

POc *buRu* 'octopus ink, sepia' (Geraghty 1990)

SES:	Arosi	*buru*	cuttlefish ink
SES:	Sa'a	*bulu*	octopus ink
Fij:	Bauan	*bu/loa*	octopus ink
Fij:	Wayan	*buu/loo*	octopus ink; ink sac of octopus, poisonous fluid ejected by certain fish

PMP *gaway* 'octopus tentacles' (Zorc 1994)

POc *kawe* 'tentacle of a cephalopod'

PT:	Motu	*gave*	tentacles of octopus
SES:	Sa'a	*ka/kave/na*	tentacle
Fij:	Bauan	*kawe*	leg of a crab
PPn		*kawe*	tentacle of a cephalopod (POLLEX)
Pn:	Tongan	*kave*	tentacle of cuttlefish
Pn:	E. Futunan	*kave/i*	tentacle
Pn:	Samoan	*'ave*	tentacle of an octopus

POc *mata* 'the operculum of certain gastropod spp.' (cf. POc *mata* 'eye, opening, most important part or focal point of a thing')

MM:	Tolai	*mata*	operculum
NNG:	Poeng	*mangasi mata-na*	operculum of turban shell
SES:	Lau	*maa*	operculum of a univalve
Fij:	Wayan	*mata*	operculum

POc *Rami* 'crustacean roe' (Geraghty 1990)

SES:	Nggela	*lami*	spawn of crabs
SES:	Arosi	*rami*	eggs of crabs or crayfish
NCV:	Mota	*rame/ai*	the eggs of crawfish, crabs, etc.
		rame	cover with eggs
NCV:	Raga	*ami/ni*	crustacean eggs
PPn		**ami*	crustacean roe (POLLEX)
Pn:	Tongan	*ami*	crab and lobster roe
Pn:	Samoan	*ami*	roe of crabs and other crustaceans
Pn:	Tokelauan	*ami*	roe of crustaceans

The previous cognate set contrasts with the next:

PAn *biRas* 'roe, fish eggs' (Blust 1980)

POc *biRa(s)* 'roe of fish' (Geraghty 1990)

PT:	Motu	*bila*	spawn of fish
MM:	Roviana	*bira*	roe
SES:	'Are'are	*bila*	roe of fish, yolk of egg
SES:	Arosi	*bira*	roe of fish, yolk of egg
SES:	Sa'a	*pile*	roe of fish
Fij:	Wayan	*via*	(n) fish eggs, roe, (v) (fish) be ready to spawn
Mic:	Wolio	*bio*	big fish roe

POc *kalagam* 'seaweed'

PT:	Molima	*kalagoma*	a seaweed
PT:	Tawala	*yalegwama*	seaweed type, brown
PT:	Muyuw	*yálig*	seaweed used to paint canoes
PT:	Motu	*alaga*	seaweed like grass
MM:	Nakanai	*lega*	a kind of seaweed
SES:	Lau	*'alaga*	seaweed
SES:	Arosi	*'araga*	seaweed

PMP *l(i,u)mut* 'seaweed sp.' (Dempwolff 1938)

POc *l(i,u)mut* 'seaweed, moss, algae'

Adm:	Mussau	*(imu)imut(u)*	moss
PT:	Kilivila	*be/luma*	seaweed
NNG:	Manam	*lumta*	moss
MM:	Nakanai	*lumulumu*	moss (*Psilotum nudum* and *Pucrosorium* sp.)

MM:	Duke of York	*limut*	seaweed; slime
SES:	Nggela	*lumu*	moss, weeds on keel
SES:	'Are'are	*rumu*	seaweed; a moss on trees, used in ceremonial purification
SES:	Arosi	*rumurumu*	moss, lichen, seaweed
NCV:	Paamese	*lumlum*	seaweed, slime, moss
Fij:	Wayan	*lumelume*	sea-moss, a green slime which grows on reefs and keels of boats, and in rivers and ponds
Fij:	Bauan	*lumi*	moss, adhering to a rock or boat
PPn		**limu*	moss, seaweed (POLLEX)
Pn:	Tongan	*limu*	seaweed; moss or lichen
Pn:	Hawaiian	*limu*	seaweed, moss
Pn:	Maori	*rimu*	lichen sp.

4. CONCLUSION: WHAT KINDS OF TERMS ARE MOST PERSISTENT AND WHY?

The number of POc taxa reconstructed above for reef and shoreline invertebrate taxa is 44 (discounting other relevant terms in the final section). Taking the Wayan figure of about 230 taxa as typical of Austronesian maritime communities who exploit fringing reefs, we may guess that 44 is probably no more than a quarter or a fifth of the total number of terms used by POc speakers for this semantic field. The following breakdown indicates the distribution of the shortfalls across the main groups of animals.

TABLE 4: TERMS FOR VARIOUS MARINE INVERTEBRATE GROUPS IN POC AND WAYAN

	WAYAN	POC
CRUSTACEANS		
crayfish, prawns	10	2
true crabs	30	7
Anomura	4	2
Cirripedia	2	1
subtotal	46	12
MOLLUSCS		
gastropods	103	8
bivalves	34	11
cephalopods	4	3
others	4	0
subtotal	145	22
ECHINODERMS		
sea-cucumbers	12	1
sea-urchins	8	4
subtotal	20	5
CNIDARIA		
corals and anemones	11	2
jellyfish	2	0
subtotal	13	2

MARINE WORMS	5	3
Total	229	44

The relative paucity of POc reconstructions can be attributed in part to gaps in the coverage provided by dictionaries of contemporary languages. Good dictionaries are scarce and very few dictionaries come anywhere near an exhaustive listing of terms for invertebrates.

However, it is clear that certain POc terms have been relatively stable, being reflected in widely divergent subgroups, while others have been relatively unstable. A pattern is discernible. One important category of terms almost completely missing from our reconstructions is *true compounds* or *binomials*. A run through the POc reconstructions shows that almost all the terms there are *uninomials* (unitary lexemes). By contrast, more than a third of the Wayan names are compounds (including 46 of the 103 gastropod taxa). Only one probable POc compound survives in our material, **mata-buku 'Turbo* spp.'.

Berlin (1992) argues that in folk taxonomies of wild animals and plants the most salient and well-marked categories for purposes of identification are *folk generics*. Names of taxa at the level of folk generic are usually uninomials (e.g. 'owl') or idioms (e.g. 'blackbird', 'she-oak', 'pussy willow'). A folk generic may have a number of *folk specifics*, which are perceived as closely related but distinct types. These are typically named by transparent compounds, made up of a folk generic name plus a descriptive modifier which refers to one or another distinguishing feature of the taxon - its characteristic habitat, colour, size, shape, etc. (e.g. 'barn owl', 'grass owl', 'sooty owl'). It seems that the POc terms that have survived are mainly folk generics, plus a few higher-order generics. The modifiers that distinguish folk specifics have not been stable.

Why this extreme instability of modifiers in names for specific taxa? There are, perhaps, several reasons. One is the variability of local species. Although the same orders, families and genera of common reef and shoreline animals are usually common to different regions of the tropical Pacific, the species are much more variable from region to region. Migrants might be expected to apply new modifiers to newly encountered species if these were clearly distinct from those known in their former homeland. Another factor is the wide range of distinctive salient characteristics exhibited by many folk generics and folk species, such as colour, shape, size and behaviour. Speakers can be expected from time to time to change the choice of the characteristic used to distinguish one taxon terminologically from its sister taxa. Finally, particular modifying terms may themselves change in meaning and no longer be semantically appropriate. In some cases the old modifier may be retained as part of the term, leaving an opaque or idiomatic binomial; in other cases the old modifier will be replaced by a new, semantically appropriate one.

So far there are few secure reconstructions of terms for higher-order generics than folk generics, terms that subsume a large number of folk generics. On synchronic evidence we might expect more. Most well-described Oceanic languages have a generic term for gastropods and another for bivalves, and some have a term that comprises both. POc **sisi(q)* was probably generic for gastropods; **quraŋ* was probably generic for crayfish and prawns. Clark's **pinaŋoda* 'seafood gathered on the reef' is a special kind of generic, a functional rather than a biological taxon; **quraŋ* was evidently generic for crayfish, prawns and shrimps.

Some contemporary Oceanic languages have generic terms for (1) cephalopods, (2) sea-urchins and (3) sea-cucumbers, respectively. Although there are candidates, there are as yet no certain POc reconstructions for any of these generic categories. Many languages also have a term for crabs in general, or for true crabs. Often this also doubles as the specific name for large *Scylla* spp. (Portunidae), for example, Samoan *pa'a*, Wayan *seka* serve both as folk generic and higher order generic. The name for *Scylla* spp. is a natural choice for the higher-order generic because these are very large crabs and usually among the most important as a food source. However, different groups of Oceanic languages assign specific terms for different large crab taxa to the generic function (see cognate sets for POc *kape*, *kuka*) and no certain generic term can be reconstructed at present. The lack of dictionaries with good descriptions of folk taxonomies remains a major handicap to reconstruction of many details of the POc taxonomy.

REFERENCES

Berlin, Brent, 1992, *Ethnobiological classification: principles of categorization of plants and animals in traditional societies*. Princeton: Princeton University Press.

Biggs, Bruce, n.d., POLLEX. Proto Polynesian computer data file. Department of Anthropology, University of Auckland. [1993 printout]

Blust, Robert A., 1972a, Additions to 'Proto-Austronesian addenda' and 'Proto-Oceanic addenda with cognates in non-Oceanic Austronesian languages'. *Working Papers in Linguistics, University of Hawaii* 4/8:1-17.

1972b, Proto-Oceanic addenda with cognates in non-Oceanic Austronesian languages. *Working Papers in Linguistics, University of Hawaii* 4/1:1-43.

1980, Austronesian etymologies. *Oceanic Linguistics* 19:1-181.

1983-84, Austronesian etymologies – II. *Oceanic Linguistics* 22-23:29-149.

1986, Austronesian etymologies – III. *Oceanic Linguistics* 25:1-123.

1989, Austronesian etymologies – IV. *Oceanic Linguistics* 28:111-180.

Clark, Ross, 1991, *Fingota/Fangota*: shellfish and fishing in Polynesia. In Andrew Pawley, ed. *Man and a half: essays in Pacific anthropology and ethnobiology in honour of Ralph Bulmer*, 78-83. Auckland: The Polynesian Society.

n.d.a, Proto-Polynesian thesaurus. Department of Anthropology, University of Auckland. Typescript.

n.d.b, Some Proto-North Central Vanuatu reconstructions. Department of Anthropology, University of Auckland. Typescript. [1994 revised version]

Dempwolff, Otto, 1938, *Vergleichende Lautlehre des austronesischen Woertschatzes*, vol. 3: *Austronesisches Woerterverzeichnis. Zeitschrift für Eingeborenen-Sprachen*, supplement 19. Berlin: Dietrich Reimer.

Geraghty, Paul, 1986, The sound system of Proto-Central-Pacific. In Paul Geraghty, Lois Carrington and S.A. Wurm, eds *FOCAL II: papers from the Fourth International Conference on Austronesian Linguistics*, 289-312. *PL*, C-94.

1990, Proto-Eastern Oceanic *R and its reflexes. In J.H.C.S Davidson, ed. *Pacific Island languages: essays in honour of G.B. Milner*, 51-93. London: School of Oriental and African Studies, University of London.

Green, R.C., 1979, Lapita. In J.D. Jennings, ed. *The prehistory of Polynesia*, 27-60. Cambridge, Mass.: Harvard University Press.

Kirch, Patrick V., 1992, The Lapita culture of western Melanesia. *Annual Review of Anthropology* 20:141-165.

Milke, Wilhelm, 1968, Proto-Oceanic addenda. *Oceanic Linguistics* 7/2:147-171.

Pawley, Andrew, 1972, On the internal relationships of Eastern Oceanic languages. In R.C. Green and M. Kelly, eds *Studies in Oceanic culture history* 3, 1-142. Pacific Anthropological Records 13. Honolulu: Bernice P. Bishop Museum.

1994, On the classification of marine animals in Wayan. In John Morrison, Paul Geraghty and Linda Crowl, eds *Science of Pacific island peoples*, vol.3: *Fauna, flora, food and medicine*, 87-107. Suva: Institute of Pacific Studies, University of the South Pacific.

Pawley, Andrew and Roger C. Green, 1984, The Proto-Oceanic language community. *Journal of Pacific History* 19/3:123-146.

A.K. Pawley and M.D. Ross, eds, 1994, *Austronesian terminologies:continuity and change. PL*, C-127.

Pawley, Andrew and Timoci Sayaba, forthcoming, *Words of Waya: a dictionary of the Wayan dialect of the Western Fijian language. PL*, Series C.

Ross, M.D., 1988, *Proto Oceanic and the Austronesian languages of western Melanesia. PL*, C-98.

Spriggs, M., 1991, Lapita origins, distributions, contemporaries and successors revisited. In P. Bellwood, ed. *Indo-Pacific Prehistory 1990: Proceedings of the 14th Congress of the Indo-Pacific Prehistory Association*, 306-312. Canberra/Jakarta: The Indo-Pacific Prehistory Association.

Zorc, R. David Paul, 1994, Austronesian culture history through reconstructed vocabulary (an overview). In Pawley and Ross, eds 1994:541-594.

RECONSTRUCTING FOOD PLANT TERMS AND ASSOCIATED TERMINOLOGIES IN PROTO OCEANIC

MALCOLM ROSS

1. INTRODUCTION[1]

This paper reports on an attempt to apply the method of 'terminological reconstruction' to the food plant terms and associated terminologies used by Proto Oceanic (POc) speakers. 'Associated terminologies' is used here with two overlapping references. The first is to the taxonomic structures into which food plant terms were organised in POc, the second to the fact that some of the terms reconstructed here are plant parts (e.g. 'stem', 'midrib'), used of both food and non-food plants, whilst others are non-edible relatives of food plants (e.g. some pandanus species are food sources, others not). The major categories of food plant which POc speakers ate at meal times were evidently *kanaŋ(a) 'staples' and *was(i,a) 'green leaves', but I have endeavoured here to include all plants which served as food sources, whether they fall into these categories or not.

Section 5 comprises an annotated listing of reconstructed terms in POc and lower-order protolanguages. I owe much to the reconstruction of POc food plant terms undertaken by French-Wright (1983), whose comparative work in this domain was preceded only by Chowning's short (1963) paper. I have also been helped enormously by Robert Blust's copious reconstructions (especially 1980, 1983-84, 1986, 1989), now being incorporated into his huge *Austronesian comparative dictionary* at the University of Hawaii, and by the dictionary of Proto Polynesian reconstructions compiled on disk by Bruce Biggs at the University of Auckland. A quite different, but also encyclopaedic, source is Fr Gerhard Peekel's (1984) *Flora of the Bismarck Archipelago for naturalists*, the work of a Catholic missionary on New Ireland from 1904 until the Second World War (the original German manuscript is dated 1947). This work lists numerous plant terms in languages Peekel calls Kuanua, Pala and Lamekot, in my nomenclature Tolai, Patpatar and East Kara – not a wide

---

163

range of languages, but phonologically conservative enough to provide crucial evidence on the forms of a number of reconstructions..

In the interests of space, I have not given the history of reconstructions, as this would often require commentary on the modifications made by others and by me, and on why we have made them. Generally, I have allowed the reconstructions and the data to speak for themselves. Where a reconstruction is not new, I have attempted to give its earliest source, but this is sometimes a difficult exercise, as earlier reconstructions may differ in form and meaning from each other and from mine, and the decision as to whether a particular reconstruction is 'new' is sometimes rather subjective. Where the form given in the source differs from mine, I have given it, but have transcribed it into the orthography used here.

When historical linguists compile cognate sets, they commonly retain the glosses given in the sources from which the items are taken. If this practice is applied to plants, however, where the Linnaean terms used by botanists are subject to a diachronic and synchronic variation all their own, the members of a cognate set can appear to have different referents when in fact they are the same. For this reason, I have endeavoured to standardise Linnaean terms in accordance with current usage, using E.E. Henty's updates of terms in his 1984 translation of Peekel, the decisions in French (1986), and advice from R. Michael Bourke. I have adopted the convention of providing no gloss beside items in a cognate set, where their gloss is identical to that of the POc (or lower-order) reconstruction at the head of the set, that is, the reconstruction which they reflect.

2. SUBGROUPING ASSUMPTIONS

The overall Austronesian subgrouping assumed here is Blust's (given in Blust 1987), and relevant protolanguages are Proto Austronesian (PAn), Proto Malayo-Polynesian (PMP), Proto Central/Eastern Malayo-Polynesian (PCEMP), Proto Eastern Malayo-Polynesian (PEMP) and POc.

Within Oceanic I assume a minimum of three primary subgroups: Western Oceanic (WOc), Admiralties (Adm), and Eastern Oceanic (EOc). Western Oceanic and Admiralties are reasonably well founded, and have been defined by Ross (1988). Mussau, a possible isolate, is here included with Admiralties. Eastern Oceanic includes all other Oceanic languages. The latter do not meet normal subgrouping criteria (i.e. no shared innovations define the whole group), but treating them as a subgroup ensures a rigorous criterion for recognising a reconstruction as POc: it must have reflexes in at least two of the three primary subgroups. Both here and at the interstages described below, no reconstruction is made if there are grounds to infer borrowing from one subgroup to another.[2]

It is likely that Eastern Oceanic is not a primary subgroup, but a collection of primary subgroups resulting from the very rapid dispersal of POc speakers (Pawley & Ross 1995). If this were assumed to be true, then reflexes of an etymon in two or more Eastern Oceanic groups would be sufficient for reconstruction at the POc level. The assumption here that Eastern Oceanic languages form a single subgroup ensures greater rigour in making POc reconstructions.

---

2   Cases where such an inference can be made in regard to primary subgroups occur mostly at the boundary (in the Solomon Islands) between WOc and EOc. Where an etymon occurs (1) in WOc and only in the South-East Solomonic languages of EOc or (2) in EOc and only in the North-West Solomonic languages of WOc, borrowing is likely (and is often reflected in unexpected sound correspondences).

The Western Oceanic subgroup consists of the North New Guinea (NNG), Papuan Tip (PT) and Meso-Melanesian (MM) clusters. It is possible that the first two form a super-cluster, New Guinea Oceanic, and so etyma which occur only in NNG and PT languages are attributed to a putative Proto New Guinea Oceanic (PNGOc), and etyma found in either NNG or PT (or both) and in MM are labelled Proto Western Oceanic (PWOc).

The Admiralties subgroup is treated as having no internal subgrouping. The Eastern Oceanic subgroup is assumed to consist of South-East Solomonic (SES), North/Central Vanuatu (NCV), South Vanuatu (SV), New Caledonia (NC), Nuclear Micronesian (Mic), and Central Pacific (divided for convenience into Fij[ian] and P[olynesia]n), and reflexes in any two of these groups are enough to justify reconstruction of a Proto Eastern Oceanic (PEOc) etymon.[3]

In general, this paper is concerned only with items reconstructable in POc, PWOc, PEOc and occasionally PNGOc.

3. METHODS

Given the existence of previous work in this field, the reader may well ask why I have tackled it again. The answer is that my primary interest was not in food plants but in the application of a methodology, which I dub 'terminological reconstruction', and in seeing whether this method could substantially add to or refine the results of earlier studies.

We know beyond reasonable doubt that POc was spoken somewhere in western Melanesia, and we can infer a good deal about the lifestyle of its speakers from the lifestyles of their present-day descendants (and to a lesser degree from archaeological witnesses of the Lapita culture whose language was evidently POc). 'Terminological reconstruction' has three main stages. Firstly, the terminologies of present-day speakers of Oceanic languages in the region are used as the basis for a hypothesis about the semantic structure of a corresponding POc terminology. Secondly, a search is made for cognate sets from which forms can be reconstructed to match each meaning in this hypothesised terminology. Thirdly, the hypothesised terminology is re-examined to see if it needs modification in the light of the reconstructions.

In the present case, I inferred that the food plants available to and used by POc speakers were much the same as those available to people in coastal and island Melanesia today, with the obvious exceptions of plants known to have been introduced in more recent times.[4] This hypothesised set of food plants is based on the work of Barrau (1955, 1962)

---

3   In practice, the presence of a reflex in New Caledonia is never grounds for a PEOc reconstruction in this study. This is due partly to the sheer difficulty of interpreting New Caledonian historical phonologies, and partly to the fact that South Vanuatu and New Caledonia may turn out to form a single grouping — so that the presence of reflexes in these two groups should not be regarded as sufficient grounds for a PEOc reconstruction.

4   I have assumed that the following are introduced plants, and therefore not part of a POc food plant terminology: sweet potato (*Ipomoea batatas*), cassava (*Manihot esculenta*), Chinese taro (*Xanthosoma sagittifolium*), potato, corn (maize), peanut, carrot, onion, cabbage, Chinese cabbage (*Brassica chinensis*), Chinese lettuce, water cress (*Nasturtium officinale*), common bean (*Phaseolus vulgaris*), tomato, pawpaw, pineapple, watermelon, most citrus fruits, passionfruit, custard apple (sweetsop, *Annona squamosa*), soursop (*Annona muricata*), avocado, guava (May 1984:15-16, 46-47, 61, 76; Bourke 1982). Obviously it is also possible that there were food plants available to Proto Oceanic speakers but not available today. However, we are unlikely to find either archaeological or linguistic

and R. Michael Bourke (pers.comm.) on Melanesian food plants and eating habits. The probable semantic structure of a POc food plant terminology was inferred from a comparison of dictionaries and from personal alimentary experience.

Blust (1987:81) distinguishes between conventional 'semantic reconstruction', which asks, "What was the probable meaning of proto-morpheme 'X'?", and Dyen and Aberle's (1974) 'lexical reconstruction', where one asks, "What was the proto-morpheme which probably meant 'X'?" At first sight, it might appear that terminological reconstruction is a version of the latter. However, it differs from it sharply. Lexical reconstruction applies a formal procedure: likely proto meanings are selected from among the glosses of words in available cognate sets, then an algorithm is applied to determine which meaning should be attributed to each set. This procedure may have unsatisfactory results, as Blust points out. Several reconstructions may end up with the same meaning; or no meaning may be reconstructed for a form because none of the glosses of its reflexes is its proto meaning. The approach taken here is instead similar to the semantic reconstruction approach which Blust (1987) uses to reconstruct the meanings of PAn and PMP words for buildings. He examines the set of meanings of the members of a cognate set – the set's 'semantic profile' – to infer the proto meaning, and compares the semantic profiles of cognate sets in the same semantic region to determine which meaning can be most reasonably attributed to each form. The hypothesised set of food plant terms served as a guide in this process, indicating the meanings I expected to find.

The results of applying this procedure to food plant terms appear in §5, which makes up the bulk of the paper. Before presenting this, however, I shall jump to the third stage of terminological reconstruction, and discuss some generalisations which have emerged from re-examining the hypothesised terminology in the light of the reconstructions in §5. I will also add a few miscellaneous generalisations which arise from the reconstructive process as a whole.

4. SOME GENERALISATIONS

In the course of reconstructing terms for hypothesised meanings, three kinds of modification to the hypothesised terminology proved necessary.

The first kind is those cases where no reconstruction could be convincingly made. Generally it was fairly easy to find at least one form for each hypothesised food plant, but sometimes no form could be reconstructed. For example, Barrau (1962:189) regards the bottle gourd *Lagenaria siceraria* as an ancient food plant in Melanesia, but no POc form could be reconstructed. Clark (1986) reconstructs Proto NCV *tavaya* (Raga *tavai*, Mota *wo-tavae*), which, together with E. Fijian *tavaya* 'bottle', implies PEOc *tapaya*. But no cognates or alternative cognate sets have been found in Western Oceanic or Admiralties languages, implying that the bottle gourd was *not* known to POc speakers. Recent research suggests that this is plausible. The gourd may well have reached Oceania from two directions, arriving in Melanesia from the Indo-Malaysian region and in eastern Polynesia from South America. There is evidence that the Polynesians did not carry the gourd with them into eastern Polynesia (Whistler 1991). It is thus possible that the bottle gourd reached the Bismarck Archipelago *after* the break-up of POc.

---

traces of such items. I have not included in this study plants whose products are used as narcotics or stimulants. On *Piper methysticum* and the origins of kava, see Crowley (1994).

A more intriguing case is the lesser yam. The two main yam species cultivated in western Melanesia are the greater yam, *Dioscorea alata*, and the lesser yam, *Dioscorea esculenta*. We might expect to reconstruct a POc term for each species, but only POc **qupi* 'greater yam, *Dioscorea alata*; yam (generic)' can be reconstructed. Bourke (1982:55 and pers.comm.) points out that the lesser yam is agronomically superior to the greater yam and is in many areas a/the major source of nutrition, but it is the greater yam which is ceremonially significant and a source of prestige for the grower. The agronomic and cultural relationship between the greater and lesser yam is parallel to that between taro and sweet potato. The sweet potato is a more nutritious and more widely cultivated crop, but the taro is in many places more prestigious. We know that this reflects the fact that taro is an ancient crop, sweet potato a much more recent introduction, and we may reasonably infer, Bourke suggests, that something similar holds for yams: the greater yam is an ancient crop, whilst the lesser yam is a more recent, more nutritious introduction (but one which significantly predates the sweet potato). The linguistic evidence is consistent with Bourke's inference. The POc etymon **qupi* implies that POc speakers had the greater yam, *Dioscorea alata*, and the fact that it was also the generic term for yams suggests that it was the 'default' yam species in the POc economy. Because there is no widely distributed cognate set, no POc term for the lesser yam, *Dioscorea esculenta*, can be reconstructed, and this implies that the lesser yam had not yet been introduced at the time of the break-up of POc.

The second kind of modification to the hypothesised terminology is the addition of uncertain or unexpected items. Barrau (1955:85) apparently considers that all edible *Citrus* species were introduced to Melanesia by Europeans, and R. Michael Bourke's (pers.comm.) research confirms this. We would not therefore expect to find a reconstructable POc term meaning 'citrus'. But the reconstruction of POc **molis* 'citrus fruit' is well-supported (Lynch 1984), and its reflexes are today used in many languages for several citrus species. How are we to explain this? There are two possible answers. One is that **molis* referred not to *Citrus* species but to citrus-like fruit indigenous to western Melanesia. Aburu (1982:112) reports on two indigenous citrus-like genera, *Clymenia* and *Microcitrus*, in Papua New Guinea. French (1986:232) describes *Clymenia polyandra* as a '*Citrus* relative' whose fruit is yellow, the size of a large lime, and in some cases 'sweet and pleasant-tasting'. It is cultivated on Manus and New Ireland and does not occur outside Papua New Guinea. The alternative answer is that there were inedible or barely edible *Citrus* species in Melanesia before European contact, which have been largely replaced by imported edible species. A bush lemon, *Citrus hystrix*, with almost no edible flesh (French 1986:226) may be one of these. We can only infer that POc **molis* designated either citrus-like genera or inedible species of *Citrus*, or both.[5]

The third kind of change to the hypothesised terminology results from dictionary searches which revealed the consistent patterning of certain sub-terminologies which can evidently be traced back to POc. For example, right across Oceania, languages distinguish several growth stages of a coconut and have names for certain parts of the coconut. Languages often use non-cognate terms, but agree on the semantic categories they

---

5   Barrau (1962:179) suggests that one edible citrus species, *Citrus macroptera*, is indigenous to Melanesia, but there is no clear evidence of this. May (1984:79) applies the name *Citrus papuana* to the green-skinned bush orange, but this name properly applies as a synonym to the almost inedible *Citrus hystrix*, whilst the green-skinned bush orange is *Citrus sinensis*, which, as its name implies, is an import to Melanesia (French 1986:226, 231).

distinguish. It is difficult to ignore these sub-terminologies, because a term from a sub-terminology often replaces a term of which it was originally a hyponym. For example, NNG: Lukep-Pono[6] *matuk* 'coconut (generic)', a reflex of POc **matuqu* 'ripe coconut', has displaced the reflex of POc **niuR* 'coconut (generic)'. Four sub-terminologies for the growth stages of a coconut are listed below (they were gleaned from dictionaries, and may well be incomplete):

MM: Ramuaaina

tirip	first drinkable stage
maia	stage older than *tirip*
kulau	young; next stage to *maia*
kubika	stage after a green *kulau*
maraŋ	ripe
gawə	sprouting

PT: Gumawana

asipu	very small, not drinkable
gavi	a bit bigger, not drinkable
mosali	bigger, not drinkable
bosibosi	large green, drinkable
nakulamata	starts turning brown
nugomoyao	brown but has not fallen yet
nadaiyada	dry and will fall
tabona	sprouted

SES: Arosi

ʔoraamai	the first bud of a coconut
kopu	newly formed fruit
poku	young
poru	green
pʷaruru	young green drinking
ʔobu	drinking
pʷaikari	a nut still containing milk
doʔo	ripe, dark
saramarai	dry
buni	fallen before it is quite ripe

SV: Kwamera

iapʷas	small coconut, coconut fruit bud
kʷanapuirahakʷ	coconut fruit bud
kʷatiŋəs	small coconut, about 10 cm in diameter
kapkapɛki	stage in development between *kʷatigəs* and *tafa*
tafa	young coconut before meat has formed
nafʷeruk	drinking nut with soft meat and effervescent water
kahimareɲi	coconut with meat well developed and hard

---

[6]   The convention is adopted here of prefixing a language name with the abbreviation for the subgroup to which the language belongs, so that the distribution of a cognate set is more immediately obvious.

napuei mhia	ripe nut which falls
*k*ʷ*arumahak*ʷ	fallen, sprouting coconut

The number of stages in the sequences above varies from six to ten; Churchward (1959) lists eleven for Tongan, Codrington and Palmer (1896) twelve for Mota and Waterhouse (1949) eighteen for Roviana. Despite these variations in the number of named stages and the different descriptions by scholars of what are probably similar stages, some commonalities emerge. We can reasonably infer that POc speakers recognised at least the stages listed below:

1. coconut fruit bud
2. newly formed fruit, very small
3. (next stage)
4. young, green
5. green, drinkable
6. starts turning brown
7. ripe, brown but has not fallen yet
8. dry and ready to fall
9. sprouted

Apart from the Ramuaaina sequence, which seems to lack some early stages, all sequences known to me have four or five stages prior to 'drinkable', the later of which all dictionary-makers seem to have trouble defining (hence 'next stage' above).

At this point in the investigation an interesting finding emerges. Although we can reconstruct the *meanings* of a sub-terminology with reasonable certainty, we can often only reconstruct a minority of the *forms*. This absence of reconstructable forms might seem to imply that the categories of a sub-terminology are not, after all, reconstructable in POc. But the consistency with which categories occur across languages implies that they did occur in POc and that the absence of reconstructable forms has another explanation.

This explanation emerges when we examine the derivations of forms in present-day languages (where dictionaries allow us to do this). Here are some of the growth stages of the coconut in NCV: Mota.

matmateŋapun	stage 1: the coconut just set, like the eye of the *ŋapun* crab
ŋarake garat	stage 4: 'fat of meat'
vusa maremare	stage 7: *vusa* 'drinking coconut' (= stage 6); *maremare* 'hard, strong'
pulutŋar	stage 9: a coconut getting ripe (the meat sticks to the scraper)

Here, as in many other terms of sub-terminologies, we see that the terms are either metaphorical (stage 1) or descriptive. A particularly transparent case is NNG: Manam *daŋdaŋ* 'drinking coconut', a simple reduplication of *daŋ* 'water'. Clearly, new metaphors or descriptions are readily created by new generations of speakers, and we can be sure of little else than that some POc terms were similarly metaphorical or descriptive.

One kind of semantic change occurs quite frequently in Oceanic food plant terminology. I noted above that a term from a sub-terminology often replaces a term of which it was originally a hyponym. The name of the most salient growth stage or variety becomes the generic term. For want of a better word, I will coin the term 'genericisation' for this process. A result of genericisation is often that the generic term for a class (e.g 'green

vegetables'), continues to refer to the most salient member of the class (e.g. *Abelmoschus manihot*). I will refer to this duality of meaning as 'hyponymous reference'.

A formal generalisation which emerges from the present study is that wild food sources were often named in POc with the fully reduplicated form of a cultivated equivalent. Among the reconstructions referred to below are PWOc *pudi-pudi* 'wild banana' (from POc *pudi* 'banana' [generic]), and POc**sag(u)-sag(u)* 'wild sago'. Also found are:

MM:	Ramuaaina	*ləmaləma*	wild coconut; tree or fruit
	< PWOc	*lamati*	coconut flesh
MM:	Ramuaaina	*barabare*	wild breadfruit
	< POc	*baReko*	breadfruit
MM:	Tolai	*tuptup*	wild sugarcane, *Saccharum spontaneum*
	< POc	*topu*	sugarcane, *Saccharum officinarum*
PT:	Motu	*vai-vai*	wild mango
	< POc	*wai*	mango
NCV:	Lewo	*mol-malu*	k.o. wild yam, ready before cultivated yams
	< POc	*mʷaruqen*	k.o. yam: wild yam ??
Fij:	W. Fijian	*niuniu*	cycad, *Cycas circinalis*
	< POc	*niuR*	coconut palm

An intriguing formal feature in the data below is the fact that two etyma, POc *[ka]ŋaRi* 'canarium almond' and *[ka]timun* 'cucurbit (generic)' have reflexes of forms both with and without the 'prefix' *ka-*. POc *[ja]latoŋ* 'nettle tree' has reflexes with and without POc *ja-*, and *ja-* is replaced in PNCV by *ka-*. Since the large majority of POc etyma are disyllabic, but these are trisyllabic, the possibility suggests itself that these initial syllables are prefixes of some kind. Two other trisyllabic terms have initial *ka-*, namely POc *kapika* 'Malay apple' and PWOc *kapu(rR)ik* 'k.o. wild melon'. Forms for 'mango' show variation between POc *wai* and PWOc *kasuwai*, and odd members of cognate sets also show 'prefixation': NNG: Mbula *kaiwos* 'edible greens' (from POc *was(i,a)* '*Abelmoschus manihot*; green vegetables') and NNG: Atui *kamutuk* 'ripe coconut' (from POc *matuqu* 'ripe, brown coconut'). Whether these bits of data add up to a pattern of derivational prefixing (or something else) in POc or an earlier protolanguage is an open question, but I cannot resist the speculation that *ka-* is a reduced form of *kayu* 'tree' (or, perhaps, of *kani* 'eat').

Another interesting fact which emerges from this study is that well over half of the POc terms in the terminologies reconstructed below have no known cognates in non-Oceanic languages. It would not be surprising if most were POc innovations. Wolff (f.c.) has pointed out how readily plant names are borrowed, and we would expect POc speakers to have borrowed plant names from their Papuan neighbours (see *mʷapo* 'taro' below). (Whether we will ever be able to source these terms convincingly is another matter.) However, it should also be noted that the availability of appropriate data sources for non-Oceanic languages, and especially for those in eastern Indonesia (where we might expect cognates), is often very limited. The fact that there is no *known* non-Oceanic cognate does not mean that no cognates exist.

A number of terms below have reflexes only in Western Oceanic or only in Eastern Oceanic. This may be due to the large gaps in available data, or may reflect the division drawn in Ross (1988) between the Western Oceanic group and the rest of Oceania.

An unexpected phonological departure is that the data have caused me to reconstruct POc velarised bilabial protophonemes quite frequently, and to reconstruct a contrast between POc $*p^w$ and $*b^w$. The contrast is not unexpected, given the corresponding contrasts between $*p$ and $*b$ and between $*k$ and $*g$, but previous reconstructions of the POc consonant system have recognised only one velarised bilabial stop, Grace's $*\eta p$, my $*b^w$ (Ross 1988:93-94).

A final observation on methodology: the fact that the present study has generated many new reconstructions and some new sub-terminologies implies that the terminological reconstruction method, with its culture-historical bias, is more effective at ferreting out cognate sets than other methods, which tend to be motivated by an interest in phonological history and/or an interest in lexical innovations. However, the discovery procedure could not work except for the expansion of data sources (especially for western Melanesia) in the last decade or so and for the changes in computer technology which have allowed increasingly rapid complex searches of large data bases.[7]

5. RECONSTRUCTIONS

Reconstructions of food plant terms are listed below in the following order:

> higher-order terms
> staples and related plant foods: taro, yam, banana, breadfruit, sago (and cycad)

---

7   Sources of data for this study are
   (1) Those listed in Appendices A and B of Ross (1988).
   (2) Computer files of North/Central Vanuatu data, Polynesian and Micronesian compiled respectively by Ross Clark and Bruce Biggs (both at the University of Auckland), and by a team at the University of Hawaii (see Bender & Wang 1982).
   (3) Computer files of dictionaries in progress provided by members of the Summer Institute of Linguistics. Languages and those who compiled/supplied the dictionary are as follows: Biliau (Doug Bennett), Buang (Bruce Hooley), Bwaidoga [Iduna] (Joyce Huckett), Dami (George Elliott), Ramuaaina [= Duke of York] (Lisbeth Fritzell and Robyn Davies), Gapapaiwa (Ed and Catherine McGuckin), Gumawana (Clif Olson), Hote (Marguerite Muzzey), East Kara (Perry and Virginia Schlie), Kaulong (Craig Throop), Levei-Drehet [= Kehek] (Stephan Beard), Lewo (Robert Early), Lou (Robert and Verna Stutzman), Manam (Stephen and Kim Blewett), Mangseng (Lloyd Milligan), Mangap-Mbula (Robert and Salme Bugenhagen), Mengen (Fred Madden), Misima (Bill Callister), Mumeng [Patep] (Linda Vissering and Karen Wilson), Nakanai (Ray Johnston), Nehan (John Glennon), Patpatar (Ed Condra), Lukep [= Pono] (Jeff and Sissie D'Jernes), Siar (Larry Erdman), Sissano [Arop] (Stephen Whitacre), Sudest (Mike Anderson), Sursurunga (Don Hutchisson), Takia (Salme Bugenhagen, Judy Rehberg, Curtis Thomas), Tawala (Bryan Ezard), Teop (David Snyder), Tinputz (Roman Hostetler), Titan (Keith Lusk).
   (4) Computer files of dictionaries in progress provided by Debbie Hill (for Longgu) and myself (for Takia).
   (5) Printed dictionary/vocabulary sources: Anejom (John Lynch, pers. comm.), Baelelea (Tyhurst 1985), Carolinian (Jackson & Marck 1991), Fijian (Capell 1941), Kosraean (Lee 1976), Kwamera (Lindstrom 1986), Lenakel (Lynch 1977 and pers. comm.), Loniu (Hamel 1994), Lou (Blust, forthcoming), Maringe (Cheke Holo) (White et al. 1988), Marshallese (Abo et al. 1976), Mokilese (Harrison & Albert 1977), Paamese (Crowley 1992), Puluwat (Elbert 1972), Samoan (Milner 1966), Sie (Capell & Lynch 1983), Tolai (Carman 1980), Tolo (Crowley 1986), Tongan (Churchward 1959), Trukese (Goodenough & Sugita 1990), Wayan Fijian (Pawley & Sabaya, forthcoming), Woleaian (Sohn & Tawerilmang 1976).
   (6) Miscellaneous sources: Peekel (1984); computer files containing the data for Madulid's forthcoming dictionary of plant names in Philippine languages.

> green leaves
> coconut
> other fruits
> nuts
> other roots
> cucurbits
> seaweed
> canes
> fungi

This is simply a convenient categorisation, not an Oceanic taxonomy of plant foods. Whilst 'staple', 'green leaves', 'taro', 'yam', 'banana', 'breadfruit', 'sago' and 'coconut' were apparently POc categories, the others listed above were not.

The reconstructions are given in the orthography of Ross (1988), with the addition of $*p^w$. Bracketing conventions in protoforms are:

(x)	it cannot be determined whether *x* was present;
(x,y)	either *x* or *y* was present;
[x]	the item is reconstructable in two forms, one with and one without *x*;
[x,y]	the item is reconstructable in two forms, one with *x* and one with *y*.

Generally each reconstruction is supported by a few geographically well-distributed reflexes. The listed reflexes are often only a fraction of the available supporting data. More support is given where the reconstruction is new or otherwise unexpected. Where the etymon is known to be reconstructable at an interstage higher than POc, the reconstruction for that interstage is given, but without supporting non-Oceanic data.

Although there are accepted or standard orthographies for some of the languages from which data are cited here, all data are cited in a standard orthography (see Ross 1988:3-4) in order to facilitate comparison. Non-cognate portions of reflexes, other than grammatical morphemes, are shown in brackets (...). A grammatical or derivational morpheme is separated from its stem by a hyphen, and the boundaries of an infix are marked with <...>. The two parts of a reduplication which is not present in the reconstruction are separated by a hyphen. A final hyphen indicates an inalienably possessed noun which obligatorily takes possessor pronominal suffixes.

5.1 HIGHER-ORDER TERMS

Speakers of Oceanic languages often have three higher-order food terms, designating the three types of ingredient in a cooked meal. One is for protein foods, which lie outside the scope of this paper. The second designates staple foods, or more specifically the prevalent local source of carbohydrate, be it a root crop (taro, yam, or more recently sweet potato), the cooking banana, breadfruit, or occasionally sago. A third term covers green leaves, ferns and the like. Other food plants are not covered by higher-order terms (e.g. 'nuts'), apparently because they are occasional snack foods rather than parts of regularly prepared and cooked meals.

PMP *kan-an 'dish, plate, meal'

POc *kanaŋ(a) staple food; food in general'

NNG:	Takia	anaŋ	food
NNG:	Takia	anŋ-anaŋ	lesser yam, *Dioscorea esculenta*
NNG:	Matukar	anan	lesser yam
NNG:	Manam	kana-	food
NNG:	Mari	ganaŋ	taro
NNG:	Adzera	ganaŋ	banana plant
MM:	Bulu	(yani)yana	coconut flesh
SES:	Gela	yana	food
Fij:	Nadrau Fijian	kanaŋa	food
Fij:	E. Fijian	(kā-)kana	food (ka 'thing', kana 'eaten')

POc *kani ('eat') + NOMINALISER 'staple food; food in general'

NNG:	Lukep-Pono	kani-ŋ	yam
NNG:	Biliau	ani-ŋ	banana
NNG:	Hote	ani-ŋ	taro
PT:	Misima	ánán	yams; root crops, nuts and fruit; food
PT:	Sinagoro-Taboro	yani	short cooking banana
PT:	Hula	ani	banana
PT:	Motu	ani-ani	food
PT:	Mekeo	ani-ani	food
MM:	Ramuaaina	ni-an	k.o. yam
MM:	Tolai	ni-an	food
MM:	Roviana	y<in>ani	food
NCV:	Raga	y<in>a-yani-ana	food
NCV:	Paamese	ani-ene	staple food, as opposed to meat and greens
NCV:	Lewo	k<in>ani-ena	staple food, as opposed to meat and greens

POc *kuta 'staple food'

NNG:	Lukep-Pono	kuta	banana cultivar
NNG:	Biliau	(aniŋ) kuta	sweet banana cultivar
PT:	Gumawana	kuta	chew sugarcane
PT:	Ubir	ut	greater yam
PT:	Gapapaiwa	uta	yam type
SES:	Tolo	kuta	eat
SV:	Kwamera	kə-kətə-n	baked food

Three forms can be reconstructed with the probable meaning 'staple food'. The first two, POc *kanaŋ(a) and POc *kani + NOMINALISER are independently derived from the PMP verb 'eat', which was *kaʔen, or *(-)kan(-) in the context of certain affixes.[8] These affixes

---

[8]   One derivative of PMP *(-)kan(-) not discussed here is PMP *paŋan 'eat', reflecting the PMP antipassive derivational prefix *paN- (where *-N- causes substitution of the homorganic nasal for the stem-initial consonant). This is reflected in POc *paŋan 'eat', from which words for 'food' in various Oc languages are derived (e.g. SES: Lau faŋa, SV: Kwamera na-veŋən-ien). However, these may well be independent derivations: there is insufficient evidence to reconstruct a POc nominalisation of *paŋan for 'food'.

include the reflexes of PAn *-en 'undergoer pivot, neutral; undergoer nominaliser', *<in> 'undergoer pivot, perfective; perfective undergoer nominaliser' and *-an 'location pivot, neutral; location nominaliser' (see Ross 1995).

Two of these affixes give well-attested nominalisations, PMP *kan-en 'something to be eaten, food' and PMP *kan-an 'something to eat from, dish, plate, meal'. Contrary to semantic expectation, POc *kanaŋ(a) 'food' reflects PMP *kan-an rather than *kan-en. PMP *kan-en is instead reflected in POc *kanoŋ(a) 'flesh, meat, coconut flesh' (see §5.4). Some reflexes of both *kanaŋ(a) and *kanoŋ(a) reflect final *ŋ, whilst others require the reconstruction of final *-ŋa with added vowel. For a brief discussion of this problem, see Ross (1994:298-299).

The POc verb *kani 'eat' reflects PMP *kan-i, where *-i is a reflex of the PAn suffix *-i 'location pivot, atemporal' (Ross 1995), reinterpreted as a transitiviser in POc (Pawley & Reid 1980). In PAn and PMP, *-i never co-occurred with a nominaliser. However, in POc the verb *kani is lexicalised and co-occurs with productive nominalisers. Of the three PAn nominalisers, one, *<in>, certainly remained productive in POc, so that POc *kani + NOMINALISER has a solid instantiation in POc *k<in>ani 'food', directly reflected by Roviana ɣinani and reflected with modifications/additions in the Ramuaaina, Tolai, Raga and Lewo forms above.

The other forms listed under POc *kani + NOMINALISER reflect three other nominalisation strategies, but none of these forms is clearly reconstructable for POc. (1) The NNG languages reflect a nominalising suffix *-ŋ(a). Note that both POc *kanaŋ(a) and POc *kanoŋ(a), reconstructed above, have final *-ŋ(a) where POc **-n is expected, suggesting that the PMP nominalisers *-an and *-en underwent an irregular development at some stage in their history, resulting in (not necessarily productive) POc *-aŋ and *-oŋ. By analogy and resegmentation, these became a general nominaliser *-ŋ(a) in some ancestor of the NNG languages. (2) Misima, Motu and Mekeo exemplify a well-attested PT nominalising strategy of reduplicating a disyllabic verb. (3) Raga, Paamese and Lewo reflect a PNCV nominaliser *-ana, whose relationship to POc affixes is not entirely clear (Raga and Lewo also reflect POc *<in>).

The meanings of the nominalisations reflecting POc *kani indicate that the POc nominalisation did not simply mean 'food', but particularly the traditional staple of the speakers. This is still its meaning in NCV languages, and in Misima it retains both the specific meaning 'yams' and the general meaning 'food'.

This is a case of hyponymous reference. If the generalisation above is valid, namely that hyponymous reference usually arises through genericisation, then we must infer that the prior meaning of POc *kani was 'eat staple food', rather than simply 'eat'. A number of Oceanic languages have terms for 'eat, consume' which co-occur with different classes of comestible, and in New Caledonian languages reflexes of POc *kani (e.g. Voh-Koné cani, Xârâcùù kẽ) mean 'eat carbohydrates, eat tubers'.

The third term for 'staple food', POc *kuta, has a somewhat similar range of meanings to the first, but includes items ('sweet banana', 'sugarcane') which are not staples. The significance of this, and the difference in meaning between this and the *kani terms, is not yet clear to me. It is possible, however, that *kuta was another specialised verb of eating (note Tolo kuta 'eat').

POc *was(i,a) 'edible greens, *Abelmoschus manihot* (syn. *Hibiscus manihot*)' (French-Wright 1983)

NNG:	Biliau	*wās*	
NNG:	Mbula	*(kai)wos*	edible greens, *Gnetum gnemon*
NNG:	Gitua	*wasi*	
NNG:	Sissano-Arop	*(eyl-)wuas*	
NNG:	Kairiru	*was*	vegetable greens; legumes
MM:	Patpatar	*wasa*	fern, *Dryopteris aridis*
MM:	Tangga	*wes*	k.o. green vegetable
SES:	Arosi	*wata*	herb with edible leaves, *Amaranthus*
NCV:	Mota	*as*	a convolvulus, *Ipomoea*
Fij:	E. Fijian	*waði*	
SV:	Kwamera	*nu-vas*	

POc *was(i,a) is also possibly a case of hyponymous reference. In general, its meaning is reconstructable as 'green vegetables', but the distribution of its specific meanings suggests that it also referred to *Abelmoschus manihot* (syn. *Hibiscus manihot*), the most salient member of the category. Barrau (1955:77) calls it "truly the traditional vegetable of the whole of Melanesia".[9]

5.2 STAPLES AND RELATED PLANT FOODS

5.2.1 TARO, ARACEAE FAMILY

Most major food plant terms in both English and Oceanic languages refer, in Linnaean terms, to a single genus. The English term 'taro' is an exception. Throughout the Pacific it is used to refer collectively to the genera of the Araceae family, namely *Colocasia*, *Alocasia*, *Amorphophallus*, *Cyrtosperma* and *Xanthosoma* (the last-named is a recent introduction).

PMP *tales 'taro, *Colocasia esculenta*' (Dempwolff 1938)

POc *talo(s) 'taro, *Colocasia esculenta* (syn. *Colocasia antiquorum*)' (Grace 1969: *ntalo(s)*)

NNG:	Manam	*taro*	taro
PT:	Motu	*talo*	
MM:	Roviana	*talo*	
SES:	Kwaio	*alo*	taro (generic); unit of a hundred taro for a feast
SES:	Arosi	*aro*	a name for taro in some names of varieties
NCV:	Lewo	*tale*	k.o. greater yam
NCV:	South Efate	*n-tal*	
Fij:	E. Fijian	*dalo*	
Pn:	Tongan	*talo*	taro
Pn:	Samoan	*talo*	

---

9 *Abelmoschus manihot* has been present in Melanesia for a very long time, but is apparently a native of China (Powell 1982:73).

| SV: | Lenakel | *nə-te* | taro |
| SV: | Anejom | *in-tal* | |

POc **m^wapo(q)* 'taro' (Milke 1968: **m^wao*)

NNG:	Kove	*moi*	
NNG:	Tuam	*mo*	
NNG:	Gitua	*m^wai*	
NNG:	Mbula	*mok*	taro; good food
NNG:	Kilenge	*mo*	
NNG:	Mangseng	*m^wa*	
NNG:	Poeng	*mao*	taro (generic)
NNG:	Takia	*mao*	taro, *Colocasia esculenta*
NNG:	Yabem	*mo*	
NNG:	Patep	*ñaŋ*	taro (generic); *Colocasia esculenta*
NNG:	Sarasira	*moa*	
NNG:	Wogeo	*m^wau*	
PT:	Dawawa	*mavu*	
PT:	Motu	*maho*	greater yam
MM:	Nakanai	*mavo*	taro.(generic); *Colocasia esculenta*
MM:	Teop	*mū*	
MM:	Kia	*mahu*	
Adm:	Lou	*m^wa*	wild plant like taro
Adm:	Nali	*mah*	k.o. taro
Adm:	Drehet	*muh*	
Adm:	Loniu	*mah*	
SES:	Arosi	*m^wa(-rata?ai)*	taro sp.
SES:	Arosi	*m^wa(-rugu?ino)*	taro sp.
Fij:	E. Fijian	*mavu*	taro beaten up for pudding
Pn:	Rennellese	*mahu*	bag of topped taro
NC:	Xârâcùù	*m^wɛ*	

The last two terms are somewhat problematic.

The cognate set from which POc **m^wapo(q)* is reconstructed contains several formal difficulties. The alternation of reflexes of POc **m* and **m^w* in certain items including this one has been discussed by Blust (1981a). French-Wright (1983:130-132) also considers the alternation between zero and reflexes of POc **-p-* in this set, choosing to reconstruct two POc forms, one with and one without **-p-*, but suspecting that they are reflexes of a single form. With more data at our disposal, it is clear on both formal and semantic grounds that this is a single cognate set, but one in which two common sporadic changes often occur, namely that **m^w* becomes **m* and that **p* is lost between vowels when one is rounded. Some of the NNG reflexes (Kove, Gitua and Mbula) complicate the picture by reflecting POc **-q*.

The distribution of the two cognate sets is also interesting. Whilst POc **m^wapo(q)* is distributed throughout Oceania, POc **talo(s)* hardly occurs in Western Oceanic. Its only known Western Oceanic reflexes are the three listed above (Manam, Motu and Roviana). In each case, no reflex has been found in nearby closely related languages, and it is quite

possible that these are borrowings from an Eastern Oceanic language[10] or from an English-based pidgin. In any case, POc *talo(s) has been widely replaced by POc *m^wapo(q) in Western Oceanic languages.

This raises the question of the respective meanings of *talo(s) and *m^wapo(q) in POc. POc *talo(s) seems to have been the name for *Colocasia esculenta*. The term *m^wapo(q) may have entered POc from a Papuan language (reflexes of a possible source occur in languages of the Northern Adelbert Range; see Z'graggen 1980). There are indications in the glosses of the cognate set above that, like English 'taro', it referred to all genera of the *Araceae* family, and by hyponymous reference to the genus *Colocasia*.

Other terms for genera of Araceae are listed below:

PAn *biRaq* 'taro sp.' (Blust n.d.)

POc *piRaq* 'giant taro, elephant ear taro, *Alocasia macrorrhiza* (syn. *Alocasia indica*)' (Blust 1972)

PT:	Gumawana	*vilava*	taro
PT:	Bwaidoga	*vilaga*	edible root resembling taro
PT:	Motu	*hira*	large sp. of edible arum
MM:	East Kara	*fia*	
Adm:	Mussau	*ia*	
SES:	Gela	*vila(ɣania)*	
SES:	Arosi	*hira*	
NCV:	Mota	*via*	
NCV:	S.E. Ambrym	*(o)hia*	unidentified edible tuber
NCV:	Lewo	*(ko)pia*	water taro
Fij:	W. Fijian	*via*	giant taro, *Alocasia* and *Cyrtosperma* spp.: cultivated but eaten only in time of famine
SV:	Lenakel	*nu-via*	k.o. taro

POc *bulaka* 'swamp taro, *Cyrtosperma chamissonis* (syn. *Cyrtosperma merkusii*, *Cyrtosperma edule*)' (Blust 1984)

MM:	Nakanai	*buleha*	an inedible wild taro, *Colocasia* sp.
MM:	Nakanai	*bureka*	variety of elephant ear taro, *Alocasia macrorrhiza*
MM:	East Kara	*vuləi*	k.o. taro
MM:	Patpatar	*pulaaka*	*Amorphophallus paeoniifolius* (syn. *Amorphophallus campanulatus*)[11]
Adm:	Mussau	*ulaa*	
Adm:	Aua	*fuula*	taro

---

[10] Hiri Motu, the Motu-based pidgin of Papua, received input from policemen from the Solomons, some of whom presumably spoke a SES language (Dutton 1985). John Lynch (pers.comm.) points out that it may also have copied items from Papuan Pidgin English. Roviana is widely used as a *lingua franca* in the western Solomons and, like other languages of the area, has borrowings from SES languages. Roviana and Manam would also be candidates for borrowing the word 'taro' from, respectively, Solomons Pijin and Tok Pisin.

[11] The dictionary source defines this term as 'wild arrowroot, *Amorphophallus campanulatus*'. French (1986:7) gives the English term 'Elephant foot yam', but says (despite this name) that it is a plant of the taro family.

Adm:	Lou	*pulak*	
NCV:	Big Nambas	*bōak*	taro, *Colocasia* sp.
NCV:	Port Sandwich	*ᵐbuaŋ*	taro
NCV:	Namakira	*buag*	taro
NCV:	Paamese	*vieke*	
Mic:	Marshallese	*pʷəl*	swamp taro patch
Mic:	Woleai	*fʷurax*	
Mic:	Carolinian	*bʷula*	
Pn:	E. Uvean	*pulaka*	*Cyrtosperma* sp.
SV:	Kwamera	*nu-vre*	k.o. taro with yellow flesh
NC:	Xârâcùù	*buraa*	variety of taro

POc **kamʷa* 'k.o. wild taro (?)'

MM:	Vitu	*kamo*	taro
SES:	Lau	*ka-kama*	swamp taro, *Cyrtosperma chamissonis*
SES:	'Are'are	*kamo*	wild yam

POc **(b,p)oso* 'k.o. taro'

NNG:	Barim	*bus*	taro
NNG:	Lukep-Pono	*bus*	taro
MM:	Madak	*pos*	greater yam
Mic:	Kosrae	*ɔt*	
Mic:	Marshallese	*wetʷ*	elephant ear taro, *Alocasia macrorrhiza*
Mic:	Truk	*wōt*	taro, *Colocasia esculenta*

The POc names for elephant ear taro, *Alocasia macrorrhiza*, and for swamp taro, *Cyrtosperma chamissonis*, were **piRaq* and **bulaka* respectively. The final **-q* of **piRaq* is attested in Gumawana and Bwaidoga.

There is a formal problem with **bulaka*. Its NCV reflexes have lost **-l-*, and Clark (1986) accordingly reconstructs PNCV **buaqa* 'taro'. Geraghty (1990:57-58) observes that POc **R*, but not **l*, is often lost in NCV languages, and takes this as evidence for PEOc **buRaka*, rather than **bulaka*. In support of this he cites Nakanai *bureka*. But note that *two* Nakanai reflexes are cited above: *buleha* and *bureka*. Of these, at least one must be a borrowing. Since Nakanai *r* reflects POc **s*, whilst POc **l*, **r* and **R* are regularly reflected in Nakanai by *l*, it seems that *bureka* is a borrowing. In any case, the East Kara, Patpatar, Aua, Lou, Marshallese, Woleai, Carolinian and E. Uvean reflexes all agree in reflecting POc **l*. Thus the reflexes above lead to two conclusions: (i) the POc/PEOc form was **bulaka*,[12] and (ii) a lexical innovation, loss of **l*, has occurred in this item in PNCV.

Names for parts of taro (and other) plants follow.

PAn **suliq* 'tendril, sucker' (Blust 1972)

---

12 Geraghty suggests that Polynesian reflexes, including East Uvean, are probably borrowings from Micronesian, and Whistler (1991:47, 58-59) suggests that *Cyrtosperma chamissonis* was indeed introduced from Micronesia. However, since the Micronesian reflexes also support the reconstruction of **-l-* in POc **bulaka*, this is not directly relevant here. (Whistler cites the reflex Trukese *pura*, but I am unable to find this in Goodenough and Sugita 1990). Robert Langdon (pers.comm.) suggests that the difficulty in reconstructing this term reflects a spread of swamp taro into the Pacific sometime after settlement.

POc *(s,j)uli(q) 'banana or taro sucker, slip, cutting, shoot (i.e. propagation material)' (Ross 1988)

NNG:	Tami	*jili*	taro sucker
NNG:	Numbami	*duli*	taro sucker
NNG:	Lukep-Pono	*suli-*	a banana shoot
NNG:	Manam	*suli*	banana slip, cutting
PT:	Dobu	*suli*	taro
PT:	Tawala	*huni*	taro
PT:	Motu	*dui*	banana plant
PT:	Lala	*duɲi*	banana plant
PT:	Roro	*tsui(ara)*	k.o. banana
PT:	Mekeo	*ui*	domestic banana plant
MM:	Nehan	*hon*	taro
Adm:	Lou	*sili-n*	sprout: sprout of banana or pineapple
Adm:	Loniu	*čili*	sprout, esp. banana shoot
SES:	Gela	*duli*	banana sucker
NCV:	Mota	*suli(u)*	sucker from roots of a plant
SV:	Anejom	*ni-sje-n*	taro shoot with leaves
Fij:	W. Fijian-Waya	*ðuli*	
Fij:	E. Fijian	*suli*	
Pn:	Tongan	*huli-ʔi(talo)*	taro sucker

POc *wasi(n) 'taro stem (used for planting)'

NNG:	Lamogai-Rauto	*i-sin*	taro
PT:	Ubir	*wasi*	taro
PT:	Nimoa	*wusi*	taro
Adm:	Mussau	*asi*	taro
Adm:	Loniu	*wɔs*	taro stem, used for planting
SV:	Anejom	*n-ase(n-tal)*	

POc *bʷaŋo 'new leaves or shoots, or taro tops for planting'

NNG:	Manam	*baŋ*	taro
PT:	Tawala	*pam*	edible green leaves (e.g. taro leaves)
SES:	Lau	*gʷaŋo*	taro tops (for planting)
SES:	Arosi	*bʷaŋo-bʷaŋo*	the top shoots of betel nut/coconut, taro for planting

POc *up(e,a) 'taro seedling'

NNG:	Mutu	*(do)uwe*	seed
NNG:	Tami	*uwe*	
NNG:	Yabem	*uwɪ*	seedling
PT:	Are	*ube*	taro tops for planting
PT:	Gapapaiwa	*uve*	taro tops for planting
PT:	Tawala	*uwe*	
PT:	Motu	*uhe*	the end of yam, kept for planting, any seed for planting
SES:	Arosi	*uha*	taro sp.
NC:	Yâlayu	*(uk)owe*	

NC:	Yuanga	*uva*	
NC:	Pwapwâ	*upe*	
NC:	Pwapwâ	*uva*	taro
NC:	Pije	*uwe(qwaco)*	
NC:	Fwâi	*uve(qio)*	
NC:	Fwâi	*uva*	taro

These fóur items all refer to parts of a plant which are used in its propagation. Except perhaps for POc *wasi(n)* 'taro stem, used for planting', they refer to the relevant parts of other plants, as well as taro. They are considered here, however, because in each case a result of genericisation is that generic reference is to taro. In several Central Papuan languages (Motu and its relatives), reflexes of POc *(s,j)uli(q)* have become the generic term for banana.

The cognate set for POc *up(e,a)* is a little problematic, in that two separate reconstructions *upe* and *upa* could be justified on the basis of the double reflexes in some New Caledonian languages. However, semantic overlap between the two putative sets suggests that they are in fact one set, the double reflexes attributable to borrowing.

5.2.2 YAM, *Dioscorea* SPP.

PMP *qubi* 'yam' (Dempwolff 1938)

POc *qupi* 'greater yam, *Dioscorea alata*; yam (generic)' (Grace 1969)

NNG:	Malasanga	*kui-kui*	yam
PT:	Iduna	*kuvi*	
MM:	Vitu	*yuvi*	
Adm:	Drehet	*u*	yam
SES:	Arosi	*uhi*	yam
NCV:	Lewo	*yui*	yam (generic)
Fij:	W. Fijian	*uvi*	
Pn:	Tongan	*ʔufi*	yam
Pn:	Samoan	*ufi*	yam
SV:	Sie	*n-up*	yam
SV:	Kwamera	*n-uk*	yam
NC:	Kumak	*kuvic*	yam

POc *pʷatik* 'potato yam, aerial yam, *Dioscorea bulbifera*'

PT:	Boanaki	*posika*	yam
MM:	Notchi	*pias*	lesser yam
MM:	Tabar	*poti-poti*	lesser yam
MM:	Lamasong	*patik*	lesser yam
MM:	Patpatar	*patuk*	
MM:	Halia-Haku	*pat*	greater yam
Adm:	Lou	*puet*	
Mic:	Truk	*pʷereka*	

Six *Dioscorea* species are found in Melanesia: *alata*, *bulbifera*, *esculenta*, *pentaphylla*, *hispida* and *nummularia* (Barrau 1955; Bourke 1982). However, names for only the first

two can be reconstructed in POc: *qupi 'yam (generic); greater yam, Dioscorea alata' (note the hyponymous reference) and *pʷatik 'potato yam, aerial yam, Dioscorea bulbifera'.

The reasons why a POc etymon for the widespread Dioscorea esculenta is not reconstructable were discussed in §4. There are, however, a number of terms in North New Guinea and Meso-Melanesian languages which imply that a PWOc term for Dioscorea esculenta may have existed. The items below apparently reflect a PWOc form *(qk)amisa 'lesser yam, Dioscorea esculenta':

NNG:	Tuam	amez	yam
NNG:	Tami	kamit	yam
NNG:	Yabem	ami	lesser yam, Dioscorea esculenta
NNG:	Yalu	amis	lesser yam, Dioscorea esculenta
NNG:	Sissano	emiei	greater yam
MM:	Tangga	kam	sweet potato; lesser yam
MM:	Tomoip	misa	lesser yam, Dioscorea esculenta

These forms seem to be regular reflexes, and it is possible that the lesser yam was introduced into western Melanesia after the break-up of POc but before PWOc had dispersed far. Against this inference, however, is the fact that we would also expect to find reflexes of such a significant item in languages of the Papuan Tip cluster, the third member cluster of Western Oceanic, yet none are found. Formally related to the data above are NNG: Mamusi mamisa 'yam' and MM: Minigir mamisa 'lesser yam', seemingly reflecting a protoform *mamisa.[13] This modification in form is typical of what happens when languages acquire terms for newly introduced food plants (cf. Wolff 1994), and it may well be that the data above reflect a term which spread through the areas of the North New Guinea and Meso-Melanesian clusters after the dispersal of PWOc, rather than an etymon which was present in the protolanguage.

Forms which were apparently the names of other yam species/varieties are listed below.

POc *mʷaruqen 'k.o. yam: wild yam (?)'

Adm:	Titan	mʷaren	a big yam
Adm:	Loniu	mʷat	k.o. large yam
NCV:	Paamese	a-marue	k.o. wild yam
NCV:	Lewo	mol-malu	k.o. wild yam, ready before cultivated yams
NCV:	Nguna	mʷālu	k.o. yam like English potato
NCV:	Namakira	māro?	k.o. taro

POc *udu(r,R) 'k.o. greater yam (?)'

NNG:	Amara	(o)udo	greater yam
MM:	W. Kara	udi	greater yam
MM:	Nalik	udur	greater yam
SES:	Arosi	ugu-ugu	a sp. of yam with nice smell

---

[13] The form mami 'lesser yam' also occurs in various languages of the region, but we know that this is a recent borrowing from Tok Pisin mami, because it shares in the s-loss characteristic of words which have entered Tok Pisin from the MM:Ramuaaina and MM: Tolai languages (Ross 1992). Another seeming cognate is W. Fijian mami 'cooking banana with short thick fruit; sweet-tasting, but skin remains green and flesh hard even when ripe'. However, both the form (with loss of the final syllable) and meaning make this an unlikely reflex of *mamisa.

POc *p^wasepe 'greater yam'

MM:	Petats	waseh	
MM:	Selau	wesewe	
SES:	Arosi	hasui	a wild yam, thorny, matures in two years, many tubers

PWOc *gobu 'potato yam, *Dioscorea bulbifera* (?)'

NNG:	Numbami	go-gobu	greater yam
NNG:	Patep	yɛb	yam
MM:	East Kara	go-gof	*Dioscorea bulbifera*

PEOc *damu 'k.o. yam'

NCV:	Lonwolwol	dɛm	yam
NCV:	Raga	ⁿdamu	yam
NCV:	Port Sandwich	na-ⁿram	yam
SV:	Anejom	rame	k.o. yam, stringy
Fij:	W. Fijian	damu(ni)	k.o. yam with curved tuber and chocolate-coloured skin

POc *p^wasepe 'greater yam' is of interest, because it also seems to be the source of the PT forms listed below:

PT:	Molima	atea	greater yam
PT:	Dobu	k^watea	yam
PT:	Duau	k^watea	yam
PT:	'Auhelawa	ateya	yam
PT:	Tubetube	k^watea	greater yam

However, the sound correspondences attested by these forms are not those of PT languages but the highly distinctive reflexes (*p^w --> k^w; *s --> t) of North Malaitan languages of the SES group. Dictionaries are available for two North Malaitan languages, Lau (Fox 1974) and Kwaio (Keesing 1975), but neither includes this item. I assume it is nonetheless a borrowing from a North Malaitan language, but I do not know how it occurred.

POc *kasokaso 'yams, bundled together (?)'

MM:	Patpatar	kaaskaas	
Pn:	Tongan	kahokaho	particularly good kind of yam
Pn:	Samoan	ʔasoʔaso	k.o. yam

The reduplication of this form suggests that 'yams, bundled together' is a possible original meaning, since one function of reduplication is to denote collections of objects.

POc *m^wamo 'famine foods; wild taro'

NNG:	Kove	momo	sago palm
NNG:	Atui	mum	greater yam
NNG:	Bebeli	momo	sago palm
NNG:	Uvol	momo	greater yam
PT:	Iduna	mohamo	lesser yam
Adm:	Lou	m^wɔm	

POc *mᵂamo is probably derived from *mᵂapo-mᵂapo, the reduplication of *mᵂapo(q) (see above). Reduplicated forms commonly refer to wild forms (see §4), and this word apparently referred originally to wild taro, then by genericisation to famine foods in general, including sago and unspecified varieties of wild yam.

As with other staples, a word referring to propagation material, here seed yams, has been genericised to refer to full-grown yams in some languages.

PWOc *kapul 'seed yam'

PT:	Dobu	awona	
PT:	Kakabai-K	ko-koya	yam
PT:	Misima	ka-kaún	
PT:	Kilivila	kaula	yam
MM:	Tiang	ko	lesser yam
MM:	East Kara	ko-kau	lesser yam, *Dioscorea esculenta*
MM:	Patpatar	kau-kau	lesser yam, *Dioscorea esculenta*[14]
MM:	Nehan	ko-ko	yam

It is possible that the cognate set below should be united with this one, and that the phonological disagreements are the result of borrowing, since the lesser yam probably spread through western Melanesia after the break-up of POc.

PNGOc *k(ᵂ)apil 'k.o. yam'

NNG:	Tami	kᵂapil	k.o. yam, *Dioscorea vulg.*[15]
NNG:	Numbami	kowila	greater yam
NNG:	Yabem	kili	greater yam
NNG:	Mapos	ker	yam
PT:	Dobu	kᵂaleya	yam[16]
PT:	Iduna	kᵂavi-kᵂavi	greater yam variety

5.2.3 BANANA, *Musa* CULTIVARS

PMP *punti 'banana' (Dempwolff 1938)

POc *pudi 'banana, *Musa* cultivars' (Grace 1969: *puti)

NNG:	Gitua	pudi	
PT:	Tubetube	udi	
MM:	Tolai	vudu	
Adm:	Mussau	uri	
Adm:	Drehet	puŋ	
SES:	Gela	vudi	
SV:	Anejom	no-hos	
Fij:	W. Fijian	vudi	cooking banana; sometimes used as generic term for banana

---

[14] This is the source of the Tok Pisin term *kaukau* 'sweet potato', whose source was noted as unknown in Ross (1992).

[15] The name *Dioscorea vulg.* is not given by Barrau (1962) or by French (1986) among their lists of synonyms, and I am not sure which species this refers to.

[16] Metathesis has occurred here.

| Pn: | Tongan | *fusi* | cooking banana or banana of any kind |

POc *joRaga 'banana, *Australimusa* group'

NNG:	Silisili-Bubwaf	*cok*	banana
NNG:	Patep	*joŋ*	banana (generic); banana, *Musa sapientum*
MM:	Vaghua	*soga*	banana
SES:	Arosi	*toraga*	
NCV:	Paamese	*sōko*	
NCV:	Nguna	*soaga*	cooking banana
Fij:	E. Fijian	*soaga*	
Pn:	Samoan	*soaʔa*	

Edible bananas are all cultivars of a single species, *Musa*. In western Melanesia these fall into two groups, *Australimusa*, indigenous to Papua New Guinea, whose bunches grow erect and whose fruit are orange-red, and *Eumusa*, found all over the world, whose bunches hang downwards. POc *pudi evidently referred to bananas in general, presumably of both groups, whether cooking bananas or sweet varieties, whereas *joRaga referred to *Australimusa*.

POc *sakup 'k.o. cooking banana: long with white flesh (presumably *Eumusa* group)'

PT:	Gumawana	*yagowa*	a long non-sweet banana
PT:	Taupota	*hakova*	banana
PT:	Sinagoro-Taboro	*daua*	k.o. banana: white flesh
PT:	Motu	*dau*	k.o. banana: very long
MM:	Roviana	*hakua*	banana
MM:	Maringe	*cau*	banana
NCV:	Paamese	*sou-sou*	k.o. banana

POc *bʷera 'banana type (presumably *Eumusa* group)'

PT:	Gapapaiwa	*bora-bora*	k.o. banana
PT:	Budibud	*bʷela-mʷela*	banana
NCV:	Paamese	*a-voi*	k.o. banana
Mic:	Puluwat	*(wuru)pʷer*	k.o. banana enjoyed cooked

POc *baqapun 'k.o. banana'

MM:	Teop	*pauna*	banana; kidney
Yapese		*pʔa:w*	k.o. banana
Adm:	Aua	*pahafu*	banana
Adm:	Loniu	*pakɔw*	k.o. wild banana
SES:	Dori'o	*baʔu*	banana
SV:	Lenakel	*nə-pən*	banana
Mic:	Puluwat	*(wuru)pāwo*	k.o. cooking banana

POc *tawai 'k.o. banana'

PT:	Gumawana	*towe(ga)*	k.o. short non-sweet banana
PT:	Gumawana	*towe(nea)*	k.o. short sweet banana
PT:	Iduna	*tawai(nega)*	k.o. red banana
PT:	Sinagoro-B	*(lewa)toɣo*	k.o. sweet banana

PT:	Lala	*koʔo*	banana
PT:	Roro	*uʔu(na)*	banana
NCV:	Paamese	*tahui*	k.o. banana
Mic:	Kosrae	*toa*	preserved banana

PWOc **bʷatiq* 'k.o. banana'

PT:	Tawala	*bihiya*	banana plant
PT:	Misima	*bʷahíki*	banana
PT:	Nimoa	*bʷasihe*	banana
MM:	Vitu	*beti*	banana
MM:	Vagunu	*batia*	banana

These five terms all appear to have referred to banana cultivars. It is probable that POc **bʷera* was a descriptive term meaning 'white', since Puluwat *pʷer* retains this meaning. The POc form is probably a reflex of PMP **burak* 'white'. If so, one may infer that it referred to bananas of the *Eumusa* group.

PWOc also has a term **pudi-pudi* for 'wild banana' which is transparently a reduplication of the generic POc term for banana:

NNG:	Mbula	*pin-pin*	wild banana
MM:	Ramuaaina	*udu-udu*	wild banana
PT:	Sudest	*yudu-yudu*	wild banana seeds

Bananas grow in large bunches (POc **puŋu*) each on a stem (POc **paRa(lR)*, probably also 'handle'):

PMP **puŋu* 'bunch'

POc **puŋu-* 'bunch (of bananas etc.)'

NNG:	Yabem	*buŋ*
SES:	Lau	*fuŋ(edo)*
SES:	Kwaio	*fuŋu-ʔi*
NCV:	Paamese	*huŋi-*
NCV:	Lewo	*viŋe-sia*

POc **paRa(l, R)* 'stem, bunch (of bananas)'[17] (Milke 1968: **paRaRa* 'handle')

PT:	Tawala	*halana*	bunch/hand of bananas
NNG:	Biliau	*parar*	stem of/cluster of bananas, betelnut, etc.; axe handle
Fij:	W. Fijian	*bā-bā*	stem of banana, taro, etc.

5.2.4 BREADFRUIT, *Artocarpus* AND *Parartocarpus* SPP.

PAn **kuluR* 'breadfruit' (Dempwolff 1938)

POc **kuluR* 'breadfruit, *Artocarpus altilis*' (Grace 1969: **kulu(r)*)

| NNG: | Sio | *kunu* |
| NNG: | Sukurum | *gunik* |

---

17 Tawala and Biliau disagree on the final consonant of **paRa(lR)*. One of the two languages has changed the final consonant by dissimilation (Tawala) or assimilation (Biliau).

PT:	Wedau	*kunori*	
PT:	Suau-Daui	*unuli*	
MM:	Vitu	*kulu*	
MM:	Nakanai	*ulu*	
Adm:	Loniu	*kun*	
Adm:	Ponam	*gul*	
Fij:	W. Fijian	*kulu*	
Pn:	Samoan	*?ulu*	

POc **baReko* 'breadfruit fruit (?)' (French-Wright 1983)

PT:	Tawala	*beleha*	breadfruit
PT:	Lala	*bale?o*	sago palm
PT:	Roro	*pare?o*	sago palm
MM:	Nalik	*bərəuə*	breadfruit
MM:	Tabar	*bareu*	breadfruit
MM:	Halia-Haku	*baleo*	breadfruit
SES:	Gela	*baleyo*	a pair of breadfruit tied together
SES:	Kwaio	*bale?o*	breadfruit tree, breadfruit
NCV:	Mota	*pego*	breadfruit
SV:	Lenakel	*nu-(və)vaau*	k.o. breadfruit with very large fruit

POc **beta* 'k.o. breadfruit'

MM:	Roviana	*beta*	breadfruit
SES:	Gela	*beta*	breadfruit
NCV:	Paamese	*vetā*	breadfruit, *Artocarpus altilis*

PEOc **maRi* 'breadfruit' (Geraghty 1990)

SV:	Sie	*n-mar*	
SV:	Kwamera	*ne-mer*	
SV:	Anejom	*in-ma, in-mer-*	(the latter in compounds)
Mic:	Kiribati	*mai*	
Mic:	Marshallese	*may*	
Mic:	Truk	*mǣy*	
Pn:	Tongan	*mei*	
Pn:	E. Futunan	*mei*	
Pn:	Marquesan	*mei*	

PEOc **mara* 'be spoiled, foul; preserved breadfruit'[18] (J. Marck, pers.comm.)

SES:	Kwaio	*malaa*	be spoiled, foul
SES:	Lau	*maraa*	be spoiled, foul
Mic:	Kosrae	*mær*	core of a preserved breadfruit
Mic:	Mokilese	*mar*	preserved breadfruit
Mic:	Truk	*mara-*	preserved breadfruit
Mic:	Woleai	*māza*	preserved breadfruit
Fij:	W. Fijian	*mara*	stink, be rotten
Fij:	Rotuman	*mara*	preserved starchy food

---

[18]   Tausug *marang*, Mansaka *mareng* (*Artocarpus odoratissimus*) and cognates may be cognate with this item, in which case PMP **madaŋ* is reconstructable.

Pn:	Tongan	*mā*	cooking banana or banana stored in pit
NCV:	Paamese	*ame*	preserved breadfruit
SV:	Anejom	*na-marai*	preserved breadfruit

PWOc **lapuka* 'k.o. tree with fruit similar to breadfruit, *Parartocarpus venenosus* (syn. *Parartocarpus involucrata*)'

NNG:	Takia	*lou*	k.o. breadfruit
NNG:	Kaiwa	*lavuk*	breadfruit
NNG:	Medebur	*lapu*	breadfruit
PT:	Are	*napo*	breadfruit
MM:	Susurunga	*lapu*	tree type whose fruit, similiar to a breadfruit, is yellow and sweet and is eaten raw (possibly *Parartocarpus venenonus*)
MM:	Tolai	*lapu(a)*	

Of the six terms for breadfruit above, by far the most widespread and frequently reflected is POc **kuluR* 'breadfruit, *Artocarpus altilis*'. Reflexes of POc **baReko* are also widespread in Melanesia. Other *Artocarpus* species are found in Papua New Guinea and the Solomon Islands (Barrau 1962:173), and it is possible that **baReko* referred to one of these. However, the fact that in three Central Papuan languages (Lala, Roro, Kuni) its reflex has acquired the meaning 'sago palm' suggests that **baReko* referred to the tree's starch source, that is, the fruit itself. No more information is available about POc **beta* 'k.o. breadfruit', but it is possible that PNCV **bʷeta* 'taro' is descended from it. Should this be the case, then the POc form was also **bʷeta*. Scholars have sometimes combined reflexes of PEOc **maRi* 'breadfruit' and PEOc **mara* 'preserved breadfruit' into a single cognate set, but it seems clear that they are derived from separate forms with different meanings. Note, however, that the seeming E. Fijian cognate *madrai* 'rolls/loaves of breadfruit stored in a pit' is derived from PEOc **madra* 'ripe, overripe', rather than from PEOc **mara* 'be spoiled, foul; preserved breadfruit', presumably as the result of a confusion of the two words (J. Marck, pers.comm.). The Sie and Kwamera forms are assigned to PEOc **maRi* rather than **mara* on semantic grounds (in both languages *-r-* reflects both POc **R* before a high vowel and POc **r*).

Although reflexes of PWOc **lapuka* have come to mean breadfruit in some NGOc languages, it seems clear that it originally named the tree *Parartocarpus venenonus*, of which the Sursurunga definition is a good description (cf. Peekel 1984:132). Peekel reports its presence on New Ireland, Barrau (1962:177) in the Solomons. The expected Proto SES form is ***lavuya*. I have found no reflexes of this form, but PSES **rauyai* is reconstructable (Gela *rauyai* 'k.o. wild cabbage', N. Malaitan-B *rauʔai*, Kwai *rauai*, Kwaio *lauʔai* 'breadfruit'), and this may be the result of an early borrowing from a Western Oceanic language.

POc **malo-* 'core of the breadfruit'

NNG:	Gedaged	*malo-*	
Fij:	E. Fijian	*malo*	
PN:	Tongan	*malo*	flower-spike of the breadfruit

PWOc *kali(j,g)o 'edible kernel of breadfruit segments'

NNG:	Malasanga	*kariro*	breadfruit fruit
NNG:	Takia	*alid*	
NNG:	Manam	*kaizo*	
NNG:	Ali	*alic*	breadfruit
MM:	Teop	*ariko*	

These items name two parts of the breadfruit, the latter when roasted a much loved food in parts of Melanesia.

5.2.5 SAGO, *Metroxylon* SPP., AND CYCAD, *Cycas circinalis*

PMP *Rambia* 'sago palm' (Blust 1989)

POc *Rabia* 'sago, *Metroxylon* spp., mainly *Metroxylon sagu* (syn. *Metroxylon rumphii*)' (Grace 1969)

NNG:	Malasanga	*labia*	
NNG:	Kaiwa	*labi*	
NNG:	Kairiru	*rabi*	
PT:	Bwaidoga	*labia*	
PT:	Sariba	*labia*	
PT:	Kilivila	*yabia*	
PT:	Sinagoro-B	*labia*	
Adm:	Titan	*apí*	
Adm:	Bipi	*abi*	
Fij:	E. Fijian	*yabia*	arrowroot, starch, *Tacca leontopetaloides*
SV:	Kwamera	*ni-epi*	k.o. palm, *Metroxylon warburgii*[19]

POc *Rabia* was apparently the only term for the sago palm. There were, however, also names for salient parts of the palm, and these are listed below.

PMP *sa[ŋ]gu* 'sago starch' (Dempwolff 1938)

POc *sag(u)* 'sago starch'

PT:	Muyuw	*sag*	pandanus used for sleeping on[20]
MM:	Bola-Harua	*sak-sak*	sago palm
MM:	East Kara	*sa-sək*	sago
MM:	Patpatar	*sak-sak*	sago palm
MM:	Solos	*sa-sak*	sago pancake
MM:	Halia-Haku	*saka-saka*	sago pancake

This term is reconstructed on the basis of its non-Oceanic and Western Oceanic reflexes. Because their Oceanic distribution is so limited (although the sago palm itself is found throughout Melanesia), POc *sag(u)* has not previously been reconstructed. Tok Pisin has the term *saksak* 'sago', and it has been assumed that this was borrowed from English 'sago' or introduced from Malay (*sagu*) by labourers from Indonesia, and that the Tok Pisin term was the source of the item in Western Oceanic languages. However, the form of the

---

[19] I have not found this term in the literature, but it may well be synonymous with Solomons sago, *Metroxylon solomense* (syn. *Metroxylon bougainvillense*) (French 1986:27).

[20] Muyuw *sag* is assumed to be a reflex of *sagu* on the grounds that semantic crossovers between various palms (coconut, pandanus, sago) and their parts are quite common.

reflexes listed above makes this hypothesis unlikely. On the contrary, East Kara and especially Patpatar lie in the area in which most Oceanic lexical items in Tok Pisin have their source, and the reduplicated forms suggest that *sag(u)-sag(u) was the inherited term for wild sago (on reduplication in the names of wild varieties, see §4).[21]

PMP *qatep 'thatch, roof' (Dempwolff 1938)

POc *qatop 'sago thatch' (Grace 1969)

NNG:	Mbula	kōto	
PT:	Gapapaiwa	katova	
MM:	Nakanai	hato	sago palm, *Metroxylon sagu*; thatch made from it
MM:	Teop	atovo	sago (domestic variety)
SES:	Bughotu	ato	
Pn:	Tongan	ʔato	thatch
Pn:	Samoan	ato	thatch

POc *u(r,R)a- 'sago pith, grated coconut waste'

PT:	Iduna	ula-	grated coconut dregs after milk has been squeezed out
PT:	Ubir	ur	
Adm:	Loniu	wa-	flesh, meat, esp. unprocessed sago pulp

PMP *duRi 'thorns' (Dempwolff 1938)

POc *ruRi 'thorns' (Ross 1988)

NNG:	Lukep-Pono	riri(ni)	sharp points on sago and pandanus leaves
MM:	Nakanai	iriri(la)	spines along (the back of the pandanus leaf)
Adm:	Lou	ruwi	barbs on sago bark
Adm:	Titan	ⁿrúwi	a type of sago with medium length thorns

POc *ruRi referred to thorns and spines in general, but it is used in a number of languages specifically of the barbs on *Metroxylon sagu*, and in Titan its reflex (with prefixed article: Proto Adm *n-ruRi) designates the species itself.

PMP *ba(y)it 'cycad, fern palm, *Cycas circinalis*'[22]

POc *bai-bai(t) 'cycad, fern palm, *Cycas circinalis*'

MM:	Tolai	bai-bai
MM:	Patpatar	be-be
SES:	Lau	bai-bai
SES:	Longgu	bae-bae
SES:	Longgu	bai-bai
SES:	Baelelea	gʷae

---

[21]   The sources of Oceanic lexical items in Tok Pisin are examined in Ross (1992). In this work I missed the WOc origin of Tok Pisin *saksak*. Dutton (1994) mentions the possibility of its introduction from Malay.

[22]   I have not seen this reconstruction elsewhere. It is supported by Tausug *bait*, Yakan *bayit*, and the data cited by Verheijen (1984:51) in support of 'Proto Nusa Tenggara Timur' *bé(i)t* '*Cycas rumphii*'.

The cycad is included here because it is a starch source similar to the sago palm, and is sometimes exploited when other resources are scarce.

5.3 GREEN LEAVES

The generic term POc *was(i,a)* 'green vegetables; *Abelmoschus manihot*' was presented in §5.1. French-Wright (1983:162) also reconstructs a specific term POc *bele* for *Abelmoschus manihot*, but the gloss of the only Western Oceanic (Gedaged) reflex suggests that it may not be cognate with the Fijian and Polynesian etyma. If so, then this term is reconstructable only for Proto Central Pacific:

POc *bele* (?) 'shrub species, *Abelmoschus manihot* (syn. *Hibiscus manihot*)' (French-Wright 1983)

NNG:	Gedaged	*bel*	shrub like the croton with aromatic dark green leaves
Fij:	W. Fijian	*bele*	
Pn:	Tongan	*pele*	
Pn:	Samoan	*pele*	*Abelmoschus* sp.

A variety of green leaves from trees and other plants are eaten, and a number are listed below:

POc *gal(a,o)* 'taro leaves'

NNG:	Labu	*ka*	taro
MM:	Vitu	*galo*	
MM:	Nakanai	*gala-gala*	
Adm:	Baluan	*gal*	taro
SES:	Kwaio	*gala-*	taro shoot

PWOc *[qa]pʷasu* 'taro leaves'

NNG:	Kaulong	*pasu*	taro leaf (mature)
NNG:	Manam	*(minam) qapʷas*	k.o. yam
PT:	Misima	*pʷasúwa*	k.o. tree with edible leaves; *Gnetum gnemon*
MM:	East Kara	*iavas*	taro, *Colocasia esculenta*
MM:	Madak	*pas*	taro
MM:	Patpatar	*paas*	taro, *Colocasia esculenta*

PMP *dapdap* 'coral tree, *Erythrina* spp.' (Dempwolff 1938)

POc *rarap* 'Indian coral tree, *Erythrina variegata* (syn. *Erythrina indica*)' (Blust 1972: *rara*)

PT:	Tawala	*lawa-lawa*	tree type, large red flowers at end of July (probably Indian coral tree, *Erythrina variegata*)
MM:	Susurunga	*rara*	tree type, fast-growing, looks like poplar
MM:	Roviana	*rapo-rapo*	
SES:	Gela	*rara*	
SES:	Arosi	*rara*	

NCV:	Paamese	*a-rē*	
SV:	Lenakel	*na-iəv*	flame tree
Fij:	W. Fijian	*rara*	
NC:	Voh-Koné	*dalep*	

The forms Tawala *lawalawa* and Roviana *raporapo* are interesting, because they suggest at first sight that the full reduplication of PMP **dapdap* was preserved in POc as ***raprap*. This would be unusual, since Blust (1977) has shown that in reduplicated forms, as elsewhere, POc lost the first member of a medial consonant sequence. However, Tawala and Roviana are both languages in which a vowel is added after the POc final consonant, and not only the final consonant but also the added vowel is reduplicated in both languages. This indicates that the POc reduplicated form may have been replaced by a monosyllabic PWOc **rap*, which was later reduplicated again to avoid monosyllabicity. The Roviana form in any case looks like a borrowing from an unknown source (the expected form is ***ra[va]rava*). The Tawala form is regular, and is a late reduplication of **lawa*, reflecting a putative Proto PT **rap*.

PWOc **ba(r,R,l)am* 'Indian coral tree, *Erythrina variegata*'

NNG:	Gitua	*baram*
NNG:	Takia	*bar*
MM:	East Kara	*val-val*
MM:	Patpatar	*bal-bal*

PWOc **wayu* '"two-leaf", *Gnetum gnemon*'

NNG:	Takia	*waiu*
MM:	Nakanai	*oio*

POc **kusa(q)* 'k.o. edible greens'

PT:	Misima	*kusái*	*Gnetum gnemon*
PT:	Sudest	*uða*	*Gnetum gnemon*
SES:	Kwaio	*ʔuta*	*Abelmoschus manihot*
SV:	Lenakel	*nu-hua*	*Abelmoschus manihot*

PEOc **boro* 'blackberried nightshade, *Solanum nigrum* (syn. *Solanum nodiflorum*)' (French-Wright 1983)

SES:	Arosi	*boro*	a species of tree
Fij:	Rotuman	*poro*	plant with edible leaves and inedible fruit like cherry tomatoes
Fij:	E. Fijian	*boro*	a plant of the *Solanum* sp.
Fij:	W. Fijian	*boro*	shrub taxon: includes several *Solanum* and *Capsicum* spp. whose pungent fruit are used as spice
Pn:	Tongan	*polo*	

POc **m(ʷ)ase* 'wild mulberry, paper mulberry, *Broussonetia papyrifera*'

NNG:	Mapos	*ñēs*
MM:	Tolai	*mae*
Fij:	W. Fijian	*masi*

PMP **qipil* 'a hardwood tree, *Intsia bijuga*' (Dempwolff 1938)

POc *(q)ipil* 'a hardwood tree, *Intsia bijuga*' (Grace 1969: *qipi(l)*)

MM:	Roviana	*ivili*	
Adm:	Drehet	*ʔih*	
Adm:	Likum	*ih*	
Mic:	Kiribati	*ibi*	tree like *Calophyllum inophyllum*, but harder and heavier
Pn:	Samoan	*ifi-lele*	

POc *m(ʷ)asoku* 'wild cinnamon, *Cinnamomum* spp.' (Milke 1968)

NNG:	Gedaged	*mio*	*Massoia aromatica*
NNG:	Yabem	*muse*	
PT:	Are	*masoγi*	
Adm:	Mussau	*mosou*	
Adm:	Lou	*moso*	tree with redolent bark, the cinnamon, *Cinnamomum xanthoneuron*
Adm:	Baluan	*mʷasow*	
Fij:	E. Fijian	*maðou*	*Cinnamomum pelatinervium*, bark is grated as perfume

PAn *lateŋ* 'a tree, the stinging nettle, *Laportea harveyi*' (Blust 1972)

PMP *zalateŋ* '*Laportea* and *Dendrocnidae* spp.' (Dempwolff 1938)

POc *[ja]latoŋ* 'nettle tree, *Laportea harveyi*' (Ross 1989)

PNCV *ka-lato* 'nettle tree' (see §4 above) (Clark 1986)

NNG:	Takia	*dalat*	
NNG:	Manam	*zalato*	k.o. tree; causes itching, cooked and eaten after maternity, used as a medicine
MM:	Roviana	*jilatoŋo*	k.o. nettle
Adm:	Lou	*lalat*	
SES:	Sa'a	*(nunu)lao*	
SES:	Ulawa	*(dū)lao*	
SES:	Arosi	*darao*	k.o. nettle
NCV:	Mota	*kalato*	
NCV:	Raga	*galato*	
NCV:	Lonwolwol	*gela[r, t]*	stinging leaf bush
SV:	Anejom	*ne-lyat*	
Fij:	W. Fijian	*salato*	
Fij:	E. Fijian	*salato*	

PMP *siRi* 'a shrub: *Cordyline* sp., *Dracaena* sp.' (Blust 1984a)

POc *jiRi* 'a shrub: *Cordyline* sp., *Dracaena* sp.' (Ross 1988)

NNG:	Malasanga	*sir*	grass skirt
NNG:	Mindiri	*da-dir*	grass skirt
NNG:	Adzera	*ji-ji*	*Cordyline* sp.
NNG:	Kairiru	*jir*	k.o. small pandanus
PT:	Wedau	*diri*	*Dracaena* sp.
PT:	Tawala	*diri*	*Dracaena* sp.

MM:	Patpatar	*suri(ah)*	*Dracaena angustifolia*
Adm:	Kurti	*siy*	*Dracaena* sp.
SES:	Arosi	*diri*	the *Dracaena*, a very sacred plant
Fij:	Rotuman	*jī*	plant with ornamental leaves and a sweet root: *Cordyline terminalis* (syn. *Cordyline fruticosa*)
Pn:	Tongan	*sī= /tī/*	plant with ornamental leaves and a sweet root: *Cordyline terminalis*

PEOc **gaRi(a)* 'a shrub: *Cordyline* sp., *Dracaena* sp.' (Geraghty 1990)

NCV:	Raga	*garia*	*Dracaena* sp.
NCV:	Atchin	*kari* ·	*Dracaena* sp.
Fij:	E. Fijian	*gai*	*Cordyline* sp.

POc **mʷa(r,R)e* 'croton, *Codiaeum variegatum*'

MM:	Vitu	*mare*	*Cordyline* sp.
MM:	Nakanai	*male*	
MM:	East Kara	*ma-mara*	
MM:	Patpatar	*mora-mora*	
MM:	Kandas	*muro*	
MM:	Roviana	*mar-mar*	
SV:	Lenakel	*nə-məl*	cycad
SV:	Anejom	*no-mʷoj*	cycad
Fij:	W. Fijian	*ŋʷali*	

POc **jajal* 'croton, *Codiaeum variegatum*'

MM:	Roviana	*zazala*
NCV:	Mota	*sasa* ·
NCV:	Lonwolwol	*ha*

Croton and cordyline varieties are both used as decorative plants, and cognate sets often span both. The croton leaf is sometimes used in ceremonial foods (May 1984:39). The cordyline has a tuber which is edible, but not often eaten (Bourke 1982:60); its young leaf shoots are sometimes cooked and eaten (French 1986:335).

PEMP **(q)ayawan* 'banyan tree, *Ficus* sp.' (Blust 1978a: **ayawan*)

POc **qayawan* 'banyan tree, *Ficus* sp.'

NNG:	Takia	*ayao*	
NNG:	Wogeo	*vaiawa*	
PT:	Tawala	*kiyaha*	
MM:	East Kara	*iuan*	giant *Ficus* spp.
MM:	Patpatar	*kiaua*	giant *Ficus* spp.
Adm:	Wuvulu	*aiwa*	
Mic:	Ponape	*aiaw*	
Mic:	Truk	*āw*	
Fij:	E. Fijian	*yaðawa*	
Fij:	W. Fijian	*aawa*	
Pn:	Tongan	*ʔovava*	
SV:	Kwamera	*(nəsu-)aio*	k.o. banyan, bark used for tapa cloth

PMP *nunuk* 'k.o. tree, banyan, *Ficus* spp.' (Charles 1973)

POc *nunu(k)* 'k.o. tree, banyan, *Ficus* spp.'

MM:	Tolai	*nunu*
Adm:	Lou	*nun*
Adm:	Lenkau	*nun*
Fij:	E. Fijian	*nunu*

POc *baga* 'banyan (generic); *Ficus* sp.'

MM:	Patpatar	*paka*	*Ficus nodosa*
NCV:	Mota	*paka*	
NCV:	Lonwolwol	*bak*	
NCV:	S.E. Ambrym	*veak*	
NCV:	Paamese	*a-veka*	
NCV:	Nguna	*na-paga*	banyan, *Ficus bengalensis*
SV:	Lenakel	*ne-pək*	
SV:	Anejom	*in-pak*	
Fij:	E. Fijian	*baka*	the banyan tree, *Ficus obliqua*

PMP *jabi* 'k.o. tree, *Ficus* sp.' (Blust 1972)

POc *(c,j)api* 'k.o. tree, *Ficus* sp.'

NNG:	Mapos	*dēv*	k.o. tree, *Ficus* sp.; the leaf tips are eaten
Fij:	E. Fijian	*savi(-rewa)*	a tree, *Ficus tinctoria*

POc *((b(a,o))bos(i)* 'k.o. tree, *Ficus* sp.'

NNG:	Biliau	*bubōs*	wild fig tree (poor quality wood)
MM:	Nakanai	*vovosi*	k.o. tree, *Ficus* sp., with edible leaves
MM:	East Kara	*pavus*	small *Ficus* sp., 'papus' (Peekel 1984: 141)
MM:	Patpatar	*papus*	small *Ficus* sp., 'papus'
MM:	Tolai	*papu(-kubar)*	small *Ficus* sp., 'papus'
SV:	Anejom	*(na-tita)pʷoθ*	

PWOc *kaka(b,mʷ)a* 'small *Ficus* sp.'

MM:	East Kara	*kakap*	
PT:	Misima	*kakámʷa*	k.o. tree; with small, rounded, light green leathery leaves and white and motley-coloured bark and small, fig-shaped fruit

The collection of proto etyma above[23] for *Ficus* species is perhaps a reflection of the importance of these trees in the lives of early Oceanic speakers. Unfortunately it is not possible to assign the reconstructed forms to species. POc *qayawan* also seems to have reflexes in Micronesia. Proto Mic *kawani* '*Ficus* sp.' can be reconstructed, with the following as some of its reflexes:

---

23   It is possible that Nakanai *kaloli* '*Ficus* sp.', Patpatar, Tolai *kalakala* 'small *Ficus* sp., *acanthophylla*', Roviana *kalala* 'banyan, *Ficus* sp.' reflect a further etymon designating a *Ficus* species, as they may be cognate with PMP *(q)aRa* '*Ficus variegata* and other spp.' (Verheijen 1984:56). However, the Patpatar, Tolai and Roviana reflexes all have *-l-* where **-r-* is expected.

Mic:	Kosrae	*kɔn(-yɛ)*	banyan tree
Mic:	Truk	*awaɾ*	banyan
Mic:	Truk	*əwə̄ɾ*	*Ficus tinctorens*
Mic:	Puluwat	*yawann*	banyan
Mic:	Satawal	*awal*	banyan
Mic:	Woleai	*gewann*	banyan
Mic:	Ulithi	*howel*	banyan

However, the correspondences here – especially the word-final reflexes of *n* – indicate that this is an early borrowing via the Caroline Islands from a western Austronesian language.

POc *pʷake* 'k.o. green food (?)'

PT:	Dobu	*pai*	green foods
Adm:	Lou	*pʷakɛ*	fern
Adm:	Drehet	*pʷake*	greens; fibrous/stringy, mainly stems after cooking, found wild near water or grown in gardens
SES:	Lau	*kʷake*	greens

5.4 COCONUT, *Cocos nucifera*

PMP *niuR* 'ripe coconut; coconut (generic)' (Dempwolff 1938)

POc *niuR* 'coconut growth stage: ripe, brown but has not fallen yet; coconut (generic)' (Grace 1969: *niu(R)*)

NNG:	Kove	*niu*	coconut
NNG:	Numbami	*niwila*	coconut
NNG:	Kaiwa	*niuk*	coconut
PT:	Gapapaiwa	*niura*	coconut
PT:	Tawala	*neula*	coconut
PT:	Motu	*niu*	coconut tree and mature fruit
MM:	Nalik	*nur*	coconut
Adm:	Titan	*niw*	coconut, completely ripe
SES:	Gela	*niu*	coconut palm, nut
NCV:	Raga	*niu*	coconut
Fij:	W. Fijian	*niu*	coconut palm, nut
Pn:	Tongan	*niu*	coconut tree, fruit

POc *niuR* has hyponymous reference as both the generic term for the coconut and the term for its most useful growth stage, when it is ripe and brown but has not fallen.

The nine growth stages of the coconut listed in §4 are repeated here for convenience:

1. coconut fruit bud
2. newly formed fruit, very small
3. (next stage)
4. young, green
5. green, drinkable
6. starts turning brown

7. ripe, brown but has not fallen yet
8. dry and ready to fall
9. sprouted

Reconstructions corresponding to some of these stages are listed below.

POc *(q)ab^waji 'coconut growth stage 1: fruit bud'[24]

| MM: | East Kara | *vəbos* | undeveloped coconut |
| SV: | Kwamera | *iap^was* | small coconut, coconut fruit bud |

PEOc *kirip^wa 'coconut growth stage 2: newly formed fruit, very small'

| SES: | 'Are'are | *kiriwa* | immature coconut |
| Mic: | Mokilese | *kirip^w* | young coconut up to one inch in diameter |

POc *kubo/*kub^wa 'coconut growth stage 4: young, green'

MM:	Solos	*kubo*	young drinking coconut
MM:	Tinputz	*(oē)kupū*	green coconut with meat
SES:	Longgu	*kobu*	young coconut that has no meat, only water[25]
Mic:	Mokilese	*up^w*	coconut stage, unripe, younger than a drinking coconut

PWOc *(p,b)i(k,g)a 'coconut growth stage 4: young, green, just drinkable'[26]

PT:	Suau-Daui	*biga-biga-na*	young drinking coconut
PT:	Kilivila	*viga*	cup, drinking vessel
MM:	Ramuaaina	*(ku-)bika*	coconut growth stage before a green drinking coconut
MM:	Nduke	*bika*	small green coconut
MM:	Roviana	*piga*	coconut shell used as a bottle

POc *karu 'coconut growth stage 5: green, drinkable'

PT:	Hula	*kalu*	half ripened coconut
PT:	Motu	*karu*	young drinking coconut
PT:	Lala	*alu-ʔalu*	young drinking coconut
SES:	Longgu	*ʔaru*	a coconut ready to drink and eat
SES:	'Are'are	*aru*	green drinking coconut

POc *b^waji-b^waji 'coconut growth stage 5: green, drinkable (?)'[27]

| PT: | Gumawana | *bosi-bosi* | large green drinkable coconut still on the tree |
| PT: | Kilivila | *b^wai-b^wai* | young drinking coconut |

---

24   Note that *(q)ab^waji is derivationally related to *b^waji-b^waji (stage 5).
25   The reversal of vowels in SES reflexes is an unexplained difficulty in this comparison.
26   The meaning 'just drinkable' is inferred from the fact that in both Kilivila and Roviana we find the apparently independent semantic development in meaning to 'drinking vessel'. A similar development is seen in Maisin *vuga* 'cup' and in the following putative PT reflexes, the first element of which is apparently the Pre-Kilivila classifier *k^wa- 'vessel': Dobu *keiga* 'cup', Tawala *keyaka* 'coconut-shell cup', Muyuw *k^wavig* 'half coconut shell used as cup'.
27   This is presumably a reduplication of POc *b^waji, which seems to have meant 'standing water' or something of the sort (cf. Ross 1988:416).

PT:	Misima	*bʷál-bʷál*	young coconut with milk but no meat
PT:	Sudest-V	*bʷadi-bʷadi*	coconut
Adm:	Mussau	*pasi-pasi-na*	young drinking coconut
Fij:	W. Fijian	*basi(-lele)*	coconut leaf
Fij:	W. Fijian	*basi(-wara)*	coconut flower before sheath bursts

PEMP **matu(qu)* 'dry coconut'

POc **matuqu* 'coconut growth stage 7: ripe, brown but has not fallen yet '

NNG:	Lukep-Pono	*matuk*	coconut (generic)
NNG:	Atui	*(ka)mutuk*	ripe coconut
NNG:	Roinji	*mutuɣo-na*	ripe coconut
PT:	Sudest	*matu*	dry coconut
NCV:	Mota	*mati-ŋ*	coconut (generic)
NCV:	Paamese	*matou*	dry coconut
Mic:	Marshallese	*məcə(wipᵐ)*	coconut, nearly ripe
Fij:	Rotuman	*mafu*	mature and hard (of wood), lumpy (of pudding), ripe and hard (of coconuts)
Fij:	E. Fijian	*madū*	dry (of wood and mature coconuts)
Pn:	Tongan	*(niu)motuʔu*	coconut growth stage: quite ripe
Pn:	Takuu	*matuu*	coconut growth stage: mature coconut

PMP **(ma)Raŋaw* 'dry' (Blust 1981b)

POc **maRaŋo* 'coconut growth stage 8: dry and ready to fall'

NNG:	Kairiru	*maraŋ*	ripe coconut
MM:	East Kara	*məyaŋ*	dry coconut
MM:	Nalik	*maraŋ*	ripe coconut
MM:	Lihir	*malan*	ripe coconut
MM:	Barok	*maŋa*	ripe coconut
MM:	Susurunga	*maraŋ*	(be) old, dry; (old) coconut with lots of meat and little milk
MM:	Patpatar	*maraŋa*	dry coconut
SES:	Baelelea	*maleŋa*	coconut

POc **goRu* 'coconut growth stage 8: dry and ready to fall'

NNG:	Malai	*gor-gori*	ripe coconut
NNG:	Mamusi-Kakuna	*kolu-ŋana*	ripe coconut
SES:	Lengo	*golu*	coconut flesh
NCV:	Mota	*kor*	coconut in its last condition before it falls from the tree; dry (of other things too)
NCV:	Atchin	*kor*	dry coconut

POc **kulu* 'coconut growth stage 8: dry and ready to fall' (French-Wright 1983)

MM:	Tangga	*kulu*	fully grown drinking coconut
NNG:	Uvol	*kul-kuli*	ripe coconut
SES:	'Are'are	*ʔuru-ʔuru*	ripe coconut
SES:	Sa'a	*ʔulu-ʔulu*	ripe coconut
Fij:	E. Fijian	*kulu-kulu*	the youngest stage of the coconut

POc *tab^wa 'coconut growth stage 9: sprouted'

NNG:	Ulau-Suain	tabu-ñ	young drinking coconut
NNG:	Ali	tapu-ŋ	young drinking coconut
PT:	Dobu	tab^wa(-anuwa)	coconut sprouted
PT:	Gumawana	tabo	a shoot; flesh inside a coconut that has sprouted
PT:	Gumawana	tabo-na	coconut growth stage: coconut that has sprouted
PT:	Sinagoro-Taboro	(niu)tubu-na	sprouted coconut
PT:	Roro	kapu	coconut sprouted
NCV:	Raga	tab^we(-laha)	coconut shell drinking cup
SV:	Anejom	na-tp^wa(-neañ)	cream formed in a coconut that has started to shoot

No reconstructions are given above for stages 3 and 6, but this is partly a product of the difficulty which dictionary-makers have in defining them. In any case, it is important to remember that the neat tabulations of growth stages given in dictionaries and in this paper are a (Western) formalisation of Oceanic semantic categories. Speakers probably think of growth stages less as a sequence than as a set of related objects or a set of descriptive terms.

One result of this is that terms often shift from one 'stage' to another across languages. POc *tab^wa 'coconut growth stage 9: sprouted' illustrates this nicely: it has shifted via the 'next' stage, 1, the coconut fruit bud, as far as stage 5 in Ulai-Suain and Ali. A similar assumption has to be made in order to accommodate the Fijian reflex of *kulu above.

Another result is that various descriptions compete at a single 'stage', and more than one term is reconstructable. For example, for stage 8, when the coconut is dry and ready to fall, we find POc *maRaŋo and POc *goRu. POc *maRaŋo is a descendant of PMP *maRaŋaw 'dry', and there is ample evidence that it is the stative derivative (meaning 'dry, dried out, withered') of the POc verb *Raŋo 'become dry (in sun or by fire); dry (something) out (in sun or by fire)' (see also Geraghty 1990:64):

NNG:	Wampur	marian	dry
NNG:	Manam	maraŋo	dry, withered
MM:	Ramuaaina	maraŋ-ina	dry, withered

POc *goRu, on the other hand, probably referred to the dry and crunchy texture of the meat in a dry coconut, as illustrated in reflexes which do not refer directly to coconuts:

MM:	Nakanai	ma-golu	(grass and plants) dried up, withered, of; (tree) dead; (coconut) dry enough to fall
SES:	Longgu	golu-golu	crunchy, hard
SES:	Kwaio	golu-a	crunch (something)
NCV:	Raga	goru	dry
NCV:	Port Sandwich	ŋgo^nr	dry (of wood)

The cognate set from which POc *kulu is reconstructed may in fact reflect POc *kuluR 'breadfruit' or a reduplicated form thereof.

Reconstruction of POc *matuqu 'coconut growth stage 7: ripe, brown but has not fallen yet' indicates a revision of Blust's (1978a) PEMP reconstruction from *matu to a probable

matuqu 'dry coconut'. That POc *matuqu* indeed named the most salient growth stage is confirmed by its genericisation in Lukep-Pono and Mota.

Occasionally, the reflex of POc *matuqu* seems to have been conflated with that of POc *matuqa* 'mature, middle-aged, solid' (the latter was evidently used of people and of trees, plants and fruit), as in NNG: Matukar *matiwa-n* 'ripe coconut'.

Reconstructions designating parts of the coconut fruit and products made from those parts are listed below.

POc *polo* 'coconut water'

MM:	Barok	*polo*	young drinking coconut
MM:	Siar	*polo*	coconut milk
Adm:	Lou	*puɔl*	coconut

POc *suRuq* 'sap, soup, drinkable liquid derived from plants, fruits or trees' (Grace 1969:*suRu(q)*)

NNG:	Gitua	*suru*	coconut water, soup
NNG:	Gitua	*suru-suru*	saliva
NNG:	Biliau	*sur*	coconut water, soup
NNG:	Manam	*suru*	soup
NNG:	Yabem	*sulu*	soup
	Yabem	*(awa)sulu*	saliva (*awa-* 'mouth')
NNG:	Kaiwa	*ro-ruk*	soup
	Kaiwa	*(avo)rulu-*	saliva (*avo-* 'mouth')
PT:	Dobu	*sulu*	coconut milk
PT:	Molima	*sulu*	coconut milk
MM:	Bali	*zuruka*	coconut milk
MM:	Halia-Haku	*siru*	soup
MM:	Tinputz	*hun*	coconut milk
MM:	Mono	*lulu*	soup
SES:	Arosi	*suru*	coconut milk; k.o. yam soup
Adm:	Loniu	*čuy*	soup

POc *polo* seems to have been the specialised designation for the liquid in a drinking coconut, but POc *suRuq* may also have been used. As the Gitua, Biliau and Arosi glosses indicate, *suRuq* certainly also meant 'soup'. The terms for 'saliva' mean 'sap of mouth'.

PMP *kan-en* 'something to be eaten, food'

POc *kanoŋ(a)* 'flesh, meat, coconut flesh'

NNG:	Tuam	*anoŋa*	seed
NNG:	Malalamai	*anuŋa*	coconut flesh
NNG:	Sio	*kanaŋo*	coconut flesh
MM:	Tangga	*kono*	coconut flesh
Pn:	Tongan	*ka-kano*	flesh, contents or substance
Pn:	Pukapukan	*kano*	the real or essential part of something
Pn:	Rennellese	*kano*	flesh or meat of anything; substance
Pn:	Hawaiian	*ʔano*	kind, nature, character, colour, meaning

PWOc *lamati* 'coconut flesh'

NNG:	Poeng	*lamasi*	coconut
NNG:	Sissano-Arop	*(new-)lamat*	
MM:	Tigak	*lamas*	
PT:	Gumawana	*(naku-)lamata*	coconut growth stage: starts turning brown
PT:	Tawala	*(neu-)lamahi-na*	coconut cream
MM:	Susurunga	*lamas*	coconut, coconut palm
MM:	Patpatar	*lamaas*	dry coconut
MM:	Tolai-Nodup	*lamai*	coconut
MM:	Kandas	*lamas*	coconut

POc *kanoŋ(a)* 'flesh, meat, coconut flesh' was apparently used for coconut flesh, but its meaning was probably considerably wider than this, referring to the edible parts of other plants and perhaps to protein foods too. Its etymology is discussed in §5.1.

PWOc *lamati* seems to have designated coconut flesh, but has undergone genericisation to mean 'coconut' in a number of languages.

POc *puru* 'squeeze out coconut milk'

POc *puru-ŋ(a)* 'coconut pulp; pudding made by squeezing'

NNG:	Lukep-Pono	*poroŋ*	taro cake
NNG:	Takia	*furoŋ*	pudding made of banana/taro and canarium nuts
MM:	East Kara	*pur*	make coconut milk
MM:	Patpatar	*polon*	coconut milk
MM:	Ramuaaina	*pur*	squeeze out coconut milk
Adm:	Lou	*pɔr*	coconut cream
Adm:	Drehet	*puroŋ*	coconut pulp

PNGOc *g(o,u)reŋ* 'coconut cream'

NNG:	Tuam	*goreŋ*	
NNG:	Kapin	*(ma)goleŋ*	coconut
PT:	Ubir	*uren*	coconut oil
PT:	Tawala	*gulena*	coconut milk

PMC *are(ŋ)* 'coconut cream'

Mic:	Marshallese	*yalʷ*	coconut milk
Mic:	Kosrae	*el*	
Mic:	Ponape	*ɛriŋ*	ripe coconut
Mic:	Truk	*arɨŋ*	
Mic:	Carolinian	*arɨŋ*	
Mic:	Woleai	*yazeŋü*	coconut cream, bone marrow, coconut milk
Mic:	Pulo Anna	*yalaŋɨ*	

PMP *meñak* 'fat, grease' (Dempwolff 1938)

POc *moñak* 'fat, oil, cream, coconut cream; tasty' (Blust 1978b)

NNG:	Manam	*mona-mona*	tasty
NNG:	Kairiru	*moñeq*	food

PT:	Sariba	*mo-mona-*	coconut oil, grease, pig fat
MM:	Tabar	*monaki*	fat
MM:	Lihir	*maniok*	fat
MM:	Lamasong	*monok*	coconut cream
MM:	Madak	*monouk*	fat
MM:	Barok	*manok*	fat
MM:	Tolai	*monoi*	fat
Adm:	Mussau	*mona*	fat, tasty

The four reconstructions above relate to the process of squeezing coconut flesh to produce coconut cream, and of boiling it to make coconut oil. The verb of squeezing in this context was POc **puru* 'squeeze coconut milk onto food', and reflexes of its nominalisation POc **puru-ŋ* are used to designate various products of this activity. Data have not come to light which allow the reconstruction of a POc etymon for 'coconut cream', but PNGOc **goreŋ* and PMC **are(ŋ)* 'coconut cream' are noted here in the hope that other scholars will know of external cognates. Coconut oil seems to have been called POc **moñak*, the general term for fat, for creamy or oily substances, and for anything which tasted good.

POc **b(ʷ)ilo* 'coconut shell used as liquid container or cup'

Adm:	Lou	*pil*	
Adm:	Titan	*pʷe-pʷil*	coconut shell
Adm:	Drehet	*pʷi-pʷiŋ*	coconut shell
SES:	Longgu	*bʷilo*	
SV:	Anejom	*ni-pje(-neañ)*	
Fij:	E. Fijian	*bilo*	coconut shell

POc **lasa* 'coconut shell used as liquid container or cup' (Milke 1968: **las(a,e)*)

NNG:	Biliau	*lās*	
NNG:	Numbami	*lasa*	
MM:	Selau	*las*	young drinking coconut
NCV:	Mota	*lasa*	
NCV:	Nguna	*lāsa*	
Mic:	Marshallese	*lʷatʷ*	coconut shell

After the flesh had been removed, the cleaned up shell could be used as a vessel for liquid. It is not clear what difference in meaning there was between the two terms above.

PMP **paraq* 'coconut embryo' (Blust n.d.)

POc **paraq* 'coconut embryo'[28]

PT:	Iduna	*valaga*	seed inside coconut; old yam
PT:	Hula	*vala*	spongy ball inside sprouting coconut
MM:	Tolai	*varai*	sprouted coconut
MM:	Halia-Haku	*hala*	sprouted coconut
SES:	Gela	*vara*	a fallen coconut beginning to grow and showing leaf

---

[28] Final POc **-q* is reconstructed on the basis of the reflexes Iduna *-g-* and Tolai *-i* and of the fact that final **-a* is not lost in Lenakel. On this basis it is also inferred that the PMP form should be **paraq*, not ***para* as reconstructed by Blust.

SES:	Longgu	*vara*	a coconut seedling ready for planting; the solid, sweet part of an old coconut (where the liquid has become solid)
NCV:	Mota	*vara*	the shoot, plumule, of the coconut, as it forms first within the nut, afterwards when it shoots outside, and finally as growing up from the radicle
NCV:	North Ambrym	*var*	spongy kernel of a mature coconut
SV:	Lenakel	*(nien-u)via*	sprouting coconut
Mic:	Ponape	*pār*	spongy centre of a sprouting coconut
Fij:	W. Fijian	*vara*	sprouting coconut; spongy flesh in the kernel of a ripe coconut

PWOc **gawa* 'sprouted coconut; spongy centre of a sprouting coconut'

PT:	Gapapaiwa	*go-go-na*	
PT:	Tawala	*ko-ko*	coconut sprouted
PT:	Sudest	*ɣaɣə*	
MM:	Ramuaaina	*gawa-ina*	

POc **puto-* 'sprouted coconut; spongy centre of a sprouting coconut'

PT:	Iduna	*uto-na*	flesh of coconut
Adm:	Loniu	*putɔ*	core, esp. of coconut
Adm:	Titan	*ɓutó-n*	
Mic:	Truk	*ɔ̄t*	
Fij:	E. Fijian	*uto-*	heart; breadfruit
Pn:	Tongan	*ʔuto*	sprouting coconut; brain
Pn:	E. Uvean	*ʔuto*	
Pn:	Rennellese	*ʔuto*	
Pn:	Samoan	*uto*	
Pn:	Takuu	*uto*	coconut embryo

In its final growth stage, when it sprouts, the coconut contains the embryo of the new palm. It also contains a sweet spongy substance formed by the drying up of the coconut's water, and this is often considered a delicacy. Reflexes of the three terms above designate both the embryo and the spongy substance. However, since PMP **para* designated the embryo, we may take this to be its inherited meaning in POc, whilst PWOc **gawa* and POc **puto-* seem to have designated the spongy substance.

The cognate set listed above beneath POc **puto-* constitutes something of a problem. The Admiralties reflexes point clearly to initial POc **p-*, while those Polynesian reflexes with an initial glottal stop point just as unambiguously to POc **q-*. Indeed, the extra-Admiralties reflexes here have normally been attributed to POc **qutok* 'brain, spongy substance', yet the glosses of the items in the set match so well that it is difficult to regard them as reflexes of two unconnected protoforms. The most likely solution to this is that either once (in Proto Central Pacific) or at different times and places, after the loss of initial **p-* before a rounded vowel, the reflexes of **puto-* and **qutok* in a given language have been conflated, the resulting conflation inheriting both meanings.

A number of other terms associated with the coconut and the coconut palm came to light in the course of this study, and although they do not belong strictly to the domain of food

plants, they are mentioned here for the record. There are two sources of fibre associated with the coconut:

PMP *bunut 'coconut husk' (Zorc & Charles 1971; Blust 1989)

POc *punut 'coconut husk; fibres on coconut husk'

NNG:	Biliau	*fun-fūn*	the coconut fibre from the husk
NNG:	Takia	*funu(dan)*	
MM:	Vitu	*vinuta*	
MM:	Ramuaaina	*punut*	beard
Pn:	Tuvalu	*funu*	pubic hair

POc *penut 'coconut husk'

MM:	Meramera	*ven-venu*	
SES:	Bughotu	*penutu*	
SES:	Longgu	*penu*	the outside husked part of the coconut, when it has rotted
Fij:	E. Fijian	*venu(ki)*	fibres of coconut husk beaten ready for twisting into sennit
Pn:	Samoan	*fenuu*	make a join in plaiting, etc.

PWOc *pʷetu- 'coconut husk'

NNG:	Maeng	*putu-n*	
MM:	Halia-Haku	*putu-n*	
MM:	Tinputz	*peos*	
MM:	Maringe	*pʰetu*	

PMP *Runut 'plant fibres' (Blust 1984a)

POc *Runut/*nuRut 'sheath around base of coconut frond, used as strainer'

NNG:	Gitua	*run*	
NNG:	Lukep-Pono	*rur*	coconut cloth
PT:	Sariba	*lulusi*	
PT:	Motu	*nuru*	
MM:	Tolai	*nirut*	
NCV:	Mota	*nir*	
Mic:	Kiribati	*iŋ*	coconut cloth
Mic:	Puluwat	*wɨn*	coconut cloth
Mic:	Ulithi	*ɨl*	coconut cloth
Fij:	W. Fijian	*unu*	strainer used in preparing kava

POc has three forms containing reflexes of the PAn 'root' *-nut 'husk, fibre' (Blust 1988:126), namely *punut, *penut and *Runut. It seems probable that POc *penut arose as a variant of POc *punut, since (i) *penut has no known extra-Oceanic reflexes; (ii) its PMP ancestor would be *paynut, which contravenes PMP phonotactics;[29] and (iii) it is difficult to distinguish between the meanings of *punut and *penut.

POc *Runut is reconstructed with a metathesised doublet *nuRut, as reflexes of the latter are widespread.

---

[29] PAn/PMP *ay occurs only morpheme-finally.

There are also a number of terms associated with the frond of the coconut and other palms:

PMP *pa(q)paq* 'frond of a palm' (Blust 1989)

POc *[pa]paq[a-]* 'frond of a palm' (Blust 1972: *papa*)

MM:	Nalik	*fəkə*	leaf
MM:	Susurunga	*pəkə*	leaf
MM:	Teop	*paka*	leaf
SES:	Arosi	*ha-ha-*	
Pn:	Rennellese	*ha?a*	stalk, as of taro, banana, papaya

PMP *p<al>a(q)paq* 'midrib of coconut leaf' (Dempwolff 1925)

POc *palapa(q)* 'palm branch'

NNG:	Mbula	*palpaaᵑga*	frond of palm tree
Adm:	Loniu	*palapa*	branch, esp. of palm tree
Fij:	Rotuman	*parafa*[30]	
Pn:	Tongan	*palalafa*	

PWOc *pagal* 'frond, stalk'

NNG:	Biliau	*pagar-gar*	pandanus
NNG:	Manam	*paŋala*	sago leaf
NNG:	Sissano-Arop	*pak*	sago stem base used for processing sago
MM:	Patpatar	*pagal*	reedlike stalk, such as sago, coconut palms, etc.

PMP *p<al>a(q)paq* 'midrib of coconut leaf' is derived by infixation from PMP *pa(q)paq* 'frond of a palm'. Whether PWOc *pagal* 'front, stalk' is derivationally related to these terms is unclear. However, there was no longer a derivational relationship among them in POc, merely formal similarity which may at times have led to conflation of reflexes or confusion of forms. Thus the square brackets of POc *[pa]paq[a-]* 'frond of a palm' represent the fact that the MM forms reflect POc *paqa-* whilst Arosi reflects POc *papaq*. POc *paqal* underwent an innovation such that Western Oceanic forms reflect *pagal* or *paŋal*. Mangap-Mbula *palpaaᵑga* 'frond of palmtree' is especially intriguing, as it reflects this same *q --> *g* innovation but applied to POc *palapa(q)* 'palm branch'.

PWOc *sigi(rR)(i)* 'upper (thin) part of midrib'[31]

PT:	Misima	*singíli*	leaf stalk (of coconut, sago, betel nut tree)
MM:	Teop	*sikiri*	spear/(midrib of a sago or coconut leaf)/skinny

A distinction is commonly made in Oceanic languages between the thick basal section of a frond's midrib (POc *palapa(q)*) and the thinner upper section (PWOc *sigi(rR)(i)*).

---

[30]   The sound correspondences indicate that Rotuman *parafa* is a borrowing from a Polynesian language.

[31]   PWOc *sigi(rR)(i)* is reconstructed with brackets around the final *-(i)* because (a) in Teop a POc final consonant is reflected with a following echo vowel; (b) in the Papuan Tip region a POc final consonant is reflected with a following paragogic vowel (usually *-a*, but *-i* in Suauic communalects from which Misima has borrowed quite heavily.

PMP *suluq 'torch' (Dempwolff 1938)

POc *sulu(q) 'dry coconut leaf torch' (Grace 1969)

NNG:	Lukep-Pono	sul	
NNG:	Takia	sul	
MM:	Ramuaaina	ulu	
Adm:	Lou	sul(an)	
Adm:	Titan	cul	
SES:	Longgu	sulu	leaf, especially of coconut
NCV:	Paamese	(ou-i-)silu	coconut frond (ou 'leaf')
SV:	Lenakel	(nə-kou-i-)səl	coconut frond stalk
SV:	Anejom	ni-sel	coconut leaf midrib

PWOc *daki 'dry coconut leaf torch'

PT:	Iduna	daki	
MM:	Susurunga	dək	

PMP *damaR 'torch, light' (Dempwolff 1938)

POc *(d)ramaR 'coconut leaf used as a torch when fishing' (Grace 1969)

PT:	Misima	dam	
MM:	East Kara	lamak	
Fij:	E. Fijian	rama	cast light on
Pn:	Niuean	ama	search for crabs, etc. with a torch
Pn:	Samoan	lama	torch; fishing with torches

Coconut fronds were evidently used in POc times, as they are sometimes today, as torches (POc *sulu, PWOc *daki), and especially for fishing (where POc *(d)ramaR seems to have denoted the activity as well as the torch).[32]

5.5 *Pandanus* SPP.

PAn *paŋudaL 'pandanus' (Blust 1982)

PMP *paŋdan 'pandanus' (Dempwolff 1938)

POc *padran 'coastal pandanus, *Pandanus tectorius* (syn. *Pandanus odoratissimus*); pandanus (generic)' (Grace 1969: *pa(d)ra)

NNG:	Malai	padan	pandanus
MM:	Lavongai	aran	pandanus
Adm:	Mussau	arana	littoral pandanus, the leaves of which are used in plaiting mats and baskets
Adm:	Leipon	padr	kind of pandanus with narrow light-green leaves, used in plaiting mats
SES:	Lau	fada-da	pandanus
Mic:	Puluwat	faar	pandanus, used for mats and thatch
Fij:	W. Fijian	vadra	*Pandanus tectorius*

---

[32] Two POc forms are reconstructable:*dramaR and *ramaR. Such oral/nasal alternation is fairly rare in POc, where consonant grade is usually lexically fixed, and it is possible that one form was a verb denoting the activity, the other a noun denoting the torch.

| Pn: | Tongan | *fā* | kind of pandanus which sends down shoots from the branches to the ground |
| Pn: | Hawaiian | *hala* | *Pandanus tectorius* |

PMP **kiRay* 'Pandanus sp.'[33]

POc **kiRe* 'coastal pandanus, *Pandanus tectorius* (syn. *Pandanus odoratissimus*)' (French-Wright 1983)

PT:	Gapapaiwa	*kire*	mat made of sewn pandanus leaves
PT:	Motu	*gere-gere*	
SES:	Arosi	*gire*	
NCV:	Mota	*gire*	
NCV:	Nguna	*na-kie*	
Fij:	E. Fijian	*kie*	*Pandanus* sp.
Pn:	Pukapukan	*kie*	specially made mat sometimes used as sail
Pn:	Tongan	*kie*	*Pandanus*

POc **mʷaŋa* 'Pandanus sp., perhaps *Pandanus conoideus*'

NNG:	Mapos	*mon*	
PT:	Maisin-Kosirava	*moŋgi*	k.o. pandanus
Adm:	Lou	*mɔn*	red fruit of *Pandanus conoideus*
Adm:	Drehet	*muŋ*	
Adm:	Loniu	*mʷɔn̄*	k.o. fruit, probably pandanus
SES:	Arosi	*mʷa-mʷana*	*Pandanus* sp., leaves plaited
Mic:	Kosrae	*mᵚeŋ*	pandanus
Mic:	Marshallese	*mahaŋ*	pandanus leaves
Mic:	Truk	*māŋ*	pandanus leaf, especially when softened by a shell
Mic:	Woleai	*māŋü*	pandanus leaf

Barrau (1962:161-163) remarks that there is much confusion in the Linnaean naming of *Pandanus* species, and I am not completely certain that I have distinguished them correctly here. The most widespread and most exploited species throughout Oceania is the coastal pandanus, *Pandanus tectorius* (syn. *Pandanus odoratissimus*), which usually grows just behind the shore line. Its leaves are used for making mats. In lowland Papua New Guinea *Pandanus conoideus* with its long red or yellow fruit (Tok Pisin *marita*) is also a salient species (Barrau 1962:163; May 1984:69-70).

POc **padran* is the generic term for pandanus palms. It also seems to have been used by hyponymous reference for *Pandanus tectorius* (I infer this from the fact that dictionary definitions from Papua New Guinea languages do not mention the characteristic fruit, which is mentioned in definitions of *Pandanus conoideus*). *Pandanus tectorius* also had the specific POc name **kiRe*, but it is possible that this referred even more specifically to the mats made from its fronds. From the distribution of species in western Melanesia, I infer that POc **mʷaŋa* perhaps referred to *Pandanus conoideus*, although its reflexes have acquired other meanings in areas where this species is not found.

---

[33] This reconstruction is supported by Manobo, Tboli *kilay* 'Pandanus sp.', Chamorro *higal* 'woven palm leaves'.

POc *pakum* 'Pandanus dubius* (Peekel 1984:41)'[34]

NNG:	Malai	*paum*	pandanus
NNG:	Takia	*wak*	pandanus
NNG:	Manam	*aku*	pandanus (big leaf); used to make grass skirt
NNG:	Bam	*wak*	pandanus
NNG:	Kairiru	*vʸak*	pandanus
MM:	East Kara	*faum*	
MM:	Tolai	*vaum*	
Adm:	Lou	*pɔk*	pandanus
Adm:	Titan	*pek*	pandanus
SES:	Kwaio	*faʔu*	pandanus
NCV:	Nguna	*na-vaku*	*Pandanus* sp.

Although reflexes of POc *pakum* are widespread, its definition, *Pandanus dubius*, is unsatisfactory, as I have not been able to find this species name in works other than Peekel.

PCEMP *ima* 'k.o. pandanus with leaves useful for plaiting' (Blust n.d.)

POc *ima* 'k.o. pandanus with useful leaves'

NNG:	Gedaged	*im*	k.o. pandanus; has aerial roots, and its leaves are used to make rain capes
NNG:	Kis	*im*	bush pandanus
PT:	Gapapaiwa	*imo(-kara)*	bush pandanus
MM:	Tangga	*im*	tall shrub with many stalks, the leaves of which provide wrapping material for a corpse prior to burial

POc *p(ʷ)asa* 'k.o. large pandanus'

PT:	Misima	*pála*	mat made of pandanus
Adm:	Drehet	*pʷaah*	large pandanus
SES:	Sa'a	*hata*	k.o. hardwood tree
Fij:	W. Fijian	*vasa*	k.o. tree: *Stillingia pacifica*
Pn:	E. Uvean	*faha*	k.o. pandanus
Pn:	Samoan	*fasa*	k.o. pandanus

POc *boŋ(i,a)* 'k.o. pandanus'

MM:	Vitu	*buŋi*	edible pandanus
Adm:	Titan	*póŋa-póŋ*	pandanus

PWOc *sakumu* 'k.o. pandanus'

NNG:	Sio	*samu*	pandanus
NNG:	Tami	*saŋ*	pandanus
NNG:	Hote-Misim	*seŋ*	pandanus
MM:	Varisi	*sayumu*	pandanus

---

[34] It is possible that Far East Manggarai *wako*, Ngadha *waku* 'broad-leafed *Pandanus* sp.' and their cognates listed by Verheijen (1990:232) are cognate with this item.

PWOc *moke 'Pandanus sp., used to make capes and mats; pandanus shrub: *Pandanus dankelmannianus* or *englerianus* ?' (Peekel 1984:41-42)

NNG:	Gitua	*moge*	pandanus
MM:	Bola	*moke*	pandanus
MM:	Nakanai	*moe*	k.o. pandanus; sleeping mat and rain cape made of pandanus
MM:	Patpatar	*moh*	pandanus shrub: *Pandanus dankelmannianus*

The six terms listed above all seem to have designated varieties of pandanus. In general, the varieties represented by their reflexes seem more important to their exploiters as sources of material for mats and capes than for food.

The cognate set below is included because its reflexes sometimes refer by extension to the palm from which mat-making materials come:

POc *qebal 'pandanus mat'

NNG:	Numbami	*embala*	
PT:	Iduna	*efa-?efa*	floor; k.o. pandanus (roots used for making combs)
PT:	Molima	*?ebana*	sewn pandanus mat
PT:	Sinagoro	*yeba*	
SES:	Longgu	*eba*	
SES:	Lau	*eba*	
SES:	Sa'a	*epa*	
NCV:	Mota	*epa*	
SV:	Anejom	*n-epa*	k.o. pandanus mat used for carrying babies
Mic:	Kiribati	*eba*	(formerly) packet, parcel
Mic:	Woleai	*yepe*	baby's mat
Pn:	Samoan	*epa*	mat used to wrap dead in

5.6 OTHER FRUITS

PAn *buaq 'fruit' (Dempwolff 1938)

POc *puaq 'fruit, bear fruit', *pua-* 'fruit' (Grace 1969)

NNG:	Gitua	*pua*	seed, egg
PT:	Doga	*ua-na*	
PT:	Motu	*hua-hua*	
MM:	Ramuaaina	*vuai*[35]	
MM:	Petats	*hua*	fruit, to bear fruit
MM:	Roviana	*vua*	
SES:	Gela	*vua-vua*	fruit; seed; flower
SES:	Arosi	*hua*	fruit, to bear fruit
NCV:	Mota	*woa-i*	a globular object; a fruit, bulb, tuber, shell

---

[35]   Final *-i* of Ramuaaina *vuai* reflects final *-q* of POc *puaq*.

NCV:	Paamese	*hei-*	
SV:	Anejom	*no-wa-*	
Fij:	E. Fijian	*vua*	fruit, produce; to bear fruit

Whilst POc **puaq* appears on the face of it to be the generic term for fruit, modern usages suggest strongly that it did *not* designate 'fruit' as a food class in opposition to staples and green vegetables, but referred to fruit as plant part and plant product. POc apparently did not have a food class term designating fruit – a fact which is not surprising when it is remembered that fruits are not part of a meal in traditional Melanesian diets but are generally consumed as snacks.

For the latter reason, too, the nomenclature of fruits and nuts is much less complex than those discussed above.

PMP **pahuq* 'mango, probably *Mangifera indica*' (Dyen 1953)

POc **pau(q)* 'mango, probably *Mangifera indica*'

| MM: | Vitu | *vau* | mango |

PMP **wai* 'mango spp.' (Blust 1986)

POc **wai*, **waiwai* 'mango (generic)'

NNG:	Gitua	*wo-wai*	mango
NNG:	Mbula	*we*	mango
NNG:	Tami	*woawai*	mango
NNG:	Gitua	*wo-wai*	mango
NNG:	Mbula	*we*	mango
PT:	Hula	*wai-wai*	mango
Adm:	Titan	*we-wey*	mango
SES:	Arosi	*wai-wai*	sp. of small tree

PWOc **kasuwai* 'mango'

PT:	Dobu	*kasawe*	
PT:	Tawala	*kasawe*	
MM:	Patpatar	*kasaua*	mango, *Mangifera indica*
MM:	Siar	*kaswai*	
MM:	Blablanga	*kesu*	

POc **koRa* 'wild mango, *Mangifera minor*'

NNG:	Poeng	*kula*	mango; stringy, *Mangifera minor* (?)
PT:	Roro	*or-or*	mango
MM:	Tolai	*ko-kor*	*Mangifera minor* (?)
SES:	Gela	*kola*	mango

PWOc **basi(ap)* 'mango'

PT:	Tawala	*basiawa*	
PT:	Sudest	*ᵐbaði*	
MM:	Teop	*bai*	
MM:	Tinputz	*pæʔ*	

We cannot be completely sure of the original referents of the five mango terms above. When Austronesian speakers arrived in western Melanesia, they encountered the fibrous and ill-tasting indigenous mangoes *Mangifera minor* and *Mangifera foetida*. The sweet-tasting *Mangifera indica* arrived from Asia at a later date, reaching Fiji only in the nineteenth century (Barrau 1962:180-182; May 1984:76).

It seems that PMP *pahuq* referred to *Mangifera indica* and PMP *wai* to other species (Robert Blust, pers.comm.). I have found only one reflex of PMP *pahuq* in an Oceanic language, namely Vitu *vau*. Significantly, Vitu and its neighbour Bali (both in the French Islands, north of New Britain) are among the most conservative of Oceanic languages, and have remained quite isolated at least since early in the spread of the Western Oceanic dialect network. I infer from this that *pau(q)* occurred in POc, but was replaced at a very early stage by *wai*, as this was the appropriate term for the indigenous (non-*indica*) species. POc *wai* then became the generic term for mango, with *wai-wai* perhaps denoting wild varieties. The species *Mangifera minor* was specifically designated by POc *koRa*.

PWOc *kasuwai* 'mango' seems to be a compound, with an unidentified element *kasu-* and *wai* 'mango'. A PSES form *γohai* 'mango' (W. Guadalcanal γoai, Longgu ʔeðai, Arosi ʔaai, Fagani γaai) is also reconstructable. This gives the appearance of being descended from POc **koγai*, rather than *kasuwai*, suggesting perhaps that PSES **γohai* represents a borrowing from an earlier Western Oceanic language.

POc *quRis* 'Polynesian plum, hog plum, Tahitian apple, golden apple, *Spondias cytherea* (syn. *Spondias dulcis*)' (Pawley & Green 1973: *uRi*)

PT:	Motu	uri	a tree
MM:	Nakanai	huri	
MM:	East Kara	us	
MM:	Patpatar	kulis	
Adm:	Loniu	wi	
SES:	Lau	uli	
NCV:	Mota	ur	
NCV:	Raga	uhi	name of a native fruit; mummy apple
Fij:	Rotuman	vii	
Fij:	E. Fijian	wī	
Pn:	Hawaiian	vī	

The Nakanai, East Kara and Patpatar reflexes above support the reconstruction of previously unrecognised initial and final consonants.

POc *molis* 'citrus fruit or citrus-like fruit' (see discussion in §4) (Lynch 1984)

NNG:	Atui	molis	
NNG:	Mangseng	mɔlis	
MM:	Vitu	moli	
MM:	Patpatar	mulis	
MM:	Halia-Haku	molihi	
Adm:	Mussau	muli	
Adm:	Drehet	mʷili	citrus fruit: pomelo
SES:	Arosi	mori	wild orange
NCV:	Mota	mʷoli	native orange

| SV: | Lenakel | nə-məlh |
| Fij: | W. Fijian | moli |

POc *kapika 'Malay apple and rose apple, *Eugenia* spp.' (Grace 1969)

NNG:	Tami	kapig	rose apple, *Eugenia jambos*
PT:	Motu	yavika	name of a tree, leaves of which are used as cigarette wrappers
MM:	Bulu	kavika	Malay apple, *Eugenia malaccensis*
Adm:	Lou	keik	large variety of Malay apple, *Syzygium gomata*
SES:	Gela	yaviya	Malay apple, *Eugenia malaccensis*
NCV:	Mota	gaviga	Malay apple, *Eugenia malaccensis*, wild uneatable kind
SV:	Anejom	in-yehey	Malay apple, *Eugenia malaccensis*
SV:	Lenakel	nə-kəvək	Malay apple, *Eugenia malaccensis*
Fij:	W. Fijian	kavika	Malay apple, *Eugenia malaccensis*

There seems to be considerable confusion in the glosses of this cognate set due to lack of precise identification. We may infer that POc *kapika referred to several *Eugenia* species, including the Malay apple, *Eugenia malaccensis* (syn. *Syzygium malaccense*); the rose apple, *Eugenia jambos* (syn. *Syzygium jambos*), and probably the watery rose apple, *Eugenia aquea* (syn. *Syzygium aqueum*). I have not been able to find *Syzygium gomata* in botanical and agronomic listings.

POc *ñoñum 'Indian mulberry tree, *Morinda citrifolia*' (Blust 1978b)

NNG:	Gitua	nono	
NNG:	Gedaged	nonom	
NNG:	Takia	nom	
NNG:	Manam	noŋ	k.o. tree
NNG:	Wogeo	ñoñ	
PT:	Bwaidoga	nono	
PT:	Motu	nonu	
Adm:	Leipon	ñoñ	
Adm:	Bipi	ñoy	
Mic:	Kiribati	non	
Pn:	Tongan	nonu	

POc *kurat 'Indian mulberry tree, *Morinda citrifolia*' (Geraghty 1983)

MM:	Tangga	urat	
MM:	Roviana	yurata	
Adm:	Mussau	karou[36]	
SES:	Longgu	ʔura	
NCV:	Mota	wura	a plant
NCV:	Lewo	(pur)kula	
NCV:	Nguna	na-kura	tree sp.
SV:	Anejom	na-uras	
Fij:	W. Fijian	kura	

---

[36] With unexpected vowel reflexes, this may not be a reflex of POc *kurat.

| NC: | Iaai | *hulak* |
| NC: | Drehu | *xelek* |

PWOc *poko 'Indian mulberry tree, *Morinda citrifolia*'

| PT: | Duau | *hoko* |
| MM: | Konomala | *pok* |

If Verheijen (1990:86) has correctly identified the referent of Central Malayo-Polynesian: Bima *nonu* as *Morinda citrifolia* (he marks it with a question mark), then *ñoñum* is reconstructable for PCEMP and therefore inherited into POc. The young leaves of this small tree are eaten as a vegetable, its fruit is eaten, and red dye is obtained from its roots (French 1986:272). Geraghty (1993:376) suggests that *ñoñum* originally referred to the plant, *kurat* to the dye.

POc *tawan* '*Pometia pinnata*' (French-Wright 1983)

NNG:	Gedaged	*tau*	k.o. tree with edible fruit; the stem makes good timber
PT:	Bwaidoga	*tawana*	a species of tree
MM:	East Kara	*tawən*	
MM:	Patpatar	*tauan*	
Adm:	Mussau	*taon*	kind of tree with sweet fruit
Adm:	Lou	*ta*	
SES:	Arosi	*awa*	tree, species of lychee
NCV:	Mota	*tawan*	a fruit tree; a kind of lychee, *Nephelium pinnatum*
NCV:	Nguna	*na-dau*	
Fij:	W. Fijian	*tawa*	
Pn:	Tongan	*tava*	

PMP *ñatuq* 'k.o. tree, possibly *Palquium* spp.'

POc *ñatu(q)* 'k.o. tree with avocado-like fruit and hard wood, red silkwood, *Burckella obovata*'

NNG:	Takia	*nat*	tree with edible nuts or fruit, also used for timber
PT:	Kilivila	*natu*	sp. of fruit tree
MM:	Susurunga	*nat*	
MM:	East Kara	*natu*	
MM:	Ramuaaina	*natu*	tree with a large pulpy fruit like an apple
Adm:	Nauna	*ñot*	tall timber tree with large sweet green fruit
Adm:	Titan	*ñat*	tall timber tree with large sweet green fruit
SES:	Arosi	*nau*	tree sp., fruit is eaten
NCV:	Mota	*natu*	a fruit tree
NCV:	Paamese	*a-natu*	
SV:	Anejom	*in-yat*	
Pn:	Tikopia	*natu*	

This reconstruction was originally made by Blust (1978b) as an unnamed but described tree type. Collecting further reflexes, it is clear that this is *Burckella obovata* (May 1984:77), to which Gowers (1976:38) gives the English designation 'red silkwood'.

PAn **daqu* 'a tree, *Dracontomelum dao*' (Blust 1986)

POc **raqu(p)* 'New Guinea walnut, *Dracontomelon dao*' (syn. *Dracontomelon mangiferum*, *Dracontomelon edule*)[37]

NNG:	Lukep-Pono	rak	
NNG:	Takia	rau	
MM:	East Kara	rah	
MM:	Tolai	laup	
MM:	Patpatar	loh	
NCV:	Mota	rau	a fruit tree
NCV:	Lewo	(puru-)lu	dragon plum tree, *Dracontomelon vitiense*
NCV:	Nguna	na-rau	dragon plum tree, *Dracontomelon vitiense*
NCV:	Paamese	eau	dragon plum tree, *Dracontomelon vitiense*
Fij:	W. Fijian	(tawa-)rau	dragon plum tree, *Dracontomelon vitiense*

5.7 NUTS

POc **(wv)ele* 'cut nut, *Barringtonia* sp.'

NNG:	Mangseng	vɛrɛ	k.o. tree
MM:	Nakanai	uele	almond tree and nut, *Canarium mehenbethane*
MM:	Babatana	vele	cut nut, *Barringtonia edulis*
NCV:	Mota	vele	cut nut, *Barringtonia edulis*

There are three edible species of *Barringtonia* in western Melanesia: *Barringtonia edulis*, *Barringtonia procera*, and *Barringtonia novae-hiberniae*. It appears that only the third was present in the Bismarck Archipelago in POc times (Jebb 1992:177), and so POc **(wv)ele* presumably referred to *Barringtonia novae-hiberniae*. Whilst these are food plants, the *Barringtonia asiatica* (POc **putun*) clearly is not: its fruit are used to poison fish (French-Wright 1983:157; May 1984:80-81).

PCEMP **kanaRi* 'canarium almond, *Canarium* spp.'[38]

POc **[ka]ŋaRi* 'canarium almond, *Canarium* spp.'

PEOc **[qa]ŋaRi* 'canarium almond, *Canarium* spp.'

NNG:	Lukep-Pono	kaŋar

---

[37] The final bracketed **-p* of **raqu(p)* is added to take account of the final consonants of the Patpatar and Tolai reflexes. However, there are no known non-Oceanic reflexes of **-p*.

[38] Verheijen (1990:197) gives several Central Malayo-Polynesian reflexes: Bima *kanari*, Far East Manggarai (Toring) *kenari*, Solorese *kenari*.

NNG:	Poeng	*kaŋali*
NNG:	Manam	*kaŋari*
MM:	Vagunu	*ŋari*
Adm:	Lou	*kane*
SES:	Gela	*ŋali*
NCV:	Mota	*ŋai*
Fij:	E. Fijian	*yaŋai*
SV:	Sie	*na-ŋai*

PWOc **pinuaq* 'canarium almond, *Canarium* sp. (?)'

PT:	Lala	*viŋu*	*Terminalia catappa*
MM:	Patpatar	*hinuai*	canarium almond, *Canarium indicum*
MM:	Bilur	*inuai*	
MM:	Kandas	*nui*	

POc **qalip* 'canarium almond, *Canarium* sp.'

NNG:	Mbula	*lelivii*	*Terminalia catappa*
NNG:	Tami	*yalip*	
NNG:	Dami	*lali*	
NNG:	Numbami	*yalip(a)*	
NNG:	Yabem	*lanip*	
NNG:	Kaiwa	*lalip*	
NNG:	Kairiru	*laliu*	big, red canarium almond
NNG:	Ulau-Suain	*liliu*	
MM:	East Kara	*gai*	canarium almond, *Canarium indicum*
MM:	Patpatar	*gar*	canarium almond, *Canarium indicum*
MM:	Minigir	*galip*	
Adm:	Drehet	*n-elip*	k.o. tree: nut, grows wild, very hard skin, oval, about one centimetre long, dark green

Of the three terms above, POc **[ka]ŋaRi* is almost certainly the term for *Canarium indicum* and the generic term for *Canarium* species, whilst the other two reconstructions may represent separate species.

The set from which POc **qalip* is reconstructed has irregular sound correspondences. The main source of irregularity, however, is the Meso-Melanesian reflexes, which appear to be borrowings. Setting these aside temporarily, the following observations can be made. All reflexes are Western Oceanic except Drehet, where the accretion of *n-*, reflecting the Proto Admiralties article **na*, points to POc initial **0-* or **q-* (Ross 1988:340-341), as do the Tami and Numbami reflexes. The Drehet reflex also indicates that the medial consonant is **-l-*, and the other North New Guinea forms reflect a variant **lalip*. The borrowed Meso-Melanesian reflexes help to disambiguate the POc initial: their *g-* suggests that the source of borrowing may have been a language in which the reflex of **q* was [ɣ] (this reflex occurs in languages around the Willaumez Peninsula of New Britain). This supports the reconstruction of initial **q-*.[39]

---

[39]   The East Kara and Patpatar reflexes point to POc **-r-*, rather than **-l-*, as the medial consonant, but this is attributable to borrowing.

PMP **talisay* 'Terminalia catappa' (Dempwolff 1938)

POc **talise* 'Java almond, Indian almond, *Terminalia catappa*' (Milke 1968)

NNG:	Kove	*talize*	
NNG:	Tami	*talit*	
NNG:	Kela	*tarik*	
NNG:	Kairiru	*talis*	
MM:	Vitu	*taðile*	
MM:	Lavongai	*talisa*	
MM:	Roviana	*ta-talise*	
Adm:	Lou	*telis*	
Adm:	Loniu	*tɛlus*	
SES:	Gela	*talihe*	
SES:	Lau	*alite*	
NCV:	Mota	*salite*	
Fij:	E. Fijian	*daliðe*	
Pn:	Samoan	*talie*	tropical almond, *Terminalia* spp.
SV:	Lenakel	*telh*	k.o. tree with flattish oval brown fruit which is cracked open and eaten
SV:	Anejom	*in-tejeθ*	

PEOc **tavoRa* 'Terminalia spp.' (Geraghty 1990)

NCV:	Mota	*tawora*	a tree
NCV:	Raga	*tavoa*	deciduous tree with edible leaves and nuts
Fij:	E. Fijian	*tāvola*	Java almond, *Terminalia catappa* [40]

PMP **(q)ipi* 'Tahitian chestnut, *Inocarpus fagifer*'

POc **qipi* 'Tahitian chestnut, Pacific chestnut, *Inocarpus fagifer* (syn. *Inocarpus edulis*)' (Grace 1969)

NNG:	Gitua	*ipi*	
NNG:	Biliau	*yip*	
PT:	Bwaidoga	*givi*	wild chestnut
MM:	Simbo	*ivi*	
Fij:	Rotuman	*ʔifi*	
Fij:	W. Fijian	*ivi*	
Pn:	Tahitian	*ihi*	

5.8 OTHER ROOTS

PMP **laqia* 'ginger, *Zingiber officinale*' (Headland & Healey 1974)

POc **laqia* 'ginger, *Zingiber officinale*' (French-Wright 1983)

NNG:	Kove	*haia*	
NNG:	Tami	*lagi*	
NNG:	Adzera	*rakia*	

---

[40] E. Fijian *l* usually reflects POc/PEOc **l*, but Geraghty (1990) shows that it sometimes reflects **R*.

PT:	Iduna	*naiya*
PT:	Motu	*aɣi*
MM:	Bulu	*laɣia*
Adm:	Mussau	*laia*
Adm:	Titan	*ley*
Fij:	W. Fijian	*(ðaŋo)laya*
SV:	Kwamera	*nə-re*

PSES **ria* 'ginger' (Gela *ria* 'ginger', W. Guadalcanal, Arosi *ria* 'turmeric', Kwaio *lia* 'turmeric') is evidently derived from POc **laqia* by borrowing rather than by direct inheritance, as the expected PSES form is **laia.

POc **yaŋo* 'turmeric, *Curcuma longa*' (Grace 1969)

MM:	East Kara	*ioŋ*	
MM:	Patpatar	*iaŋ*	
MM:	Roviana	*aŋo*	
NCV:	Mota	*aŋo*	
Mic:	Ponape	*ɔ̄ŋ*	
Mic:	Woleai	*yāŋa*	ginger
Fij:	E. Fijian	*ðaŋo*	
Pn:	Tongan	*aŋo*	

PEOc **reŋ(ʷ)a* 'prepared turmeric (?)' (Grace 1969: **reŋa*)

SES:	Sa'a	*reŋa*	decorate with black, white and red designs; beautiful
NCV:	Loh	*eŋ*	turmeric
NCV:	Mota	*rereŋa*	yolk of an egg; yellow colour
Fij:	W. Fijian	*(re)reŋʷa*	turmeric
Pn:	Tongan	*eŋa*	turmeric
Pn:	Rennellese	*ŋena*	prepared turmeric
Pn:	Samoan	*leŋa*	ginger, turmeric
Pn:	Tokelau	*leŋa*	yolk of egg, turmeric
Pn:	Tahitian	*reʔa*	ginger, turmeric
Pn:	Hawaiian	*lena*	yellow

5.9 CUCURBITS

The gourd, *Lagenaria siceraria*, was discussed in §4. The pumpkin is widely cultivated in Melanesia and May (1984:64) describes it as a 'traditional vegetable' in Papua New Guinea. However, Barrau (1962:190) declares that the pumpkin (*Cucurbita moschata*)[41] is a European introduction to Melanesia. The linguistic data largely support Barrau's assertion. A number of terms for it are borrowings from English (MM: Kara-E *bəniɣin*, Tinputz *banken*; NCV: Paamese *vamuken*, Lewo *pamken*) or from elsewhere (PT: Motu *mausini*, Roro *mauteni*, apparently from Samoan *mautini* 'gourd'). On the other hand, the

---

41   Barrau refers to the pumpkin as *Cucurbita pepo*. In Papua New Guinea, at least, the common pumpkin is *Cucurbita moschata*, not *pepo* (R. Michael Bourke, pers.comm., and French 1986:102-103). Both are evidently recent introductions, so this possible confusion makes no difference to the argument of this paragraph.

existence of a Proto NNG etymon suggests that some Oceanic speakers acquired the pumpkin or something similar when they first occupied parts of the New Guinea mainland, perhaps between one and two millenia ago.

PMP *[ka]timun 'cucurbit (generic); cucumber, *Cucumis sativus*' (Dempwolff 1938: *timun)

POc *[ka]timun 'cucurbit (generic); cucumber, *Cucumis sativus*' (Blust 1972: *tim(o,u))

NNG:	Mapos	katimŋ	cucumber, *Cucumis sativus*
MM:	Tolai	katimur	Pacific melon, *Cucumis melo*
MM:	Teop	asimuru	a vegetable like a cucumber
Fij:	E. Fijian	timo	a plant, *Cucumis acidus*
Pn:	E. Futunan	timo	melon

PWOc *kapu(rR)ik 'k.o. wild melon'

PT:	Iduna	kafulika	spiky melon-like fruit, yellow when ripe
MM:	Patpatar	kapurkeo	wild melon, *Cucumis melo*

PMP *waluq 'bottle gourd'[42]

POc *waluq 'pumpkin, *Cucurbita moschata*'

NNG:	Takia	walu
NNG:	Kela	waruwaru
NNG:	Mapos	rux-arūx

The Oceanic reflexes suggest that the term for 'bottle gourd' was applied to the pumpkin (which is similar in appearance) either in POc or at some more recent stage.

5.10 CANES

PAn *tebuS 'sugarcane' (Blust 1969)

POc *topu 'sugarcane, *Saccharum officinarum*' (Grace 1969)

NNG:	Tuam	tov
PT:	Duau	tohu
MM:	Vitu	tovu
MM:	Alu	tohu
Adm:	Mussau	tou
SES:	Arosi	ohu
NCV:	Mota	tou
SV:	Anejom	ne-to
Fij:	W. Fijian	tovu

PWOc *tabukaR 'edible wild sugarcane: *Saccharum edule*' (in Papua New Guinea 'coastal pitpit') (Pawley 1978: *tabukal)

NNG:	Kove	tabuka
NNG:	Gitua	tabuar
NNG:	Takia	tabu

---

42 Dempwolff (1938) reconstructed *baluq. However, the Oceanic forms here together with Sundanese, Old Javanese, Balinese *waluh*, Buru *walu* 'bottle gourd', point to PMP *waluq 'bottle gourd'.

NNG:	Mapos	*abuxk*[43]	
PT:	Molima	*tabuʔala*	
MM:	Nakanai	*tabua*	
MM:	Teop	*tabuana*	
MM:	Banoni	*tabogana*	wild *pitpit*

POc **pijo* 'a kind of edible wild cane or a reed, *Saccharum spontaneum* (?)' (French-Wright 1983)

PT:	Motu	*hido*	a wild cane growing by the riverside
NNG:	Mbula	*ᵐbiizi*	reed, *pitpit* type plant
MM:	Tolai	*pit*	*Saccharum edule*
MM:	Patpatar	*putu*	*Saccharum edule*
MM:	Teop	*vito*	wild *pitpit*
MM:	Kokota	*pihu*	sugarcane
SES:	Gela	*viho*	a sp. of shore lily, *Crinum*
NCV:	Mota	*viso*	a reed, arundo, with edible flower heads
Fij:	E. Fijian	*viðo*	a wild sugarcane, *Saccharum floridulum*
Pn:	Samoan	*fiso*	indigenous sugarcane, *Saccharum floridulum*

Whilst the definition of no item in this set states that its referent is *Saccharum spontaneum*, the definitions given for Motu, Mbula, Teop and Mota are all possible descriptions of it.

REFERENCES

Abo, Takaji, Byron W. Bender, Alfred Capelle and Tony DeBrum, 1976, *Marshallese-English dictionary*. Honolulu: University of Hawaii Press.

Aburu, K., 1982, Notes on some fruit and nut trees in the Keravat area of East New Britain. In R.M. Bourke and V. Kesavan, eds *Proceedings of the Second Papua New Guinea Food Crops Conference*, 101-122. Port Moresby: Department of Primary Industry.

Barrau, Jacques, 1955, *Subsistence agriculture in Melanesia*. Noumea: South Pacific Commission.

1962, *Les plantes alimentaires de l'Océanie*. Marseille: Faculté des Sciences de Marseille.

Bender, Byron W. and Judith W. Wang, 1985, The status of Proto-Micronesian. In Andrew Pawley and Lois Carrington, eds *Austronesian linguistics at the 15th Pacific Science Congress*, 53-92. *PL*, C-88.

Blust, Robert A., 1969, Some new Proto-Austronesian trisyllables. *Working Papers in Linguistics, University of Hawaii* 1/10:27-62.

1972, Proto-Oceanic addenda with cognates in non-Oceanic Austronesian languages: a preliminary list. *Working Papers in Linguistics, University of Hawaii* 4/1:1-43.

1977, A rediscovered Austronesian comparative paradigm. *Oceanic Linguistics* 16:1-51.

1978a, Eastern Malayo-Polynesian: a subgrouping argument. In S.A. Wurm and Lois Carrington, eds *Second International Conference on Austronesian Linguistics: proceedings*, 181-234. *PL*, C-61.

1978b, *The Proto-Oceanic palatals*. Auckland: Polynesian Society [*JPS Monograph* 43].

1980, Austronesian etymologies. *Oceanic Linguistics* 19:1-181.

1981a, Some remarks on labiovelar correspondences in Oceanic languages. In Jim Hollyman and Andrew Pawley, eds *Studies in Pacific languages and cultures in honour of Bruce Biggs*, 229-254. Auckland: Linguistic Society of New Zealand.

1981b, Variation in retention rate among Austronesian languages. Paper presented to the Third International Conference on Austronesian Linguistics, Bali.

---

43   Mapos Buang final *-k* reflects POc **-R*.

1982, An overlooked feature of Malay historical phonology. *Bulletin of the School of Oriental and African Studies* 45:284-299.

1983-84, Austronesian etymologies – II. *Oceanic Linguistics* 22-23:29-149.

1984, A Mussau vocabulary, with phonological notes. In *Papers in New Guinea linguistics* No. 23, 159-208. *PL*, A-69.

1986, Austronesian etymologies – III. *Oceanic Linguistics* 25:1-123.

1987, Lexical reconstruction and semantic reconstruction: the case of Austronesian 'house' words. *Diachronica* 4:79-106.

1988, *Austronesian root theory: an essay on the limits of morphology*. Amsterdam: Benjamins.

1989, Austronesian etymologies – IV. *Oceanic Linguistics* 28:111-180.

forthcoming, A Lou vocabulary with phonological notes. *PL*, Series A.

n.d., Computer files for the *Austronesian comparative dictionary*, University of Hawaii.

Bourke, R. Michael, 1982, Roots crops in Papua New Guinea. In R.M. Bourke and V. Kesavan, eds *Proceedings of the Second Papua New Guinea Food Crops Conference*, 51-63. Port Moresby: Department of Primary Industry.

Capell, Arthur, 1941, *A new Fijian dictionary*. Sydney: Australasian Medical Publishing Co.

Capell, A. and John Lynch, 1983, Sie vocabulary. In John Lynch, ed. *Studies in the languages of Erromango*, 75-147. *PL*, C-79.

Carman, Kathy, 1980, A study in subsistence agriculture. *Extension Bulletin* 12. Port Moresby: Department of Primary Industry.

Charles, Matthew, 1973, Additions to Zorc and Charles 1971. (Cited by Wurm and Wilson 1975.)

Chowning, Ann, 1963, Proto-Melanesian plant names. In Jacques Barrau, ed. *Plants and the migrations of Pacific peoples: a symposium*, 39-44. Honolulu: Bishop Museum Press.

Churchward, C. Maxwell, 1959, *Tongan dictionary*. London: Oxford University Press.

Clark, Ross, 1986, PNCV interim listing. Computer printout. University of Auckland.

Codrington, R.H. and J. Palmer, 1896, *A dictionary of the language of Mota, Sugarloaf Island, Banks' Islands*. London: Society for Promoting Christian Knowledge.

Crowley, Susan Smith, 1986, *Tolo dictionary*. *PL*, C-91.

Crowley, Terry, 1992, *A dictionary of Paamese*. *PL*, C-121.

1994, Proto who drank kava? In A.K. Pawley and M.D. Ross, eds *Austronesian terminologies: continuity and change*. *PL*, C-127.

Dempwolff, Otto, 1925, Die L-, R- und D-Laute in austronesischen Sprachen. *Zeitschrift für Eingeborenen-Sprachen* 15:19-50, 116-138, 223-238. Berlin: Dietrich Reimer.

1938, *Vergleichende Lautlehre des austronesischen Wortschatzes*, Band 3: *Austronesisches Wörterverzeichnis*. Beihefte zur Zeitschrift für Eingeborenen-Sprachen 19. Berlin: Dietrich Reimer.

Dutton, T.E., 1985, *Police Motu: iena sivarai (its story)*. Port Moresby: University of Papua New Guinea Press.

1994, Sago and related items in early Austronesian vocabulary. In A.K. Pawley and M.D. Ross, eds *Austronesian terminologies: continuity and change*. *PL*, C-127.

Dyen, Isidore, 1953, *The Proto-Malayo-Polynesian laryngeals*. Baltimore: Linguistic Society of America.

Dyen, Isidore and David F. Aberle, 1974, *Lexical reconstruction: the case of the Proto-Athapaskan kinship system*. Cambridge: Cambridge University Press.

Elbert, Samuel H., 1972, *Puluwat dictionary*. *PL*, C-24.

Fox, Charles E., 1974, *Lau dictionary*. *PL*, C-25.

French, Bruce R., 1986, *Food plants of Papua New Guinea: a compendium*. Sheffield, Tasmania: The author.

French-Wright, Renwick, 1983, Proto-Oceanic horticultural practices. MA thesis, University of Auckland.

Geraghty, Paul A., 1983, *The history of the Fijian languages*. *Oceanic Linguistics* Special Publication No. 19. Honolulu: University of Hawaii Press.

1990, Proto-Eastern Oceanic *R and its reflexes. In J.H.C.S. Davidson, ed. *Pacific island languages: essays in honour of G.B. Milner*, 51-93. London: School of Oriental and African Studies/Honolulu: University of Hawaii Press.

1993, Pulotu, Polynesian homeland. *Journal of the Polynesian Society* 102:343-384.

Goodenough, Ward H. and Hiroshi Sugita, 1990, *Trukese-English dictionary. Supplementary volume: English-Trukese and Index of Trukese word roots*. Philadelphia: American Philosophical Society.

Gowers, Sheila, 1976, *Some common trees of the New Hebrides and their vernacular names*. Port Vila: Department of Agriculture.

Grace, George W., 1969, A Proto-Oceanic finder-list. *Working Papers in Linguistics, University of Hawaii* 1/2:39-84.

Hamel, Patricia J., 1994, *A grammar and lexicon of Loniu, Papua New Guinea. PL*, C-103.

Harrison, Sheldon P. and Salich Albert, 1977, *Mokilese-English dictionary*. Honolulu: University Press of Hawaii.

Headland, Thomas N. and Alan Healey, 1974, Grammatical sketch of Casiguran Dumagat. *Papers in Philippine linguistics* No.6, 1-54. *PL*, A-43.

Jackson, Frederick H. and Jeffrey C. Marck, 1991, *Carolinian-English dictionary*. Honolulu: University of Hawaii Press.

Jebb, Matthew, 1992, Edible Barringtonias. *The Kew Magazine* 9:164-180.

Keesing, Roger M., 1975, *Kwaio dictionary. PL*, C-35.

Lee, Kee-dong, 1976, *Kusaiean-English dictionary*. Honolulu: University Press of Hawaii.

Lindstrom, Lamont, 1986, *Kwamera dictionary. PL*, C-95.

Lynch, John, 1977, *Lenakel dictionary. PL*, C-55.

1984, On the Proto-Oceanic word for 'citrus'. *Journal of the Polynesian Society* 93:77-78.

May, R.J., 1984, *Kaikai aniani: a guide to bush foods, markets and culinary arts of Papua New Guinea*. Bathurst: Robert Brown.

Milke, Wilhelm, 1968, Proto-Oceanic addenda. *Oceanic Linguistics* 7:147-171.

Milner, G.B., 1966, *Samoan dictionary*. London: Oxford University Press.

Pawley, Andrew K., 1978, The New Guinea Oceanic hypothesis. *Kivung* 11:99-151.

Pawley, Andrew K. and Roger C. Green, 1973, Dating the dispersal of the Oceanic languages. *Oceanic Linguistics* 12:1-67.

Pawley, Andrew K. and Lawrence A. Reid, 1980, The evolution of transitive constructions in Austronesian. In P.B. Naylor, ed. *Austronesian studies: papers from the Second Eastern Conference on Austronesian Languages*, 103-130. Ann Arbor: Center for South and Southeast Asian Studies, University of Michigan.

Pawley, Andrew and Malcolm D. Ross, 1995, The prehistory of Oceanic languages: a current view. In Peter Bellwood, James J. Fox and Darrell Tryon, eds *The Austronesians: historical and comparative perspectives*, 39-74. Oxford: Oxford University Press.

Pawley, Andrew and Timoci Sayaba, forthcoming, *Words of Waya: a dictionary of the Wayan dialect of the Western Fijian language. PL*, Series C.

Peekel, P.G., 1984 [1947], *Flora of the Bismarck Archipelago for naturalists*. Trans. E.E. Henty. Lae: Office of Forests, Division of Botany.

Powell, J.M., 1982, Traditional vegetables in Papua New Guinea: retrospect and prospect. In R.M. Bourke and V. Kesavan, eds *Proceedings of the Second Papua New Guinea Food Crops Conference*, 64-77. Port Moresby: Department of Primary Industry.

Ross, Malcolm D., 1988, *Proto Oceanic and the Austronesian languages of western Melanesia. PL*, C-98.

1989, Proto-Oceanic consonant grade and Milke's **nj*. In Ray Harlow and Robin Hooper, eds *VICAL 1: Oceanic languages: papers from the Fifth International Conference on Austronesian Linguistics*, 433-495. Auckland: Linguistic Society of New Zealand.

1992, The sources of Austronesian lexical items in Tok Pisin. In Tom Dutton, Malcolm Ross and Darrell Tryon, eds *The language game: papers in memory of D.C. Laycock*, 361-384. *PL*, C-110.

1994, Proto-Oceanic terms for meteorological phenomena. *Oceanic Linguistics* 34:261-304.

1995, Reconstructing Proto Austronesian verbal morphology: evidence from Taiwan. In Paul Jen-kuei Li, Dah-an Ho, Ying-kuei Huang and Cheng-hwa Tsang, eds *Austronesian studies relating to Taiwan*, 727-791. Symposium Series of the Institute of History and Philology, Academia Sinica. Taipei: Institute of History and Philology, Academia Sinica.

Sohn, Ho-min and Anthony F. Tawerilmang, 1976, *Woleaian-English dictionary*. Honolulu: University Press of Hawaii.

Tyhurst, Catherine H., 1985, Lau-Baelelea semantic dictionary. MS.

Verheijen, Jilis A.J., 1984, *Plant names in Austronesian linguistics. Nusa* 20.

1990, *Dictionary of plant names in the Lesser Sunda Islands. PL*, D-83.

Waterhouse, J.H.L., 1949, *A Roviana and English dictionary*. (Revised and enlarged by L.M. Jones.) Sydney: Epworth Press.

Whistler, W. Arthur, 1991, Polynesian plant introductions. In Paul Alan Cox and Sandra Anne Banack, eds *Islands, plants, and Polynesians: an introduction to Polynesian ethnobotany*. Portland: Dioscorides Press.

White, Geoffrey M. in collaboration with Francis Kokhonigita and Hugo Pulomana, 1988, *Cheke Holo (Maringe/Hograno) dictionary. PL*, C-97.

Wolff, John U., 1994, The place of plant names in reconstructing Proto Austronesian. In A.K. Pawley and M.D. Ross, eds *Austronesian terminologies: continuity and change. PL*, C-127.

Wurm, S.A. and B. Wilson, 1975, *English finderlist of reconstructions in Austronesian languages (post-Brandstetter). PL*, C-33.

Z'Graggen, John A., 1980, *A comparative word list of the Northern Adelbert Range languages, Madang Province, Papua New Guinea. PL*, D-31.

Zorc, R. David and Matthew Charles, 1971, Proto-Philippine finder list. Ts. Cornell University. (Cited by Wurm and Wilson 1975.)

TYPE AND INSTANCE NOMINALISATIONS IN TOKELAUAN

ROBIN HOOPER

1. INTRODUCTION[1]

The distinguishing features of Polynesian nominalisations were the subject of two papers published in the 1970s-80s, Chung (1973) and Clark (1981). There were no equally systematic studies of nominalisation in individual languages until Vonen (1988), which contains a chapter on nominalisations in Samoan and Tokelauan, including a comprehensive description of types of lexical nominalisation. More recently, Mosel (1992) and Vonen (1992) examine, respectively, Samoan and Tokelauan nominalisations. Both of these papers are primarily concerned with the distribution of *a* and *o* possessor marking.

First a note on terminology. I distinguish between *lexical nominalisations* and *productive clausal nominalisations*. In lexical nominalisations a verbal stem, with or without a nominalising affix, functions in all respects like a noun, including the ability to occur as a plural if semantically appropriate. Lexical nominalisations are characterised by varying degrees of productivity and by unpredictable semantic relationships between verb and derived noun. I use the term productive or clausal nominalisation to mean the situation whereby any verbal lexeme can function as a noun, with a predictable meaning relation between the verbal and nominal forms. In some cases a considerable amount of clausal material remains as part of the nominalisation. A similar classification is implicit in Clark (1981), who uses the terms 'deverbal noun' and 'productive syntactic nominalisation'.

These comments are necessary because a considerable variety of usages is found in the literature. Comrie and Thompson in their 1985 typological study, entitled 'Lexical nominalisation', consider under this heading many types of structure, including English gerundive *-ing* types of action nominals (pp.358-391), which are fully productive and semantically predictable. These have analogues in Tokelauan which might more conveniently be called 'clausal', and which Vonen (1988) considers under the rubric of 'syntactic' nominalisation. Comrie and Thompson do not look at *-ing* nominalisations in their discourse contexts and do not distinguish between factive and non-factive instances, for example. They consider it criterial for what they term a 'clausal nominalisation' that 'there is no evidence in favour of viewing its head as a lexical noun' – by which they mean, presumably, that the nominalisation cannot be possessed and that there is no nominalising morphology on the verb, such as Tokelauan *-ga* or English *-ing*. However, in Tokelauan, as in other Polynesian languages, a great many nominalisations which would usually be described as 'clausal' (e.g.

© Robin Hooper

Clark 1981:65) exhibit these two features. Both the bare verb stem without morphological modification and the verb stem with the suffix -*ga* can occur in nominalisations which are clearly lexical (as shown in semantic idiosyncracy or limited productivity) or clearly clausal. All types can be possessed by noun phrases (NPs) representing the absolutive NP of an underlying predication, and many can be possessed by pronominal agentive NPs. The distinction made by Comrie and Thompson is based on quite narrow formal characteristics and is not helpful in discussing Tokelauan. Moreover, the category boundary between syntactic and lexical nominalisation seems to be a fluid one, and although there are clear cases of both kinds, any substantial body of text in Tokelauan contains some distinctly fuzzy cases which defy categorisation (cf. discussion in Langacker 1991:23). Presumably there is some point at which a regular formation acquires a specialised meaning in a particular sociocultural context, thus becoming what I would regard as a lexicalisation.[2] This paper investigates productive clausal nominalisation, and is primarily concerned with the distribution of suffixed and unsuffixed forms.

2. PRELIMINARY COMMENTS ON TOKELAUAN SYNTAX

Like the other Polynesian languages of its subgroup, Tokelauan has ergative case-marking morphology. A first subcategorisation of verbs distinguishes two broad classes: one consisting of verbs which occur with a single primary NP, which is unmarked, the other consisting of verbs which occur with two core participants, the primary unmarked one and the other marked with the agentive preposition *e* . The terminology I use to refer to these verb classes and NPs follows that employed in Dixon (1979). Verbs of the first class are *intransitive*. The single primary participant of an intransitive clause receives the label S. The second class consists mainly of prototypical transitive verbs which I refer to as *agentive*. The NP denoting the primary unmarked participant of an agentive clause, which in clear cases experiences a change of state as the result of the action of the verb, will be called the O, and the NP denoting the agent participant, the entity which initiates/controls the activity, which is marked with the preposition *e*, will be called the A. The S noun phrases of intransitive clauses are associated with a variety of semantic roles, having in some cases a considerable degree of agency, and in other cases being semantic patients. The notation S_a and S_O is useful to distinguish these roles.

Agentive clauses may be detransitivised by object incorporation. The noun denoting the O follows the verb stem directly without any intervening determiner, resulting in a compound intransitive verb denoting a type of activity. The notional agent is an S.

The prepositions *o* and *a* indicate a relationship between two NPs. In most contexts these express the well-known contrast between subordinate (o-class) possession and dominant (a-class) possession, but in some kinds of nominalisation this contrast is neutralised, as we shall see.

The common determiners are contrasted for number and type of reference. Both the specific/non-specific and the definite/indefinite contrasts are at play, but for present purposes it is specificity which is important. The determiners are as follows:

---

2   Consider the increasing degree of concreteness of the following nominalisations of *tāfao* 'play': *tāfaoga* 'instance of playing', *tāfaoga* 'match, game (e.g. football), *tāfaoga* 'toy'; cf. the discussion of *stapler* in Langacker (1987:28-90).

		Plural	
<u>Singular</u>		<u>Plural</u>	
Specific:	*te*	Definite:	*nā* , ø
Non-specific:	*he*	Indefinite:	*ni*

The singular specific article *te* is normally used when a particular individual or object is referred to. It is not necessary that the person addressed should be able to identify the referent. It is also used to introduce generic NPs. The singular non-specific article *he* has the meaning 'any such item', and occurs most frequently in questions, commands, negative or hypothetical clauses, and indefinite descriptions. In the plural, the contrast between the articles appears to be one of definiteness; *ni* occurs freely in NPs with specific but indefinite reference, as well as with genuine non-specific referents. The singular specific article *te* is used almost exclusively to introduce nominalisations, and the contrast between *te* and *he* is relevant to their semantics and their internal structure.

As is well known, in productive clausal nominalisations, a verb phrase, certain locative predicates, or a whole clause can be converted into a nominal structure by replacing the tense-aspect particle with the singular specific article *te*. The absolutive (S or O) noun or pronoun normally becomes a possessive NP taking the preposition *o*, although occasionally *a* occurs with an S$_a$. In some circumstances the suffix *-ga* is also attached to the verb, or to a following directional particle as in examples (5) and (6). In some types of nominalisation certain additional clause elements may occur: prefixes, suffixes, directional particles or other modifiers that were part of the original verb phrase, and any prepositional phrases that were non-core elements in the original clause. In the following example note how the underlined nominalisation is directly related to the immediately preceding clause.[3]

(1) *Kae pā   au   ki Apia, puke au   e   leoleo.*
     CONJ arrive 1SG TO Apia grab 1SG ERG police

     Toku   puke-ga tēnā e   leoleo,
     SP.1SG.POSS   grab-NOM DEM ERG police

     e   hēki feiloaki ki māua   ma toku   uho   tēia i Apia.
     T/A NEG meet   1DU.EXC   and 1SG.POSS   sibling DEM LOC Apia
     When I arrived in Apia, I was arrested by the police. [Because of] <u>my being</u>
     <u>arrested by the police,</u> I didn't get together with that brother of mine in Apia.
     (H 12)

This passage contains two intranstive verbs, *pā* 'arrive' and *feiloaki* 'meet', and one agentive verb, *puke* 'grab, seize'. In the nominalisation, the O participant is encoded as a possessive pronoun, *toku*, in which *t-* represents the specific determiner. The A noun phrase retains its ergative case marking. In some types of nominalisation, a pronominal A can be encoded as an a-class possessive pronoun and precede the nominalised verb:

(2) *tana   kave-ga o nā ika*
     SP.3SG.POSS   take-NOM of DET fish
     his taking the fish

---

[3] For a list of the abbreviations used in the examples see Appendix 1; for an explanation of the sources of examples see Appendix 2. The hyphen separating the nominalising suffix from the verb stem is inserted for the purpose of clarity, and is not Tokelauan orthographic practice.

The reverse situation does not occur:

(3)   *toku   puke-ga   a   leoleo
        SP.1SG.POSS   grab-NOM   of police
        *the police's arresting of me

In example (1), the nominalisation is only loosely integrated into the syntax of the larger clause (one would expect the anaphor *ai* after *feiloaki*), but clausal nominalisations can be arguments of the verb like any other noun. Example (4) contains three nominalisations, which are underlined and numbered. The first is subject complement of the phasal verb *uma*, the second is a temporal argument introduced by the preposition *i*, and the third is a causal argument, also introduced by *i*. Note that the second nominalisation is suffixed but that the other two are not :

(4)   *Kua uma   foki te̲   ̲k̲ō̲   ̲i̲l̲o̲a̲*(1) *i   ta mātou*
        T/A finished too DET 1SG know   LOC 1PL.EXC.POSS

        nofonofo-ga̲   ̲i̲   ̲l̲u̲g̲a̲   o te   vaka(2), *i   tana   kikila*
        stay.RED-NOM LOC   above of DET   ship   LOC 3SG.POSS   look

        mai̲ ̲k̲i̲a̲t̲e̲ ̲k̲i̲ ̲m̲ā̲t̲o̲u̲(3).
        DIR TO   1PL.EXC
        I already knew it too, during our stay on board the ship, from the way he supervised us.   (J 6)

Although it is usual for the absolutive NP of the underlying predicate to appear as a possessive NP in the nominalisation, this is not always the case. In particular, if a clitic agent pronoun is retained, the absolutive NP may also retain its unmarked status. Two examples can be seen at (46) and (48).

3. TYPES OF PRODUCTIVE NOMINALISATION IN TOKELAUAN

3.1 THE PROBLEM

In the following discussion of the conditions of use of the -*ga* suffix, I proceed from the viewpoint that considerations of meaning are relevant to the understanding of grammatical constructions. I will argue that the primary determinant of use or non-use of the suffix is the ontological status of the situation denoted by the nominalisation in the particular syntactic/semantic context in which it occurs. In addition clause transitivity appears to play a part in a way which conforms to the predictions of Hopper and Thompson (1980) but is otherwise difficult to account for.

To some extent, the distribution of the suffixed type in Tokelauan supports the suggestion in Clark (1981:79) that "unsuffixed nominalisations denote activities or processes, which can be qualified as to manner, or described as beginning or ceasing; whereas suffixed nominalisations denote events, which can be enumerated and located in time". However, I think the difference is not primarily the aspectual one between event and activity/process, although this factor is clearly involved in some cases, but rather that between a situation envisaged as actually obtaining in some world, as opposed to a contemplation of its generic nature or potential occurrence. This can also be expressed as the difference between

(specific) instance and (abstract) type, and seems close to what Clark was suggesting, although the terminology of activity/process versus event is misleading.

Hopper and Thompson (1980:254) claim that several factors which they see as components of discourse transitivity "co-vary extensively and systematically". Among other things, they establish an association between realis mood, the presence of A and O participants, individuation of the O, and telicity (in the sense of completion of an action or process), all features characteristic of high transitivity, as opposed to irrealis mood, one core participant only, lack of individuation of the O, and atelicity, which are characteristic of low transitivity. Specifity is the aspect of 'individuation of the O' which is relevant here, and I will substitute the expression 'specificity of the O', for reasons which will become apparent. These transitivity factors appear to be at work in Tokelauan nominalisations, and to influence the occurrence of the -*ga* suffix. I will show that the presence of both A and specifically-marked O participants in the nominalisation forces a shift from a type interpretation towards an instance interpretation, and that this shift is more likely to occur when the situation represented by the nominalisation is realis and telic.

In the following sections, I consider in turn several semantic types of nominalisation, which can however be syntactically distinguished. It is important to note that these classes depend crucially upon the syntactic and/or discourse context in which the nominalisation occurs, not upon particular types of verb – although verbs denoting states do not normally occur in the first type considered below. Although I adopt a taxonomic approach to the description of the nominalisation types, it will become clear that at certain points they form continua rather than discrete categories, and that the data undermines the notion of strict categoriality.[4] I return to this point in §4.

3.2 INSTANCE NOMINALISATIONS

3.2.1 PAST OR ANTERIOR TIME REFERENCE

When a clausal nominalisation refers to a particular event that has taken place, the suffixed form is always used. Nominalisations of this type are frequently the object complements of verbs of cognition or perception:

(5)   *Kua kō   manatua   toku   pā   mai-ga   ki kinei.*
       T/A 1SG remember.Cia 1SG.POSS arrive DIR-NOM TO here
       I remembered my arrival here.   (O 22)

It is also common for the nominalisation to occur as a nominal predicate with demonstrative pronoun subject:

(6)   *Ko   te   galo   atu-ga   lava tēnā   o Lata.*
       PRED DET disappear DIR-NOM INT DEM of Lata
       That was the complete disappearance of Lata.   (TTT 128)

The usual form for clauses expressing time or cause and with past or relative past time reference is a suffixed nominalisation introduced by the preposition *i*, or by either *i* or *ko* if

---

4   I do not deal at all with the question of variation in individual usage but it should be pointed out that occasional counter-examples can be found to most of the generalisations made here. These take the form of the suffix occurring where I would not have expected it, rather than the other way around.

preposed. The English translation equivalents of these structures are adverbial clauses introduced by *when*, *after*, *while*, *on account of* (in the latter case the element of temporal anteriority must be present).

(7)   Kae   nā ko au   nae galue i   luga   o   te   vaka
       CONJ   only   1SG T/A work LOC above of DET boat

       i   te   tatala-ga   o   nā   puha-aiha.
       LOC DET untie-NOM of DET box-ice
       But I was the only one working on the ship <u>during the dismantling of the</u>
       <u>refrigeration equipment</u>.   (J 6)

(8)   Na maua lā   taku   popo   i   toku   havalivali-ga.
       T/A obtain INT 1SG.POSS coconut LOC 1SG.POSS walk-NOM
       However, I had obtained a coconut <u>while I was</u> walking.   (H 11)

There are some problematic examples, which will be discussed at this point.

Firstly, temporal clauses in discourse relating to generic events can also take this form, so long as a performance of the action of the verb, an 'instance', is envisaged. The presupposed nature of temporal clauses appears to override the generic context:

(9)   ...auā   lā   ke   kē   manatua   *ko   te   oho-ake-ga   o   te*
       because INT MOD 2SG remember.Cia TOP DET leap-DIR-NOM of DET

       atu   e   hula   ki   luga.
       skipjack T/A appear TO above
       ...because you must remember that <u>when the skipjack leaps up</u>, it appears above
       [the surface of the water].   (PTT)

Secondly, as the following examples from Vonen (1988: 97) demonstrate, "a situation actually obtaining in some world" may include reference to an unrealised event. A temporal nominalisation may denote an *actually obtaining situation* in which it is a significant factor that some event fails to occur or is about to occur. In example (10) the nominalisation contains a negative:[5]

(10)   *I   te   hēki maua-ga   o   ia   oi   toe   liliu   ai   ki lāua ki*
        LOC DET NEG obtain-NOM of 3SG SEQ again return APH 3DU   TO

        Ieluhalema.
        Ieluhalema
        <u>On the occasion of [their] failing to find him</u> they went back to Jerusalem.
        (= Vonen's (27): Luke 2.52)

In the case of nominalisations with relative future time reference (future-in-the-past), the tense-aspect marker *ka* can be retained, as in example (11). Here the imminence of the 'going' constitutes the situation which is in a temporal and causal relation to the main clause:

(11)   *Ko   te   ka fano-ga   o   te   tino*,   na   tāofi ai   e   tētahi tino.
        TOP DET T/A go-NOM of DET person T/A stop APH ERG DET person

---

5   In transcribing Vonen's examples, I have added diacritics to the first example, and changed the morpheme glosses to conform to those used elsewhere in this paper.

<u>On the occasion of the person being about to go,</u> he was held back by another person.   (=Vonen's (28): female speaker, 26 years)

Examples like these are rare, but not felt by native speakers to be in any way marginal or incorrect.

Thus, suffixed clausal nominalisations encode situations that have extension in real time in some world. To encode a situation in this way is to label it as a 'happening'. Syntactic evidence of this point is provided by the co-occurrence potential of the singular distal demonstrative *tēnā* – see examples (1) and (6). Any NP modified by *tēnā* is referentially specific.

3.2.2 NON-PAST INSTANCE NOMINALISATIONS

So far we have examined nominalisations with past or anterior time reference. Instance nominalisations which denote a situation with future or present time reference can occur as arguments of verbs such as *fiafia* 'be pleased'. Use of the suffix is incompatible with absolute future time reference of the nominalisation; compare the following two examples:

(12) *Ko* <u>tō   hau-ga   ki te   fono   ananafi</u> *na fiafia lele*
      TOP 2SG.POSS come-NOM TO DET meeting yesterday T/A happy INT

      ki ei   ia   toeaina.
      TO there   DET elder
      Your coming to the meeting yesterday pleased the elders very much.

(13) *Ko* <u>tō hau   tāeao   ki te fono</u> *ka fiafia lele ki ei ia toeaina.*
            come tomorrow
      Your coming to the meeting tomorrow will please the elders very much.

Givón (1990:499-500) notes a similar distinction in Turkish nominalised verb complements; different morphology is used for realis and irrealis complements.

Let us now examine examples with present time reference, where a distinction is made between agentive and intransitive clauses, and where the presence of a specifically-marked O participant is a significant factor. <u>If the nominalised clause is agentive, it is suffixed; if it is intransitive, the suffix does not occur.</u> Compare the treatment of the intransive predicate in (14) (past time reference, suffixed) with those in (15) and (16) (present time reference, unsuffixed), and with the agentive predicate of (17) (present time reference, suffixed):

(14) *Na fiafia lele au   i* <u>tō   i   kinei-ga   ananafi.</u>
      T/A happy INT 1SG LOC 2SG.POSS LOC here-NOM yesterday
      I was pleased at your being here yesterday.

(15) *E   fiafia lele au   i* <u>tō   i   kinei</u> (*i   te   taimi nei*).
      T/A happy INT 1SG LOC 2SG.POSS LOC here LOC DET time   DEM
      I am pleased at your presence here (now).

(16) *E   fiafia lele au   i* <u>tau   tuhituhi</u> *i   te   taimi nei.*
      T/A happy INT 1SG LOC 2SG.POSS write   LOC DET time DEM
      I am pleased that you are writing now.

(17)   *E   fiafia   lele   au   i   tau   ato-ga   o   te   fale   i*
        T/A happy   INT   1SG LOC 2SG.POSS thatch-NOM of DET house LOC

        te   taimi nei.
        DET time DEM
        I am pleased that you are thatching the house at this time.

Let us consider the transitivity features mentioned earlier. The ones which are relevant here, in order of importance, are realis mood, presence of a specific O participant, and telicity. Future time reference is irrealis and is incompatible with the suffix. Present time reference, which is associated with atelicity, suppresses the use of the suffix unless a specifically-marked patient is present, as in (17).

3.3 ABSTRACT NOMINALISATION

What I am calling abstract nominalisations denote a type of activity or process conceived as an abstraction and evaluated in some way. They are unsuffixed. Usually these are nominalised predicates rather than full clauses ('predicate' being used here in the traditional sense of predicate as opposed to subject). It is important to note that it is the nature of the situation itself, either generic or hypothetical, that is being evaluated or commented upon in these constructions. They are not referential and cannot be modified by *tēnā*. In the following two examples there are no arguments associated with the nominalised verbs:

(18)   *E   lelei te   lolotu   fakatahi.*
        T/A good DET attend.church together
        It is good to join together for church services.   (O 24)

(19)   *Ko   atu   e   hē   aogā lava te   ino   pōpō.*
        TOP skipjack T/A NEG useful INT   DET enter too.soon
        In the case of skipjack, it is absolutely useless to enter[the school] too soon.
        (PTT 12)

If there is a generic S participant, it is encoded as an o-class possessor NP; pronominal possessors do not occur, as they cannot be generic:

(20)   *E   lelei te   lolotu   fakatahi o (nā) kāiga.*
        T/A good DET attend.church together of DET family
        It is good for families to join together for church services.

In abstract nominalisations of agentive verbs, an O participant may be encoded in three ways: as an incorporated object (21), as a non-specific NP (22), or as a specific NP if its head is a generic or proper noun (23):

(21)   *He   gāluega faigatā   te   vali   fale.*
        DET work   difficult DET paint house
        Housepainting is difficult work.

(22)   *He   mea   lelei nei te   fai o he   mālō   haoloto?*
        DET thing good Q   DET do of DET government free
        Is it a good thing to set up an independent government?   (TD)

(23)   *E   lelei   te   ako   o   te   gagana   Tokelau.*
        T/A be.good DET teach of DET language Tokelau
        It is good <u>to teach the Tokelau language</u>.

The occurrence of an agent phrase in addition to an O triggers a subtle change in interpretation. What is being evaluated now is a hypothetical instance, and it is difficult to perceive any principled difference between the following example and one like (13):

(24)   *He   mea   lelei   nei te   fai o   he   mālō   haoloto e   kitātou?*
        DET thing good Q DET do of DET government free   ERG 1PL.INC
        Is it/would it be a good thing <u>for us to set up an independent government</u>?

Compare the more drastic shift in interpretation in the following, in which a completed event is evaluated:

(25)   *He   mea   lelei   nei te   fai-ga   o   te   mālō   haoloto e*
        DET thing good Q DET do-NOM of DET government free   ERG

        kitātou?
        1PL.INC
        Is it a good thing <u>that we have set up an independent government</u>?

Here we have neither a hypothetical instance nor an abstract concept, but an actual instance. The O participant is semantically specific and has to be specifically marked, and the suffix is required; in fact in the absence of any indicators of time reference, it is the suffix which conveys the information that this is a completed event. Once again realis mood and specifity of the O are associated. It is apparent that the evaluative verb does not of itself require an unsuffixed complement. It is the status of the nominalisation as realis, and as instance not type, that is significant.[6]

Examples like the above must be distinguished from those in which the object of evaluation is the manner in which some actor performs an activity:

(26)   *Kafai e   lelei   te   fai-ga   o   gāluega a   teine fomai...*
        if   T/A good DET do-NOM of work of girl doctor
        If the nurses do their work well... [lit. if <u>the doing of the work of the nurses</u> is good...]   (TOM 1)

This type will be discussed in a later section.

3.4 PERSONAL PROPERTIES

Nominalisations of clauses denoting states, qualities or habits of individuals or things are another kind of type nominalisation. They are unsuffixed, and the individual or thing is encoded as an o-class possessor.

(27)   *...ona   ko   te   vāivai   o   te   maufaufau*
        because PRED DET be.weak of DET mind
        ...because of <u>the weakness of [my] intelligence</u>   (O 1)

---

6   For completeness, note that a question of the form 'Would it have been a good thing for us to have set up an independent government?' would not be expressed by means of a nominalisation, but as a counterfactual conditional.

(28)   *Kua tuku* <u>*tona*   *inu*   *pia.*</u>
         T/A stop 3SG.POSS drink beer
         He has given up <u>his beer-drinking</u>.   (TD 405)

(29)   *E   toka-lahi   foki ia   tautai   kua tamate*
         T/A HUM-many INT DET fisherman T/A lose.a.skipjack

         ona   ko   te   fakahētonu pea   o   te   foeliu.
         because PRED DET be.confused MAN of DET bilge.paddler
         There are many master fishermen who have lost a skipjack because of <u>the</u>
         <u>confused behaviour of the bilge-paddler</u>.   (PTT 6)

(30)   *Ko   te   ala   ia   o   toku   fia   hola.*
         PRED DET path DEM of 1SG.POSS wish run.away
         That was the reason for <u>my wanting to run away</u>.   (J 4)

The manner particle *pea* in (29) indicates persistent behaviour. It is easy to see that these examples do not refer to particular instantiations in real time of an activity, but to a habitual behaviour or state.

It is with this type that the aspectual distinction between events and habitual situations comes into play. Consider the following example:

(31)   *Kāmata loa* <u>*toku*   *havalivali   mai ki te   kakai.*</u>
         begin   then 1SG.POSS walk.REDUP DIR TO DET village
         <u>My [habit of] walking to the village</u> began then.   (H 10)

When queried on the possibility of inserting *tēnā* in the nominalisation of (31) my consultant was comfortable with the result only if *-ga* was added also, with the expected consequences of an adjustment of the meaning of the phrase, as shown in (32):

(32)   *Kāmata loa* <u>*toku*   *havalivali   mai-ga   tēnā   ki te   kakai.*</u>
         begin   then 1SG.POSS walk.REDUP DIR-NOM DEM TO DET village
         <u>That [particular] walk of mine to the village</u> began then.

So habitual or intermittent activities are treated as personal properties. Note that there is no restriction on the use of the suffix when a durative situation is seen as a whole (i.e. perfectively), as in *nofonofoga* in (4), *tatalaga* in (7), and *havalivaliga* in (8).

Specific Os do not occur in personal property nominalisations. Agentive predicates are detransitivised by object incorporation, as in (28) above. The notional agent is encoded as an S participant, which receives o-class possessor marking. The occurrence of a possessive phrase denoting the O of the agentive clause triggers a complete change of interpretation from personal property to specific event, with concomitant use of the suffix. Compare the following two examples:

(33)   *E   mataku au   oi   kaukau, ona   ko   te   kai tino   o*
         T/A be.afraid 1SG COMP swim   because PRED DET eat person of

         nā   magō.
         DET shark
         I am afraid to swim, because sharks eat people.

(34)   *E   mataku   au   oi   kaukau i   kinei, ona   ko   te*
        T/A be.afraid 1SG COMP swim   LOC here   because PRED DET

        kai-ga   o te   tino   i   kinei e   magō.
        eat-NOM of DET person LOC here ERG shark
        I am afraid to swim here, because sharks ate a person here.

It should be noted that neither personal property nor abstract nominalisations collocate with the demonstrative *tēnā*.

3.5 'MANNER' OR 'METHOD' NOMINALISATIONS

Nominalisations relating to the manner or method of performing some action are a very productive type. Once again, transitivity plays a part in the form of the nominalisation. Intransitive verbs and agentive verbs not accompanied by specifically-marked O participants form unsuffixed method nominalisations, although translation requests often provoke the periphrastic use of the lexicalised form *faiga* 'way, method, technique' together with the unsuffixed nominalisation. Agentive participants, whether A or S_a, take the form of a-class possessive NPs or pronouns, not of ergative NPs.

Examples (35) - (38) contain unsuffixed method nominalisations without O participants:

(35)   *E   filifili lava e   te   tino tana   teka* / *te   faiga   o*
        T/A choose INT ERG DET person 3SG.POSS bowl   DET   method of

        tana   teka.
        3SG.POSS bowl
        A person chooses his/her own way of bowling.

(36)   *Kai   te   kehe   o   tau   lalaga!*
        EXCL DET different of 2SG.POSS weave
        What a peculiar way of weaving you have!

(37)   *E   lelei   te   kavetāvale   a   te   fafine.*
        T/A be.good DET drive.vehicle of DET woman
        The woman's driving is good.

(38)   *te   lelei   o   tana   tā*
        DET goodness of 3SG.POSS hit
        the excellence of his batting   (TD 335)

As an additional example, note the contrast in example (4), repeated here as (39), between the suffixed *ta mātou nofonofoga* in the backgrounded temporal clause and the unsuffixed method nominalisation *tana kikila* 'his way of supervising':

(39)   *Kua uma   foki te   kō iloa   i   ta mātou   nofonofo-ga*
        T/A finished too DET 1SG know LOC 1PL.EXC.POSS stay.RED-NOM

        i   luga   o te   vaka, i   tana   kikila mai kiate ki mātou.
        LOC above of DET ship LOC 3SG.POSS look DIR TO 1PL.EXC
        I already knew it too, during our stay on board the ship, from the way he supervised us.   (H 6)

I now turn to method nominalisations of agentive verbs which have overt O participants marked with the specific determiner. In such cases the suffix is present, even though the O participant may be generic. This seems to be the only case in which a suffixed nominalisation can denote a generic situation rather than a specific instance.

(40)   *E   hē   mālamalama iate au   te   tāofi-ga   o nā   tāvale.*
        T/A NEG clear   LOC 1SG DET stop-NOM of DET.PL vehicle
        I did not understand how to stop the buses.   (H 9)

The following examples were obtained through elicitation, and as the English versions demonstrate, the possessive NPs can refer to both generic (41-42) and specific (43-44) O participants.

(41)   *Ko   te   lalaga-ga   tēnā   o   te   moega   e   faigatā.*
        TOP DET weave-NOM DEM of DET mat   T/A difficult
        That method of weaving a mat is difficult.

(42)   *E   pule   lava te   tino   i   tana   ato-ga   o te   fale.*
        T/A control INT DET person LOC 3SG.POSS thatch-NOM of DET house
        A man chooses his own method of thatching roofs.

(43)   *Na filifili   e   ia   te   fau-ga   ·   tēnā   o   te   fale.*
        T/A choose ERG 3SG DET construct-NOM DEM of DET house
        He chose that method of building the shed.

(44)   *E   lelei   lele te   ako-ga   o te   gagana Tokelau i   te*
        T/A be.good INT DET teach-NOM of DET language Tokelau LOC DET

        āoga.
        school
        The teaching of the Tokelau language is very well done in the school.

Two features, the use of a-class possessor marking for A or S_a, and the potential for inclusion of a specifically-marked NP representing the O without a loss of the method interpretation, clearly distinguish method nominalisations from the personal property type.

As (41) and (43) show, method nominalisations with O participants collocate happily with the demonstrative *tēnā*. However, it is difficult to imagine contexts for utterances such as these other than one in which the speaker is observing the activity in question. Indeed, in (40) he is reporting on his own participation in a situation. These examples, as well as (44), have a kind of semantic indeterminacy in that there seems to be no sharp division here between method and instance; or rather, it is the method employed in a particular instance which is the subject of comment. Note however that this indeterminacy does not affect instance nominalisations of the first type, which have no connotations of manner or method whatsoever, but refer to the occurrence of an event. We should note too that method nominalisations are intrinsically high in kinesis, another transitivity feature. State verbs cannot occur in them.

The following example consists of extracts from a passage of text which concerns methods or techniques for performing an action known as *fakalalau*, which is common to several types of fishing: the strike, or upward jerk of the line with which the fisherman responds to the fish's taking the hook. When *fakalalau* or its synonym *fakanofo* occurs with a possessive full NP denoting the generic O participant (i.e. the fish) it is suffixed, as in lines

1, 4 and 5; when it occurs alone, or with a possessive pronoun referring to either the O or the A (i.e. the fisherman), it is unsuffixed, as in lines 2 and 3. This passage provides crucial evidence for our analysis of method nominalisations, which otherwise depends heavily on elicited examples; at the same time the analysis provides an explanation for the otherwise baffling variations in the form of these nominalisations.

(45) 1 *E   iloga   lava te   fakalalau-ga o te   ika.*
T/A well.known INT DET strike-NOM of DET fish
The technique for striking each [variety of] fish is clearly distinguished.

 2 *Ko te   humu,   e   lua ona   fakalalau, e   tuālima   pe*
TOP DET triggerfish T/A two 3SG.POSS.PL strike   T/A backhand or

 hamu tonu.
pull direct
As for the triggerfish, there are two techniques for striking, backhanded or with a single jerk.

 3 *E   pule   lā   lava te   tino i   tana   fakalalau.*
T/A control INT INT DET person LOC 3SG.POSS strike
A person chooses his own technique.

 4 *E   i   ei   foki tētahi tāofi e   vēia,   ko   te   fakalalau-ga*
T/A LOC there INT DET belief T/A like.that PRED DET strike-NOM

 o   te   atu
of DET skipjack
There is also another theory as follows, to do with the striking of the skipjack

 5 *pe ko   te   faka-nofo-ga   o   te   atu,   ke   kē   iloa.*
or PRED DET CAUS-sit-NOM   of DET skipjack MOD 2SG know
or the setting the hook of the skipjack, that you should know about.   (PTF 28)

3.6 COMPLEMENTS OF PHASAL AND DEGREE VERBS

Two types of verb appear to select unsuffixed nominalisations as subject complements: some phasal verbs and a few verbs that denote the degree or intensity of the situation described in the nominalised clause. It is difficult to account for these cases in terms of the semantic factors considered elsewhere in this paper.

The situation with phasal verbs is far from uniform. Since both suffixed and unsuffixed complements are encountered with most of them,[7] I will only give examples of the

---

[7]   The common phasal verb, *kāmata* 'begin', takes several different kinds of complement, including suffixed nominalisations. We have noted above the contrast between 31 and 32, where the inclusion of the demonstrative *tēnā* 'that' in the nominalised complement of *kāmata*, making reference to a specific occasion, makes the suffix mandatory. The following example has the features of a typical instance nominalisation:
 E   kāmata mai lā   i   kinei te   fetōlaki-ga   lahi lele o nā   māhina.
 T/A begin   DIR INT LOC here DET be.mixed.up-NOM big INT of DET month
 It was at this point that the terrible mix-up in the [calculating of the days of the] months began.
 (PTT 41)

commonest one, *uma* 'be finished, be completed', which is nearly always followed by an unsuffixed form;[8] the presence or absence of a specific O participant is irrelevant.

(46) *Kua uma   te   kō   kitea te   uiga   o te   tamaloa.*
       T/A finished DET 1SG see   DET nature of DET man
       I had already seen what the fellow was like. [lit. <u>My perceiving the nature of the fellow</u> was complete.]   (J 6)

(47) *Uma   loa   toku   fia   tali faka-pepelo atu ki te   tamaloa.*
       finished then 1SG.POSS want reply CAUS-lie   DIR TO DET man
       Then <u>my wanting to reply deceptively</u> to the young man came to an end.   (H 11)

See also example (4). We must assume that unsuffixed nominalisations after *uma* are syntactically conditioned.

Some examples of nominalised complements of degree verbs are given below:

(48) *E   atili   ai   te   hē   kē   toe   mafai-agia he   mea.*
       T/A in.excess APH DET NEG 2SG again possible-Cia DET thing
       <u>Your not being able to do a thing</u> will be intensified.   (PTF 9)

(49) *Kua hili   atu ai   te   feiloaki hō   o oku ma nā   pia.*
       T/A extreme DIR APH DET meet   often of 1SG and DET beer
       My constant beer-drinking [lit. <u>my frequent meeting with beers</u>] was at its most intense.   (O 24)

(50) *Aunoa   ma   te   kō   iloa   pe ko   fea   te   mea   tēia...*
       be.without REL DET 1SG know Q PRED where DET thing DEM
       Without <u>my knowing</u> where that place was...   (H 9)

An alternative form for subject complements of most of these verbs is a clause introduced by *ona*. The nominalisations presented in this section closely resemble such clauses. In my data these are the only kind of nominalisation in which clitic agentive pronouns and absolutive O participants occur. In (46), (48) and (50), no change has taken place in the internal syntax of the clause, and the determiner *te* seems to assume the role of complementiser. These are the only examples we have considered which conform to the definition in Comrie and Thompson (1985) of a clausal nominalisation.

3.7 LEXICALISED FORMS WITH INCORPORATED OBJECT

We have now distinguished five types of clausal nominalisation with different semantic and functional properties. As stated earlier, this paper is not concerned with lexical nominalisations. However, one type needs to be mentioned here. We have seen examples of verbs with incorporated objects in unsuffixed abstract and personal property nominalisations. The incorporated object construction also participates in nominalisations which denote occasions or styles of the activity in question, and which contain the suffix. Several features show these forms to be lexicalisations: the vowel lengthening on the suffix, the possibility of

---

The differing behaviour of *uma* and *kāmata* is difficult to account for. Other phasal verbs exhibit similar variability.

8   It is probable that the exceptions are lexicalisations denoting types of event, such as *tāfaoga* 'match, game'.

semantic idiosyncracy, the fact that they are count nouns, and that only verb + noun combinations which denote a culturally-recognised type of activity are eligible for the construction:

(51) E fai tamātou <u>holi-gā-ula</u>   i   te   pō   nei.
      T/A do 1PL.POSS trample-NOM-crayfish LOC DET night DEM
      We are having a <u>crayfishing-expedition</u> tonight.

4. CONCLUSIONS

At this point it will be helpful to summarise the correlation of the various types of nominalisation with a number of syntactic features. The table shows that there are syntactic grounds for distinguishing between clear cases of the five types. It should also be pointed out that other syntactic options exist for expressing many of the meaning types considered here. For example, many personal property nominalisations could be expressed as relative clauses or verbal clauses introduced by *ona* 'because'; hypothetical instance nominalisations and some abstract nominalisations could be paraphrased by hypothetical conditional clauses introduced by *kafai* 'if'. These different kinds of paraphrase (as well as different English translation equivalents) are a significant way of distinguishing between personal property and abstract nominalisations.

TABLE: CORRELATION OF TYPES OF NOMINALISATION WITH SYNTACTIC FEATURES

	Instance	Method	Abstract	Personal property	Phasal & degree verbs
specific O	+	+ I -	$[+]^2$	-	+
-ga	+	+ I -	-	-	-
tēnā	+	+ I -	-	-	-
Possessor marking: A S_a	a^1 *o*	*a* *a*	- o^3	- *o*	[eNP] *o*
absolutive O, *-Cia* suffix and clitic pronoun	-	-	-	-	+

Notes: 1. Pronominal possessors only; full noun phrase agents are ergatively marked.

          2. Generic or proper NPs only; see example (25).

          3. Generic NPs only; no pronominal possessors.

The variations in possessor marking are summarised below:

O: An NP in O role is always an o-class possessor, except in those occasional examples of complements of phasal and degree verbs where it retains its absolutive status.

S: Similarly, an S_O is always an o-class possessor. In instance nominalisations, possessor marking of S_a is usually o-class, but a-class marking of S_a occurs occasionally – see the second nominalisation in example (2). The S_a in a method nominalisation receives a-class marking.

A: Only instance nominalisations and method nominalisations can have As as possessors, in the former case only if they are pronominal. In method nominalisations, the actor/agent role, whether A or S_a, is always an a-class possessor. In personal property nominalisations As do not appear at all; in the complements of phasal and degree verbs they retain ergative case marking; and in abstract nominalisations, as we have seen, the appearance of an agent causes a shift of interpretation towards hypothetical instance.

As the table shows, the suffix -*ga* correlates with the possibility of occurrence of the demonstrative *tēnā*, and thus characterises the most noun-like nominalisations. There is also, as we have seen, a strong association between the suffix and the presence of a specific O: except in the complements of phasal and degree verbs, specific Os appear only rarely in unsuffixed nominalisations (see example (23) and comment).

Let us now try to summarise the semantic differences between the suffixed and unsuffixed types. Because there is some overlap, the classification remains elusive; neither the two major groupings nor the various subtypes form absolutely discrete categories. There is considerable evidence that grammatical categories and constructions can have a prototype or a family resemblance type of structure (see the survey in Taylor 1989, chapters 10 and 11), and that "there are very real differences...among the various degrees of centrality with which one and the same grammatical category may be instantiated" (Hopper & Thompson 1985:155). Similar comments are found in Heine (1992). The figure attempts to map the relationships between the different types of nominalisation. Instance nominalisations with past time reference are the most central and stable suffixed type. They are referential and realis and have the status of 'happenings'. Method nominalisations are not happenings, but when a specific O and A are present they veer towards an instance interpretation. The lexicalised compounds which incorporate -*ga* denote culturally-recognised happenings. Abstract and personal property nominalisations are the most stable unsuffixed types. They are non-referential and irrealis and denote generic situations, habits, a state or a type of behaviour. Hypothetical or future instance nominalisations are also irrealis, and are treated as abstractions. Present instance and method nominalisations are variable with respect to suffixation, and this variability is affected by transitivity factors. The nominalised complements of *uma* and the degree verbs are anomalous. Some are indistinguishable from the personal property type. Others, like temporal clauses, denote situations that are thought of as taking place in real time, yet they are unsuffixed and there is little or no change in the clause from which they are derived. Tokelauan treats them as propositions rather than as instances, and they seem in every respect to closely resemble the complement clauses introduced by *ona* which in many cases can be substituted for them.

FIGURE: RELATIONSHIPS BETWEEN DIFFERENT TYPES OF NOMINALISATION

Suffixed   Unsuffixed

Noun-like <<   >> Verb-like

present instance

hypothetical

future instance

past instance

abstract

method

uma and

degree verb

complements

-gā compounds

(lexicalised)

personal

property
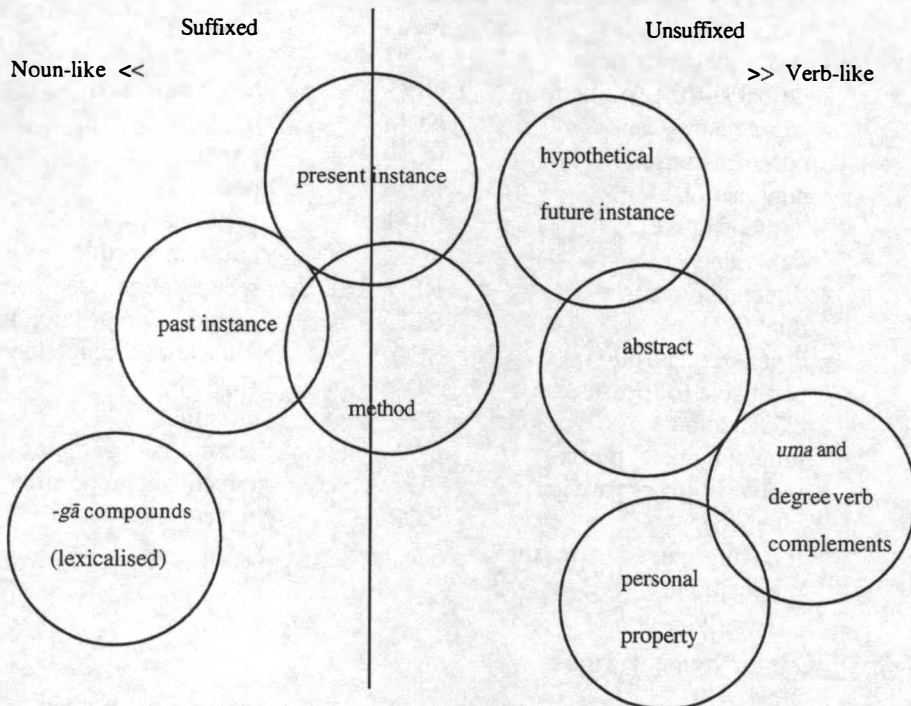
The differences between suffixed and unsuffixed types reflect the following co-varying contrasts:

NOUN-LIKE		VERB-LIKE
instance	vs	type
actually occurring situation	vs	abstract concept
realis	vs	irrealis
telic	vs	atelic or habitual
specific O	vs	incorporated or non-specific O
two core participants	vs	one core participant

The use of the more noun-like type to represent the instance may be motivated by the fact that just as a prototypical noun is bounded in space, so an actually occurring situation is bounded in time – the point made in Clark (1981) in the passage cited earlier. This same point may suggest why the more noun-like type should tend to correlate with higher transitivity and the verb-like with lower transitivity. Clauses that can occur in suffixed temporal or causal nominalisations represent the same kind of situations (i.e. instances) as clauses on the event line of narrative, which are typically high in transitivity in the sense used in Hopper and Thompson (1980). In the 'borderline' cases, a referentially specific O participant in the nominalisation pulls in the other transitivity features of realis mood and telicity, and forces a referential instance interpretation of the entire nominalisation.

APPENDIX 1: ABBREVIATIONS

APH	anaphoric particle	MAN	manner particle
CAUS	causative prefix *faka-*	MOD	modal particle
Cia	verbal suffixes of the form -*a*, -*agia* or -*Cia*	NEG	negative marker
		NOM	nominalising suffix
COMP	complementiser	PL	plural
CONJ	conjunction	POSS	possessive
DEM	demonstrative	PRED	predicate marker
DET	determiner	Q	question word
DIR	directional particle	RED, REDUP	reduplication
DU	dual	REL	relational preposition *ma*
ERG	ergative preposition	SEQ	sequential conjunction
EXC	exclusive (of possession)	SG	singular
EXCL	exclamation	SP	specific
HUM	human numeral prefix	T/A	tense-aspect particle
INC	inclusive (of possession)	TO	directional preposition
INT	intensifier	TOP	topic marker
LOC	locative, used for the preposition *i*		

APPENDIX 2: SOURCES OF DATA

Most of the examples are taken from a corpus of Tokelauan texts which includes several discourse types. The texts are identified by letter symbols as follows:

H and J	autobiographical narratives of a 50-year old male speaker (1984)
O	autobiographical narrative of a 35-year old male speaker (1984)
PTF and PTT	monologic expository discourse on Tokelauan traditional fishing techniques, 75-year old male speaker (1977)
TD	*Tokelau dictionary*; usage examples were composed by Ropati Simona
TOM	written expository discourse on health practices
TTT	traditional tales told by several speakers, recorded in Tokelau and published as Huntsman (1977); unidentified examples were supplied by Ropati Simona

REFERENCES

Chung, Sandra, 1973, The syntax of nominalizations in Polynesian. *Oceanic Linguistics* 12: 641-686.

Clark, Ross, 1981, Inside and outside Polynesian nominalizations. In Jim Hollyman and Andrew Pawley, eds *Studies in Pacific languages & cultures in honour of Bruce Biggs*, 65-81. Auckland: Linguistic Society of New Zealand.

Comrie, Bernard and Sandra A. Thompson, 1985, Lexical nominalization. In T. Shopen, ed. *Language typology and syntactic description*, vol.3: *Grammatical categories and the lexicon*, 349-398. Cambridge: Cambridge University Press.

Dixon, R.M.W., 1979, Ergativity. *Language* 55:59-138.

Givón, Talmy, 1990, *Syntax: a functional-typological introduction*, vol.2. Amsterdam: Benjamins.

Heine, Bernd, 1992, Grammaticalization chains. *Studies in Language* 16:335-368.

Hopper, Paul J. and Sandra A. Thompson, 1980, Transitivity in grammar and discourse. *Language* 56: 251-299.

1985, The iconicity of the universal categories of "noun" and "verb". In John Haiman, ed. *Iconicity in syntax*. Amsterdam: Benjamins.

Huntsman, Judith, 1977, *Ten Tokelau tales. Working Papers in Anthropology, Archaeology, Linguistics and Maori Studies* No.47. Department of Anthropology, University of Auckland.

Langacker, Ronald W., 1987, *Foundations of cognitive grammar*, vol.1: *Theoretical prerequisites*. Stanford: Stanford University Press.

1991, *Foundations of cognitive grammar*, vol.2: *Descriptive application*. Stanford: Stanford University Press.

Mosel, Ulrike, 1992, On nominalisation in Samoan. In Tom Dutton, Malcolm Ross and Darrell Tryon, eds *The language game: papers in memory of Donald C. Laycock*, 263-281. *PL*, C-110.

Taylor, John R., 1989, *Linguistic categorization: prototypes in linguistic theory*. Oxford: Clarendon Press.

Tokelau dictionary, 1986. Apia, Western Samoa: Office of Tokelau Affairs.

Vonen, Arnfinn M., 1988, The noun phrase in Samoan and Tokelauan. MA Thesis, University of Oslo.

1992, Nominalisations in Tokelau. Departmental seminar, Linguistics, Research School of Pacific Studies, Australian National University.

L'ACCENT DU MOT EN NENGONE
(LANGUE DE MARÉ, NOUVELLE-CALÉDONIE)

WASSISSI KONYI

1. INTRODUCTION

La langue étudiée est le Nengone, langue de l'île de Maré, archipel des Iles Loyauté, en Nouvelle-Calédonie. Elle est parlée par environ 6,000 locuteurs et a été transcrite par les missionnaires de la London Mission Society en 1904 dans le souci d'évangéliser les populations kanak de Nouvelle-Calédonie. D'autres missionnaires et linguistes ont également contribué à l'étude du Nengone.[1] Récemment, des chercheurs locaux ont collecté et publié des textes pour des besoins de l'enseignement.

Cette étude nous permet de déterminer la place de l'accent dans le mot en Nengone et éventuellement son rôle. L'analyse acoustique préconisée après, nous permet d'aller plus loin dans l'étude de l'accent faite par les chercheurs précédents, notamment dans la mise en valeur des paramètres acoustiques dominants dans l'accent du mot en Nengone.

La méthode consiste à élaborer un corpus d'une cinquantaine de mots (simples et composés), lus par les locuteurs de la langue, dans une phrase cadre, et enregistrés sur bande magnétique. La première partie du travail est le test perceptif où les locuteurs, au nombre de 10, doivent reconnaître l'accent dans le mot et sa place. La deuxième partie est consacrée à l'analyse instrumentale où il s'agit de déterminer et étudier les différents paramètres acoustiques mis en valeur.

2. L'ACCENT DE MOT EN NENGONE

Les études antérieures menées par M. Leenhardt situent l'accent tonique sur la pénultième, ce qui rend la dernière syllabe faible ou assourdie:

| *déko* | 'non'

| *kodáru* | 'manger'

Quand la dernière syllabe est muette, l'accent reste sur la dernière syllabe, mais celle-ci est en réalité l'ancienne pénultième:

| *opodón* | 'joie'

| *kaicarát* | 'être en colère'

---

[1]   Voir, par exemple, Leenhardt (1946), Tryon et Dubois (1969).

© Wassissi Konyi

Quand le mot est composé, l'accent reste à la même place, ce qui peut rapporter l'avant-dernière syllabe tonique au début du même mot:

| *dóŋodoŋ* | 'paix'

Darrell Tryon et Marie-Joseph Dubois[2] remarquent qu'il existe trois niveaux d'accent: "There are three degrees of stress in Nengone: primary stress, secondary stress, and unstress.

a) Primary stress – In words of more than one syllable, the primary stress always falls on the penultimate syllable.

b) Secondary stress – The secondary stress always occurs two syllables before the primary stress.

c) Unstress – All syllable nuclei not covered by (a) and (b) are unstressed.".

Nous avons poussé l'analyse plus loin pour ne pas rester dans l'analyse purement impressionniste et subjective. Pour cela, nous avons soumis auprès des locuteurs des tests perceptifs pour savoir s'il existe un accent en Maré ou deux et déterminer par la suite sa place dans le mot. L'analyse acoustique préconisée par la suite met en évidence le ou les paramètres acoustiques déterminants dans l'accent du Nengone.

2.1 L'ANALYSE PERCEPTIVE

Le corpus est composé d'une cinquantaine de mots (57) d'une à six syllabes d'usage courant. Les mots sont incorporés à la fin d'une phrase cadre: *Bo da ielo du nu ko...* 'Tu peux me dire...'. Seul le mot test varie dans chacune des phrases.

> *bo \ da \ ielo \ du \ nu \ ko : jewi*

> 'toi \ pouvoir \ dire \ à \ moi \ ceci : baleine'

Le test perceptif effectué auprès des auditeurs montre qu'il existe deux accents en Nengone. L'un qui tombe généralement sur l'avant-dernière syllabe pour les mots de deux à quatre syllabes.

Le taux de reconnaissance de cet accent est de 60%, donc élevé. L'autre accent tombe deux syllabes avant l'accent principal. Son taux de reconnaissance débute seulement à 10%. Cet accent est un écho d'accent puisque sa place se déduit de l'accent principal et qu'il appartient à la même unité accentuelle.

Ces données générales ne doivent pas nous conduire à des conclusions trop hâtives, car elles nous induisent à une simplification des faits. Il existe des langues, mis à part des règles générales comme nous venons de le constater, où la détermination de la place de l'accent dépend aussi des critères phonologiques. C'est le cas, nous semble-t-il en Nengone.

L'accent peut se trouver ailleurs que sur l'avant-dernière syllabe. L'allongement de la voyelle et la structure syllabique conditionnent ce déplacement d'accent.

Nous avons remarqué que le pourcentage de reconnaissance de l'accent est élevé en ce qui concerne les voyelles longues mais seulement pour celles qui se trouvent dans la syllabe pénultième, mais également pour les voyelles longues en finale. L'accent est ainsi déplacé de sa position originale.

---

[2]   Tryon et Dubois (1969:v).

>   *neng. a né*   'poser quelquechose'
>
>   *neng. ulé*   'regarder'

Nous avons également constaté que l'accord tombe sur la dernière syllabe du mot, lorsque celle-ci est une syllabe fermée de type (CVC).

C'est ce que Maurice Leenhardt semble remarquer dans les exemples cités précédemment.

C'est donc la structure syllabique (CVC) qui attire l'accent sur elle. Les syllabes accentuées ici ne sont pas des anciennes pénultièmes comme prétend M. Leenhardt parce que les mots cités sont des mots simples.

Or, nous avons vu précédemment que l'accent ne peut être sur les anciennes pénultièmes que dans les mots composés.

De ces constatations, nous pouvons formuler les règles suivantes: en général, l'accent en Nengone est fixé sur la syllabe pénultième du mot. Il peut être sur l'antépénultième pour certains mots. Il tombe sur la dernière syllabe lorsque celle-ci comporte une voyelle longue ou se trouve être une syllabe fermée de type CVC.

Nous ne sommes pas allés plus loin dans l'interprétation de ces deux phénomènes. D'autres études plus approfondies le feront sous l'angle notamment du découpage en unité plus petite que la syllabe et qui peuvent supporter l'accent.

2.2 L'ANALYSE ACOUSTIQUE

Le corpus soumis à l'analyse instrumentale est composé de 29 mots simples et composés de 2 à 6 syllabes. Le taux de reconnaissance de l'accent par les locuteurs est supérieur à 60%. L'instrument utilisé est le mingographe type M34 ELEMA SCHONANDER – STOCKLOM n°124-8 vitesse 100 mm/s. Cet appareil comporte sur le tracé, trois lignes:

– l'oscillogramme qui nous servira pour mesurer les contours de chaque son;

– les courbes d'intensité;

– les variations des courbes de fréquence.

Les données acoustiques réelles ont été corrigées pour les adapter à la sensibilité de l'oreille. Les corrections relèvent au fait des caractères intrinseques des sons du langage. Elles sont aussi le fait de la perception des différents paramètres, chacun ayant son propre seuil différenciel, c'est-à-dire l'augmentation nécessaire pour que l'oreille perçoit la différence.

Pour ces corrections, nous nous sommes basés sur les expériences de Mr Rossi[3] et Ricesz. De toute manière, les paramètres durée, intensité fréquence sont liés. Le changement de l'un entraînerait le changement du seuil différentiel de l'autre.

2.3 RESULTAT DE L'ANALYSE DES PARAMETRES ACOUSTIQUES

Nous avons fait figurer les résultats sous forme de tableaux, l'un donnant des résultats bruts des syllabes accentuées et non accentuées (syl.ac/syl.n.ac) pour chaque paramètre et pour chaque mot. Les corrections psycho-acoustiques sont établies à partir des remarques

---

[3]   Rossi (1971, 1972).

faites à ce sujet (voir plus haut). C'est à partir de ces corrections que nous avons pu noter le rapport qui existe entre les deux syllabes accentuées et non accentuées. Si la différence est perçue pour chaque paramètre on notera que le rapport syllabe accentuée/syllabe non accentuée est positif (+) sinon on dira que le rapport est négatif (-).

Le tableau 2 doit faire apparaître une synthèse sur les emplois positifs et négatifs des paramètres dans l'ensemble des mots choisis et analysés.

TABLEAU 1: EXEMPLES DE TABLEAUX POUR LES MOTS TRISYLLABIQUES

N°	Mots	Schéma Accentuel	Paramètre	Sylla.ac.	syll.n.ac		syll.ac sylla.n.ac	
					preton	postom	preton	postom
1	[hnameŋ] 'maison'	cv-cv-cvc	D	115	100	85	-	+
			I	30	36	30	-	+
			F	142,5	138	134,6	+	+
2	[waθebo] 'loi'	cv-cv-cv	D	95	120	145	-	-
			I	32	28	28	+	+
			F	146,5	146,5	138,5	-	+
3	[eŋetac] 'force'	v-cv-cvc	D	120	50	110	+	-
			I	36	30	34	+	+
			F	134,6	199,9	199,9	+	+
4	[waraŋi] 'jeune'	cv-cv-cv	D	70	70	130	-	-
			I	20	29	39	+	-
			F	130	106,8	123,5	+	+
5	[jehawo] 'cheveu'	cv-cv-cv	D	70	80	100	-	-
			I	38	34	32	+	+
			F	119,9	110	113	+	+

Header note: ACCENT PRINCIPAL spans the columns Mots through syll.n.ac; RAPPORT spans the preton/postom columns.

TABLEAU 2: TABLEAU D'EMPLOI DES PARAMÈTRES POUR LES TRISSYLLABES
(Syll.ac./syll.n.a.preton – syll.n.a poston)

P	EMPLOIS POSITIFS		EMPLOIS NEGATIFS	
	en syll. preton	en syll.poston	en syll. preton	en syll. poston
D	1	1	4	4
I	4	3	1	2
F	4	5	1	0

2.4 COMMENTAIRES

Pour l'accent principal, nous constatons que les emplois positifs sont supérieurs aux emplois négatifs sur les 5 tableaux représentants les paramètres accoustiques, l'écho d'accent connait le phénomène inverse. Les paramètres les plus utilisés pour la reconnaissance de l'accent principal sont l'intensité et la fréquence.

La reconnaissance par la durée comme paramètre dominant est très minime voir nulle dans certains cas.

Concernant l'écho d'accent, les emplois positifs des paramètres accoustiques sont inférieurs aux emplois négatifs. Ceci confirme le faible taux de reconnaissance par des locuteurs à qui le test de perception a été effectué.

3. CONCLUSION

En Nengone, il existe deux accents, l'un principal, l'autre que nous nommerons écho d'accent, sa place étant déduite de l'accent principal.

L'accent principal tombe sur l'avant-dernière syllabe, l'écho se trouvant 2 syllabes avant. Dans certains cas, il peut se déplacer. La place de l'accent, en Nengone est quasi fixe. Son rôle est essentiellement démarcatif et culminatif. L'écho d'accent n'a pas de rôle précis, il est systématique.

D'après notre étude, les paramètres acoustiques qui influencent sur la prédominance de l'accent sont l'intensité et la hauteur. La durée semble joué un rôle minime, cela est d'autant plus contradictoire lorsqu'on sait qu'il faut un certain temps pour que la hauteur et l'intensité soient perçues, ces trois paramètres étant liés.

Pour les études ultérieures, il serait préférable d'étudier l'accent de mot au milieu de la phrase. Ceci afin d'affirmer, d'analyser et comparer les résultats nouvellement obtenus. En milieu de phrase, la mélodie est montante; à la fin, elle est descendante.

L'attention devrait se porter également sur le choix du corpus quant au schéma structurel du mot à étudier. Il serait adéquate de prendre des voyelles identiques pour pouvoir faire des mesures comparables.

OUVRAGES DE RÉFÉRENCE

Leenhart, Maurice, 1946, *Langues et dialectes de l'Austro-Mélanésie.* Travaux et Mémoires de l'Institut d'Ethnologie 46. Paris: Institut d'Ethnologie.

Rossi, Mario, 1971, L'intensité spécifique des voyelles. *Phonetica.*

   1972, Le seuil différentiel de durée. *Papers in linguistics and phonetics to the memory of Pierre Delattre A. Valdman.* Paris, The Hague: Mouton.

Tryon, Darrell T. and Marie-Joseph Dubois, 1969, *Nengone dictionary.* Part I: *Nengone-English. PL,* C-9.

NOTES ON MOOD AND ASPECT IN SIMBO
(MANDEGHUSU, SOLOMON ISLANDS)

BILL PALMER

1. INTRODUCTION[1]

The purpose of this paper is to present some data on the language usually known as Simbo, a largely undescribed Western Oceanic language spoken on the Solomon Islands island of Mandeghusu. The paper commences with a brief synchronic background of the language, covering clausal and verb phrase structure, topicalisation, and the extent to which elements of the clause structure may be seen as ergative. The body of the paper is then concerned with a description of the system of mood and aspect coded by the language within the verb complex, termed for the purposes of this paper the verb phrase. The modal coding takes the form of an auxiliary which marks agreement with a transitive actor or an intransitive subject, and which distinguishes realis and irrealis, making an additional distinction between definite and indefinite irrealis in first and second person marked categories. Aspect is marked in two positions, one immediately preceding the auxiliary which encodes prospective (at least), and one immediately following the auxiliary which encodes various aspects of the internal temporal structure of the event.

The island of Mandeghusu is located in the Western Province of the Solomon Islands, forming the south-westernmost extremity of the New Georgia group. Known as Mandeghusu, literally 'four districts', by its inhabitants, the island is known elsewhere as Simbo, a name more properly given to one of the eponymous districts, a small islet off the main island. In an earlier period of the colonial administration the island was also known as Eddystone Island.

Simbo is spoken by close to two thousand people, located primarily on Mandeghusu itself and in several villages on the south coast of the nearby island of Gizo. It is an Oceanic language of the North-West Solomonic family. Ross (1988:215-217) posits an ancestral Proto North-West Solomonic, breaking up into a number of lower-order protolanguages including the tentatively posited Proto New Georgia/Ysabel, ancestor of the Oceanic languages[2] of both the New Georgia group and neighbouring Santa Isabel.[3] This in turn is posited to have broken into a New Georgia chain and an Ysabel chain. On the basis of phonological and lexicostatistical data (Tryon & Hackman 1983; Ray 1926:562-566) and morphosyntactic comparisons (based on Dureau n.d.; Stubbs n.d.;

---

[1] This paper was delivered at FICOL, attendance at which was assisted by the Pacific Languages Unit of USP, courtesy of Professor John Lynch. Field research was carried out with the financial assistance of the 1992 Peter Lawrence Memorial Scholarship.

[2] There are a number of non-Austronesian languages in the New Georgia group.

[3] While the language group has the island's old name *Ysabel*, the island is now officially known as *Santa Isabel*.

Grace 1955a, 1955b, 1955c; Corston 1993; Ross 1988) it appears likely that Simbo along with Lungga and Kumbokota (or Ghanongga), spoken on the island of Ranongga to the immediate north of Mandeghusu, were members of an immediate dialect chain in relatively recent times, suggesting that a language Proto Simbo/Ranongga occupied the western end of the New Georgia chain.

The present paper is based on data drawn from three sources: elicited material collected by the author on a preliminary visit to the field; elicited material gathered under the auspices of George Grace as part of his 1955 linguistic survey (Grace 1955a); and unelicited textual material collected by Christine Dureau.[4] The latter material was collected as part of an extended period of ethnographic field research conducted on Mandeghusu by Dureau between 1990 and 1992. The texts range from legends to accounts of events which took place and conditions which existed within the memory of the speaker. These Dureau texts provide a corpus of some eight hundred clauses, and being unelicited, comprised the data upon which the analysis contained in this paper is based. The elicited material was used as a supplementary source of data.

Examples given in the body of this paper are represented phonemically, the symbols used having their expected values, with the exceptions of /v/, which represents a voiced bilabial fricative; and all voiced stops, including the palatal affricate /j/, which are prenasalised.

In the discussion of synchronic background which follows, and throughout the present paper, the terms 'S' and 'subject' will be used to indicate the sole core argument of an intransitive verb; the terms 'A' and 'actor' will be used to indicate the core argument of a transitive verb which is performing the action encoded by the verb, whether or not that role is agentive; and the terms 'O' and 'object' will be used to refer to the core argument of a transitive verb which is not performing the action, whether or not that involves a patient role.

2. SYNCHRONIC BACKGROUND

2.1 CLAUSE STRUCTURE

The Simbo clause typically contains a modal auxiliary which agrees with the subject of an intransitive clause or the actor of a transitive clause. These auxiliaries are present in an overwhelming majority of clauses, and may be deleted only in specific circumstances. In addition, the verb of a transitive clause is marked for agreement with the transitive object. As a consequence, in normal discourse the unmarked declarative clause structure is simply VP, the arguments of the verb having been omitted if already established in the discourse:[5]

---

4   I am extremely grateful to Christine Dureau for allowing me to publish excerpts from this material. The analysis is entirely mine, and I am solely responsible for any errors or omissions in either the data or the analysis.

5   Abbreviations used in examples throughout this paper are:

1, 2, 3, Ø	1st, 2nd, 3rd, zero person	EXC	exclusive (1PL)
AUX	modal auxiliary	EXCL	exclamation
BEN	benefactive	HAB	habitual aspect
CAUS	causative	INC	inclusive (1PL)
CONC	conceptual noun infix	IRR	irrealis
CUST	customary	LOC	locative preposition
D.IRR	definite irrealis	MUT	mutual
EMPH	emphatic	NEG	negative
ERG	ergative case marker	O	object

(1)   *Poi sa   teku-a   p-ia   na koburu, ko gi*
       then 3SG.RL.AUX take-3SG.O   ERG-she   the child   so   3SG.RL.AUX

       ven-ia.
       give-3SG.O
       Then she took the child and she gave it.

Note that (1) cannot mean 'She took the child and it gave her' as this would require an overt, topicalised reintroduction of *na koburu.*

The simple verb phrase only clause may be seen as unmarked in a discourse sense. However, it may be argued that this discourse unmarked structure does not equate to a syntactically unmarked structure. In terms of the location of core arguments in a clause, there is a distinction between a syntactically unmarked clause and a clause which is marked by the topicalisation or focus of one of the arguments, in which nevertheless all core arguments are present. The structure of such syntactically unmarked clauses is, in the case of transitive clauses, VAO, as in (2); and in the case of intransitive clauses, VS, as in (3), V in these formalisms representing a verb phrase.

(2)   *Sa   teku-a   tuyu   na tomate pora na koburu.*
       3SG.RL.AUX   take-3SG.O   EMPH   the ghost   that   the child
       That spirit took the child.

(3)   *Beto sa   uku na   rereko.*
       and   3SG.RL.AUX flee the female
       And the woman fled.

It is worth noting that because of the frequency of the omission of previously mentioned arguments, together with a tendency to topicalise or focus overtly realised arguments, this syntactically unmarked structure occurs infrequently in normal discourse.

2.2 TOPIC AND FOCUS

According to Ross (1988:228-229; 240-247) the languages of Maringe and Roviana, and by implication Simbo, are descended from a common ancestor (Proto New Georgia/Ysabel) which marked topic clause-finally. Synchronically Maringe, an Ysabel language, marks topic in both a clause-final and a clause-initial position. In contrast Roviana, a New Georgia language, synchronically marks topic in a clause-initial position. In his discussion Ross uses the term topic to mean any foregrounded argument, whether that argument is newly introduced, restated for emphasis, or reintroduced.

In Simbo, as in Roviana, topic occurs within the clause solely in an immediate preverbal position, by implication clause-initially unless a temporal locative occurs clause-initially, in which case the topic follows the locative and immediately precedes the verb. This clause-initial position may be filled either by a true topic, in the sense of a topicalised previously mentioned argument which is current in the discourse, or by a heavily foregrounded focussed new argument, which may be an intransitive subject, a transitive

PASS	passive	PROSP	prospective aspect
PERF	perfect aspect	QUANT	quantity
PL	plural	RED	reduplication
POSS	possessor marker	RL	realis
PROG	progressive aspect	SG	singular

actor, an object, or an oblique argument. Since this position is the locus equally of topicalised already established arguments, and of focussed newly introduced arguments, and only one argument may occur in this position, this paper will follow Ross and refer to the foregrounding position as topic position and any foregrounded argument as topic, whether in fact the argument is strictly speaking topic or focus. Consequently it may be said that the Simbo clause allows one only foregrounded argument, which occurs in an immediate preverbal position; and which may be an already established argument, as in (4), or a newly introduced subject (5a), actor (5b), object (5c) or oblique (5d).

(4).   *Eyo, gari*   *ton-ia*   *ria   na   rereko...*
         okay 3PL.RL.AUX lead-3SG.O they the female
         All the women would lead her...

         Eyo, soku-na   *na rereko* *gara*   *puta tavet-ia.*
         okay many-3SG.POSS   the female 3PL.RL.AUX sleep make-3SG.O
         Many of the women would remain and sleep with her.

(5) a. **Ria pa Simbo**   *gara*   *yore   pa   Bilua.*
         they from Nusa.Simbo 3PL.RL.AUX descend LOC Vella.Lavella
         Everyone from Nusa Simbo is going down to Vella.

     b. *Lokana* **isa na tama-na**   *sa*   *doma-ia   na melalu*
         when   he the father-3SG.POSS 3SG.RL.AUX see-3SG.O the infant

         piri.
         this
         Only then did the father see this child.

     c. **Na gua   koburu** *sa*   *yan-ia   tu   na tomate!*
         the 1.POSS child   3SG.RL.AUX eat-3SG.O EMPH the ghost
         My child, the spirit has eaten it!

     d. **Na peso** *yu*   *ma-na*   *tabara-niyo.*
         the land EMPH 2.IRR.AUX-D.IRR pay-2.O
         My ground I will give you as my price.

On the basis of the above discussion, and following Ross's (1982, 1988) formalisms, the unmarked declarative clause structure may be said to be TVX where X represents either AO or S.

In addition to the clause-initial topic position illustrated in (4) and (5), Simbo demonstrates infrequent extra-clausal right-dislocated topicalisation, where an argument, apparently only an actor, may be realised sentence-finally outside the clause or clauses to which it applies. This involves the restatement of an already established argument for clarification, as in (6), or for emphasis, as in (7). As (7) indicates, this extra-clausal topic may represent the actor of a number of clauses, supporting the view that it is extra-clausal.

(6)   *Gara*   *ton-ia*   *na agelu*   *poi...*
         3PL.RL.AUX lead-3SG.O the woman.who.has.given.birth there
         They lead the woman who had just given birth...

         ...beto sa   *va-saye*   *na rayana yaruba,* **isa na rereko**
         and   3SG.RL.AUX CAUS-ascend the barkcloth new   she the female

poi.
there
...and she brought up the new barkcloth, this woman.

(7)   *Eyo ari karu tamaniana   pa   Tiro   na   ŋoŋoja.*
okay they two married.couple LOC Tiro the selfish
Alright, the couple from Tiro were selfish.

Gari   ambu-a   na iso,   gari   ambu-a
3PL.RL.AUX catch.fish-3SG.O the bonito 3PL.RL.AUX catch.fish-3SG.O

*na   iyana, **ari   karu**.*
the fish   they two
They caught bonito, they caught fish, those two.

2.3 ERGATIVITY

Simbo displays only minor manifestations of morphosyntactic ergativity. The VP is accusative: modal auxiliaries agree with intransitive subjects and transitive actors, while the verb marks agreement with transitive objects only. In terms of the constituent structure of core arguments no claim may be made favouring an accusative or ergative analysis. With the exception of pronouns, noun phrases (NPs) are not marked for case. Consequently two analyses present themselves equally: it could be said the intransitive S is in the same (nominative) position as the transitive A (i.e. immediately following the VP). On the other hand it could be argued that the intransitive S is in the same (absolutive) position as the transitive O (i.e. unmarked—clause-finally).

While NPs are not case marked, there exists a set of pronouns which occur solely representing the actor of a transitive clause. These have the form of the unmarked pronouns with the addition of a prefix *p- ~ pa-*, with the exception of the alternation *isa* '3SG' and *p-ia* '3SG.ERG', where the medial consonant has syncopated historically (in line with other pronominal medial consonant syncope in the language).

(8)   a.   *Doma-ia **p-ayo**   isa pa   ɲoro.*
          see-3SG.O ERG-you he LOC yesterday
          You saw him yesterday.

    b.   *Doma-iyo **p-ia**   ona   **ayo** pa   ɲoro.*
          see-2.O   ERG-he 3SG.POSS you LOC yesterday
          He saw you yesterday.

    c.   *Doma-ia **p-ia**   isa pa   ɲoro.*
          see-3SG.O ERG-he he LOC yesterday
          He saw him yesterday.

There are no first or second person plural pronouns which mark ergativity, the unmarked forms occurring in either A or O position. In addition, unmarked pronouns often occur in place of the marked forms, the third person plural ergative form *pa-ria* occurring infrequently, the unmarked form *ria* commonly occurring in its place.

It is particularly noteworthy that pronominal transitive actors which have been topicalised do not carry this ergative case marking. Compare (9) with (8):

(9) **Ara** ma-na   pi-pito-nia   na   ve-vea-na
     I   1.IRR.AUX-D.IRR   RED-tell-3SG.O the   RED-resemble-3SG.POSS

     na   boroyo.
     the pig
     I'm going to tell the story of the pig.

The case-marked pronouns are found only in the untopicalised position immediately following the verb phrase. These forms may be seen as redundant, since word order distinguishes actor from object as readily with pronouns as it does with NPs. This is supported by the absence of ergatively-marked first and second person plural forms, and the free alternation of the unmarked forms with their ergative counterparts. This is also supported by the view of some speakers of the language that the case-marked pronominal forms are more formal and are not used very much any more, and that this is indicative of speakers not speaking the language properly enough (Dureau, pers.comm.).

These marked pronouns appear to be the only morphosyntactic ergativity present in the language. There is, for example, no equivalent to the absolutive NP-marking particle found in Roviana (Corston 1993).

2.4 VERB PHRASE STRUCTURE

Within the clause structure discussed above the verbal component of the clause is contained in a verb phrase, consisting of up to three verb roots and a number of verbal modifiers of mood and aspect. These modifiers include a modal auxiliary position and two aspect marker positions in the following configuration:

VP   ->   (ASP$_1$) (AUX) (ASP$_2$) V

In the above structure V represents one verb root, or two or three roots in a serialised construction.

A string of two or three verb roots may combine in a serial construction to realise a series of contiguous and consecutive events forming a single complex event. These events must share a single subject if intransitive, and a single actor if transitive. Serial verb constructions may consist of an intransitive verb followed by a transitive verb. Serial constructions which include a transitive verb mark object agreement only on the final verb, that agreement applying to all the transitive verbs in the clause. Object agreement suffixes may be seen as clitics marking the object of all transitive events coded in the clause.

(10) a. *Gi*   *riu*   *kamu*   pa   na   lamana.
         3SG.RL.AUX depart   arrive   LOC   the   ocean
         He went until he arrived at the ocean.

     b. *Beto gari*   *koi*   *vari-vose*   *kamu.*
         and   3PL.RL.AUX   sit.in.canoe MUT-paddle   arrive
         And they got in their canoes and paddled until they arrived.

(11)   *...ba sa*   *kasi*   *va-kere-a*   na   kota.
         but   3SG.RL.AUX   dig.and.bury   CAUS-be.bad-3SG.O the   area
         ...however, it spoiled the area with its digging of holes and covering with soil.

Serial verbs form an uninterrupted string, with the exception of a particle indicating a cause and effect relationship between the events referred to, in that the event of the first verb has occurred to enable the event of the following verb to take place:

(12) *Gi   yore   mi   po-podo   pa   na   mumugu,*
3SG.RL.AUX descend in.order.to RED-give.birth LOC the bush
She went down to give birth in the bush,

gi   yore   po-podo   pora.
3SG.RL.AUX descend RED-give.birth there
she went down and gave birth there.

3. MODAL AUXILIARIES

Modal auxiliaries occur in the overwhelming majority of clauses in the available data, being omitted only in specific environments. The auxiliaries primarily code a distinction between realis and irrealis, with a further distinction being made between definite and indefinite irrealis in the first and second persons. This modal coding of the relative reality of events takes the place of explicit tense marking which appears to be entirely absent from the language. As indicated earlier, in addition to their modal function, the auxiliaries agree with the subject/actor of a clause. This agreement distinguishes first, second and third person, and a person category which includes non-existent or hypothetical arguments. The last two categories distinguish singular and plural subject/actors, while no number distinctions are made in first and second person. In addition there exists a modal category, represented in third person plural at least, which codes an event as customary behaviour.

3.1 AUXILIARIES AGREEING WITH FIRST AND SECOND PERSON SUBJECT/ACTORS

Auxiliaries agreeing with first and second person subject/actors distinguish three categories of reality: realis, indefinite irrealis and definite irrealis; however they do not distinguish subject/actor number. The first and second person realis markers *ge* and *gu* indicates equally singular or plural:

(13) a. *Ara ge   nago yau.*
I   1.RL.AUX seek you.PL
I'm looking for all of you.

b. *"Mu-ke   ŋoŋoja" ge   yua gai   ke.*[6]
2.IRR.AUX-NEG selfish 1.RL.AUX say we.EXC
"Don't be selfish" we said.

(14) a. *Pa   vei   gu   suvere vea   ayo?*
LOC where 2.RL.AUX stay   resemble you.SG
Where do you come from that you behave like this?

b. *...bala gu   ŋoŋoja yau   karu!*
because 2.RL.AUX selfish you.PL two
...because you're selfish, the two of you!

---

6   The precise function of the clause final form *ke* is not entirely clear at this stage. Since it is not relevant to the present discussion this form has been left unglossed for the purposes of the present paper.

As indicated earlier, first and second person subject/actor agreement distinguishes definite and indefinite irrealis. In this the indefinite forms *ma* and *mu* are the irrealis base forms for first and second person:

(15)   *Evaŋana, ara* **ma**   *riu.*
        alright   I   1.IRR.AUX   depart
        Very good, I will go.

(16) a. *Mai   na   koburu   ko* **mu**   *ya-yani   ayo.*
         bring   the   child   so   2.IRR.AUX   RED-eat   you.SG
         Come give me the child so you can eat.

     b. **Mu**   *va-layo-nia*   *kavuru.*
         2.IRR.AUX   CAUS-go-3SG.O   dust
         Make it dusty there.

Definite irrealis is marked by means of a suffix *-nV* on the auxiliary, where the vowel of the suffix assimilates to the vowel of the base form:[7]

(17)   *Gai*   **ma-na**   *paja*   *gatu;*
        we.EXC   1.IRR.AUX-D.IRR   go.up.from.coast   first
        We will go up (to the village) first;

        ma-na   *paja*   *va-ŋoja-dia*   *na   tamatina*
        1.IRR.AUX-D.IRR   go.up.from.coast   CAUS-feed-3PL.O   the   family

        na   p-in-ausu   *na   vea,*

        the   .-CONC-adopt   the   similar
        we'll go up and feed our families and animals and so on,

        beto   soni   **ma-na**   *mule   ke;*
        and   then   1.IRR.AUX-D.IRR   return
        and then we'll return;

        ma-na   *kamu   yau   karu.*
        1.IRR.AUX-D.IRR   arrive   you.PL   two
        we'll come to you two.

        yau   karu **mu-nu**   *suvere   miu   tuyu.*
        you.PL   two   2.IRR.AUX-D.IRR   stay   2.POSS   EMPH
        You two remain.

(18)   *Ara* **ma-na**   *pi-pito-nia*   *na   ve-vea-na*   *na*
        I   1.IRR.AUX-D.IRR   RED-tell-3SG.O   the   RED-resemble-3SG.POSS   the

        boroyo.
        pig
        I'm going to tell the story of the pig.

---

[7]   Note in line 3 of (17) the infix *-in-*, glossed as CONC. This affix derives conceptual nouns from verbs or concrete nouns. In the example in (17) *p-in-ausu* 'adoptee' is derived from *pausu* 'adopt', in which the conceptual nature of the nominalised form is not entirely transparent. More typical examples include *r-in-iu* 'departure' derived from *riu* 'depart', *m-in-o* - 'sickness' from *mo* 'sick'. The affix has the effect of deriving an abstract noun from a concrete noun, as in *b-in-aŋara* 'chieftainship' from *baŋara* 'chief'.

(19) *Ara ge   hiva-niyo ayo   **mu-nu***   *soana layo pa*
      I   1.RL.AUX want-2.O you.SG 2.IRR.AUX-D.IRR walk   go   LOC

      yijo.
      Gizo
      I want you to walk to Gizo.

In summary the modal auxiliaries which agree with first and second person subject/actors are:

TABLE 1: 1SUBJ AND 2SUBJ AUXILIARIES

Subject Person	Realis	Indefinite Irrealis	Definite Irrealis
1	*ge*	*ma*	*ma-na*
2	*gu*	*mu*	*mu-nu*

3.2 AUXILIARIES AGREEING WITH THIRD PERSON SUBJECT/ACTORS

Unlike first and second person marked auxiliaries, auxiliaries which agree with third person subject/actors distinguish singular and plural and, while demonstrating a realis and irrealis distinction, do not distinguish definite and indefinite irrealis.

3.2.1 THIRD PERSON SINGULAR REALIS AUXILIARIES

There appears to be two alternative third person singular realis auxiliaries: *sa* and *gi*. In texts describing real events *sa* is used almost exclusively:[8]

(20) a. *Eyo, **sa**   sau   na savo.   Eyo, gari*
        okay 3SG.RL.AUX distant the birth.house okay 3PL.RL.AUX

        ton-ia   pora ke,
        lead-3SG.O   there
        The birth house was far away. They would lead her there,

        sa   *riu   mi   teku-koburu isa,* ***sa***
        3SG.RL.AUX depart in.order.to take-child   she 3SG.RL.AUX

        po-podo.
        RED-give.birth
        so she went and gave birth.

   b. *Eyo soni **sa**   kamu na totoso*
      okay then 3SG.RL.AUX arrive the time
      Then the time comes

---

8 Note in line 2 of (20a) the verb *teku-koburu* 'give birth', literally 'take-child'. This form occurs frequently in place of the verb *po-podo* 'give birth'. This lexicalised noun incorporation occurs not infrequently in Simbo, deriving left headed endocentric compound verbs such as *kesa-vino* 'climb-small canarium nut' and *kija-namu* 'pound-ritual pudding'.

> *ko* **sa**   *mate na tinoni* **sa**   *mo pini ke.*
> so 3SG.RL.AUX die the person 3SG.RL.AUX ill this
> when the sick person dies.

However, in the texts available the auxiliary *gi* alternates with *sa*. This occurs occasionally in texts which recount actual remembered events, but occurs most frequently in legends. It is unlikely to be a marker of legendary past as firstly it would be a distinction made only in third person singular, and secondly because it alternates with *sa*. One legend has the *gi* form in the title:

(21)   *Totoso* **gi**   *kamu ke-kenu   na lape.*
       time   3SG.RL.AUX arrive RED-first the megapode
       When the first megapode came.

However, the *sa* form is used exclusively throughout the text. In other legends only *gi* occurs. The *sa* form occurs in a number of environments in legends. It invariably occurs in reported speech:

(22) a. **Gi**   *kokoba na   kinoko...*
         3SG.RL.AUX empty   the village
         The village was empty...

         "Koi, **sa**   *ivulu   na   kinoko..." gari*   *yua.*
         EXCL 3SG.RL.AUX deserted the village   3PL.RL.AUX say
         "Oh! The village is deserted..." they exclaimed.

  b. **Gi**   *jola na boroyo poi ke.*
      3SG.RL.AUX pass the pig   there
      The pig came past.

      "...Na boroyo ba **sa**   *tuti   gita" gari*   *yua.*
      the   pig   but 3SG.RL.AUX follow we.INC 3PL.RL.AUX say
      "...The pig has followed us" they said.

The *sa* form invariably occurs in legends when the event is not within the temporal frame of the legend, for example in concluding remarks:

(23) a. **Sa**   *yua na pi-pito-na,*   *beto* **sa**   *beto*
         3SG.RL.AUX say the RED-tell-3SG.POSS and 3SG.RL.AUX finish

         yu.
         EMPH
         So goes the story, and it's finished.

  b. *Ko nara yu* **sa**   *vea   na pi-pito   papaka-na,*
      so there EMPH 3SG.RL.AUX resemble the   RED-tell short-3SG.POSS
      So that's the way of this short story,

      beto **sa**   *beto yu.*
      and 3SG.RL.AUX finish EMPH
      and now it's finished.

Aside from reported speech and sections of text outside the temporal frame of the narrative, the distribution of *sa* and *gi* is as follows. Of six legends, one uses *gi* exclusively, and one uses *sa* exclusively except for the title. Two texts use *sa* very occasionally: once and three times respectively. In the remaining two texts both occur at a ratio of about two

or three to one in favour of *gi*. Perhaps significantly both the latter stories start with almost exclusive occurrences of *gi*, the occurrences of *sa* increasing in frequency as the texts progress, until by the end *sa* has replaced *gi* as the most frequently used form. In the middle of each of these two texts there are passages where both occur with equal frequency, as in (24). No environmental distinction can be drawn on the basis of verb or subject/actor:

(24) a. *Eyo, soni **gi**   taloana pa   na popu na tomate,*
okay then 3SG.RL.AUX abandon LOC the moon the ghost
Then the spirit left the moon,

*sa   lame, **gi**   lame pea, **gi**   voruŋu.*
3SG.RL.AUX come 3SG.RL.AUX come then 3SG.RL.AUX glow
and came, it came then, lighting the way.

b. *Ko **gi**   yasa   votu   na boroyo,*
so 3SG.RL.AUX jump.about emerge the pig
Then the pig jumped out,

*ko **sa**   oga   votu   tuyu   pa na ole pa Bulolo,*
so 3SG.RL.AUX come.out emerge EMPH LOC the shore LOC Bulolo
and it went down to the shore at Bulolo,

*ko **sa**   abutu babata   agagiri,*
so 3SG.RL.AUX run   coastline sharp.rocks
then it ran along the shore over the rock face,

*ko **gi**   soana saye pa Nou.*
so 3SG.RL.AUX walk   ascend LOC Nou
so it walked up to Nou.

Note that in the second line of (24a) there are two consecutive clauses, each with the same verb and the same covert subject, with *sa* present in one and *gi* in the other.

It is possible to speculate that *gi* is an archaic form which has largely been replaced with *sa*, by an extension of the third person singular pronoun *isa*. The codified nature of legends may explain the *gi* form's frequent occurrence in legends. Its presence in the title alone in one instance may support that view. On the other hand the presence of a cognate auxiliary *za* in Kumbokota may suggest that the form was present in Proto Simbo/Ranongga. At this stage any explanation is conjectural.

3.2.2 THIRD PERSON PLURAL REALIS AUXILIARIES

The third person plural realis auxiliary poses unresolved problems of a different kind. Two forms, *gara* and *gari*, occur without any identifiable basis of distribution, beyond observing that *gari* is by far the more common. Both forms appear freely throughout all available texts, and both occur in the same phonological environments; in reported speech; with identical subjects/actors, as in (25); and with the same verbs, as in (26) and (27).

(25) a. *...pea **gara**   saye, **gari**   iko-ia   na ona*
then 3PL.RL.AUX ascend 3PL.RL.AUX steal-3SG.O the 3SG.POSS

tabu-na   *na   lape,*
sacred-3SG.POSS   the   megapode
... so they went up, and they stole the altar of the megapode,

gara   *poyoso   layere-nia   pa   na   Nusa   Simbo.*
3PL.RL.AUX   carry   go-3SG.O   LOC the   island Simbo
and took it back to Nusa Simbo.

b. *...ko* ***gari***   *riu*   ***gara***   *yolom-ia*   *ke...*
    so   3PL.RL.AUX depart 3PL.RL.AUX put.from.sight-3SG.O
    ...so they went and buried her...

(26) a. ***Gari***   *kiu.   "Koi pora tu   na   tama-gu"*
         3PL.RL.AUX weep   EXCL there EMPH the   father-1SG.POSS

gara   *yua.*
3PL.RL.AUX   say
They wept. "Oh, there's our father!" they said.

b. *"Ria   pa   Simbo*   ***gara***   *yore   pa   Bilua"*
    they from Nusa.Simbo 3PL.RL.AUX   descend LOC Vella.Lavella

gari   *yua.*
3PL.RL.AUX   say
"Everyone from Nusa Simbo is going down to Vella" they said.

(27) a. *Eyo* ***gari***   *ton-ia   ria   na   rereko.*
         okay 3PL.RL.AUX   lead-3SG.O they the   female
         So all the women would lead her.

b. ***Gara***   *ton-ia   na   agelu   poi.*
    3PL.RL.AUX   lead-3SG.O   the   woman.who.has.given.birth there
    They would lead the woman who has given birth there.

3.2.3 THIRD PERSON IRREALIS AUXILIARIES

As indicated earlier, third person makes no distinction between definite and indefinite irrealis, but does distinguish number in this category, with separate singular and plural forms, as in (28) and (29) respectively:

(28) a. *Kea   na   boroyo tu   **ai**   riu.*
         EXCL the pig   EMPH 3SG.IRR.AUX   depart
         Oh! The pig said it will go.

b. *Pea gi*   *kamu na   totoso ko   **ai**   po-podo.*
    then 3SG.RL.AUX arrive the   time   so   3SG.IRR.AUX   RED-give.birth
    Then the time came when she was about to give birth.

c. *Eyo, na   tinoni sa*   *mati ba   pini, sa*   *getu*
    okay the person 3SG.RL.AUX like witchcraft this   3SG.RL.AUX happy

isa
s/he
So this witch person is happy

> *bala   kite   **ai**   mate na tinoni sa   mo.*
> because PROSP 3SG.IRR.AUX die   the person 3SG.RL.AUX ill
> because the sick person will soon be dead.

(29) a. *Gari   va-saye-dia   pa   na toba   pa   na bara*
3PL.RL.AUX CAUS-ascend-3PL.O LOC the enclosure LOC the fortress
They sent them up to the fort

*ko nia   **ani**   suvere ria, gari   yua.*
so there 3PL.IRR.AUX stay   they 3PL.RL.AUX say
where they were all to stay, they said.

b. *Ko na tinoni **ani-ke**   saye   hoboria,*
so the person 3PL.IRR.AUX-NEG ascend without.cause
So people wouldn't go up there without a good reason,

*bala   **ani**   saye   hoboria   ke,*
because 3PL.IRR.AUX ascend without.cause
because if they went up without a reason,

*ka-ki   y-in-ua   kite   **ani**   ta-evaŋa.*

QUANT-some .-CONC-say PROSP 3PL.IRR.AUX PASS-occur
things would happen.

*Kite   **ani**   ta-teku,   babi mo poi   ke kite*
PROSP 3PL.IRR.AUX PASS-take   or   sick there   PROSP

ani   mate.
3PL.IRR.AUX die
They would become possessed, or maybe sick so that they died.

3.3 CUSTOMARY BEHAVIOUR AUXILIARY

As indicated earlier, a further auxiliary category occurs occasionally, apparently indicating customary behaviour. Only one customary auxiliary, *pu*, has been found so far, always occurring in clauses with a third person plural subject/actor. As a consequence it is impossible to know at this stage whether this auxiliary has a single form which does not agree with the subject/actor of the clause, or whether the form found agrees with third person plural. As all other auxiliaries found agree with the subject/actor, the latter hypothesis is at this stage assumed to be correct and the form has been glossed accordingly. It is clear that *pu* is not in fact an aspect marker occurring in clauses which happen not to have an auxiliary since it takes the verbal negation suffix *-ke* found elsewhere on attestable auxiliaries.

(30) a. *"Piri ria ari karu ŋoŋoja kokolo" **pu**   yila yua ria.*
this   they they two selfish   EXCL 3PL.CUST.AUX HAB say they
"My goodness, this shows those two are selfish!" they would all say.

b. *Nia gari   nonoyas-ia   ria pa   Duke...*
there 3PL.RL.AUX know-3SG.O they LOC Duke
There they all know, the people of Duke (Kolombangara)...

na boroyo **pu**-ke   gogono, ba sa   gogono.
the pig   3PL.CUST.AUX-NEG talk   but 3SG.RL.AUX talk
that pigs cannot talk, but it talked.

The apparent discrepancy between third singular and third plural in the second line of
(30b) is discourse motivated: the story is of a pig which spoke, (30b) drawing attention to
the discrepancy between characteristics attributed to pigs generally, and a characteristic of
this specific pig.

3.4 HYPOTHETICAL SUBJECT/ACTOR AUXILIARIES

In addition to the subject/actor categories discussed above, there exists a set of two
auxiliaries which mark a subject/actor category not satisfied by the auxiliaries discussed so
far. This auxiliary category, which distinguishes singular (*bi*) and plural (*ori*), occurs in
clauses where the subject/actor is either *kapore* 'no-one' or 'nothing', as in (31) and (32),
or is a hypothetical person or persons, as in (33). It is significant that in every clause in the
data where the subject/actor is *kapore*, the auxiliary is *bi* or *ori*. Two possibilities exist
regarding the person status of these auxiliaries. They may represent a subject/actor which
is strictly third person, in which *kapore* in (31) and (32) and the hypothetical participant in
(33) refer to any possible participant except the speaker and the addressee; or it may
represent a subject/actor which is underspecified for person, that is to say that the
subject/actor could be any participant including the speaker and the addressee, where in
(31) and (32) no-one including the speaker and the addressee performed the action, and in
(33) a hypothetical participant who could be the speaker, or the addressee, or someone else,
could perform the action. It is not clear from the data available which hypothesis is correct;
however, it is clear that the distinction is one of at least the nature of the subject/actor
person: the participant is either non-existent or hypothetical.

Since the distinction made by these auxiliaries is fundamentally one of person, the forms
are glossed for the purposes of this paper as zero person (Ø). This is not meant to imply
that the auxiliary indicates that no argument fills the function of A or S. Instead it is meant
to indicate that there is an A or S argument, and that that argument is a member of a
specific argument person category containing hypothetical or non-existent participants.
The distinction represented by Ø is between the unambiguous person categories of first,
second and third person, and this additional hypothetical and non-existent participant
person category.

(31) a. ...*ko kapore*   *na tinoni nago-dia,*   *kapore na tinoni* **bi**
        so   no-one   the person seek-3PL.O no-one the person ØSG.AUX

        gogono-dia ke.
        talk-3PL.O
        ...and there was no-one there to look after them and keep them company.

     b. *Kapore kame koburu kame rereko* **bi**   *suvere jola pora ke.*
        no-one one   child   one   female ØSG.AUX stay   pass there
        Not one child or woman was staying behind.

(32) a. *Kapore* **ori**   *layo pa na dia*   *vona so-soto.*
        no-one ØPL.AUX go   LOC the 3PL.POSS house RED-true
        No-one went to their real houses.

     b. *Na agelu*   *poi kapore* **ori**   *lame*
         the woman.who.has.given.birth there no-one ØPL.AUX come
         None of the women then came

         pa na dia   *vona so-soto.*
         LOC the 3PL.POSS house RED-true
         to their real houses.

(33)   *Bi kame tinoni ko* **bi**   *riu*   *nago-dia*
         if   one   person so ØSG.AUX depart seek-3PL.O
         If one person could go and seek them all

         ko **bi**   *va-noŋoro-dia*   *ko gari*   *mule gala.*
         so ØSG.AUX CAUS-hear-3PL.O so 3PL.RL.AUX return first
         in order to tell them all, so that they can return here.

While distinguishing singular from plural in subject/actor agreement, these zero person auxiliaries do not appear to distinguish realis from irrealis. In (31) and (32) the event is real. The clause is structured exactly as it would be if there was an overt subject/actor, but with the auxiliary agreeing with the view that the participant who performed the action was 'no-one'. If an overt participant was represented instead, for example *na tinoni* 'the person', the auxiliary would be realis. By contrast, (33) is an irrealis clause, the events of 'going', and 'seeking', and 'telling' are deictically unreal, and would be represented by irrealis auxiliaries if the subject/actor was not hypothetical, but, for example, second person in an imperative construction.

It is suggestive, and interesting to note, that in (33) the clause commences with the form *bi*, which is translated by speakers as 'if'. This has the same form as the singular hypothetical subject/actor auxiliary and appears to introduce clauses referring to a hypothetical event. By contrast the form *vea* 'if' is used to introduce conditional clauses. This *vea* has itself the same form as the verb *vea* 'resemble'.

In summary the modal auxiliaries which agree with third or zero person subject/actors are:

TABLE 2: 3SUBJ AND ØSUBJ AUXILIARIES

	3 Subject Realis	3 Subject Irrealis	Customary	Ø Person Subject
SG	*gi/sa*	*ai*		*bi*
PL	*gari/gara*	*ani*	*pu*	*ori*

3.5 NEGATION

As indicated earlier, negation of an event is marked by the suffix *-ke* on the modal auxiliary:

(34) a. *Gai*   **ge-ke**   *hiva-niyo ayo.*
      we.EXC 1.RL.AUX-NEG want-2.O you.SG
      We don't want you.

    b. *Nara **mu-ke**   vea   ayo.*
       there 2.IRR.AUX-NEG resemble you.SG
       Don't you be like that.

    c. *...**sa-ke**   boka   paja   hoboria   na tinoni.*
       3SG.RL.AUX-NEG be.able go.up.from.coast without.cause the person
       ... a person could not go up without a good reason.

    d. ***Gari-ke***   *yaro.*
       3PL.RL.AUX-NEG scratch
       They weren't good enough. (lit. They didn't scratch.)

    e. *Ko na tinoni **ani-ke**   saye   hoboria.*
       so the person 3PL.IRR.AUX-NEG ascend without.cause
       So people wouldn't go up there without a good reason.

    f. *...ko ria pa   Ove **pu-ke**   ŋoŋoja.*
       so   they LOC Ove 3PL.CUST.AUX-NEG selfish
       ...so those of Ove are never selfish.

3.6 CONSTRUCTIONS WITH NO AUXILIARY

There are a number of environments in which a clause may contain no auxiliary. These include clauses in which an overt temporal locative is expressed, and which would have a realis auxiliary if an auxiliary was present. This is illustrated by (8) above. Other environments in which a clause may contain no auxiliary include a number of serialised clause constructions, imperative and hortative constructions, and verb phrases with certain aspectual particles.

3.6.1 SERIALISED NON-AUXILIARY CONSTRUCTIONS

Serialised event constructions can occur without an auxiliary in clauses other than sentence-initial clauses where the serialised structure repeats the description of a single event:

(35) a. *Eyo **gari**   **kamu** ria pa   Duke ria tuyu   na bubutu*
        okay 3PL.RL.AUX arrive they LOC Duke they EMPH the lineage

        Katapana,
        Katapana
        Ok, they came, all the people of Duke (Kolombangara) who also belonged to the Katapana lineage,

        kamu *ria   na bubutu pori ke.*
        arrive they the lineage there
        they arrived, all of the lineage.

    b. ***Gara***   *ton-ia*   *na agelu*   *poi,*
       3PL.RL.AUX lead-3SG.O the woman.who.has.given.birth there
       They would lead the woman who had given birth there,

> *ton-ia   pa   na   ivere nia.*
> lead-3SG.O LOC the sea   there
> they would lead her down to the sea.

Serialised events may occasionally also be realised by a series of clauses, only the first of which contains an auxiliary. This apparently occurs where a series of events may be seen as component events within the framework of a larger complex event:

(36) **Gari**   **teku-koburu** *poi ke,*
      3PL.RL.AUX take-child   there
      They gave birth there,

      layo *tu   pa   na kame vona mule   na marane* **tori**
      go   EMPH LOC the one   house another the male   PERF

      tavet-ia   *tu,*
      make-3SG.O EMPH
      and then they would move to another house which the men had already made,

      suvere mule *beto* **layo mule** *pa   na   yoto   vona.*
      stay   return and go   return LOC the individual house
      and they would stay a little while and move on again to a different house.

3.6.2 IMPERATIVE AND HORTATIVE

There is no overt imperative marking, imperative constructions consisting of an ordinary declarative sentence with an optional overt subject/actor and an irrealis auxiliary which may be either definite, as in (37), or indefinite, as in (38), and which is also optional:

(37) *yau   tinoni Solomon   kolepiri* **mu-nu**   *mule!*
      you.PL person Solomon.Islands now   2.IRR.AUX-D.IRR return
      You Solomon Islanders go back now!

(38) a. **Mu**   **tavet-ia**   *na mua   pou!*
       2.IRR.AUX make-3SG.O the 2.POSS hole
       You make your holes!

   b. **Mu-ke**   **ŋoŋoja!**
      2.IRR.AUX-NEG selfish
      Don't be selfish!

Imperative clauses which are identical except for the omissions of the auxiliary occur with equal frequency. Compare (39) with (40):

(39) **Mu**   **riu!**
      2.IRR.AUX depart
      Go away!

(40) a. **Riu!**
       depart
       Go away!

   b. **Atu-a**   *buyirio,* **ta-levara** *yau!*
      move.away-3SG.O fishing.spear PASS-be.open you.PL
      Watch out for the fishing spear, stand clear all of you!

This applies equally to first person inclusive subject/actors:

(41)   *Koi,*   **atu**   *ko* **ta-mule***!*
        EXCL   move.away so PASS-return
        Alright, let's go back!

Hortative clauses, which are simply imperative clauses with the added presence of the English or Pijin loan word *pelisi* in clause-initial position, may also occur without an auxiliary. Compare (42) with (43):

(42)   *Pelisi* **mu**   **soana layo vilu** *pa   yijo.*
        please 2.IRR.AUX walk go   BEN LOC Gizo
        Please walk to Gizo for me.

(43)   *Pelisi* **togo***.*
        please sit
        Please sit down.

4. ASPECT

Aspectual particles occur in two possible clause positions, one immediately preceding the auxiliary position, and one immediately following the auxiliary position and preceding the main verb or verbs. These positions will be represented as ASP_1 and ASP_2. respectively. In ASP_1 position one aspectual category, prospective, has been identified. In ASP_2 position three aspectual categories have been identified: progressive, habitual and perfect.

4.1 ASP_1 POSITION: PROSPECTIVE

The prospective particle *kite* represents the only aspectual category definitely identified at this stage as occurring in ASP_1 position. It is possible a number of other categories are represented infrequently in this clause position. The prospective marker indicates that the event described by the verb or verbs is already on its way, that it will happen because the process which will bring it about is already underway. In all occurrences found *kite* occurs with an auxiliary, and so appears to obligatorily require an auxiliary:

(44)   *Eyo, sa*   *pudiki-dia*   *na   tomate pini na pe-penu*
        okay 3SG.RL.AUX gather-3PL.O the ghost this the RED-remnants
        Alright, this ghost collects all the leavings

        pa   na ka-sia   *takamana ta-di*   *ria na tinoni ke,*
        LOC the QUANT-nine doorway   POSS-3PL.POSS they the person
        from around the doorways of all the people,

        pea kame tinoni tuyu **kite**   *sa*   *mo,*
        then one   person EMPH PROSP 3SG.RL.AUX sick
        and so someone will become sick,

        kite   *sa*   *podalai vitiyi yu   na tia-na.*
        PROSP 3SG.RL.AUX begin   pain EMPH the stomach-3SG.POSS
        their stomach will start to ache.

(45) a. *"Kite   ma-na   mate dapu tu   gita"   gari   yua.*
PROSP 1.IRR.AUX-D.IRR die all EMPH we.INC 3PL.RL.AUX say
"We are all going to die" they said.

b. *Ayo   mu-nu   soana layo pa   yijo*
you.SG 2.IRR.AUX-D.IRR walk go   LOC Gizo

kite   mu-nu   maŋini-gu.
PROSP 2.IRR.AUX-D.IRR hot-2.POSS
If you walk to Gizo you will get hot.

In (44) it is the actions of the witch that will bring about the described effects. In (45a) the speakers of the reported speech have seen a group of head hunters on their way to kill them. Note that in (44) the auxiliary used is realis, while in (45) definite irrealis auxiliaries occur. The prospective particle occurs freely with either category of auxiliary.

4.2 ASP$_2$ POSITION

Three aspectual categories have been identified at this stage in ASP$_2$ position, though others may also occur infrequently.

4.2.1 PROGRESSIVE

The progressive aspect particle *korapa* actually functions as a spatial or temporal locative assigning a contemporaneous or contiguous character to an event or argument. It may occur within either a VP or an NP. In either it may indicate temporal or spatial location. In the ASP$_2$ position within the VP it indicates progressive aspect. In this construction an auxiliary co-occurs if it is irrealis, but this co-occurrence is optional if the auxiliary would be realis. Compare (46) and (47):

(46) a. *Gari   korapa suvere dia   ria   na tinoni.*
3PL.RL.AUX PROG stay   3PL.POSS they the person
All the people were staying there.

b. *Eyo, na ba   pini, totoso ai   korapa peka isa...*
okay the witch this time 3SG.IRR.AUX PROG dance s/he
Alright, this witch, when it's dancing...

(47) a. *Ba na boroyo korapa pepu ona   tuyu pa   na toba.*
but the pig   PROG lie   3SG.POSS EMPH LOC the enclosure
But the pig remained, lying in its pen.

b. *Korapa oy-oyono dia   karu tuyele   pa   Ove pa   Loloyasa.*
PROG RED-bathe 3PL.POSS two   prostitutes LOC Ove LOC Lologasa
There were two prostitutes bathing there at Lologasa at Ove.

The form *korapa* may occur elsewhere in the verb phrase with a spatial rather than temporal locative sense:

(48)   *Na miu   minate na bubutu gari   kamu korapa   pa*
the 2.POSS group the lineage 3PL.RL.AUX arrive be.amidst LOC

na kinoko.
the village
Your group, the lineage, they've arrived and are in the village.

It is unclear at this stage whether in (48) *korapa* is functioning as a main verb or as some kind of an adverb (adverbs occur VP-finally). That question aside, it appears that if *korapa* occurs immediately following the auxiliary it indicates temporal location while if it occurs VP-finally it indicates spatial location. As mentioned earlier, *korapa* also occurs in an NP, where it may indicate either temporal or spatial location according to the semantics of the noun it modifies:

(49) a.   *Pa   na   **korapa-na**   na s-in-uvere   pa   Buganvilie...*

      LOC the midst-3SG.POSS the .-CONC-stay LOC Bougainville
      During his stay on Bougainville...

   b.   *Gari   yila saye pa   na   **korapa-na**   na keru pini.*
      3PL.RL.AUX HAB ascend LOC the midst-3SG.POSS the cave this
      They would always go up into this cave.

   c.   *Pa   na   **korapa-na**   na   gua   r-in-iu   ara ke.*

      LOC the midst-3SG.POSS the 1.POSS .-CONC-depart I
      I'm leaving now. (lit. I am in the midst of my departure.)

4.2.2 HABITUAL

The particle *yila* marks habitual aspect. Like *korapa*, this form may also occur elsewhere in the verb phrase, in this case as a causative marked main verb with a related meaning. This verbal form may also occur as a nominalisation. In its aspectual function the form always co-occurs with an auxiliary:

(50) a.   *Gari   **yila** olaŋa.*
      3PL.RL.AUX HAB call.out
      They would call out.

   b.   *Isa na ba   tomate sa   **yila** pudiki pe-penu   doru*
      it   the witch ghost 3SG.RL.AUX HAB gather RED-remnants all

      kota.
      place
      It's a ghost witch which characteristically collects leavings from every place.

   c.   *Sa   ven-ia   p-ia   na tinoni sa   **yila***
      3SG.RL.AUX give-3SG.O ERG-it the person 3SG.RL.AUX HAB

      vari-salaŋa pinira.
      MUT-cure this
      It gives it to the person who always cures.

   d.   *"Totoso sa   lodu-nia"   gari   **yila** yua ria na*
      time   3SG.RL.AUX *lodu*-3SG.O 3PL.RL.AUX HAB say they the

> tinoni   kame rane.
> person one   day
> 'Counting the Days of the Dead' everyone used to call it in the old days.

In its verbal form *yila* occurs with the causative prefix and has the sense of being brought to a normal state of mind:

(51)   *Pea   sa*   ***ta-va-yila***   *sa.*
       then   3SG.RL.AUX   PASS-CAUS-habitual   s/he
       Then he or she is brought to his/her senses.

As a nominalisation the root occurs with reduplication and the causative prefix, and marked with the conceptual infix, as in (52). This nominalised form appears to indicate a typical characteristic:

(52)   *Eyo, sa pora ke, na   **v-in-a-yi-yila***   *lokana*

       Ok,   it that   the   .-CONC-CAUS-RED-habitual   when
       Alright, that was it, usually then

       gari   *doma-i   ria pa   Rauru   sa na balaŋa-di*
       3PL.RL.AUX   see-3SG.O they LOC Choiseul it   the footprint-3PL.POSS

       na   tinoni
       the   person
       those on Choiseul would see people's footsteps.

4.2.3 PERFECT

The particle *tori* indicates that the event took place at a time prior to the time referred to by the clause, roughly corresponding to the English *had*. Perfect occurs freely with an auxiliary, as in (53), or without, as in (54):

(53)   *Eyo, doru rereko gara*   ***tori***   *doma tu,*
       okay all   female 3PL.RL.AUX PERF   see   EMPH
       Ok, the women had already looked,

       gara   ***tori***   *doma-dia   tu,   gara*   *soana,*
       3PL.RL.AUX   PERF   see-3PL.O EMPH 3PL.RL.AUX   walk

       gara   *saye.*
       3PL.RL.AUX   ascend
       they had seen them as they walked, as they went up.

(54) a. *Pea   na   marane **tori**   tavete-ia   tu   kame kale-na.*
        then   the   male   PERF make-3SG.O EMPH   one   side-3SG.POSS
        The men had already built a house to one side.

     b. *Gari*   *teku-koburu poi   ke, layo tu   pa   na   kame vona*
        3PL.RL.AUX take-child   there   go   EMPH LOC the one   house

        mule
        another
        They gave birth there, and then they would move to another house

na marane **tori**   tavet-ia   tu.
the male   PERF make-3SG.O EMPH
which the men had already made.

The perfect frequently occurs with the emphatic *tu* in VP-final position.

The aspectual categories identified in ASP$_2$ position do not co-occur, and form a natural class of categories which realise the internal temporal structure of the event, in contrast with the prospective in ASP$_1$ position, which realises a relationship between the event and its cause. In all instances the prospective co-occurs with an auxiliary. Of the ASP$_2$ particles, both the progressive and the perfect particles may occur without the co-occurrence of an auxiliary, providing the omitted auxiliary would be realis. In the data the habitual particle always co-occurs with an auxiliary. Since this may be an accidental fact about the data, it is not possible at this stage to say whether auxiliary omission is also possible with the habitual. It is interesting to note that the omission of realis auxiliaries in clauses containing certain aspectual particles parallels the omission of realis auxiliaries in clauses containing overt temporal locatives as discussed in §3.6.

REFERENCES

Corston, Simon, 1993, *Ergativity in Roviana.* MA thesis, Department of Anthropology, University of Auckland.

Dureau, C., n.d., Field notes and collected texts, Simbo.

Grace, George, 1955a, Linguistic Questionnaire August 1955, Madegugusu, Simbo, respondent Misake Nuti.

1955b, Linguistic Questionnaire August 1955, Luqa, respondent Mark Sepi.

1955c, Linguistic Questionnaire August 1955, Kubokota, East of Ranonga Is, respondent Willie Poqi.

Palmer, Bill, 1992, *A preliminary Simbo to English and English to Simbo word list.* Mimeo.

Ray, S.H., 1926, *The Melanesian island languages.* Cambridge: Cambridge University Press.

Ross, M.D., 1982, The development of the verb phrase in the Oceanic languages of the Bougainville region. In A. Halim, L. Carrington and S.A. Wurm, eds *Papers from the Third International Conference on Austronesian Linguistics*, vol.1: *Currents in Oceanic*, 1-57. PL, C-74.

1988, *Proto Oceanic and the Austronesian languages of western Melanesia.* PL, C-98.

Stubbs, L., n.d., Field notes, Ghanongga.

Tryon, D.T. and Hackman, B.D., 1983, *Solomon Islands languages: an internal classification.* PL, C-72.

White, Geoffrey M. in collaboration with Francis Kokhonigita and Hugo Pulomana, 1988, *Cheke Holo (Maringe/Hograno) dictionary.* PL, C-97.

TRANSITIVE CONSTRUCTIONS IN HULA

FA'AFO PAT

1. INTRODUCTION[1]

1.1 AIMS AND ORGANISATION

Transitive constructions in numerous Oceanic languages are very well documented. These studies, which focus on the structure of transitive sentences, have established the major features of transitivity and also the role relations found within these sentences. Although these studies serve as excellent general descriptions of Proto Austronesian and its various subgroups, detailed studies of individual languages are still essential, and may contribute significantly to the linguistic facts of particular languages, apart from also being useful for historical reconstruction.

The language which is the subject of this paper is Hula-Aroma (Central Province, Papua New Guinea), but only data from the Hula dialect is used here. The discussion is in two parts. The first describes the system and functions of transitive subject. It is argued that transitive subject marking is a basic element of the transitive system of the Hula-Aroma language, despite the limited attention it has received in studies of Central Province language studies. The second part addresses the much-studied issue of the marking of object and similar case roles. This latter discussion involves an examination of the various semantic relations holding between verbs and their objects by considering the nature of suffixes that appear on transitive verbs. This paper is intended to be descriptive, and thus only a limited attempt is made to discuss any historical or theoretical implications.

1.2 HULA: A BRIEF OVERVIEW

Hula has approximately 10,000 speakers, and is located at the western end of the Hula-Aroma chain, an Austronesian language stretching from Hood Point in the west to Cheshunt Bay, in the eastern part of Central Province, south-east Papua. Both Austronesian (Sinagoro, Magori) and non-Austronesian languages (Kwalean and Mailuan) surround the chain. Hula and its Austronesian neighbours constitute the Central Papuan subgroup of the Papuan Tip Cluster within Oceanic.

Central Papuan languages have the following grammatical features in common:

---

[1]   Thanks to Andrew Pawley and John Lynch for comments on an earlier version of this paper.

---

1.   The structure of an active intransitive clause is:[2]

     (S) s-V

2.   The structure of an active transitive clause is:

     (S) (TRSM) (O) s-V-o

Note that, while SOV is the unmarked phrase order, like most Oceanic languages s-V-o is the preferred order of constituents in a transitive verb.

3.   Focused items are fronted to sentence-initial position (left-movement).

4.   Since main arguments of the verb are marked through the use of pronominal particles and suffixes directly attached to a verbal predicate (VP), nominals are optional, except for purposes of specific identification and/or emphasis. Other obligatory categories of tense, number, aspect and mood may also be marked in the VP.

For example:

(1)   *(Oi   na)   aniani o-api-kimakima-ra-o.*
      (you TRSM) food   2SG-take-quietly-PL-PERF
      You (quietly) took the food.

This paper argues that the actor of a transitive verb *only* receives overt marking in constructions with the least marked word order. Such marking is compulsory in particular construction types, namely, those that:

(a)   focus the actor;
(b)   front a non-actor nominal;
(c)   contain a sole nominal or pronominal whose intended function is that of actor;
(d)   are ditransitive and contain a nominal actor;
(e)   are transitive interrogatives;
(f)   contain complex NP subjects in complex clauses.

It also argues that the object suffixes marking semantic relations are identical to those advanced for other Oceanic languages.[3] Apart from actor, the most marked relation is that of undergoer; however other relations – such as those that Pawley and Reid (1980) associate with "accessory" or "indirect" roles such as patient, instrument, product, goal, target, location, cause, concomitant and beneficiary – are also marked.

---

2   Abbreviations used in this paper are as follows:

COM	comitative	PERF	perfect
CAUS	causative	PL	plural
CONT	continuative	POSS	possessive
DEM	demonstrative	PRES	present
EXC	exclusive	RECIP	reciprocal
FUT	future	S	subject NP
INC	inclusive	s	pronominal subject/tense particle
INS	instrumental	SG	singular
NEG	negative	SUBJ	subject
O	object NP	TNS	tense
o	pronominal object suffix	TRSM	transitive subject marker
OBJ	object		

3   See, for example, Pawley (1973), Clark (1973), Foley (1976), Pawley and Reid (1980).

This paper also presents data on a transitive construction type in which object nominals occur without any respective role marking device (of any sort) on the verb. This process has been referred to in studies of transitivity as "incorporation" (see Ross 1988, for a comparative discussion).

2. TRANSITIVITY AND SUBJECT MARKING IN HULA

The notion of transitivity refers to the question of whether or not an object is or may be present in the clause. Thus transitive clauses either (i) include an object or (ii) indicate the presence of an object through verb morphology. Intransitive clauses, on the other hand, do not have an object, and thus contain an appropriately unmarked verb.

In Hula, transitive constructions are a clearly defined category in the sense that:

(a)   the actor (TRS)[4] of a transitive verb may be marked either by a specific TRS marker *na*, apart from the usual features of stress and discourse context;

(b)   an object nominal may be present in the sentence;

(c)   in the absence of nominals, object information is obligatorily encoded through transitive suffixes in the VP, and thus verbs may be categorised by their form as being transitive or intransitive.

The subject/actor (whether nominal or pronominal) of a transitive construction may be identified through word order, as in:

(2)   *Au   ia   p-a-vakila-a.*
       1SG 3SG   TNS-1SG-tell-3SG
       I told him.

(3)   *Wa   kwaea ia   p-e-koli-a.*
       DEM dog   3SG   TNS-3SG-bite-3SG
       That dog bit him.

(4)   *Oi   ina-mu   wa   ila   aiau-va-kila-ra.*
       2SG mother-2SG DEM   3PL   NEG-CAUS-tell-3PL
       Your mother did not tell those (people).

In the absence of overt nominals and pronominals, subject is invariably marked in the VP by a particle which is coreferential with the subject.

In everyday conversations, word order is augmented by stress, context or other discourse features to assist in this process. Stress is normally placed on the subject NP in the clause. In discourse, subject is treated as old information. The subject of any clause in Hula is therefore prefocused by virtue of word order.

3. TRANSITIVE SUBJECT MARKER *na*

Besides word order and stress, Hula also marks the subject of a transitive verb through a specific free morpheme *na*: its major function is to assign the role of actor of a transitive verb

---

4   The role that the transitive marker specifies for the subject NP is that of actor; i.e. controller/initiator of the event referred to by the transitive verb. Hence, the term TRS is used in this paper to refer to actor.

(i.e. the performance of the action or process is attributed to the nominal/pronominal).[5] In closely related Motu, the equivalent morpheme is *ese*. As is the case with other languages in the subgroup, subject marking in Hula-Aroma is only required for transitive clauses (see Taylor 1970 for Motu). The subjects of intransitive constructions may *never* be marked by *na*, thus (5b) is ungrammatical:

(5) a. *Tau p-e-aluali.*
         Tau TNS-3SG-sit.down
         Tau sat down.

     b. **Tau na   p-e-aluali.*
         Tau TRSM TNS-3SG-sit.down

Although the subject NP typically precedes the object NP, this word order is not fixed. In cases of OSV order, it is only *na* which clearly marks the subject:

(6)   *Kila na   pae p-ene-piti-a.*
       Kila TRSM   pig TNS-3SG-shoot-3SG
       Kila will shoot the pig.

(7)   *Au na   p-a-piti-a.*
       1SG TRSM TNS-1SG-shoot-3SG
       I shot it.

(8)   *Pae au   na   a-piti-a-o.*
       pig 1SG TRSM 1SG-shoot-3SG-PERF
       I shot the pig.

Examples (6) and (7) each contain two overt nominals which are indexed in the VP in an unmarked structure, the actor in (7) being a pronoun; (8), however, contains nominals in a marked OSV structure, with *au* 'I' being marked as the actor by the following *na*.

When nominals are absent, as in the following example, context provides the lexical meanings of arguments obligatorily encoded in the VP:

(9)   *P-o-piti-a.*
       TNS-2SG/SUBJ-shoot-3SG/OBJ
       You shot it.

These examples demonstrate clearly that the actor is without exception always marked externally of the VP. The TRSM *na* appears immediately after the NP constituent functioning as actor. So transitive subject marking is irrelevant to constructions that are least marked.

In (6), the TRSM occurs after the noun, in (7) and (8) it follows the pronoun, while in (10) the possessive NP is marked as transitive subject by a following *na*:

(10)   *Ia   ge-na   laka na   p-e-va-para-mu.*
       3SG POSS-3SG go   TRSM TNS-3SG-CAUS-anger-2SG
       His going (has) angered you.

---

5   See Foley and Van Valin (1984) for a discussion of differences between actor and subject. Note that there are a number of homophonous morphemes of the form *na* in Hula, marking possession, clause subordination, conjunction, etc.

Na is obligatory in some clause types with unmarked word order, and optional in others. The following sections illustrate this.

3.1 OPTIONAL OCCURRENCE OF *na*

In constructions containing two nominals alongside each other, the use of *na* is optional. This is largely because the subject is prefocused (as illustrated above), and stress and context may perform this role.

(11) *Kila Tau p-e-gia-a.*
     Kila Tau TNS-3SG-see-3SG
     Kila saw Tau.

(12) *Kila wa au p-e-gia-a.*
     Kila DEM man TNS-3SG-see-3SG
     Kila saw that man.

However, a speaker may incorporate *na,* as in:

(13) *Kila na Tau/wa au p-e-gia-a.*
     Kila TRSM Tau/DEM man TNS-3SG-see-3SG
     Kila saw Tau/that man.

Such instances signal actor focus, emphasis, and the clear identification of an actor for the transitive verb amid other potential actors. In this sense, the speaker is seen to be specifying the actor.

3.2 OBLIGATORY OCCURRENCE OF *na*

It has been clearly established for numerous Oceanic languages that constituents of the VP are (i) obligatory while the adjuncts whose roles they mark are optional, and (ii) occur in a fixed position in the VP while the corresponding adjuncts (including subject NP) may permute to a number of positions within the sentence (Simons 1980). When this happens in Hula, the use of *na* is obligatory.

3.2.1 SUBJECT OCCURS AS SOLE NP BEFORE VP

The following sentences are grammatically correct in Hula:

(14) *Tau p-e-gia-a.*
     Tau TNS-3SG-see-3SG
     He (someone) saw Tau.

(15) *Ia p-ege-ugu-a.*
     3SG TNS-3PL-send-3SG
     They sent him.

As a rule, any NP immediately preceding the VP is automatically interpreted as object as this is the default position of the syntactic object (i.e. any unmarked nominal or pronominal immediately preceding the VP always functions as object). A subject may occur in this position but it *must* be accompanied by *na.* For example:

(16)   *Tau na   p-e-gia-a.*
        Tau TRSM   TNS-3SG-see-3SG
        Tau saw him/her/it (someone/something).

(17)   *Au   na   p-a-ugu-a.*
        1SG TRSM   TNS-1SG-send-3SG
        I sent him/her/it.

So if a sole NP or pronoun is intended to function as subject of a transitive clause, the use of *na* is obligatory. This phenomenon is further illustrated in the next section.

3.2.2 NON-ACTOR FOCUS

In Central Papuan languages, focusing is accomplished by fronting the relevant constituent to sentence-initial position. When a constituent (excluding VP) other than subject/actor is in focus, the actor is displaced from its usual sentence-initial position to any position before the VP, creating an O...S...V string. In such cases, the subject *obligatorily* carries the TRSM *na*.

(18)   *Mani Tau na   p-e-gia-a.*
        fish   Tau TRSM   TNS-3SG-see-3SG
        Tau saw the fish.

In sentences like (18), the NP preceding *na* is always interpreted as subject; hence in the absence of *na*, the interpretation rendered by normal word order prevails:

(19)   *Mani Tau p-e-gia-a.*
        fish   Tau TNS-3SG-see-3SG
        The fish saw Tau.

The following transitive constructions (marked and unmarked) focus different items:

Time focus:

(20)   ***Walani*** *Kila na   Tau numa-i   p-e-vagevo-a.*
        yesterday Kila TRSM Tau house-LOC TNS-3SG-leave-3SG
        Yesterday, Kila left Tau in the house.

Location focus:

(21)   ***Numa-i*** *Tau p-e-vagevo-a.*
        house-LOC Tau TNS-3SG-leave-3SG
        He left Tau **in the house**.

(22)   ***Numa-i*** *Tau na   p-e-vagevo-a.*
        house-LOC Tau TRSM   TNS-3SG-leave-3SG
        Tau left him **in the house**.

Adverb focus:

(23)   ***Kipo*** *Tau numa-i   p-e-vagevo-a.*
        just   Tau house-LOC TNS-3SG-leave-3SG
        For no reason he left Tau in the house.

Direct Object focus:

(24)   ***Tau*** *walani*   *numa-i*   *Kila na*   *p-e-vagevo-a.*
    Tau   yesterday   house-LOC   Kila   TRSM   TNS-3SG-leave-3SG
    Kila left **Tau** in the house yesterday.

It appears therefore that *na* is obligatory when normal word order is constrained, or when there is subject movement. This is particularly so when there are numerous NPs and adjuncts. So an important motivation for the existence of the TRSM is to clarify any confusion caused by a series of nominals and adjuncts which may potentially displace the subject.

3.2.3 DATIVE CASE

In the dative case, as in (5e), the verbal suffix invariably agrees with the indirect object. The two NPs preceding are usually interpreted as objects (by virtue of word order):

(25)   *Ia*   *Kila puka p-e-veni-a.*
    3SG   Kila   book   TNS-3SG-give-3SG
    He gave Kila the book.

When only two NPs are present, two interpretations are possible: they may be interpreted as subject and object on the basis of regular word order (as mentioned above); or both may be interpreted as objects. The latter is preferable partly because of the semantics of the verb *veni-a*, which is goal-oriented. In addition, three-place predicates such as *veni-a* frequently interpret the latter nominals as objects, despite unintended agreement between nominals and VP affixes and particles.

(26) a.   *Ia*   *Kila p-e-veni-ra.*
    3SG   Kila   TNS-3SG-give-3SG
    He gave them Kila./He gave Kila to them.

    b.   *Oi*   *mani*   *p-ana-veni-mu.*
    2SG   fish   FUT-1SG-give-2SG
    I will give you fish.

However, if one of these two NPs is intended to be actor, as in (27a), *na* is obligatory. If it were not so marked, both NPs would be rendered objects (as above). It is becoming more and more obvious that the need to mark an actor becomes greater with the increasing number of nominals in a clause.

(27) a.   *Ia*   *Kila na*   *p-e-veni-a.*
    3SG   Kila   TRSM   TNS-3SG-give-3SG
    Kila gave him it./Kila gave it to him./He was given it by Kila.

    b.   *Ia*   *na*   *Kila puka p-e-veni-a.*
    3SG   TRSM   Kila   book   TNS-3SG-give-3SG
    He gave Kila the book./He gave the book to Kila.

Clarity as well as specificity are definite advantages of using *na*, particularly in instances such as this.

3.2.4 COMPLEX NPS

So far, we have concentrated on subjects and actors that are basically simple NPs. However the area in which *na* is most obligatory is that of complex NPs. Complex NPs for our purposes will be defined as those NPs with additional modifying elements. Modifiers may be single elements (as we have seen above) or may take the form of phrases or entire clauses. Perhaps the most obvious reason why *na* is obligatory here is that the possible occurrence of a large number of NPs could make for potential confusion. Transitive subject marking serves as a clarifying mechanism. The sentences below illustrate this:

(28)   *Au   gima-ku   ia   e-koe-a-na.*
       1SG   hand-1SG 3SG 3SG-hit-3SG-PRES.CONT
       My hand is hitting him.

(29)   *Wa   motuka kalovakalova-na na   e   au   lualua*
       DEM   truck   red-3SG   TRSM DEM man two

       e-kua-ra-o.
       3SG-bump-3PL-PERF
       That red truck bumped the two men.

(30)   *Omi ge-mi   kala   nama-ra   na   p-ege-va-nama-a.*
       2PL POSS-2PL deeds good-3PL TRSM TNS-3PL-CAUS-good-3SG
       Your good deeds have saved him.

(31)   *E   vanuga ai-na   kulokulo-na na   au   e-ura-ku-o.*
       DEM   village canoe-3SG white-3SG TRSM 1SG 3PL-pick-1SG-PERF
       The white canoe from this village picked me up.

When a phrase or an entire clause consisting of several NPs functions as actor, it is necessary to mark the occurring nominal or pronominal with the TRSM, as the risk of confusion increases.

3.2.5 INTERROGATIVES

In Hula, as in many other languages, rising tone/pitch is used in polar interrogatives. In these, the rules for the occurrence of *na* are similar to those discussed above. For example:

(32) a. *Kila Tau pe keaa?*   Did Kila call Tau?
    b. *Kila na Tau pe keaa?*   Did Kila call Tau?
    c. *Tau pe keaa?*   Did (someone) call Tau?
    d. *Tau na pe keaa?*   Did Tau call him?

However, when the transitive subject occurs in a verbless clause, the TRSM is obligatory:

(33) a. *Kila na?*   Did Kila...?
    b. *Ina, Kila na.*   Yes, Kila did.

The question in (33a) is seeking confirmation on an already identified actor. Note that if the event referred to does not involve a TRS, such verbless interrogatives with *na* are ungrammatical and meaningless:

(34)   **Kila na.*

Non-polar interrogatives include question words such as *rai*, *rakaau*, *arigi* ('who?', 'what?', 'which?' respectively). When focused on the actor of a transitive verb (i.e. when they seek information on the actor) *na* is obligatory. Discourse rules require that the answers to such questions also include *na*. The first set of examples illustrates *rai* 'who?':

(35) *Rai na   p-e-api-a?*
      who TRSM TNS-3SG-get-3SG.OBJ
      Who got it?

(36) Q. *Rai na?*   Who did?
      A. *Kila na.*   Kila did.

Compare with:

(37) *Kila na   rai   p-e-api-a?*
      Kila TRSM who TNS-3SG-get-3SG
      Who did Kila get?

The next set illustrates *rakaau* 'what?':

(38) *Rakaau na   p-e-api-a?*
      what   TRSM TNS-3SG-get-3SG.OBJ
      What got it?

(39) Q. *Rakaau na?*   What did?
      A. *Motuka na.*   The car did.

Compare with:

(40) *Kila na   rakaau p-e-api-a?*
      Kila TRSM what TNS-3SG-get-3SG
      What did Kila get?

The final set illustrates *arigi* 'which?':

(41) *Arigi kopuna na   p-e-api-a?*
      which one   TRSM TNS-3SG-get-3SG.OBJ
      Which (one) got it?

(42) Q. *Arigi kopuna na?*   Which one did?
      A. *Waia kopuna na?*   That one did.

Compare with:

(43) *Kila na   arigi   kopuna p-e-gia-a?*
      Kila TRSM which one   TNS-3SG-see-3SG.OBJ
      Which one did Kila see?

When *na*-marking is not present, as in (44), question words refer to an object. Discourse treats the subject as given information through the subject prefix in the VP:

(44) a. *Rai p-e-api-a?*   Who did he get?
     b. *Rakaau p-e-api-a?*   What did he get?
     c. *Arigi kopuna p-e-api-a?* Which one did he get?

3.2.6 OTHER CASES

Finally, it also appears that the transitive subject-marking morpheme is a necessary element of transitive constructions even though its occurrence is, firstly, external to the VP and, secondly, optional in certain construction types. This position is supported by the fact that *na* only occurs in constructions that have a clearly marked transitive verb. Sentences (45) - (47) illustrate this:

(45)   *Oi   ama-mu   na   e   mani p-ene-ware-ra.*
      2SG father-2SG TRSM DEM fish   TNS-1SG-share-3PL
      Your father will share these fish.

(46)   *Ila   na   omi   aiau-gia-mi.*
      3PL   TRSM 2PL   NEG-see-2PL
      They did not see you (plural).

(47)   *Tomi ila   p-ene-kea-ra.*
      Tomi   they   TNS-3SG-call-3PL
      Tomi will call them.

Thus, it is clear that when the transitive subject marker does occur, the transitive verb must be appropriately marked by adding a suffix that indexes the person and number of an object (irrespective of whether or not an overt object nominal is present). So (48) and (49) below are ungrammatical:

(48)   **Ila   na   vanuga au-ra   p-ege-ugu.*
      they   TRSM village   man-3PL TNS-3PL-send

(49)   **Omi na   p-aio-kea.*
      2PL   TRSM TNS-NEG-2PL-call

Certain transitive constructions (which are addressed in the latter part of this paper), however, may contain an object NP but have no corresponding suffix-marking transitivity on the verb. These construction types may never take transitive subject marking:

(50) a. *Ila   niu   p-ege-niu.*
        3PL coconut TNS-3PL-drink
        They drank coconut juice.

     b. **Ila na niu p-ege-niu.*

(51) a. *Kila aniani p-e-ani.*
        Kila food   TNS-3SG-eat
        Kila was eating (food).

     b. **Kila na aniani p-e-ani.*

It is clear that the occurrence of *na* requires obligatory object presence. One might add that, apart from its primary function of assigning the actor role, *na* also appears to be goal-oriented in that it presupposes an object. This can be taken to mean that *na* is an essential component of the system of transitivity in Hula.

3.2.7 SUMMARY

In summary then, the following points may be made about transitive subject marking:

1. It is essential for emphasis.

2. It is obligatory:

   (a) for assigning actor role to a nominal in the least marked word order (when stress is not used to do this) – more precisely, it prevents confusion and thus is the more preferred type;

   (b) when subject is demoted from its usual position – as when a nominal object is in focus and fronted, or when the subject occurs as the only nominal preverbally;

   (c) in interrogatives which focus on the transitive subject;

   (d) in verbless interrogatives consisting of just nominals or pronominals.

When transitive subject marking is not present, the focus falls on the object instead.

4. OBJECTS OF TRANSITIVE CONSTRUCTIONS

The object is the most important feature of any transitive construction. As already pointed out, a transitive VP in Hula is inflected for object person and number through a suffix. Oceanists (Pawley 1973, Clark 1973, Pawley & Reid 1980, among others) have documented these suffixes in detail. The rest of this paper describes the nature of this suffix, its form and its functions in Hula.

4.1 INCORPORATION (OR NON-SPECIFIC OBJECT)

So far, the term 'transitive' has generally been used with reference to form rather than to meaning. A verb is transitive if it has either the long or the short suffix. The definition, however, also includes objects which may not be marked morphologically, and Hula, like many other Oceanic languages, have such constructions. In this type of transitive construction the transitive subject marker never occurs because the verb violates the most important condition of transitive subject marking – which is to have an object suffix on the verb. In the examples below, (52) is intransitive; in (53) the verb is transitive and inflected; in (54) - (57) the verb is transitive but uninflected; while (58) is ungrammatical.

(52) *Mani p-ege-laka.*
      fish   TNS-3PL-go
      The fish have gone.

(53) *Ia   na   niu   p-e-api-a.*
      3SG TRSM coconut TNS-3SG-take-3SG
      He took coconuts.

(54)   *Pikisa ia-gia-wai.*[6]
        movie 1PL-watch-while
        We were movie watching.

(55)   *Ia   niu   e-oli-mona.*
        3SG coconut 3SG-scrape-meantime
        He was coconut scraping.

(56)   *Ia   guria   p-e-nogi.*
        3SG betel.nut TNS-3SG-ask
        He asked for betel nut.

(57)   *Rakau p-ene-nogi?*
        what   TNS-3SG-ask
        What will he ask for?

(58)   **Ia   na   (niu)   p-e-api.*
        3SG TRSM (coconut) TNS-3SG-take

This transitivity style is also common in discourses that describe or narrate activities with non-specific objects:

(59)   *Rapalugaluga-i-ra numa ge-aleva-na   wau ge-aniani-na.*
        morning-in-3PL   house 3PL-clean-TNS   then 3PL-eat-TNS

        Niu   ge-ve-koko-na,   ne ge-aleva-ra-na   mulianai,
        coconuts 3PL-collect-TNS then 3PL-clean-3PL-TNS then

        ge-pute-ra-na,   motuka na   p-e-ne-ma-ura-ra   gena.
        3PL-bag-3PL-TNS   truck   TRSM TNS-3SG-TNS-pick-3PL for

        Moni e-veaina-i ge-rawali-na.
        money DET-like-in 3PL-earn-TNS
        In the mornings, they clean houses then they eat. They collect coconuts and after cleaning them, they pack them into bags for the truck to pick up. This is how they earn money.

Milner (1972) explains the difference between these constructions by saying that the uninflected form denotes the general (coconut scraping), as opposed to the inflected form which denotes the particular (scraping a particular coconut). This difference can be seen in English sentences such as:

(60) a. She scraped coconuts.
     b. She scraped the coconuts.

(61) a. She took apples.
     b. She took an apple.

When modifiers or determiners occur with common noun objects, as in (62) and (63), the verb must be inflected:

---

6   Bound morphs like *wai* (and also *mona* in (55)) refer to events in the past. Their closest English equivalents are adverbs like 'while', 'meantime', 'meanwhile'.

(62)   *Wa nanu p-ege-niu-a.*
         that water TNS-3PL-drink-3SG
         They drank that water.

(63)   *Oi-na   niu   p-a-oli-ra.*
         2SG-POSS coconut TNS-1SG-scrape-3PL
         I scraped your coconuts.

This is because the basic role of a modifier or determiner is exactly that: to distinguish a particular nominal by characterising it, subsequently shifting from the general to the particular. Pronouns and proper nouns are inherently specific with respect to person and number, and thus when they occur as overt objects the transitive verb is also invariably inflected. Common nouns on the other hand require determiners or quantifiers which in turn require a suffix which is in agreement and plays just this role. The English articles (particularly the definite article) appear to convey a similar meaning. So by indicating the number and person of the object, the speaker is seen as referring to a particular entity, to which the hearer's attention is drawn (hearer may also be aware of the referent).

However, as Pawley (1986) points out: making the general-specific distinction as the sole explanation is not enough as it fails to account for the overlap between non-specific and specific constructions. Examine the sentence pairs below:

(64) a. *Nanu p-e-niu.*
         water TNS-3SG-drink
         He drank water.

     b. **Nanu p-e-gia.*
         water TNS-3SG-see

(65) a. *Pikisa p-aga-gia.*
         picture TNS-1PL-see
         We saw pictures.

     b. **Kila p-aga-gia.*
         Kila   TNS-1PL.EXC-see

(66) a. *Kila p-e-kea-a.*
         Kila TNS-3SG-call-3SG
         He called Kila.

     b. **Kila p-e-kea.*
         Kila TNS-3SG-call
         [Grammatical, with the meaning 'Kila called.']

(67) a. *Puka p-e-ai.*
         book TNS-3SG-read
         She read books.

     b. *Ia   p-e-ai-a.*
         3SG TNS-3SG-read-3SG
         She read him.

These illustrate the fact that certain verb bases can only occur with certain non-specific objects, implying that, with specific objects, inflection is necessary. For instance, in (66),

the intransitive verb *kea* may not take a specific proper noun, unless inflected. The same can be said for (65) and (67). Thus Pawley (1986:99) says (in relation to Fijian transitives):

> The class of verbs which can take non-specific objects is just that class which can be made into paradigmatic transitives by adding -Ci or -Caki[7] plus specific object. The class of nouns which can stand as non-specific object is the same, or nearly the same, as that which can stand as specific object of a given verb.

The general/specific distinction is also determined by the semantics of both verb and noun. For instance, the noun *bia* 'beer' may occur as either non-specific or specific object with *niu* 'drink' ,as in (68), but it is unusual to find it used as a non-specific object with a verb like *gia* 'see':

(68) a. *Bia   p-ene-niu.*
        beer   TNS-3SG-drink
        She will drink beer.

    b. *Bia   p-ene-niu-a.*
        beer   TNS-3SG-drink-3SG
        She will drink the beer.

Thus certain types of acts (e.g. drink) are related to certain types of objects (e.g. liquids). Simons (1980) argues that this kind of transitivity is a feature of focus, in that the inflected form directs attention to the actor and what he is doing. To some extent, this appears to be a reasonable interpretation, but further study is required to clarify this.

4.2 SEMANTIC ROLES

Apart from the uninflected form, the inflected form of a Hula transitive verb has two main types of suffixes. These verbs may therefore be classified on the basis of form. Pawley and Reid (1980:105) characterise Oceanic transitive suffixes in general by saying that:

> A transitive verb is any verb which (a) carries a transitive suffix *-i* or *-aki(ni)*, and/or (b) carries a pronominal suffix or clitic determining person and number of direct object.

Thus apart from being reconstructed for Proto Oceanic, these suffixes are clear indicators of transitive verbs in Oceanic languages; *-i* being referred to as the "short" suffix and *-aki(ni)* as the "long" suffix (Geraghty 1983). In Hula transitive verbs, reflexes of the pronominal object suffixes and the long suffix occur. These suffixes mark different case or role relations between the verb and its objects, and thus each is associated with a particular set of semantic roles. The choice of suffix is determined by the semantic role or relation between the verb and the specified object or adjunct. With the exception of a small group of verbs, most transitive verbs can take both suffixes.

---

7   These are the Fijian transitive marker and long suffix respectively.

5 THE TRANSITIVE SUFFIXES

5.1 THE SHORT SUFFIX

The short suffix is of the form *-a/-ra*. This form is inflected for person and number of direct object and corresponds to the form of the third person singular pronoun (*ia*). It is used for animate as well as non-human objects. Thus, a non-third-person human object would be marked by appropriate pronoun object suffixes (e.g. *-ku* 1SG, *-mu* 2SG, etc.). When a verb ending in *a* takes the suffix *-a*, this is realised as a long vowel – *pia-a* 'throw it' is phonemically /pia:/.

Many transitive verbs are derived through this suffixation process. Many (traditional) intransitive verbs take this suffix, while adjectives undergo causativisation prior to suffixation. For example:

(69)   CAUSATIVE + INTRANSITIVE VERB + SHORT SUFFIX

ani	*va-ani-a*	make one eat
laka	*va-laka-a*	make one walk
mamai	*va-mamai-a*	make one laugh
pala	*va-pala-a*	make one dance
keo	*va-keo-a*	make one fall

(70)   CAUSATIVE + ADJECTIVE + SHORT SUFFIX

kamu	*va-kamu-a*	make it large
milo	*va-milo-a*	make it dirty
nama	*va-nama-a*	make it better
lealea	*va-lealea-a*	make it nice

The short suffix marks a direct[8] relationship between direct object and verb. This direct relationship is similar to those exemplified by the goal/target of psychological verbs, the undergoer/patient of agentive verbs, and the location/goal of motion and posture verbs. The term 'direct' is used here to capture the idea of an object which has been directly affected by an action, or a psychologically-oriented process. So verbs that take the short suffix have a direct patient/undergoer/goal focus.

5.2 THE LONG SUFFIX

A transitive verb may also select the long suffix depending on the semantic relation holding between verb and its object. The long suffix is normally of the form *-agi-a* (*-gi-a* when the preceding vowel is *-a*). It has functions equivalent to those reconstructed for Proto Oceanic *-aki(ni)* (Pawley & Reid 1980). Apart from signalling person and number of direct object, this suffix also marks an indirect kind of relation between object and verb such as that associated with instrument, cause, concomitant and beneficiary. The most frequently marked role is that of instrument.

---

8   Pawley (1973) uses the term "close" for the same phenomenon.

5.3 USE OF THE SUFFIXES

Both these suffixes and their roles are exemplified using the following verb sets (see also
Pawley 1986).

5.3.1 DIRECT EFFECT TRANSITIVES

This group of transitives are those in which the action performed by the agent has a direct
effect on something else which is the object. Thus the role the semantic object plays is that of
patient (i.e. the thing that is affected and is marked by the short suffix).

(71) a. *Moni   p-ege-kuli-a.*
      money TNS-3PL-bury-3SG
      They buried the money.

   b. *Aniani p-a-pia-a.*
      food   TNS-1SG-throw-3SG
      I hurled the food.

   c. *Omi na   pakete p-ogo-gu-ra.*
      2PL TRSM bucket TNS-2PL-draw-3PL
      You (plural) filled the buckets (with water).

   d. *Lako p-io-pai-a.*
      wood TNS-2PL-cut-3SG
      You will cut the wood (up).

When these verbs take the long suffix, the semantic object is the instrument, as in:

(72) a. *Ila   na   pakete p-ege-gu-agi-a.*
      3PL TRSM bucket TNS-3SG-draw-INS-3SG
      They drew (water) with the bucket.

   b. *Pau   p-a-pai-agi-a.*
      knife TNS-1SG-cut-INS-3SG
      I cut (something) with the knife.

   c. *Tipeiti p-aga-kuli-agi-a.*
      spade TNS-1PL.EXC-bury-INS-3SG
      We buried (something) with the spade.

   d. *Papa na   p-e-aleva-gi-a.*
      father TRSM TNS-3SG-clean-INS-3SG
      Father cleaned with it.

   e. *Ia   na   poro p-e-ula-gi-a.*
      3SG TRSM ball   TNS-3SG-play-INS-3SG
      She played with the ball.

   f. *Ila   na   e   rapuga p-ege-riku-agi-ra.*
      3PL TRSM this clothes TNS-3PL-swim-INS-3PL
      They bathed with/in these clothes.

g. *Vau   p-a-koe-agi-a.*
   stone TNS-1SG-hit-INS-3SG
   I hit with the stone.

h. *P-a-make-agi-a.*
   TNS-1SG-turn-INS-3SG
   I turned (something) with it.

In reciprocal forms, the semantic object is clearly in the instrumental role, as in:

(73) a. *E   vau   ono-ve-vau-ani-a.*
        this stone 2SG-RECIP-stone-INS-3SG
        You stone with this.

   b. *Kila na   p-e-ve-kwari-agi-a.*
      Kila TRSM TNS-3SG-ECIP-hit-INS-3SG
      Kila hit with this.

The instrumental role may be signalled by suffixing the nominal with the instrumental marker *na* producing an intransitive sentence, as in:

(74) a. *E   rikoma-na o-no-ve-kau.*
        this comb-INS 2SG-FUT-RECIP-comb
        Comb with this comb.

   b. *Kila na   toki-na   p-e-ve-kwari.*
      Kila TRSM stick-INS TNS-3SG-RECIP-hit
      Kila hit with this stick.

When the instrument is marked externally, the short suffix is preferred (the long suffix is redundant) and the semantic object is in the role of patient. For example:

(75) *Mani oi-na   piti-na   p-a-piti-ra.*
      fish your-INS speargun-INS TNS-1SG-shoot-3PL
      I shot the fishes with your spear.

When the object is animate, other than third person singular, the grammatical object is in agreement with the VP suffix which is in the role of patient, despite the long suffix. Although the long suffix is used to mark instrumental role, the instrument may not occur, and the object is marked by the transitive suffix. For example:

(76) a. *Kwaea p-e-vau-agi-a.*
        dog   TNS-3SG-hit-INS-3SG
        She hit the dog with it (something).

   b. *Oi p-a-vau-agi-mu.*
      2SG TNS-1SG-hit-2SG
      I hit you with it.

This particular type of construction is clearly transitive but the semantic object is not the instrument: the instrument role is marked, but the nominal in this case is not given. Perhaps this needs to be studied further to identify what is actually going on.

5.3.2 VERBS OF MOTION

Verbs of movement and posture never take incorporated objects as they are semantically intransitive. When they take the short suffix, the semantic object may refer to a place or a location. The agents in these constructions initiate the action so they are also undergoers. Some examples:

(77) a. *Oi   p-e-pana-mu.*
         2SG TNS-3SG-step-2SG
         He stepped on you.

     b. *Rawapara ga-ravu-a-o.*
         ocean   1PL.EXC-sail-3SG-PERF
         We sailed the ocean.

     c. *Aupu o-n-o-pae-a.*
         tree   2SG-FUT-2SG-climb-3SG
         (You) climb the tree.

     d. *Lea   p-aga-wori-ra.*
         ditch TNS-1PL.INC-jump-3PL
         We jumped over the ditches.

Motion and posture verbs may also be suffixed with different direction markers (with meanings like 'up', 'down', 'over', etc.) followed by the transitive suffix, as in:

(78)   *P-ie-pae-rage-a.*
        TNS-3PL-climb-up-3SG
        They will climb up it.

In addition, verb serialisation may occur with *veni* (lit. 'give') which takes the short suffix indicating direction, as in:

(79) a. *O-no-ao   veni-a.*
         2SG-FUT-go   give-3SG
         Go to it.

     b. *P-a-veamai   veni-a.*
         TNS-1SG-come   give-3SG
         I came to it.

When these verbs take the long suffix, the semantic object is taken along by the actor (i.e. attached to the body of the actor). Pawley (1986) labels this construction "transportative"; I use "comitative" (COM) below. For example:

(80) a. *Walo p-a-pae-agi-a.*
         rope   TNS-1SG-climb-COM-3SG
         I climbed with the rope.

     b. *Ila   ga-alu-agi-ra-o.*
         3PL 1PL.EXC-live-COM-3PL-PERF
         They lived with us. (lit. We had them live with us.)

    c. *Puka p-io-laka-gi-a.*
       book TNS-2PL-walk-COM-3SG
       Walk and take the book with you.

    d. *Ia p-ono-ao-agi-a.*
       3SG TNS-2SG-take-COM-3SG
       Bring her with you.

    e. *P-a-ravu-agi-a.*
       TNS-1SG-sail-COM-3SG
       I sailed with it.

5.3.3 PSYCHOLOGICAL VERBS

Verbs in this class refer to processes or emotions that an object experiences but does not initiate. The usual role of the direct object is thus that of focus or goal of the emotion. A number of these are causativised when they take the short suffix, for example:

(81) a. *Kila na p-e-va-paru-a.*
      Kila TRSM TNS-3SG-CAUS-anger-3SG
      Kila angered him.

    b. *E mulamula na p-e-va-vii-a.*
      this medicine TRSM TNS-3SG-CAUS-sick-3SG
      This medicine made him sick.

    c. *P-a-va-vio-ku.*
      TNS-1SG-CAUS-hungry-1SG
      It made me hungry.

Stative forms have an initiator that is always in the third person singular subject (*p-e-*), and the direct object is the undergoer. For example:

(82) a. *Kila p-e-vii-a.*
      Kila TNS-3SG-sick-3SG
      Kila is sick.

    b. *Ila p-e-vio-ra?*
      3PL TNS-3SG-hungry-3PL
      Are they hungry?

When these verbs take the long suffix, the semantic object is in the role of cause, as in:

(83) a. *Kila p-e-vii-agi-a.*
      Kila TNS-3SG-sick-CAUS-3SG
      Kila is sick from it.

    b. *P-a-kali-agi-mu.*
      TNS-1SG-afraid-CAUS-2SG
      I was scared of you.

    c. *P-a-no-paru-agi-a.*
      TNS-NEG-2SG-anger-CAUS-3SG
      Don't be angry about it.

d. *Ia   p-e-nivi-agi-a.*
   3SG TNS-3SG-dream-CAUS-3SG
   She dreamt of it.

5.3.4 VERBS OF SPEAKING (GOAL/AUDIENCE)

These are verbs describing vocal actions whose semantic objects are usually goal or target of the action, as in:

(84) a. *Oi   p-e-va-kila-mu.*
        3SG TNS-3SG-CAUS-tell-2SG
        He told you.

   b. *Au na   Kila a-kea-a-mona...*
      1SG TRSM Kila 1SG-call-3SG while
      While I was calling Kila...

   c. *Ila na   p-ege-kilagi-a.*
      3PL TRSM TNS-3PL-say-3SG
      They said it.

   d. *Ia p-a-kila-a.*
      3SG TNS-1SG-scold-3SG
      I scolded him.

Rather than taking the suffix directly, a number of these verbs are instead followed by the verb *veni* which carries the short suffix indicating direction, and the object is thus in the role of goal:

(85) a. *Kila p-a-kea   veni-a.*
        Kila TNS-1SG-call give-3SG
        I called out to Kila.

   b. *P-ege-aoali   veni-a.*
      TNS-3PL-pray give-3SG
      They prayed to someone.

   c. *Ia p-e-agi   veni-a.*
      3SG TNS-3SG-cry give-3SG
      He cried to her.

When the long suffix is used, the semantic object may be in the role of goal (i.e. to obtain something), or cause (e.g. mourning for the dead). In many instances, the actual role is determined by context. There is a thin dividing line between benefactive and cause (and goal), so I treat them together here. Some examples are:

(86) a. *P-ege-aoali-agi-a.*
        TNS-3PL-pray-GOAL-3SG
        They prayed for it.

   b. *Gena laka   p-a-agi-agi-a.*
      her going TNS-1SG-cry-CAUS-3SG
      I cried for her going.

c. *Kila na   e   inagulu p-e-kea-gi-a.*
Kila TRSM this work   TNS-3SG-call-GOAL-3SG
Kila called about his work.

d. *E   melo ge-mamai-agi-a-mona.*
this boy 3PL-laugh-CAUS-3SG-TNS/CONT
They were laughing about this boy.

e. *Io-mari-agi-a.*
2SG-sing-GOAL-3SG
(You) sing about this./You sing for him.

f. *Io-one-agi-a.*
2SG-scream-GOAL-3SG
(You) scream for it./Give him praise.

g. *Ia   a-verere-agi-a-o.*
3SG 1SG-happy-CAUS-1SG-PERF
I was happy for him.

h. *P-ege-kili-agi-a.*
TNS-3PL-giggle-CAUS-3SG
They giggled at him.

5.3.5 BODILY PROCESS VERBS

A small set of intransitive verbs that also take the short suffix are those that pertain to bodily function (including those verbs identified as human excretion in other studies) in which the object is patient. Compare:

(87) a. *Piripou p-e-megi-a.*
shorts   TNS-3SG-piss-OBJ
He pissed his pants.

b. *Piripou-ai p-e-megi.*
shorts-in TNS-3SG-piss
He pissed in his pants.

c. *Napukini p-e-kage-a.*
napkin   TNS-3SG-excrete-3SG
He shat the napkin.

The difference between (87a) and (87b) is that, the (a) sentence marks a direct relation through the use of the short suffix, while the (b) sentence marks a less direct relationship through the use of the postposition *ai* on the nominal object. A possible explanation for the difference is that, in (a) the act is accidental on the part of the actor while in the latter it is deliberate.[9]

When the long suffix is added to these verbs, the object would normally be in the role of instrument, except that such constructions are regarded as anomalous.

---

9   Paamese also makes this difference (see Crowley 1983).

(88)   *Piripou p-e-megi-agi-a.*
        shorts   TNS-3SG-piss-INS-3SG
        He pissed with his pants.

6. CONCLUSION

In relation to the two things that this paper set out to discuss, it is clear that:

1)   The transitive subject marker is an important element of transitivity in Hula as it may prevent ambiguity. It is also essential because its occurrence depends on a clearly marked transitive verb.

2)   In relation to object marking, Hula has incorporated objects in transitive constructions (uninflected verb), and also has the short and long suffix (inflected verb). In the majority of transitive verbs these suffixes mark roles that are complementary; however, in some verbs the short suffix marks the same role that a long suffix may mark with another verb (goal with 'motion' verbs versus goal with verbs of 'speaking'). One area that needs to be further studied is the construction type in which the instrument role is marked with certain verbs, but the semantic object is not in that role.

REFERENCES

Clark, Ross, 1973, Transitivity and case in Eastern Oceanic languages. *Oceanic Linguistics* 12:559-605.

Crowley, Terry, 1983, Development of a Paamese transitive suffix. In Amran Halim, Lois Carrington and S.A. Wurm, eds *Papers from the Third International Conference on Austronesian Linguistics*, vol.4: *Thematic variation*, 269-283. *PL*, C-77.

Foley, William A., 1976, Comparative syntax in Austronesian. PhD dissertation, University of California, Berkeley.

Foley, William A. and Robert D. Van Valin, 1984, *Functional syntax and universal grammar*. Cambridge: Cambridge University Press.

Geraghty, Paul A., 1983, *The history of the Fijian languages. Oceanic Linguistics* Special Publication 19. Honolulu: University of Hawaii Press.

Milner, George B., 1972, *Fijian grammar* (3rd rev. edn). Suva: Fiji Government Printer. (1st edn 1956)

Pawley, Andrew, 1973, Some problems in Proto-Oceanic grammar. *Oceanic Linguistics* 12:103-188.
    1986, A reanalysis of Fijian transitive constructions. In Chris Corne and Andrew Pawley, eds *Le coq et le cagou: essays on French & Pacific languages in honour of Jim Hollyman*. [*Te Reo* 29:81-112.]

Pawley, Andrew and Lawrence A. Reid, 1980, The evolution of transitive constructions in Austronesian. In Paz B. Naylor, ed. *Austronesian studies: papers from the Second Eastern Conference on Austronesian Languages*, 103-130. Michigan Papers on South and Southeast Asia 15. Ann Arbor: University of Michigan.

Ross, M.D., 1988, *Proto Oceanic and the Austronesian languages of western Melanesia. PL*, C-98.

Simons, Gary F., 1980, The verbal sentence in Arosi: a reinterpretation of Eastern Oceanic sentence structure. In Paz B. Naylor, ed. *Austronesian studies: papers from the Second Eastern Conference on Austronesian Languages*, 131-151. Michigan Papers on South and Southeast Asia 15. Ann Arbor: University of Michigan.

Taylor, Andrew J., 1970, Syntax and phonology of Motu (Papua): a transformational approach. PhD thesis, Australian National University, Canberra.

NOMINAL POSSESSIVE CLASSIFICATION IN TONGAN

MELENAITE TAUMOEFOLAU

1. INTRODUCTION

1.1 PREVIOUS WORK

A great deal of work has been done on A and O possession in the various Polynesian languages.[1] As is now well known, possessive pronouns and possessive prepositions in most Polynesian languages come in two forms. For example, to express the meaning of 'my' in Tongan, either one of the two forms *'eku* or *hoku* is used. 'His' is expressed by either *'ene* or *hono*, and 'your' by either *ho'o* or *ho*. The meaning of the possessive preposition 'of' can be expressed by either *'a* or *'o*. The first of these pairs of possessives, *'eku* 'my', *'ene* 'his', *ho'o* 'your' and *'a* 'of', belong to the possessive category called A and the second, *hoku* 'my', *hono* 'his', *ho* 'your' and *'o* 'of', belong to the possessive category called O. This division of possessives into the two categories of A and O permeates the entire possessive system of Tongan, as is the case also with most other Polynesian languages.

I think it would be true to say that the theory that has gained the most general acceptance as to the meaning of A and O is that developed by Biggs (1969) for Maori, namely that A has the meaning of possessor controlled or dominant possession and O, non-possessor controlled or subordinate possession. C.M. Churchward (1953) gives a similar theory for Tongan although he uses different terms to describe the categories of possession. He calls A-possessed nominalisations that correspond to the subject of a sentence 'subjective' and O-possessed nominalisations that correspond to the object 'objective'. Thus, in the following sentence the derived nominalisation *'ene langa* 'his-A building' takes A class because the possessive corresponds to the subject (agent in my view) *Sione*, while the nominalisation *hono langa* 'its-O being built' takes O class because the possessive corresponds to the object *fale* 'house':

> *Na'e langa 'e   Sione 'a   e   falé.*
> PAST build ERGATIVE Sione ABSOLUTIVE ARTICLE house
> Sione built the house.

Churchward makes no attempt to explain the semantics of those usages of A and O but, by using the same names ('subjective' for A and 'objective' for O) to refer to possessions in which the possessives do not correspond to any subject or object of the verb, he implies that there is a semantic connection between the use of A and O with nominalisations and their use with concrete nouns. He maintains (1953:81) that when A and O are used with 'other nouns'

---

[1]   This is an expanded version of the paper delivered at FICOL, Port Vila, July 1993. I want to thank my teacher, Ross Clark, for comments and discussions while both versions of the paper were being prepared.

(i.e. concrete or common) in usages in which the possessive hardly corresponds to either the subject or object of a verb, A (i.e. the subjective possessive) is used when, if I am the possessor, "I am active, influential, or formative etc. towards the thing mentioned" but O is used when "the thing mentioned is active, influential or formative etc. towards me" . This is very similar to the dominant/subordinate explanation of Biggs (1969) for Maori as well as the control theory of Wilson (1982) for Hawaiian, a theory that was also postulated to be true for other Polynesian languages.

In his review of Churchward's *Tongan grammar*, Milner (1954:63) expresses dissatisfaction with Churchward's account of the functions of the two categories of possession and concludes that "the problem of nominal classification in Tongan remains unsolved". Milner's main criticism is that Churchward's interpretation of the two possessive categories does not explain very many uses of the possessives, as with some kinship terms. For example, the use of O with the relationships wife, son and daughter would imply that a man would be subservient to them while the use of A would imply that his mother, father and sister's son would be subservient to him. This, Milner points out, contradicts what is known of Tongan culture.

Another problematic area that might be added which the control versus non-control explanation would hardly explain is the possession of statives in Tongan which can be possessed with both A and O. Consider, for instance, *'ene 'ita '*(A category) the fact that he was angry' and *hono 'ita '*(O category) his anger' or *'ene mamahi '*(A category) the fact that he was sad' and *hono mamahi '*(O category) his sadness'. It is difficult to see how control, or the lack of it, may differentiate between the two uses, even if the control refers to the initiation of the possessive relationship, as advocated by Wilson (1982).

The partly grammatical and partly notional account that Churchward gives means that he has not attempted to establish explicitly a relationship between the use of the possessives with referential nouns and their use with nominalisations (but compare Pawley and Sayaba (1990) for the use of the possessives in Wayan). Yet, by retaining the names 'subjective' for A and 'objective' for O to cover use with nominalisations and use with concrete nouns he is implying that there is a common motivation between the two uses. Most accounts of the possessives have tended to concentrate on the possession of concrete nouns while setting aside problems of possessed nominalisations as separate. Such accounts include Elbert (1957), Mulloy and Rapu (1977), Wilson (1982) and, more recently, Hohepa (1993).

Wilson (1982) contains a detailed investigation of A and O as they are used with referential nouns, but he implies that A and O have the same functions when they occur with 'verbs' in nominalisations since he says (p.16) that: "The controller...is the noun phrase that causes or instigates the relationship (usually possessive, but the relationship between an agent and a verb is also one of control)...Actors, agents, and instruments are controllers". However, Wilson does not discuss this further and, on the possession of nominalisations, directs the reader to Chung (1973) who holds that the use of A and O in nominalisations in Tongan, as is the case in Maori, is motivated purely on a syntactic basis. Clark (1981) believes that the choice of A and O in nominalisations in Polynesian languages mirrors the semantic contrast between A and O. This view is taken for granted by Biggs (n.d.), who makes the point that to account for the meaning of A and O, their uses with statives and intransitive verbs have also to be explained. In a similar vein I suggest that A and O maintain the same basic meaning across both concrete nouns and nominalisations.

Elbert (1957) calls O possession 'partitive' and A 'agentive', a view that is basically in agreement with my interpretation of the two categories. Our treatments, however, differ in detail and in scope; whereas he confines his interpretation to the possession of referential nouns, I am concerned with the application of the possessives in the entire range of nominals.

1.2 AIMS AND METHODOLOGY

My task here is to characterise the semantic basis of the opposition between A and O. My method in trying to come to terms with the semantics of A and O was to list all possible occurrences of A and O that I knew of. I got some of these usages from previous works by linguists on A and O, from other native-speaking Tongans, and from usages I made up myself. My examples included the possession of all kinds of nominals. Using all kinds of nominals means not separating the possession of nominalisations from the possession of concrete nouns. I wanted to investigate the possession of all nominal types in order to be thorough. My aim was to examine all these usages to see if there was a distinction between A and O; if there was, what was it?

I should say at once that what I investigated were forms rather than members of semantic domains. This means that when I looked at the possession of a word like *fa'ē* 'mother', it was not simply its sense of 'mother' whose possession interested me, but also its sense of the nominalisation 'being a mother'. I was more interested in comparing the possession of *fa'ē* 'mother' and that of *fa'ē* 'being a mother' than in comparing the possession of *fa'ē* 'mother' and that of *foha* 'son', which are members of the semantic domain of kinship. My insistence on using forms rather than semantic domains was because I am inclined to think that Tongan is a language in which the great bulk of content words or bases are indifferent between nominal and verbal use, with or without affixation. And for some time I have had a nagging suspicion that A and O had something to do with these verbal and nominal uses of a form. So instead of grouping words into semantic domains and expecting members to be possessed in the same way, the kind of presupposition that leads to the notion of 'exceptions', I merely investigated each form for what it was worth. Every single form that I investigated could be possessed with both A and O to designate different possessive relationships.

My conclusion is that there is a single function of each of the possessive categories A and O, and this single function underlies every conventionalised occurrence of A and O regardless of what kind of nominal is being possessed. This finding is not compatible with the notion of 'exceptions'. I now doubt that we should be looking for 'meanings' of A and O relationships. 'Meaning' implies something specific, and it is not possible to explicate a specific meaning of such broad, semantically abstract categories as A and O. It would be more fruitful to think of A and O as having grammatical functions instead, or grammatical meaning as opposed to lexical meaning. We could say that while A and O have functions or grammatical meanings, the nominals they modify have lexical meanings.

2. THE METAPHORS: THEIR FUNCTIONS AND DISTRIBUTION

After examining my data I came to the conclusion that A and O in Tongan are two great grammaticalised metaphors for perceiving every 'thing' in the real world. The function of the A metaphor, on the one hand, is to mark the possession as an 'activity', even if it is not a

literal activity, and the possessor as a 'doer', even if he/she/it is not a literal doer. I call this a verbal function since 'activity' presupposes verbality. The function of the O metaphor, on the other hand, is to mark the possession as a 'part' or 'property', even if it is not a literal part or property, and the possessor as a 'whole' or 'totality' even if he/she/it is not a literal 'whole'. I call this a nominal function since 'part' or 'property' presupposes nominality. A is a metaphor of agentivity and appropriate for activity-based relationships while O is a metaphor of constitution and appropriate for property-based relationships. Ultimately, Tongan uses A and O to distinguish between what you actually 'carry out' and what merely characterises you.

2.1 PROTOTYPICAL USE OF A AND O

A

O
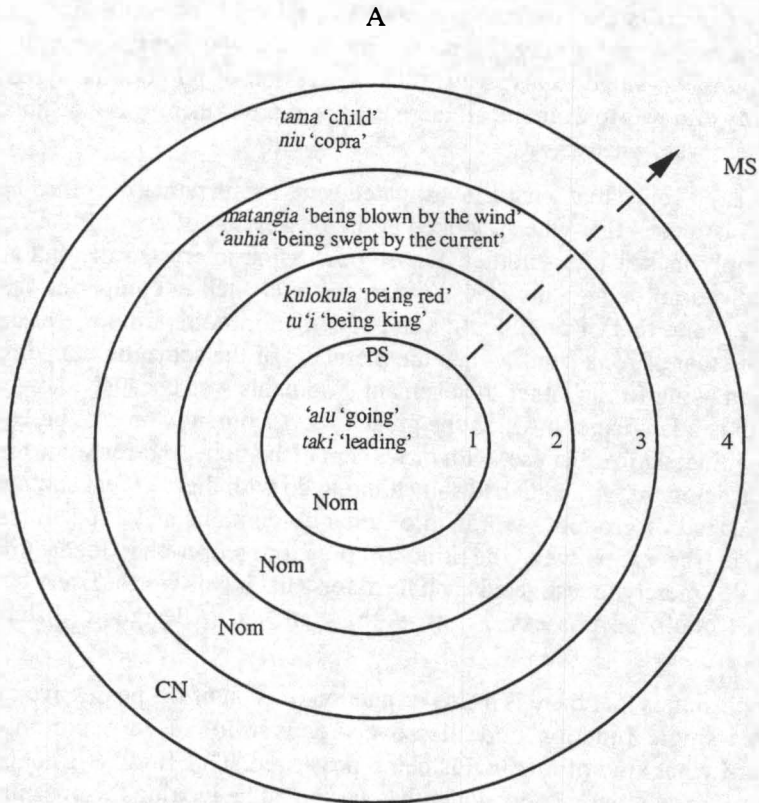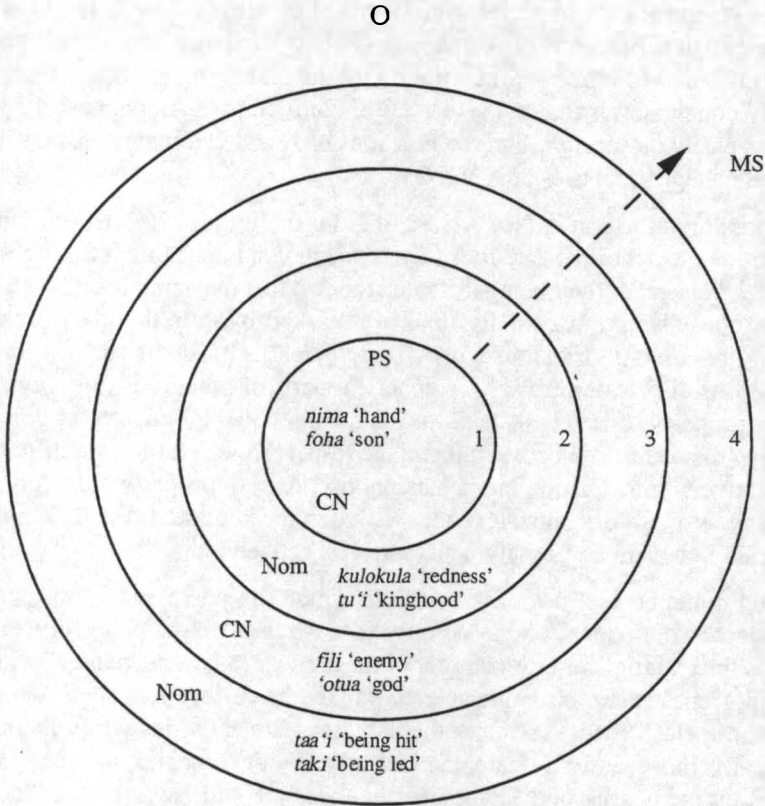
KEY

PS	Prototypical situation	Nom	Nominalisations
MS	Metaphorical situations	CN	Concrete nouns

FIGURE: A AND O POSSESSION IN TONGAN

Since A and O are metaphors, they have prototypical applications as well as metaphorical extensions. The prototypical use of A (see Area 1 of A in the figure) is when it marks nominalisations that represent literal activities of a literal doer (e.g. *'ene taki* 'his leading'), where a syntactic Agent possesses a nominalised transitive verb, and *'ene 'alu* 'his going', where a syntactic Subject possesses a nominalised dynamic intransitive verb. These are prototypically 'verbal' relationships. I now believe that the use of A with concrete nouns (see Area 4 of A in the figure) is an extension of this prototypical 'verbal' use. The prototypical use of O (see Area 1 of O in the figure) is when it marks literal part-whole relationships (e.g. *hono nima* 'his hand', *hono foha* 'his son, literally tuber'). These are prototypically 'nominal' relationships. I now believe that the use of O with nominalised transitive verbs (see Area 4 of O in the figure) is an extension of this prototypical 'nominal' use.

2.2 METAPHORICAL USES OF A AND O

As grammaticalised metaphors, A and O apply generally across all nominals, so the fit is sometimes not as perfect as it is in prototypical situations (see Area 1 of A and O in the

figure). The reason for the imperfect fit (illustrated in Areas 2-4 of A and O in the figure) is that the grammatical functions of A (marking 'activity' and therefore verbal) and O (marking 'property' and therefore nominal) conflict with the lexical meanings of the nominals they modify. My conclusion is that in these areas of conflict, the metaphors still apply, although they are less easily discernible, and the functions of A and O remain constant. The following are the three metaphorical uses of A and O:

1. One metaphorical use of A (see Area 2 of A in the figure) is to mark nominalisations of stative verbs as metaphorical activities (e.g. *'ene kulokula* 'its being red', *'ene tu'i* 'his being king', *'ena faikehekehé* 'their being different, the fact that they are different'). I argue that the reason why these stative nominalisations are marked by A is that they are metaphorised activities. One metaphorical use of O (see Area 2 of O in the figure) is to mark nominalisations of stative verbs as metaphorical parts or properties (e.g. *hono kulokula* 'its redness, its property of redness', *hono tu'i* 'his kinghood, his property of being king', *hona faikehekehé* 'the difference between them, the respect in which they are different'). Here, O turns the stative nominalisation into a metaphorised part or property of the possessor. Forms like *kulokula* 'red' are of course lexically stative in meaning, but A and O transcend lexical meaning and view them as 'activity' and 'part' respectively.

2. A second metaphorical use of A is one in which the possessed is an 'activity' but the possessor is not the 'doer' of the activity (see Area 3 of A in the figure). Instead, the possessor is the experiencer or undergoer of the activity (e.g. *'ene matangia* 'its being blown by the wind', *'ene 'auhia* 'his being swept away by the current'). In such A-marked cases of possession, the clash is that lexically the possessed are activities with inherent agents, but grammatically those activities are marked as activities carried out (i.e. experienced or undergone) by the possessor. Metaphorically, these are still 'activities' of the possessor. A second metaphorical use of O is when it does mark an object, person or place as a 'part' or 'property' (see Area 3 of O in the figure) but that object, person or place is not a literal part or property of the possessor (e.g. *hoku fili* 'my enemy', *hoku 'Otua* 'my God', *hoku tu'i* 'my king', *hoku mali* 'my spouse', *hoku tuonga'ane* 'my brother, female speaking'). What appears to be an imperfect fit here is in fact the use of the O metaphor to designate a metaphorical partitiveness. The relationship between one and one's enemy, for instance, constitutes a kind of partnership in which one member complements the other. An enemy must be an enemy to someone, even if that someone is oneself. In this sense, such relationships are metaphorically partitive. By complementing the possessor, the possessed thereby counts as 'property' or 'part' of the possessor in a figurative sense.

3. The third metaphorical application of A is its use with concrete nouns (see Area 4 of A in the figure), that is, when a real world object is viewed as an 'activity' as in *'ene tama* 'her child' and *'ene niu* 'his copra, his young coconut trees'. Object concept words like *tama* and *niu* are viewed as 'activities' that their possessors or 'doers' 'action' in some way. The reason why it is hard to conceive of the object as an 'activity' is that the nominal lexical meaning of a word like *tama* 'child' clashes with the verbal grammatical meaning of the A metaphor. The fact remains, however, that the function of the metaphor remains constant – it marks the possessed as an 'activity' that is 'actioned' by the possessor. The third metaphorical application of O is when a literal activity is viewed as a 'part' or 'property' of a possessor (see Area 4 of O in the figure), as in *hono taa'i* 'her being hit' and *hono taki* 'her being led'. The possessed here are nominalisations that are possessed by syntactic objects. They take O because they constitute, characterise, and identify the possessor in the same way that a literal body part such as *nima* 'hand' may constitute, characterise and identify him/her.

What makes this application of O difficult to discern is the clash between the verbal lexical meaning of the nominalisation and the nominal grammatical meaning of the O metaphor, but the function of O essentially remains the same.

2.3 THE ACTIVITY/PART DISTINCTION IN METAPHORICAL SITUATIONS

Sometimes in metaphorical situations it is not easy to see how a relationship is partitive or agentive. I want to illustrate how, for instance, possessive relationships with the surroundings and the natural environment can be partitive and therefore take O. *Hoku tafa'aki* 'my-O side' refers to both a literal body part and the space at my side. With the second meaning, the partitiveness is metaphorical. This is also the case with *hota vaha'a* 'our-O space-between-us'. Although this space is not an actual part of us, by using O possession we speak of it as though it were. Similarly, *hoku kolo* 'my-O village' and *hoku fonua* 'my-O country' are parts of me in a figurative way. This is the case also with *hoku kelekele* 'my-O land', *tahi 'o Tonga* 'Tonga's-O sea area', *hoku 'akau* 'my-O trees', *hoku niu* 'my-O coconut trees', *hoku vai* 'my-O pool' and, by analogy perhaps, *hoku inu* 'my-O drink'. All these are cases of metaphorical partitiveness in which the possessions are viewed as extensions of the 'person' of the possessor.

We can contrast these O-marked metaphorical parts or properties with their A-marked activity counterparts. When the exact same referential nouns above select A, it is then that they are viewed as metaphorical activities. Thus: *'eku kolo* 'my-A village' might be said by an officer of the Statistics Department in reference to a village whose population he is going to count; *'eku kelekele* 'my-A soil' may be said by a scientist to refer to his test tube of sample clay with which he is experimenting; *'eku 'akau* 'my-A plants' may be said by a gardener to refer to the plants he is cultivating; *'eku niu* 'my-A coconut trees / copra' may be said by a man to refer to the young coconut trees that he is taking care of or to the copra that he is processing; *'eku vai* 'my-A medicine' may be said by a doctor to refer to the medicine he is prescribing or by a patient to the medicine he is taking; *'eku inu* 'my-A drink' may be said by a girl to refer to the jug of lemon drink she has made. There are probably thousands of real-world situations in which possession is modifiable by A, the only requirement being that there be some criterial activity upon which the possession is founded. And apart from these A-marked cases of possession, the exact same referential nouns can also be used as nominalisations (e.g. *'ene kelekele* 'its-A being earth-filled', which may be said of a place, as opposed to *'ene makamaka* 'its-A being rocky'). All such nominalisations are also A-marked, being states (except in the case of *inu* 'drink' which will be A-possessed anyway as a literal activity of a literal doer) and, therefore, metaphorised activities. My objection to the control theory is that control is too specific; 'control' is only a subset of 'activity'.

2.4 DISTRIBUTION OF A AND O

Milner (1954:63) levels a second major criticism at Churchward's treatment of A and O in Tongan by saying that Churchward has not been able to resolve the fact that "very many words only take one form of the possessive pronouns to the exclusion of the other, irrespective of context". In defence of Churchward's analysis which seems to regard A and O as equally versatile, I want to argue that, contrary to Milner's assertion, all Tongan forms that are content words are modifiable by both A and O to give different possessive relationships. In addition, the context in which a form is possessed is all-important. If the

context is about a partitive relationship, O is selected, if agentive, A. From this rule there is no deviation. When a form or word in Tongan is possessed, it is capable of being viewed either as an 'activity', thus requiring A, or as a 'property', thus requiring O.

Take, for example, the word *foha* 'son, tuber'. When it is used as a concrete noun and possessed by a man, as in *hono foha* 'his-O son', O class is selected because O marks a partitive relationship, the son being the father's 'tuber', an extension, though metaphorical, of his person. But when the word is used as an 'intransitive nominalisation', as in *foha 'a e ma'alá* 'productivity of-A the yam garden' or *'ene fohá* 'its-A productivity', A class is selected because A designates an agentive relationship in which the garden (*ma'ala*) 'carries out' the 'activity' of producing tubers. Most accounts of A and O tend to regard a word like *foha* as a concrete noun and possessed only with O class to the exclusion of A class. What should be remembered is that content words in Tongan are multifunctional so that 'concrete nouns' are never exclusively concrete nouns. A concrete noun form is also a 'verbal noun', after Churchward, that is, an intransitive nominalisation. If, as in the case of *foha*, a word is O-possessed as a concrete noun, it is also A-possessed in its intransitive nominalisation sense. It should also be noted that a 'concrete noun' is always capable of being possessed by both A and O depending on the context in which it is used. For example, with the word *foha* 'son, tuber', O is used to designate the partitive kinship relationship with the father as possessor, but in a context such as the distribution of the tubers of some plant (e.g. *sī* (*Cordyline terminalis*), yam or cassava), one may speak of A-possessed *foha*, as in *Ko hai na'a ne to'o 'eku fo'i fohá?* 'Who took my-A tuber?' designating an agentive relationship rather than partitive. With the word *fa'ē* mother', A is used in *'ene fa'ē* 'her-A mother' designating an agentive possessive relationship but O is used in *hono fa'ē* 'its-O mother', as in *fa'ē'o e ta'ú* 'mother of-O the year' designating a partitive possessive relationship.

The word *'alu* 'going' is often regarded as an intransitive nominalisation. As an intransitive nominalisation it is A-possessed, (e.g. *'ene 'alu* 'his-A going'), since we are talking about an action here that someone is performing, hence the use of the A metaphor. But the form *'alu* also has the meaning of 'journey, excursion, trip, or tour', a sense that is arguably not a nominalisation at all, except in the superficial sense of lexical nominalisation, but a referential noun designating an event. This sense of *'alu* is compatible with O possession if the possession conveyed is a partitive one, as in *ko e 'alu fakalata taha 'o e fa'ahita 'ú* 'the most enjoyable trip/tour of-O the season' or *ko hono 'alu fakalata tahá* 'its-O most enjoyable trip/tour'. Similarly, we may speak of A-possessed *mohe* 'sleeping' in *'ene mohe* 'his-A sleeping' since the possessor/agent is carrying out the act of sleeping, but *mohe* will select O possession if it is viewed as property in a partitive relationship, as in *mohe 'o e maté* 'the sleep of-O death', referring to the sleeplike quality of death (taken from a hymn). We may also speak of A-possessed *mole* 'being lost' in *'ene mole* 'his-A being lost' since he is 'carrying out' or experiencing the 'act' of being lost, but we may also view *mole* as partitive of something else and thus use O possession, as in *mole 'o e pa'angá* 'debit of-O the account' or *hono mole* 'its debit/loss'. The word *tupu* 'growing' may be A-possessed in *'ene tupu* 'his-A growing/growth' to suit the agentive relationship, but O is used for a partitive relationship in *hono tupu* 'its-O interest/profit' as in *tupu 'o e pa'angá* 'interest of-O the principal/account'. All nominals that are usually referred to as 'intransitive nominalisations' behave in much the same way as the examples given above when they are possessed and thus take both A and O according to the appropriate context.

The significance of the multifunctionality of forms in Tongan should be recognised. Whereas in English we would probably use totally different words for the second senses of

the examples above, Tongan uses the same forms without morphological marking. I believe that the multifunctionality of Tongan has tended not to be fully appreciated, and this has led to a rather restricted view of words, in turn giving rise to a restricted view of A/O distribution. A word tends to be understood as exclusively a 'verb' or 'noun'. For example, words such as *lele* 'running' and *tangi* 'crying' are often understood only as 'intransitive nominalisations', being 'verbs'. And since as 'intransitive nominalisations' these words take only A possession, it is often assumed that they (words such as *lele* and *tangi*) can only take A but not O possession. The danger here is that the other senses of *lele* and *tangi* – those senses that permit of O possession – tend to be ignored or forgotten.

The argument presented here is that *lele* and *tangi*, like other content words in Tongan, are best regarded as multifunctional forms. Each form is able to occur in both A-induced and O-induced contexts. To illustrate, in contexts in which *lele* is possessed as an 'activity' that is carried out by a (usually human) possessor, as in *'ene lele* 'his-A running', whatever the grammatical label of *lele*, A is selected. In contexts in which it is possessed as a 'part' or 'property' of a (usually inanimate) possessor, as in *hono lele mālie tahá* 'its-O most spectacular race/track event', again regardless of the grammatical label of the word, O is selected. Thus, it is not that a word is an 'intransitive nominalisation' that it selects A but that as an intransitive nominalisation a word is in an A-induced context, being viewed as an 'activity'. And since words like *lele* are not exclusively 'intransitive nominalisations', they may enter, as referential nouns, into possessive relationships that are partitive and thus call for O.

Multifunctionality is a property of the language that should be heeded because it would have both methodological and terminological implications for the grammatical analysis of Tongan. It is based on the importance of multifunctionality in Tongan that I think the semantic domain approach is inappropriate for the study of possession because by putting words into semantic domains (or 'noun classes') we thereby ignore their multifunctionality and forget that they may take the alternative form of possession.

2.5 DISTRIBUTION ACCORDING TO FREQUENCY OF USE

All forms in Tongan, then, potentially take both A and O, but there is a difference in their frequency of use. For example, *hono tama* 'its-O child', as in *tama 'o e fonuá* 'child of-O the land' is much less frequently used than *'ene tama* 'her-A child'. This does not mean that *hono tama* is not possible. Rather, the need for the context that calls for its use is rarer, possibly much rarer, than the need for the context in which A is required, as in *'ene tama* 'her-A child'. There is a difference in the distribution of A and O here, but it is a difference in use, not grammar. *Hono tama* is just as 'grammatical' as *'ene tama*, but *'ene tama* is more frequently used than *hono tama*. If this distinction between grammar and use or between what is 'grammatical' and what is simply 'more frequently used' is not made, then there is a risk that only what is 'frequently used' would be thought to be 'grammatical', with the result that what is less frequently used but 'grammatical', such as *hono tama*, would tend to be overlooked. This is probably another factor that has led to the claim that many words take only one possessive category. What Churchward (1953) does is concentrate on what is commonly used, which was probably all that Churchward had access to, not having been a native speaker. But for each example of a form that Churchward gives there is, in fact, a corresponding use of the other possessive class that he does not mention. If we dismantle his

semantic domains and examine how each form is possessed, we will see that there are really no 'exceptions', and A and O are equally applicable to all the forms he discusses.

3. THE RULE

However the rule is to be enunciated for Tongan, it should say that in the figure, Areas 1, 2 and 3 of A are predictably A and Areas 1, 2 and 4 of O are predictably O. The unpredictable areas are Area 4 in A and Area 3 in O. It should be understood, however, that unpredictability here is not due to exceptional circumstances requiring any new rules but rather to the accident of A/O choice since it is in this area that A and O are potentially equally applicable. This area, collectively Area 4 of A and Area 3 of O, consists of concrete things as the possessed, and A and O are potentially equally applicable if the possessor is human, or non-human but personified. An inanimate possessor will uncontroversially select O because, as is the nature of things in the real world, an inanimate possessor, unless it is personified, is not naturally 'agentive' towards concrete possessions, not being volitional or active, but can only be 'characterised' by them.[2]

Given human or personified possessors, these concrete possessions could conceivably be viewed as 'parts' or 'properties', thus attracting O, but could also conceivably be viewed as 'activities', thus attracting A. They could potentially select O if, for instance, they make up points in a network or members of a set or partnership in which the possessor is a focal point, but they could select A if, despite satisfying the foregoing requirements for O, they display some salient instrumental value or are activity-oriented in some way. I think this is the reason why, given a human or personified possessor, we find both A and O in the possession of such 'things' as tools, extended family members, and forms of transport.

In novel situations where a (concrete) thing is being possessed for the first time by a human/personified possessor, both A and O are potentially possible. Whichever of A and O the native speaker selects, the rule will have allowed it because there is no 'wrong' choice. Thus, in Tongan, I have heard either A or O for 'table', 'watch', and 'cup', holding the personified possessor constant. What should be noted is that in cases like these, 'correctness' is determined retrospectively by the superimposed process of conventionalisation. It is not that a choice was inherently correct. Sometimes, as for the possession of 'cup', both A and O have been conventionalised, and thus both made 'correct'. With more 'permanent' relationships such as kinship relationships, a single choice will have long been conventionalised. Thus, Maori uses O for 'mother', 'father' and 'grandparent' whereas Tongan uses A, and we need not conclude that there are exceptions or aberrant usages here or that the rules are necessarily different.

The rule of 'activity' and 'part' is probably embedded in the native speaker's competence. The fact that in novel possessive situations there is probably more agreement than disagreement on a category is to be expected, given native speakers' ability to draw analogies with known situations. The bulk of Tongan native speakers will probably speak of an A-possessed 'camel', given a human possessor, by analogy with the possession of other

---

[2]   In a Maori Studies departmental seminar, University of Auckland, in June 1993 Biggs gives the following as one of six factors that must be accounted for by any rules covering the A/O distinction: "An inanimate possessor may only possess [objects/concrete possessions] with O...This may be a fancy...If a fact it is important".

animals in Tongan, but it is conceivable that a Maori speaker would select O for 'camel' by analogy with Maori O category 'horse'. But drawing such analogies is still in keeping with the rule, and it seems to me that ultimately the choice is always between whether the new possession is more activity-oriented or partitive-oriented.

My conclusion is that one general rule rather than several 'smaller' rules more faithfully reflects the facts of Tongan. Such a rule, I think, better represents the native speaker's competence. However, having one rule instead of several may not be very helpful to the language instructor whose students must learn the language consciously. Nor will the implications of one general rule necessarily enchant the lexicographer.

4. SUMMARY

The main ideas of this paper have been:

1. What appear to be quite disparate uses of each of A and O are really metaphorical extensions of only one basic, prototypical function the specification of which, therefore, requires only one rule. For A, the function is to mark a possessive relationship as one of agentivity in which the possessor 'carries out' the possessed. For O, the function is to mark a possessive relationship as one of partitiveness in which the possessed 'characterises' the possessor. It is the singleness of this function (hence rule) that accounts for the great regularity and consistency with which A and O occur.

2. In possessive relationships where the possessor is human (or personified) and the possessed is a concrete noun, both A and O, being *views* of agentivity and partitiveness rather than objective, real-world categories, are potentially equally applicable. This is because a human possessor, unlike an inanimate one, is capable not only of being constituted or identified or characterised by the possessed but also of being agentive towards it. Thus, with a human possessor, the relationship with the possessed would just as appropriately be viewed as 'agentive' as 'partitive'. Either choice will be in keeping with the rule. It will be seen, then, that unpredictability in these cases has nothing to do with the rule and therefore does not invalidate it. But even this unpredictability does not upset too much the uniformity with which A and O are used because of two factors: (a) in novel situations native speakers tend to draw analogies with known possessions and, more often than not, make the same choice; (b) the first incidental choice, which would be that of most people, given factor one above, is soon conventionalised and made to become the 'correct' choice.

3. The distribution of A and O in Tongan can be systematised as follows: any form that is a content word can be possessed by both A and O depending on whether the relationship is viewed as agentive or as partitive.

REFERENCES

Biggs, B., 1969, *Let's learn Maori: a guide to the study of the Maori language*. Auckland: Auckland University Press.
    n.d., Notes in reply to Hohepa 1993, departmental seminar June 1993, Department of Maori Studies, University of Auckland.
Chung, S., 1973, The syntax of nominalizations in Polynesian. *Oceanic Linguistics* 12:641-686.
Churchward, C.M., 1953, *Tongan grammar*. London: Oxford University Press.

Clark, R., 1981, Inside and outside Polynesian nominalizations. In Jim Hollyman and Andrew Pawley, eds *Studies in Pacific languages & cultures in honour of Bruce Biggs*, 65-81. Auckland: Linguistic Society of New Zealand.

Elbert, S.H., 1957, Possessives in Polynesia. *Bible Translator* 8:23-27.

Hohepa, P., 1993, A/O rule of one: notes. Paper given in a departmental seminar, Department of Maori Studies, 17 June 1993.

Milner, G.B., 1954, Review of *Tongan grammar* by C.M. Churchward. *Man* 54, Article 257:63.

Mulloy, E.R. and S.A. Rapu, 1977, Possession, dependence and responsibility in the Rapanui language. *Journal of the Polynesian Society* 90:7-25.

Pawley, A. and T. Sayaba, 1990, Possessive-marking in Wayan, a Western Fijian language: noun class or relational system? In J.H.C.S. Davidson, ed. *Pacific island languages: essays in honour of G.B. Milner*, 147-171. London: School of Oriental and African Studies, University of London; Honolulu: University of Hawaii Press.

Wilson, W., 1982, *Proto-Polynesian possessive marking. PL*, B-85.

# MAE-MORAE AND THE LANGUAGES OF EPI (VANUATU)

DARRELL TRYON

1. INTRODUCTION

There are currently six languages native to Epi which are spoken on that island. These are: Lamenu, Lewo, Bieria, Baki, Maii and Bierebo (see Map). There are also three non-native Melanesian languages spoken on Epi, namely Paamese (spoken by refugees from the volcanic island of Lopevi), Mae (spoken by people of the same name who migrated to Epi from north-east Malakula), and Nakanamanga (spoken in south-east Epi by people who came originally from Tongoa in the nearby Shepherd Islands).

The languages of Epi are still not very well known, with early works such as Codrington (1885), Ray (1926) and Ivens (1937-39, 1939-42) still constituting the main sources. In more recent times Tryon (1973, 1986) and Early (1993, 1994) have produced a number of papers on these languages, drawing attention to such features as stem-initial consonant alternation and verb serialisation.

The languages of Epi may be subgrouped as represented in the tree diagram which follows:
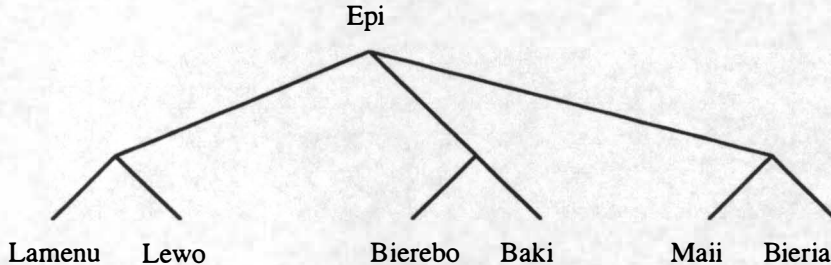
In terms of their position within the Oceanic subgroup, Pawley (1972) considered that the Epi languages were members of a Central New Hebridean subgroup, which tentatively included the languages of Malakula. Pawley's classification has been expanded and amplified since that time, although the position of the Epi languages has remained relatively unaltered.
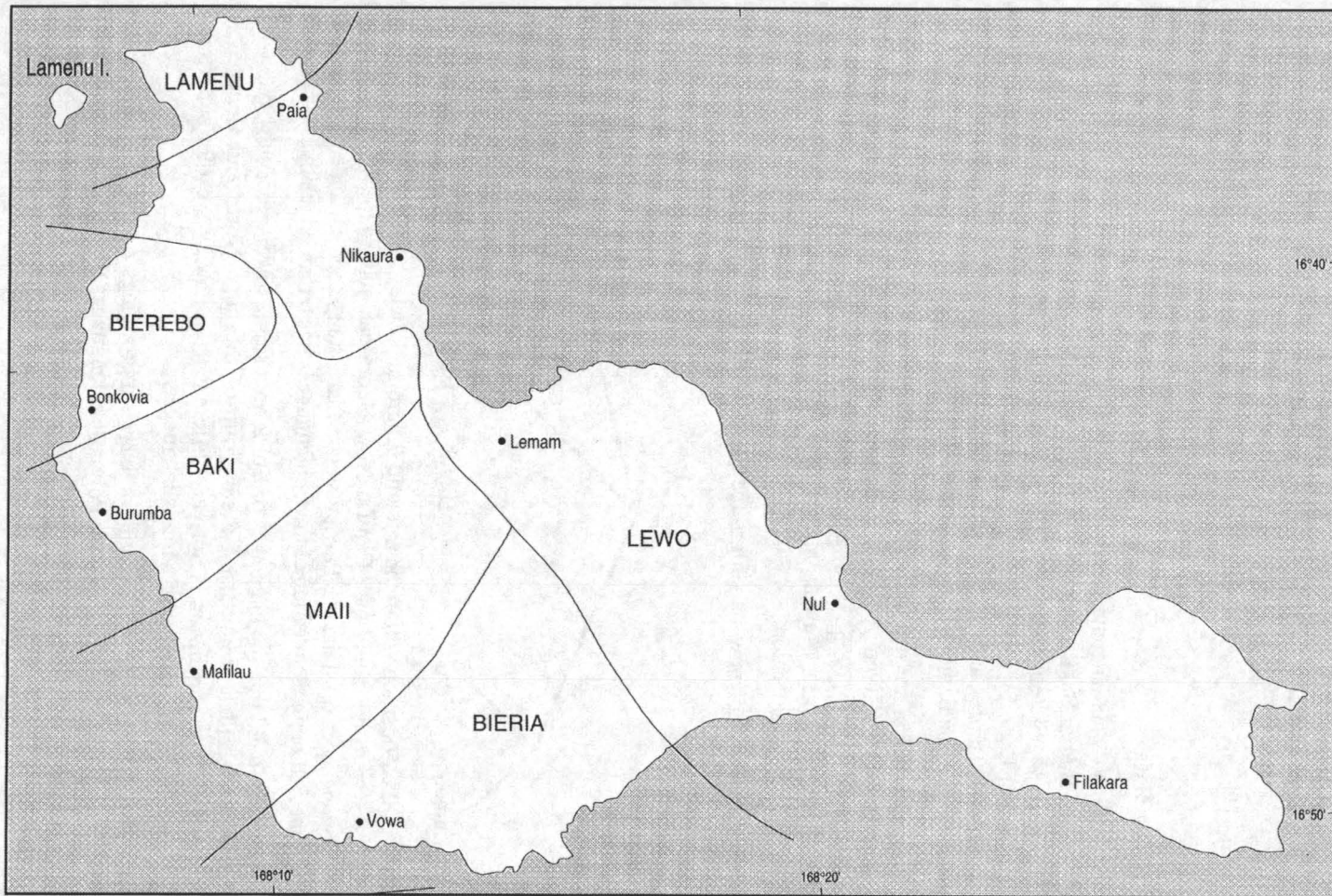
Tryon (1976) found that the languages of Epi form a single lower-order subgroup within the East New Hebrides group, itself a subgroup of the huge North and Central New Hebrides group. This conclusion is not very different from Pawley's earlier subgrouping (1972), based on a small number of witness languages.

Clark (1985) compared the Vanuatu language subgroupings proposed by Pawley and Tryon and concluded that all of the non-Polynesian languages (there are three Polynesian Outlier languages spoken in Vanuatu) of Vanuatu constitute a single subgroup of Oceanic.

Lamenu I.

LAMENU

Paia •

BIEREBO

Nikaura •

Bonkovia •

• Lemam

BAKI

LEWO

• Burumba

Nul •

MAII

BIERIA

• Mafilau

• Filakara

• Vowa

16°40'

16°50'

168°10'

168°20'

MAP: THE LANGUAGES OF EPI

With respect to the languages of Epi, Clark considered that they were most closely related to the languages of Efate and the Shepherd Islands and that they constitute a primary branching within a Central Vanuatu subgroup. This Central Vanuatu subgroup includes the languages of Malakula, Pentecost, Ambrym, Paama, Epi and the Efate area.

While the languages of Epi do share a few morphosyntactic innovations with those of Efate, they share in two phonological developments which distinguish them from the Efate languages and from most other languages in the Central Vanuatu subgroup. These are the merger of POC *s and *ns (more recently reinterpreted as *s and *z: Ross 1988) as zero in all of the Epi languages except Bieria where they merge as /h/, and the merger of POC *d and *l as /l/, whereas *d and *l do not merge in the Efate area.

In this paper I focus on the language known as Maii (Mae-Morae), formerly spoken at Mae-Morae village in the west of Epi, but now spoken in the more recently established littoral village of Mafilao.

2. MAII AND STEM-INITIAL CONSONANT ALTERNATION

All of the languages of Epi are characterised by extensive stem-initial consonant alternation with verbs (see Tryon 1986).[1] These alternations are exemplified in summary form in Table 1. (Stem-initial consonant alternation is also common in the languages of the Efate area, Namakir and Nakanamanga, and also in the languages to the north of Epi, especially Paama, Ambrym, Pentecost and Ambae: see Lynch 1975; Walsh 1982; Crowley 1982; Clark 1985; Crowley 1991.)

In Maii, the major characteristic in terms of verb morphology is that the basic tense/aspect distinction is between realis and irrealis, rather than between past and future or past and non-past. In Maii, as in all other Epi languages, the realis/irrealis distinction is maintained in the vast majority of cases by verb stem-initial consonant alternation. For example:[2]

(1) a. *Inəvəmə nə-m-daa   lakai.*
       yesterday I-REAL-cut.REAL wood
       I cut the wood yesterday.

   b. *Raambiə nə-raa   lakai.*
       tomorrow I-cut.IRR wood
       I shall cut the wood tomorrow.

On the basis of these consonant alternations, five verb stem classes may be distinguished in Maii as follows:

---

1   Verbs in Maii also include a subclass of verb bases which may also serve as noun modifiers/adjectives.
2   Abbreviations used in the examples are as follows:

ACC	accompaniment	IRR	irrealis
ART	article	MULT	multiplicative
BEN	benefactive	PL	plural
FUT	future	POSS	possessive
INCEPT	inceptive	REAL	realis
IO	indirect object		

1. Class 1: *d-/r-*

In this verb class the irrealis and realis stem forms differ in that the realis form has its initial consonant in *d-*, this changing to *r-* to mark irrealis. In addition to the stem-initial consonant alternation, the realis marker *mV-* is obligatory between the subject marker and the verb stem. Members of this stem class include:

-daa/-raa	to cut, hoe
-dəkə/-rəkə	to be, stay
-duluwaa/-ruluwaa	to call out
-dumal/-rumal	to stand up
-dun/-run	to roast vegetables

For example:

(2) a. *Nə-m-duluwaa.*
I-REAL-call.out.REAL
I called out.

   b. *Tə   nə-ruluwaa.*
FUT I-call.out.IRR
I will call out.

2. Class 2: *mb-/v-*

In this class all realis stems have consonant-initial *mb-*, which alternates with *v-* to express irrealis. With this class the realis marker *mV-* is not required. Members of this stem class include:

-mbakuə/-vakuə	to row
-mbanmə/-vanmə	to come
-mbar/-var	to get, carry, take
-mbe/-ve	to be, exist
-mbər/-vər	to say, tell
-mbivi/-vivi	to work
-mbol/-vol	to dance
-mbuar/-vuar	to bite
-mbul/-vul	to buy, pay

For example:

(3) a. *Ləmbaŋə mbuar   ilə-ŋ.*
dog   Ø.bite.REAL leg-my
The dog bit my leg.

   b. *Tə   ləmbaŋə vuar-tnau.*
FUT dog   Ø.bite.IRR-me
The dog will bite me.

3. Class 3: *i-*

With this verb class (vowel-initial) the realis/irrealis distinction is of course not maintained by a consonant alternation, but rather by the presence of the realis marker *mV-* together with

a rule which states that to form the irrealis the first vowel of the verb stem is dropped and the second vowel lengthened. Thus in example (4) it will be seen that *-iop > -oop*, 'see':

(4) a. *Nə-m-iop   ləmbaŋə.*
        I-REAL-see.REAL   dog
        I saw the dog.

     b. *Tə   n-oop   ləmbaŋə.*
        FUT I-see.IRR   dog
        I will see the dog.

(5) a. *Nə-m-iənəmban.*
        I-REAL-sleep
        I slept.

     b. *Tə   n-oonəmban.*[3]
        FUT I-sleep.IRR
        I shall sleep.

Other members of this class include:

-ial/-aal	to plant
-iap/-aap	to sharpen
-iau/-aau	to sing
-iəvaavə/-oovaavə	to float
-iul/-uul	to laugh

4. Class 4: *f-* and *m-*

This stem class is exceptional in Maii in that it is the only one which does not require the overt realis marker *mV-*. In Maii there is no change between realis and irrealis stems beginning with *f* or *m*. For example:

(6) a. *Inəvəmə nə-ma n-top.*
        yesterday I-drink ART-sugarcane
        I ate (lit. drank) sugarcane yesterday.

     b. *Nə-ma n-top   raambiə.*
        I-drink ART-sugarcane tomorrow
        I'll eat (lit. drink) sugarcane tomorrow.

(7) a. *Nə-fandə mbukai.*
        I-tie.up   pig
        I tied up the pig.

     b. *Tə   nə-fandə mbukai.*
        FUT I-tie   pig
        I shall tie up the pig.

---

[3]   Note that where the realis stem has initial *-iə*, the irrealis form becomes *oo* (thus *iə > oo*).

Other members of this class include:

-fak	to slash
-fərei	to write
-fil	to cough
-flae	to spit
-fluŋ	to want, try
-fuŋgo	to do, make
-ma	to chew (sugarcane)
-mar	to die
-maul	to live, be alive
-mol	to go out
-mun	to drink

5. Class 5: General Stem Class

All verbs not belonging to the four classes listed above may be assigned to Class 5. This class is characterised by identical realis and irrealis verb stems, but with the obligatory presence of the realis prefix *mV-* with all members. It is this feature which distinguishes Class 4 from Class 5. For example:

(8) a. *Inəvəmə   nə-m-ləŋə   n-tai   m-dum.*
         yesterday I-REAL-hear ART-sea REAL-roar
         Yesterday I heard the sea roaring.

   b. *Tə   ne-ləŋə raambiə.*
       FUT I-hear   tomorrow
       I will hear it tomorrow.

(9) a. *N-man   m-kakə   m-ləvə   ndan tnau.*
         ART-bird REAL-fly REAL-go from me
         The bird flew away from me.

   b. *Tə   n-man   kakə ləvə ndan tnau.*
       FUT ART-bird fly go from me
       The bird will fly away from me.

Note that third person singular actors are indicated by a zero morpheme. Some members of stem Class 5 are as follows:

-kai	to cry
-kakə	to fly
-kan	to eat
-kərə	to marry
-kirkir	to run
-lai	to hit
-ləŋə	to hear
-lolo	to swim, bathe
-luk	to hide

-tak	to pull
-top	to bury
-tul	to sew

In summary, there are five verb stem classes in Maii, as follows:

1. Stems beginning with *d-/r-* (Class 1);
2. Stems beginning with *mb-/v-* (Class 2);
3. Stems beginning with *i-* (Class 3);
4. Stems beginning with *f-* or *m-* (Class 4);
5. Stems beginning with *k-*, *l-* , *n-* or *t-* [all others] (Class 5).

The realis/irrealis distinction is indicated in Classes 1 and 2, then, in two ways:

1. By the insertion of the realis marker *mV-* between the subject marker and the verb stem (with the exception of Class 4).

2. By means of the consonant alternations *d-/r-* and *mb-/v-* (where the realis marker has merged with the *mb-*).

With other verb classes (and especially with Class 5, with the largest membership) the realis/irrealis distinction is indicated simply by the realis marker *mV-*, between the subject marker and the verb stem.

3. EPI LANGUAGES AND VERB-STEM ALTERNATION

Stem-initial alternations are not confined to the verb phrase in Maii, however. They are also found with certain prepositional phrases. Before moving on to examine these, it should be observed that in all Epi languages there is a realis marker of the form **-mV-* which occurs, potentially, between the subject marker and the verb stem. A summary table with examples from all of the Epi languages is presented as Table 1.

In the languages of Epi, however, the realis marker is only used with a certain number of stem-initial consonants. In other cases, there is no overt reflex of **-mV-*, but rather an alternation, usually of an oral/nasal grade (or more properly fortis/lenis) nature, between stem-initial consonants to signal the realis/irrealis distinction. The process has been fully illustrated above.

4. DEVELOPMENT OF STEM-INITIAL CONSONANT ALTERNATIONS

The development of stem-initial consonant alternations was considered at length by Lynch (1975) for Nguna, of the neighbouring Efate-Shepherds group of languages. Their development in the languages of Epi was considered by Tryon (1986) and for the languages of central Vanuatu in general by Crowley (1991).

Briefly, if one were to consider the development of the consonantal pairs set out in Table 1, one would recognise that they follow a regular developmental pattern, as follows: '

(a) With all of the Epi languages, a form **-mV-* preceded all verb stems to indicate realis, becoming prefixed to the verb stem throughout.

(b) In the case of a number of stem-initial consonants, especially those reflecting Proto Epi *p, *t, *d and to a lesser extent *k and *g, stem-initial alternations developed as a result of the interaction (assimilation) of the realis marker and the initial consonant of the verb stem.

(c) With other stem-initial consonants, especially those reflecting Proto Epi *l, *w and *m, the presence of the realis marker produced only the sequences m-l, m-w and m-m.

While the current Epi languages may be presumed to have followed the path of assimilation of the initial /m/ of the realis marker *-mV- to the initial consonant of the verb stem, once the vowel of the realis marker was lost (normal in unstressed position), no single set of developmental rules has been devised which covers all of the languages. This lack of a single developmental process from Proto Epi to the present-day languages suggests strongly that the consonant alternations in Epi languages and by implication elsewhere in Vanuatu are probably the result of independent parallel development. However, as Crowley (1991:179) notes, the patterns are so widespread and at the same time so similar that it does not seem plausible to argue that these features have evolved completely independently since the break-up of Proto Central Vanuatu. A comparison of the sound correspondences (Table 2) and the alternating pairs of verb stems (Table 1) shows that the irrealis verb stem forms are regular reflexes of the protoforms, while the realis verb stem forms do not follow the regular sound correspondences. In fact the phonemic status of the voiced members of the consonant pairs in the languages of Epi may be questioned according to some phonological theories since it is extremely difficult to discover voiced/voiceless stop oppositions which do not involve realis/irrealis verb stem oppositions.

While the development of the alternations may be described as regular, there are some minor irregularities in Maii and its closest relative Bieria, with respect to the development of *m+t, which suggest that the process is not complete yet.

In Bieria, for example, as well as the t/nd stem-initial alternation derived from *t/*m-t, there are also a few t-initial stems where the collocation of *m+t has not produced a consonantal alternation. Rather the assimilatory process has not developed beyond stage one (in (a) above). Thus:

(10) a.   *Ne-tokosan.*   I shall sit down.
           No-ndokosan.   I sat down.

but:

      b.   *Ne-te.*   I shall cut.
           No-m-te   I cut.

Bieria doubly marks realis/irrealis with many verbs, first by means of the stem-initial consonant alternation and secondly by means of the vowel of the subject marker. Thus:

(11)   *No-matak.*   I am afraid.
           Ne-matak.   I shall be afraid.

It has been suggested (Tryon 1986) that this method of distinguishing realis from irrealis may have developed with verb stems whose initial consonants we have seen do not participate in the alternation process, for example those beginning with m-, l- or w-. However, the vowel of the Bieria subject marker also differs between realis and irrealis even where a stem-initial consonant alternation occurs, as in:

TABLE 1: EPI STEM-INITIAL CONSONANT ALTERNATIONS

	LEWO	NUL	BIEREBO	BAKI	MAII	BIERIA
1. *p/*m-p	*v/p* vano/pano 'go'	*ø/p* en/pen 'go'	*v/p* vtali/ptali 'laugh'	*v/mb* vio/mbio 'call out'	*v/mb* buar/mbuar 'bite'	*v/mb* vek/mbek 'go'
2. *pu/*m-pu	*w/pw* wwere/pwere 'pull'		*w/pw* weli/pweli 'buy'			
3. *t/*m-t	*s/s [*tu]* suluia/suluia 'sew' *t/t* taŋi/taŋi 'cry'	*s/s [*tu]* smalu/smalu 'stand' *t/t* te/te 'cut'	*t/nd* teŋi/ndeŋi 'cry' tika/ndika 'stay'	*t/č* teŋi/čeŋi 'cry' telan/čelan 'light'	*r/md* raa/m-daa 'cut' *t/mt* tul/m-tul 'sew'	*t/nd* tokosan/ndokosan 'sit' *t/mt* te/m-te 'cut' *s/ms [*tu]* sul/m-sul 'sew'
4. *d/*m-d	*l/ml* loŋea/m-loŋea 'hear'	*l/ml* loŋea/m-loŋea 'hear'	*č/nǰ* čoŋo/nǰoŋo 'hear'	*č/mč* čoŋ/m-čoŋ 'hear'	*l/ml* ləŋə/m-ləŋə 'hear'	*l/ml* loŋo/m-loŋo 'hear'
5. *k/*m-k	*k/k* karia/karia 'bite' kilia/kilia 'know'	*k/k* kania/kania 'eat' kilia/kilia 'know'	*s/s* sani/sani 'eat' sari/sari 'bite'	*s/č* sen/čen 'eat'	*k/mk* kan/m-kan 'eat'	*k/mk* kan/m-kan 'eat'
6. *g/*m-g			*k/ng* kariri/ngiriri 'run'			
7. *s/*m-s						*h/m̥* hul/m̥ul 'rub'
8. *V/*mi-V	*V/miV* uveve/mi-uveve 'breathe'	*V/miV* iu/mi-iu 'blow'	*V/miV* iliwi/mi-iliwi 'stoop'	*V/miV* al/mi-al 'see'	*V/miV* op/mi-op 'see'	*V/miV* at/mi-at 'tie'
9. *l/*m-l	*l/ml* lilua/m-lilua 'vomit'	*l/ml* lualua/m-lualua 'vomit'	*č/nǰ* čulua/nǰulua 'vomit'	*č/mč* čuluo/m-čuluo 'vomit'	*l/ml* lualuə/m-lualuə 'vomit'	*l/ml* luwa/m-luawa 'vomit'
10. *w/*m-w	*w/mw* we/m-we 'hit'	*w/mw* we/m-we 'hit'	*w/mw* we/m-we 'hit'	*w/mw* we/m-we 'hit'		
11. *m/*m-m	*m/m* mai/mai 'be sick'	*m/m* munia/munia 'drink'	*m/m* mrau/mrau 'fear'	*m/m* mun/mun 'drink'	*m/m* mar/mar 'die'	*m/m* mat/mat 'die'

TABLE 2: EPI SOUND CORRESPONDENCES[4]

POC	*p	*mp	*t	*nt	*ik	*ŋk	*d	*nd	*q	*ŋp
PEP	*p	*b	*t	[*d]	*k	*g	*l	*l	Ø	*pw
LAM	v, p		t, s	[s]	k		l	l	Ø	p
VIS	v, p	p	t	t	k		;	;	Ø	p
MAP	v, p	b	t	t	k	k	l	l	Ø	p
NIK	v, p	p	t	t	k	g	l	l	Ø	p
NUV	v, p	p	t		k		l	l	Ø	p
MAT	Ø, p	p	t	t	k		l	l	Ø	pw
NUL	Ø, p	p	t	t	k		l	l	Ø	pw
FIL	Ø, p	p	t	t	k		l	l	Ø	pw
TAV	v, p	p	t	t	s, k¹	g	l	l	Ø	v
BON	v, p	p	t	t	s, k¹	g	l, c²	c³	Ø	v
BUR	v, p	b	t	t	s, k¹	g	l, c²	c³	Ø	p
YEV	v, p	b	t	t	k	g	l, c²	c³	Ø	p
BAK	v, p	b	t	t	s, k¹	k	l, c²	l	Ø	bw
MAI	v, p	b	t	[d]	k	k, ŋ	l	l	Ø	p
VOW	v, p	b	t, s	[r]	k	k, ŋ	l	l	Ø	b

POC	*s	*ns	*m	*n	*ñ	*ŋ	*l	*R	*w	*y
PEP	*h	*h	*m	*n	*ñ	*ŋ	*l	*R, Ø	*w	Ø
LAM	Ø	Ø	m	n	n	ŋ	l	l, Ø	w	
VIS	Ø	Ø	m	n	n	ŋ	l	l, Ø	w	
MAP	Ø	Ø	m	n	n	ŋ	l	l, Ø	w	
NIK	Ø	Ø	m	n	n	ŋ	l	l, Ø	w	
NUV	Ø	Ø	m	n	n	ŋ	l	l, Ø	w	
MAT		Ø	m	n	n	ŋ	l	l, Ø	w	
NUL	Ø	Ø	m	n	n	ŋ	l	l, Ø	w	
FIL	Ø	Ø	m	n	n	ŋ	l	l, Ø	w	
TAV	Ø	Ø	m	n	n	ŋ	l	l, Ø	w	
BON	Ø	Ø	m	n	ñ	ŋ	l, c²	l, Ø	w	Ø
BUR	Ø	Ø	m	n	ñ	ŋ	l, c²	l, Ø	w	
YEV	Ø	Ø	m	n	ñ	ŋ	l, c²	l, Ø	w	
BAK	Ø	Ø	m	n	ñ	ŋ	l, c²	l, Ø⁴	w	
MAI	Ø	Ø	m	n	n	ŋ	l	Ø	w	Ø
VOW	h	h	m	n	n	ŋ	l, Ø	Ø	w	

1 With pronouns.
2 [c] initial; [l] intervocalic.
3 Examples reflect *nd in word-initial position only.
4 POC *R reflected as /l/ throughout Epi only reflecting a few POC items; otherwise *R is reflected as zero.

BAK	Baki	NUL	Nul
BON	Bonkovia	NUV	Nuvi
BUR	Burupika	PEP	Proto Epi
FIL	Filakara	POC	Proto Oceanic
LAM	Lamenu	TAV	Tavio
MAI	Maii	VIS	Visena
MAP	Mapremo	VOW	Vowa
MAT	Mate	YEV	Yevali
NIK	Nikauru		

(12) a. *Nove   no-mbek   va.*
yesterday I-go.REAL home
I went home yesterday.

b. *Tambia   ne-vek   va.*
tomorrow I-go.IRR home
I'm going home tomorrow.

5. PREPOSITIONAL AND OTHER FUNCTIONS OF ALTERNATIONS IN MAII

In Maii, consonantal alternations are not restricted to the verb phrase nor to verb stems. They also occur with the following:

a) Multiplicatives: *mbaka-/vaka-*
b) Inceptives: *mbaalik/vaalik*
c) Benefactives/Indirect Object: *mbikin/vikin*
d) Accompaniment: *mblakən/vlakən*

a) Multiplicatives are indicated by *mbaka-* (Realis) and *vaka-* (Irrealis), preceding numerals, thus:

(13) a. *Fuŋgo mbaka-tol.*
Ø-do   MULT.REAL-three
He/she did it three times.

b. *Tə   fuŋgo vaka-tol.*
FUT Ø-do   MULT.IRR-three
He/she will do it three times.

b) Inceptives, indicated by *mbaalik/vaalik*, may occur either sentence-initially or -finally, as in:

(14) *Mbaalik   nə-frei əvrə   ndə.*
INCEPT.REAL I-write thing   only
I began to write things.

(15) *Mə-mbənmə   iə ndə ukau ŋei mbaalik.*
we.EXC-come   in only year this INCEPT.REAL
We came and started only this year.

(16) *Nə-fluŋ ndə nə-vənmə   Vila vaalik   nə.*
I-want   only I-come.IRR Vila INCEPT.IRR this
I just want to come to Vila for the first time.

(17) *Nə-m-daa   ndə mbaalik.*
I-REAL-cut.REAL only INCEPT.REAL
I've started cutting it.

(18) *Lə-fuŋgo-ŋgar ndə mbaalik.*
they-make-DUR only INCEPT.REAL
They just repaired them.

c) Benefactives/Indirect Object are indicated by *mbikin/vikin* followed by the beneficiary/ indirect object, as in the following:

(19) a. *M-kun   mbikin   tnau.*
          REAL-give BEN.REAL me
          He/she gave it to me.

    b. *Tə   kun   vikin   tnau.*
         FUT Ø.give BEN.IRR me
         He/she will give it to me.

(20)   *Ne-m-kun   mbiki-n.*
         I-REAL-give BEN.REAL-him
         I gave it to him.

(21)   *Nə-m-kimbiə   mbiki-n.*
         I-REAL-call.out BEN.REAL-him
         I called out to him.

(22)   *Vərə k-awə   rambiiə   nə-kun n-baŋ   vikin-kə.*
         say   you-come tomorrow I-give ART-canoe BEN.IRR-you
         If you come tomorrow, I will give you a canoe.

Where indirect object rather than benefactive is intended, then *kin* + object is the normal structure, as in:

(23)   *Nə-marək kin ləmbaŋə.*
         I-fear   IO   dog
         I am scared of the dog.

(24)   *Nə-m-kai   kin kəna-ŋ   taata.*
         I-REAL-cry IO   POSS-my father
         I cried for my father.

Another form of benefactive/indirect object involves the verb *mbe/ve* 'to be', followed by a possessive pronoun. Thus:

(25)   *Nə-mbar   lakai təknə mbe   kəna-mə.*
         I-take.REAL wood   some   be.REAL POSS-you
         I took some wood for you.

(26)   *Tə   nə-var   ni-vi   təknə ve   ŋga-mə.*
         FUT I-take.IRR ART-banana some   be.IRR POSS-you
         I shall get some bananas for you.

d) Accompaniment is indicated by *mblakən/vlakən* followed by a complement, either nominal or pronominal. Thus:

(27) a. *Nə-m-iimbə   mblakən   a-ŋ   ləmbaŋə.*
          I-REAL-go.REAL ACC.REAL POSS-my dog
          I went with my dog.

   b.   *Tə   n-iivə   vlakən   a-ŋ   ləmbaŋə.*
        FUT I-go.IRR ACC.IRR POSS-my   dog
        I shall go with my dog.

(28)   *Tnau mblakən   nəkma iluə mə-m-ləvə.*
       I   ACC.REAL child   two we.EXC-REAL-go
       I went with two boys.

(29)   *Ndu mblakən   lurə-nə lakai ŋalə.*
       be   ACC.REAL leaf-him tree they.PL
       They remain with their leaves on (evergreen trees).

6. SOURCES OF EXTRA VERB PHRASE ALTERNATIONS

Evidence from within Maii, and corroborating evidence from other Epi languages, suggests that the prepositions and other morphological features outside the nuclear verb phrase involving stem-initial consonant alternation are probably verbal in origin and quite likely part of the verb serialisation which characterises so many of the languages of this part of Melanesia.

Consider first the accompaniment marker *mblakən/vlakən* 'with'. On the basis of evidence from the neighbouring Baki language, where the cognate form is *mbica/vica*, 'with' (Maii /l/ corresponds to Baki /c/), the Maii form *mblakən* is probably morphologically complex: *mbla-kən* (originally *mbila/vila-kin*). In Maii, *kin* is an indirect object marker (see examples (19) - (26)). And /i/ would normally become /ə/ in unstressed position, which would be the case with *mblakən*. The only meaning I know for the verb stem *-mbla/-vla* in Maii is 'to saw, to sharpen with a file'. The semantic connection between this and accompaniment is not obvious, however.

The benefactive/indirect object marker *mbikin/vikin* is also most probably morphologically complex: *mbi-kin*, from Maii *mbe/ve* 'to be' plus *kin* 'to, indirect object'. In neighbouring Baki, the verb 'to be' is also *mbe/ve*, which is also used there as a numeral prefix, as in the following:

(30)   *Pen   na-vuru   nyando ve-cuwo.*
       tomorrow I-catch.IRR fish   be.IRR-two
       Tomorrow I will catch two fish.

This is relevant also when considering the multiplicative prefix *mbaka-/vaka-* which also exhibits stem-initial consonant alternation in Maii (see example (13)).

Returning to the benefactive 'for, to', it is common in all of the languages of Epi that this be expressed as a verb phrase, again involving stem-initial consonant alternation. Thus in Baki we have:

(31)   *No-ndu mbuk van-cau.*
       I-give book it.go.IRR-you
       I'll give the book to you.

(32)   *Ne-mbwar   mane   mban-cau.*
         I-take.REAL   money   it-go.REAL-you
         I took the money for you.

The Maii inceptive *mbaalik/vaalik* is again probably morphologically complex also, *mbaalik/vaa-lik*, although at this point I am unable to assign any precise meaning to its component parts, except perhaps that the first element *mbaa-/vaa-* may reflect POC **pano* 'go'. So here again it is possible that the inceptive is in fact a non-nuclear verb serialisation.

REFERENCES

Clark, Ross, 1985, Languages of north and central Vanuatu: groups, chains, clusters and waves. In Andrew Pawley and Lois Carrington, eds *Austronesian linguistics at the 15th Pacific Science Congress*, 199-236. *PL*, C-88.

Codrington, R.H., 1885, *The Melanesian languages.* Oxford: Clarendon Press.

Crowley, Terry, 1982, *The Paamese language of Vanuatu. PL*, B-87.

1991, Parallel development and shared innovation: some developments in Central Vanuatu inflectional morphology. *Oceanic Linguistics* 30/2:179-222.

Early, Robert, 1993, Nuclear layer serialization in Lewo. *Oceanic Linguistics* 32/1:65-93.

1994, Lewo. In Peter Kahrel and René van den Berg, eds *Typological studies in negation*, 65-92. Typological Studies in Language 29. Amsterdam: Benjamins.

Ivens, W.G., 1937-39, A grammar of the language of Lamalanga, North Raga, New Hebrides. *Bulletin of the School of Oriental and African Studies* 9/3:733-763.

1939-42, A grammar of the language of Lobaha, Lepers' Island, New Hebrides. *Bulletin of the School of Oriental and African Studies* 10/1:345-363.

Lynch, John, 1975, Oral/nasal alternation and the realis/irrealis distinction in Oceanic languages. *Oceanic Linguistics* 14/2:87-99.

Pawley, Andrew K., 1972, On the internal relationships of Eastern Oceanic languages. In R.C. Green and M. Kelly, eds *Studies in Oceanic culture history* 3, 1-142. Pacific Anthropological Records 13. Honolulu: Bernice P. Bishop Museum.

Ray, Sidney H., 1926, *A comparative study of the Melanesian island languages.* Cambridge: Cambridge University Press.

Ross, M.D., 1988, *Proto Oceanic and the Austronesian languages of western Melanesia. PL*, C-98.

Tryon, D.T., 1973, Linguistic subgrouping in the New Hebrides: a preliminary approach. *Oceanic Linguistics* 12:303-351.

1976, *New Hebrides languages: an internal classification. PL*, C-50.

1986, Stem-initial consonant alternation in the languages of Epi, Vanuatu: a case of assimilation? In Paul Geraghty, Lois Carrington and S.A. Wurm, eds *FOCAL II: papers from the Fourth International Conference on Austronesian Linguistics*, 239-258. *PL*, C-94.

Walsh, D.S., 1982, Variation of verb-initial consonants in some Eastern Oceanic languages. In Amran Halim, Lois Carrington and S.A. Wurm, eds *Papers from the Third International Conference on Austronesian Linguistics*, vol.1: *Currents in Oceanic*, 231-242. *PL*, C-74.

THE TRANSITIVE VERBS USING *long* IN BISLAMA

†BILL CAMDEN

1. INTRODUCTION

This paper examines a fairly widespread feature of Bislama, typified by the motto of the country, which is:[1]

(1)   *LONG GOD, YUMI   STANAP.*
       PREP   God   1PL.INC   stand.INTR
       In God, we stand.

This statement contains the verb *stanap*, which is normally an intransitive verb 'to stand', followed by Locative Phrases, such as *long kona* 'on the comer' or *long bigrod* 'in the main street'. However here, in the focused statement,[2] *long God* 'in/on/by God' combines to form a transitive utterance, 'In/on/by God, we stand'. This is a typical example of an apparently intransitive verb being used with *long* to form a transitive utterance. This paper focuses on such constructions.

2. THE FOUR STATEMENTS DESCRIBING THE SENTENCE

In the description of the Bislama sentence structure, four sentence types can be identified. These are:

1. No Predicate Marker *i*;

2. Subject + Predicate Marker *i* + Complement;

3. Subject + Predicate Marker *i* + Intransitive Verb;

4. Subject + Predicate Marker *i* + Transitive Verb.

---

[1]   Abbreviations used in the examples are as follows:

ADJ	adjective	NEG	negative
AUX	auxiliary	PL	plural
CONT	continuative	PM	predicate marker
DEIC	deictic	POSS	possessive
DU	dual	PREP	preposition
EXC	exclusive	PRN	pronoun
FUT	future	Q	question marker
INC	inclusive	SG	singular
INTR	intransitive	TR	transitive

[2]   In the northern dialects of Bislama, it has been reported that the form *Long God, Yumi Stanap* has been locally regarded as an anglicised version of their traditional unfocused fonn, *Yumi Stanap Long God*, but the proposition being presented here still stands.

In these statements, Complement represents a nominal or prepositional complement, Intransitive Verb represents any of the intransitive verb forms and Transitive Verb represents any of the transitive verb forms with object, etc. It is necessary to identify what is meant by these four sentence types to enable a change to be made in one of the groups, which is the purpose of this paper.

2.1 SENTENCES WITH NO PREDICATE MARKER *i*

Sentences in the first group comprise two parts, in which the first part forms the identifier of the sentence and the second part forms the descriptive. The actual components of the two parts may each include nouns, pronouns, adjectives and various focus markers. Some examples of this group are:

(2)   *Mi   ya.*
       1SG DEIC[3]
       It's me.

(3)   *Yumi   tu!*
       1PL.INC two
       We'll go together!

(4)   *Man ya hu?*
       man this who.Q
       Who's this man? (asking for the man's name)

(5)   *Hu   man ya?*
       who.Q man this
       Who's this man? (asking who this man is)

(6)   *Wanem samting ya?*
       what.Q samting this
       What's all this?/What's all this about?

(7)   *Mama blong woman ya nao.*
       mother POSS[4] woman that DEIC[5]
       This is the mother of that woman.

(8)   *Pikinini ya blong olfala jif blong mifala bifo, man ya nao.*
       child   this POSS old   chief POSS 1PL.EXC time.past man this DEIC
       This is the son of our old chief.

(9)   *Brata blong mi wan memba blong palamen.*
       brother POSS 1SG one member POSS parliament
       My brother is a member of parliament.

---

[3]   There are three deictics in Bislama, *ya* normally glossed as 'this/that', *we* normally glossed as 'where' and *nao*, normally glossed as 'then', but when any one of the three functions as a deictic, it is glossed as DEIC.

[4]   The word *blong* here glossed as a preposition indicating possession also occurs as the head word in a complement expression, glossed as 'for.CMP', as a preposition introducing a verb phrase, glossed as 'to.PRP' and as a conjunction introducing a verb clause, glossed as 'for.PURP'.

[5]   The word *nao* usually glossed as 'then' also functions as a deictic, as here, and is then glossed as DEIC.

(10)   *Mit   ya,   mifala   i   luk   se   i   moa   gud   yumi*
       meat   this   1PL.EXC   PM   look.TR   saying   PM   more   good   1PL.INC

       babekyu   long   hem.
       barbecue   PREP   3SG
       We think this meat would be better if we were to barbecue it.

(11)   *Man   ya   we   yufala   i   ting   se   i   beswan,*
       man   this   which[6]   2PL   PM   think.TR   saying   PM   be.best.one.INTR

       mifala   i   no   laekem   hem.
       1PL.EXC   PM   NEG   like.TR   3SG
       The person whom you think to be the best on offer is unacceptable to us.

In each of these constructions, the verb 'to be' is obscured, being carried by the form of the sentence, and appearing in English or French translations as needed by the form of the sentence.

Examples (4) and (5) are separated by those Bislama speakers with full knowledge of their traditional languages, but the difference in English is by intonation only, and can be lost by those with little knowledge of traditional vernaculars. In each instance, the primary stress is on the first section of the item.

Example (9) provides a neat illustration of the four forms being presented here. With small modifications in each case, a corresponding sentence would become a member of the complement group (12), a member of the intransitive verb group (13), and a member of the transitive verb group (14):

(12)   *Brata   blong   mi   i   wan   memba   blong   palamen.*
       brother   POSS   1SG   PM   one   member   POSS   parliament
       My brother is a member of parliament.

(13)   *Brata   blong   mi   i   memba   long   palamen.*
       brother   POSS   1SG   PM   be.a.member   PREP   parliament
       My brother is a member of parliament.

(14)   *Brata   blong   mi   i   holem   jea   long   palamen.*
       brother   POSS   1SG   PM   hold.TR   chair   PREP   parliament
       My brother has a seat in parliament.

The differences here are generally recognised by ni-Vanuatu as identifying the difference between these four sentence types.

Example (10) has been interpreted in other ways but it is part of the structure here, and falls in properly with example (11). A couple of other examples give some further credence to this division. The expression breaks up under this pattern no less than three times, and it is by no means a particularly outstanding example of the phenomenon in Bislama. Looking carefully, there is the simplest structure (15), and then (16), and then the full expression (10):

---

[6]   The word *we*, which may be glossed as 'which' heading a noun phrase, or as 'where' heading a verb phrase, may also function as a deictic, and is then glossed as DEIC.

(15)   *Mit   ya,   bambae yumi   babekyu long hem.*
      meat this FUT   1PL.INC barbecue PREP 3SG
      This meat will be barbecued.

(16)   *Mit   ya,   i   moa gud yumi   babekyu long hem.*
      meat this PM more good 1PL.INC barbecue PREP 3SG
      This meat would be better if we were to barbecue it.

As the first expression gets longer, it is easier to see the significance of relationship between the two parts. In example (11), the relationship is perhaps a little more obvious, in that the first half is in apposition with the object of the transitive verb in the second half of the construction. It is perfectly normal to get the first expression in apposition with the subject of a verb in the second half, or with the object of that verb, or even with an indirect object of that verb.

2.2 SENTENCES OF THE FORM SUBJECT + *i* + COMPLEMENT

Sentences in the second group consist of the Subject which is made up of nouns and/or pronouns, followed by the Predicate Marker *i* and the Complement, made up of a noun or a preposition heading a phrase. Some examples of this group are:

(17)   *Mama blong hem i   wan abrojini   blong Bandabeg.*
      mother POSS 3SG PM one aborigine POSS Bundaberg
      His mother was an aborigine from Bundaberg.

(18)   *Hem i   wan gudfala pasta blong   mifala.*
      3SG PM one good   pastor POSS 1PL.EXC
      He was a good pastor to us here.

(19)   *Olfala akis ya   i   blong   bifo.*
      old   axe this PM for.CMP time.past
      This old axe is from the past.

(20)   *Akis ya i   blong   katem kopra nomo.*
      axe this PM for.CMP cut.TR copra only
      This axe is just for cutting copra.

(21)   *No, hem i   no   blong   Pentekos, hem i   blong   Ambae,*
      NEG 3SG PM NEG for.CMP Pentecost 3SG PM for.CMP Ambae

      mama blong hem i   wan woman   Walaha.
      mother POSS 3SG PM one woman.of Walaha
      No, she is not from Pentecost, she is from Ambae. Her mother was a Walaha woman.

(22)   *Hemia   bambae i hadwok   be i   blong   traem*
      this.PRN FUT   PM hard.work.INTR but PM for.CMP try.AUX

      faenemaot   stamba blong problem ya.
      find.out.TR source POSS problem this
      This will be hard work, but it is aimed at trying to find the source of the problem.

(23)   *Trabol ya i   from   tok blong man ya   longwe.*
        trouble this PM because.CMP talk POSS man that at.distance
        This problem is because of what that other man said.

Looking again at some of these examples, example (17) has a contrast when using an intransitive verb, where a rather harsh translation would be 'and his mother was of aboriginal stock, from Bundaberg' to indicate her 'aboriginality':

(24)   *Mama blong hem i   abrojini,   i   blong   Bandabeg.*
        mother POSS 3SG PM be.aboriginal PM for.CMP Bundaberg
        His mother was an aborigine from Bundaberg.

Example (18) has a similar contrast with an intransitive verb, where again, the stress is on the content of being a pastor, rather than on the aspect of holding the position:

(25)   *Hem i   pasta,   mo i   stap   lukaotgud   long*
        3SG PM be.a.pastor and PM CONT look.after.well.TR PREP

        mifala   ten yia.
        1PL.EXC ten   year
        He is a pastor and he has really looked after us well for ten years.

With example (23), there is again a contrast with an intransitive verb, where the second form is considerably more common. The use of the form given in example (23) may well relate to a use of an equivalent of *from* in some of the original vernaculars.

(26)   *Trabol ya i   kamtru   from   tok blong man ya.*
        problem this PM arise.INTR because.of talk POSS man that
        This problem has arisen because of what that man said.

2.3 SENTENCES OF THE FORM SUBJECT + *i* + INTRANSITIVE VERB

Sentences in the third group consist of the Subject, which is made up of a noun and/or pronoun, followed by the Predicate Marker *i*, followed by any occurrence of an Intransitive Verb. Intransitive Verbs occur in a wide variety of forms so the group is relatively large. Some examples of this group are:

(27)   *Sista blong mi i   stap   aean   blong mi.*
        sister POSS 1SG PM CONT iron.INTR POSS 1SG
        My sister irons for me.

(28)   *Man ya i   trabol   tumas   from.*
        man that PM be.in.trouble.lNTR very.much because.of
        That man was very upset about it.

(29)   *Hem i   agens   long   samting ya olwe.*
        3SG PM be.against.INTR PREP something this all.the.way
        He has been against it all the time.

(30)   *Hem i   agri   wetem olgeta.*
        3SG PM agree.INTR with   3PL
        He agreed with them.

(31)   *Tufala   i   stap   rao   gogo   tufala   i   faet.*
    3DU   PM   CONT   argue.INTR   until   3DU   PM   fight.INTR
    They kept on arguing until eventually they started to fight.

(32)   *Hemia   mi   no   minim   ya,   hem   i   aksiden*
    this.PRN   1SG.PM   NEG   mean.TR   this   3SG   PM   be.accident.INTR

    nomo.
    only
    I didn't mean to do it, it was just an accident.

(33)   *Buk   ya   i   antap   moa,   long   nekis   self.*
    book   that   PM   be.high.INTR   more   PREP   next   shelf
    No, the book is further up, on the next shelf.

(34)   *Yestede,   tufala   tim   ya   i   kitkit.*
    yesterday   two   team   this   PM   draw.INTR
    Yesterday, the two teams drew.

(35)   *Man   ya   i   no   moa   Presbatirin,   hem   i   Bahae.*
    man   this   PM   NEG   more   be.Presbyterian.INTR   3SG   PM   be.Bahai.INTR
    This man is no longer Presbyterian, he is a Bahai.

2.4 SENTENCES OF THE FORM SUBJECT + *i* + TRANSITIVE VERB

Sentences in the fourth group are made up of the Subject which is made up of a noun or nouns and/or a pronoun or pronouns, followed by the Predicate Marker *i*, followed by any occurrence of a Transitive Verb. Transitive Verbs are, obviously, often followed by an Object. Transitive Verbs also occur in a wide variety of forms, so this group is also relatively large. Some examples of this group are:

(36)   *Oltaem,   hem   i   stap   agensem   mi.*
    always   3SG   PM   CONT   oppose.TR   1SG
    All the while, he opposed me.

(37)   *Hem   i   no   ansarem   leta   blong   mi   yet.*
    3SG   PM   NEG   answer.TR   letter   POSS   3SG   yet
    He hasn't answered my letter yet.

(38)   *E,   yu   no   aotem   laet   ya   yet!*
    hey   2SG.PM   NEG   put.out.TR   light   that   yet
    Hey, don't put the light out yet!

(39)   *Tufala   ya   i   arensem   evri   samting   blong   konfrens   ya.*
    2DU   this   PM   arrange.TR   every   something   POSS   conference   this
    The two of them arranged everything for this conference.

(40)   *Mi   harem   bel   blong   mi   i   nogud.*
    1SG.PM   feel.TR   belly   POSS   3SG   PM   be.not.good.INTR
    I've got an upset tummy.

(41) *Mi   harem ren i   faerap   long kava.*
      1SG.PM hear.TR rain PM make.noise.TR PREP roofing.iron
      I heard the rain beating heavily on the roof.

(42) *Olgeta oli   stap   asaskem   long   olgeta se,   "Bambae*
      3PL   3PL.PM CONT ask.ask.TR PREP   3PL   saying FUT

      yumi   mekem   olsem wanem nao?"
      1PL.INC make.TR like   what.Q now
      They kept asking one another, "What are we going to do now?"

(43) *Olfala ya i   lanem   mifala   evriwan long abisi.*
      old.man that PM learn.TR 1PL.EXC all   PREP ABC
      The old bloke taught us all the ABC.

(44) *Hem i   tijim   mifala   long   matematik.*
      3SG PM teach.TR 1PL.EXC PREP mathematics
      He taught us maths.

(45) *Nao long fes blong olgeta man, tufala i   kiskisim   tufala.*
      then PREP face POSS all   man 2DU PM kiss.kiss.TR 2DU
      Then in front of everyone, they kissed one another.

Again, this listing by no means covers the complete range of the transitive verb usages, but simply indicates the size of the range.

3. THE USES OF THE PREPOSITION *long* IN BISLAMA

Considerable use is made of the preposition *long* in both the intransitive verb group and in the transitive verb group.[7] In these sentence structures, it functions as a marker in temporal, locative and instrumental phrases, as a marker for indirect objects in transitive verb structures and for comparative structures, and as part of a marker for a set of serial verbs. Obviously, these usages have some bearing on the possible use of *long* as a direct object marker.

3.1 THE USE OF *long* AS A MARKER IN TEMPORAL PHRASES

There is a usage of the preposition *long*[8] as the introducer of a temporal phrase, in both intransitive verb and transitive verb structures. When these phrases fix or partially fix the time of the event of the sentence, they normally occur at the beginning of the sentence. Examples of this structure are:

(46) *Las wik, long Tasde,   hem i   slip   let.*
      last week PREP Thursday 3SG PM sleep.INTR late
      Last week, on Thursday, he slept in late.

(47) *Hem i   kam   long ples ya long Fraede, be i   no*
      3SG PM come.INTR PREP place this PREP Friday but PM NEG

---

7   The preposition *long* has a homophonous, but semantically and grammatically unrelated, form *long* 'long, tall'.

8   The preposition *long* is here glossed as 'PREP' for brevity, and can be translated as 'in', 'on', 'by', 'to', 'from', 'through', 'by means of' and even 'with', depending on context.

> gat   man   i   stap.
> be.TR man   PM   be.INTR
> He came here on Friday, but there was nobody here.

Where two times are in contrast, the temporal phrases occur towards the end of the sentence structure, as in:

(48) *Hem i   aot   long Tasiriki long Tusde,   long tri   kilok,*
      3SG PM   leave.INTR   PREP Tasiriki PREP Tuesday PREP three o'clock

      mo i   kamtru   kasem   ples ya   stret long sikis kilok.
      and PM   arrive.INTR reach.TR place this direct PREP six   o'clock
      Last Tuesday he left Tasiriki at three o'clock and arrived here right on six o'clock.

In this case, the two contrasting temporal phrases are part of the narrative and do not set the time for the act described.

There is a series of apparently more complex 'double markers' for temporal phrases with effectively an adverb ahead of the *long*, where the members appear to function in the same general manner as those described above. For example:

(49) *Hem i   kamtru   long ples blong plen stret long taem*
      3SG PM   arrive.INTR PREP place POSS plane direct PREP time

      we   plen i   rere   blong aot.
      which plane PM   be.ready.INTR to.PRP leave.INTR
      He arrived on the runway just as the plane was due to leave.

(50) *Olgeta oli   finisim niufala joshaos   ya klosap   long*
      3PL   3PL.PM   finish.TR new   church.house that near   PREP

      taem blong openem.
      time to.PRP open.TR
      They finished the new church building near to the time of opening it.

(51) *Man ya blak singlet, hem i   kamtru   nambatu long yu.*
      man that black singlet 3SG PM   arrive.TR second PREP 2SG
      The man in the black singlet came second to you.

However, there are similar sentences which specify the meaning of the adverb introducing the temporal phrase rather more tightly, and which are widely used in similar, more tightly controlled situations.

(52) *Hem i   kamtru   long ples blong plen stret nomo long*
      3SG PM   arrive.INTR PREP place POSS plane direct only PREP

      taem we   plen i   rere   blong aot.
      time which plane PM   be.ready.INTR to.PRP leave.INTR
      He arrived on the runway right at the moment the plane was due to leave.

(53) *Olgeta oli   finisim niufala joshaos   ya klosap   nomo*
      3PL   3PL.PM   finish.TR new   church.house that near   only

long   taem   blong   openem.
PREP time   to.PRP open.TR
They finished the new church building just in time for its opening.

(54)   *Man ya   long   blak singlet, hem   i   kamtru   nambatu olgeta*
man   that PREP black singlet 3SG PM   arrive.TR second   completely

long   yu.
PREP 2SG
The man in the black singlet was a bad second to you.

Because so many of these expressions have been split by modifying markers occurring between the two expressions in phrases like the following, it is better to treat the use of *long* in these expressions as a particular use of the preposition in temporal phrases:

| *stret* | *gud* | *long* | exactly on, just at the moment when |
| direct | good | PREP | |

| *biaen* | *olgeta* | *long* | much later than |
| behind | complete | PREP | |

| *klosap* | *nomo* | *long* | just in time for, just as |
| near | only | PREP | |

| *fastaem* | *olgeta* | *long* | a long way ahead of |
| at first | complete | PREP | |

| *nambatu* | *olgeta* | *long* | a long way behind, a bad second to |
| second | complete | PREP | |

It is worth noting that a number of these adverbs with *long* also function as intransitive verbs followed by *long* in the following examples:

(55)   *Olgeta ya   oli ˙ biaen   long   yufala.*
3PL   this 3PL.PM come.behind.INTR PREP 2PL
They were behind you.

(56)   *Hem i   klosap   long   yu   long   en   blong   resis.*
3SG PM be.near.INTR PREP 3SG PREP end POSS   race
He was near you at the end of the race.

However, these intransitive verbs carry their own markers as well:

(57)   *Olgeta ya   oli   biaen   (bigwan) (moa)   (lelebet)*
3PL   this 3PL.PM come.behind.INTR (big.one) (more) (little.bit)

long   yufala.
PREP 2PL
They were (a long way behind/further behind/a bit behind) you.

(58)   *Hem i   klosap   (nomo) (gud) (tumas)   long   yu.*
3SG PM be.near.INTR (only) (good) (very.much) PREP 2SG
He was (pretty close to/very close to/right on) you.

Coupled with the earlier evidence, this also clarifies the role of *long* in this material as a marker for temporal phrases.

3.2 THE USE OF *long* AS A MARKER IN LOCATIVE PHRASES

The preposition *long* is also used as the introducer of a locative phrase, in both intransitive verb and transitive verb structures. In these phrases, the full phrase may be the source or the goal of any verbs describing movement, or it may be used to mark position with either transitive or intransitive verbs, or it may be used to fix the location of the action. Examples with verbs of motion are:

(59)   *Hem i   talem se   tumora,   long eli   moning, hem i*
3SG PM tell.TR saying tomorrow PREP early morning 3SG PM

wantem   go   long maket.
want.AUX go.INTR PREP market
He said that tomorrow, early in the morning, he wants to go to the market.

(60)   *Taem hem i   kambak   long maket, hem i   wantem*
time   3SG PM return.INTR PREP market 3SG PM want.AUX

luk   yu.
look.TR 2SG
When he gets back from the market, he wants to see you.

(61)   *Hem i   aot   long Santo, i   kam   long Vila*
3SG PM leave.INTR PREP Santo PM come.INTR PREP Vila

i   stap   long haos blong Fred.
PM be.INTR PREP house POSS Fred
He left Santo and came to Vila and is staying at Fred's place.

(62)   *Hem i   aot   long Vila, i   gobak   long Santo,*
3SG PM leave.INTR PREP Vila PM return.INTR PREP Santo

mo i   stap   long velej blong hem.
and PM be.INTR PREP village POSS 3SG
He left Vila and went back to Santo and is staying in his village.

(63)   *Taem hem i   kam   long ples ya, hem i   wokbaot*
time   3SG PM come.INTR PREP place this 3SG PM walk.about.INTR

long soa.
PREP shore
When he came here, he walked along the beach.

Locative *long* can also be used with a variety of non-motion intransitive and transitive verbs:

(64)   *Hem i   kakae   long ples ya, mo long   naet, hem i*
3SG PM eat.INTR PREP place this and PREP night 3SG PM

slip   long haos blong Vuti.
sleep.INTR PREP house POSS Vuti
He ate here, and that night, he slept at Vuti's house.

(65)   *Bifo,   hem i   mekem   big trabol long   velej.*
time.past 3SG PM make.TR big trouble PREP village
Earlier, he had caused a lot of trouble in the village.

(66)   *Yestede, hem i   kilim   wan pig long garen blong hem.*
      yesterday 3SG PM kill.TR one pig POSS garden POSS 3SG
      Yesterday, he killed a pig in his garden.

When the *long* phrase is in focus, it is normal for it to appear at the head of the sentence, but the positioning is not by any means consistent.

(67)   *Long ples ya, hem i   no   save   tok,   be long ples*
      PREP place this 3SG PM NEG able.AUX talk.INTR but PREP place

      blong olgeta, hem i   no   save   spel.
      POSS 3PL   3SG PM NEG able.AUX rest.INTR
      Here he doesn't say anything, but at their place, he never lets up.

(68)   *Long ples ya, olgeta oli   hivimap   ol kokonas blong*
      PREP place this 3PL   3PL.PM heap.up.TR PL coconut to.PRP

      pem   ol niufala wok ya long joshaos.
      pay.TR PL new   work this PREP church.house
      This is where they heaped up the coconuts to pay for the new work on the church.

Again, there is a similar series of adverbs followed by *long* for locative phrases, where the members also appear to function in the same general manner as the temporal phrases described above. For example:

(69)   *Hem i   putum buk ya antap long tu   narafala buk*
      3SG PM put.TR book that on.top PREP two other   book

      we   i   stap   long ples ya.
      which PM be.INTR PREP place that
      She put the book on top of two other books that were there.

(70)   *Oltaem hem i   stap   tok   agens long mi.*
      always 3SG PM CONT talk.INTR against PREP 1SG
      She is continually talking in opposition to me.

(71)   *Olgeta oli   wokem ol haos blong olgeta longwe, from*
      3PL   3PL.PM work.TR PL house POSS 3PL   long.way because.of

      rao ya wetem jif we   i   stap.
      row this with   chief which PM be.INTR
      They built their houses at a distance, because of the row with the chief.

However, there are also sentences which specify the meaning of the adverb more precisely, to give the sentences a more precise meaning where necessary:

(72)   *Hem i   stap   tok   agens tumas   long mi.*
      3SG PM CONT talk.INTR against very.much PREP 1SG
      She is continually talking very much against me.

(73)   *Oli   stap   wokem ol haos blong olgeta afsaed olgeta*
      3PL.PM CONT work.TR PL house POSS 3PL   outside completely

> long   velej.
> PREP village
> They were building their houses right outside the village.

In this connection, the following sequence of sentences is very interesting:

(74)   *Taem mifala   i   aot   long Vila, mifala   i*
     time   1PL.EXC PM leave.INTR PREP Vila   1PL.EXC PM

     flae   antap.
     fly.INTR   high
     When we left Vila, we flew quite high.

(75)   *Taem mifala   i   aot   long Vila, mifala   i*
     time   1PL.EXC PM leave.INTR PREP Vila   1PL.EXC PM

     flae   antap long   klaod.
     fly.INTR   high   PREP cloud
     When we left Vila, we flew up in the clouds.

(76)   *Taem mifala   i   aot   long Vila, mifala   i   flae*
     time   1PL.EXC PM leave.INTR PREP Vila   1PL.EXC PM fly.INTR

     antap moa, we   mifala   i   save   luklukdaon   long
     high   more where 1PL.EXC PM able.AUX look.look.down.INTR PREP

     ol klaod.
     PL cloud
     When we left Vila, we flew very high, so that we could look down on the
     clouds.

(77)   *Taem mifala   i   aot   long Vila, mifala   i   flae*
     time   1PL.EXC PM leave.INTR PREP Vila   1PL.EXC PM fly.INTR

     antap moa long   klaod, nao mifala   i   no   save
     high   more PREP cloud   then 1PL.EXC PM NEG able.AUX

     luk   Malakula.
     look.TR Malakula
     When we left Vila, we flew above the clouds, and so we didn't see Malakula.

Again, it is worth noting that a number of these adverbs with *long* also function as intransitive verbs followed by *long*, as in the following examples:

(78)   *Velej ya i   klosap   long velej   blong mifala.*
     village that PM be.near.INTR PREP village POSS 1PL.EXC
     That village is close to our village.

(79)   *No,   velej blong olgeta i   longwe   long ples ya.*
     NEG village POSS 3PL   PM be.distant.INTR PREP place this
     No, their village is a long way from here.

These intransitive verbs may have normal verb markers on them, again indicating that the use of *long* in these structures is to be taken as a special use of it as a marker for locative phrases.

(80)   *Velej ya i klosap   lelebet long velej blong mifala.*
        village that PM be.near.INTR little   PREP village POSS 1PL.EXC
        That village is fairly close to our village.

(81)   *Velej blong olgeta i longwe   tumas   long ples ya.*
        village POSS 3PL PM be.distant.INTR very.much PREP place this
        No, their village is much too far from here.

3.3 THE USE OF *long* AS A MARKER IN COMPARATIVE PHRASES

There is a usage of the preposition *long*, as a marker in the adverbial construction *moa long*, which is one of the means in Bislama of showing comparative. The structure shows comparison in length, breadth, height, depth, weight, number and a variety of general variables. Some examples are:

(82)   *Mas blong sip ya i   longfala   moa long mas blong sip*
        mast POSS ship that PM belong.INTR more PREP mast POSS ship

        blong yumi.
        POSS 1PL.INC
        That ship's mast is longer than the mast on our ship.

(83)   *Joshaos   ya blong olgeta i bigwan   moa long*
        church.house that POSS 3PL   PM be.wide.INTR more PREP

        joshaos   blong mifala.
        church.house POSS 1PL.EXC
        Their church is wider than our church.

(84)   *Ples ya i   dip   moa long ples we   yumi*
        place this PM be.deep.INTR more PREP place which 1PL.INC

        stap angka   long hem long hom.
        CONT anchor.INTR PREP 3SG PREP home
        This place is deeper than the place where we normally anchor back home.

(85)   *Buk ya i   hevi   moa long tu kilo.*
        book that PM be.heavy.INTR more PREP two kilo
        That book weighs more than two kilos.

(86)   *I   gat moa long faef taosen   man i   stap   long*
        PM be.TR more PREP five thousand man PM be.INTR PREP

        demonstresen ya.
        demonstration that
        There were more than five thousand people at that demonstration.

(87)   *Boe ya i   smat,   be nekis brata blong hem i*
        boy that PM be.smart.INTR but next brother POSS 3SG PM

        smat   moa long hem.
        be.smart.INTR more PREP 3SG
        That boy is smart, but the next brother is smarter than he is.

With many speakers, the various ways of expressing comparison, *moa long*, *bitim* and *winim*, appear to be related for each speaker to the issue being compared, so that for any one issue, a number will use *moa long*, fewer will use *bitim* and fewer again will use *winim* while, on a different issue, the relative numbers may be quite different.[9]

As well as the use of *long* in this structure, the adverb *moa* can behave as an intransitive verb, with the possibility of the use of *long* to form the same type of construction. Some examples are:

(88)   *Fas man ya i   waes,   be narafala man ya i*
       first man this PM be.wise.INTR but other   man that PM

       moa.
       be.more.INTR
       The first man was wise, but the other one is wiser.

(89)   *Fas man ya i   slak   gud, be narawan i   moa.*
       first man this PM be.weary.INTR good but other.one PM be.more.INTR
       The first man was pretty tired, but the second one was even more tired.

(90)   *Hevi blong buk ya i   moa   long tu kilo.*
       heavy POSS book this PM be.more.INTR PREP two kilo
       This book weighs more than two kilos.

(91)   *Namba blong olgeta evriwan i   moa   long tu hundred.*
       number POSS 3PL   all   PM be.more.INTR PREP two hundred
       The number of people is more than two hundred.

3.4 THE USE OF *long* AS A MARKER IN INSTRUMENTAL PHRASES

There is a usage of the preposition *long* as a marker in instrumental phrases, where the phrase describes the means by which the action of the verb is carried out. Some examples are:

(92)   *I   isi   blong katem bata long smol naef olsem.*
       PM be.easy.INTR to.PRP cut.TR butter PREP small knife like
       It is easy to cut butter with a small knife like that.

(93)   *No, tufala i   stap faet   long naef ya!*
       NEG 3DU   PM CONT fight.INTR PREP knife DEIC
       No, the two of them were fighting with knives!

(94)   *Hem i   katemdoan   olgeta wud ya long jenso.*
       3SG PM cut.down.TR all   tree this PREP chainsaw
       He cut down all these trees using a chainsaw.

(95)   *Tufala i   stap toktok   long radio.*
       3DU   PM CONT talk.talk.INTR PREP radio
       They were yarning on the radio.

---

9   We were unable to establish from Pastor Camden before he died whether the variation referred to here was related to the *adjectives* being compared or to the *nouns* involved in the comparison. [Eds]

(96) *Tufala i   stap   rao   long mining blong wan tok*
      3DU   PM   CONT   row.INTR   PREP meaning POSS   one talk

      blong papa   blong tufala.
      POSS   father POSS   3DU
      The two of them were arguing about the meaning of something their father had
      said.

In each of these phrases, *long* is the introducer of an instrument phrase describing the way
the verb operates.

3.5 THE USE OF *long* AS A MARKER OF INDIRECT OBJECTS

There is a usage of the preposition *long* as a marker of an indirect object with a variety of
transitive verbs structures in Bislama. The indirect object is always marked with *long*
although in translation into Melanesian languages, or into English or French, the order of
direct and indirect objects may be reversed. Some examples are:

(97) *I   gud   yu   traem   talemaot   samting ya*
      PM   be.good.INTR 2SG.PM try.AUX tell.out.TR something this

      long   mifala.
      PREP   1PL.EXC
      Please try and tell us about it.

(98) *Yu   go   givim samting ya   long man ya longwe.*
      2SG.PM   go.AUX   give.TR something this PREP man that distant
      Go and give this to that man over there.

(99) *Yu   traem askem   kwestin ya   long   hem!*
      2SG.PM   try.AUX ask.TR   question that PREP 3SG
      Try and ask him that question!

(100) *Lastaem, hem i   yusum naef nomo long   hem.*
      last.time 3SG PM use.TR knife only PREP 3SG
      The last time, he only used a knife on it.

Indirect objects are marked by *long* even where the indirect object has been omitted in
context:

(101) *Kakae ya i   blong   pua.   Yu   go   givim*
      food   this PM for.CMP grandfather 2SG.PM go.AUX   give.TR

      long hem.
      PREP 3SG
      This food is for your grandfather. Go and give it to him.

(102) *Mi   mi   wantem   luk   samting ya. Plis yu*
      1SG 1SG.PM   want.AUX look.TR   something that please 2SG.PM

      traem   soem   long   mi.
      try.AUX show.TR PREP 1SG
      I wanted to see that. Please try and show me.

In each of these expressions, and in many more like them, they are expandable into single expressions of a form where both the direct and the indirect object are overt.

(103)   *Yu   go   givim   kakae ya   long   pua.*
         2SG.PM   go.AUX   give.TR   food   this   PREP   grandfather
         Go and give this food to your grandfather.

(104)   *Plis   yu   traem   soem   samting   ya   long   mi.*
         please   2SG.PM   try.AUX   show.TR   something   that   PREP   1SG
         Please try and show me that.

3.6 THE USE OF *long* AS PART OF A MARKER FOR ONE SET OF SERIAL VERBS

There is a usage of the preposition *long* as part of the marker for one set of serial verbs in Bislama, where the full set expression is *i go long* or *i kam long* or *i stap long*. The result of this construction with transitive verb structures is sometimes equivalent to an English indirect object, but it is not always of that type. The construction is used following a restricted set of intransitive verbs (105) and a restricted set of transitive verbs (106):

(105)   *flae*   to fly
         lesin   to listen
         resis   to run quickly, to race
         ring   to telephone
         ron   to run
         sut   to shoot through

(106)   *gat*   to have
         givim   to give with no expectation of a return gift
         kapsaetem   to pour out
         kasem   to get
         letem   to let
         givim   to leave
         pulum   to pull
         pusum   to push
         putum   to put
         saenem   to shine
         sakem   to throw away
         sanem   to send
         seraot/seraotem   to share out
         tekem   to take

In these expressions, the terms *i go long* and *i kam long* relate either to the position of the speaker in the sentence, or to the narrator in long stories. The use of the term *i stap long* relates only to what is deposited. Some examples are:

(107)   *Ol   sotleg oli   girap,   oli   flae   i   go*
         PL   dove   3PL.PM   get.up.INTR   3PL.PM   fly.INTR   PM   go.TR

         long   bus.
         PREP   bush
         The doves got up and flew off into the bush.

(108) *Yufala   i   stap   lesin   i   kam   long   Radio   Vanuatu.*
2PL   PM   CONT   listen.INTR   PM   come.INTR   PREP   radio   Vanuatu
You are listening to Radio Vanuatu.

(109) *Be pikinini i   girap   wantaem, i   resis   i*
but child   PM   get.up.INTR   at.once   PM   run.fast.INTR   PM

kam   long   mi.
come.INTR   PREP   1SG
But the child got up quickly and ran straight to me.

(110) *Mi   bambae mi   ring   i   go   long   hem.*
1SG   FUT   3SG.PM   ring.INTR   PM   go.INTR   PREP   3SG
I will ring him this afternoon.

(111) *Be   sak   i   ron   i   go   long   dip   solwota.*
but   shark   PM   run.INTR   PM   go.INTR   PREP   deep   seawater
But the shark ran off into deep water.

(112) *I   gat   tri   buk   i   stap   long   tebel.*
PM   have.TR   three   book   PM   be.INTR   PREP   table
There are three books on the table.

(113) *Hem   i   go   sakem   ol   doti   ya   i   go*
3SG   PM   go.AUX   throw.TR   PL   garbage   this   PM   go.AUX

stap   long   pubel.
be.INTR   PREP   bin
He put the garbage here into the bin.

With some of these verbs, there are two further markers, *i gobak long* and *i kambak long*, used in the same patterns as here:

(114) *Taem hem i   luk   samting   ya, hem i   sut*
time   3SG PM   look.TR   something   that   3SG PM   shoot.through.INTR

i   gobak   long   ples   blong   hem.
PM   go.back.INTR   PREP   place   POSS   3SG
When he saw that, he shot through to his own village.

(115) *Mi   mi   sanem   tri   leta i   go   long   hem, be*
1SG   1SG.PM   send.TR   three   letter   PM   go.INTR   PREP   3SG   but

mi   no   kasem wan i   kambak   long   hem.
1SG.PM   NEG   get.TR   one   PM   come.back.INTR   PREP   3SG
I sent three letters to him, but I have not had one come back from him yet.

Obviously the relationship between these expressions and any direct object-indirect object structure is very vague indeed.

4. THE PREPOSITION *long* AS A TRANSITIVE MARKER

There is a significant set of verbs in Bislama in which an apparently intransitive verb is followed by the preposition *long* and a noun or pronoun which appears to function as a

direct object. In this usage, the preposition is used in a manner different from its use in any of the above categories, and so is a newly described use of *long*. For example:

(116) *Man ya i   giaman long hem.*
       man that PM lie.INTR PREP 3SG
       That man deceived him.

(117) *Papa blong hem i   tok   long hem we i   tok*
       father POSS 3SG PM talk.INTR PREP 3SG where PM talk.INTR

       long   hem.
       PREP 3SG
       His father rebuked him very severely.

This significant series of Bislama verbs is presented in some detail below.

4.1 VERBS USING *long* + A DIRECT OBJECT

There is a class of verbs in Bislama formed by an intransitive verb followed by the preposition *long* and a direct object. This class is made up of at least 160 different verbs, clearly recognisable because the preposition *long* which follows them does not fit any of the patterns previously defined. Some examples are:

(118) *Tok blong hem i   klia,   hem i   agens   long*
       talk POSS 3SG PM be.clear.INTR 3SG PM be.against.INTR PREP

       samting ya.
       something this
       What he said was clear, he is opposed to this.

(119) *Hem i   divos   long woman blong hem long en*
       3SG PM be.divorced.INTR PREP woman POSS 3SG PREP end

       blong las   yia.
       POSS last.ADJ year
       He divorced his wife at the end of last year.

(120) *Man ya i   faerap   long mifala   we.*
       man that PM be.angry.INTR PREP 1PL.EXC DEIC
       That man really lost his temper with us.

(121) *Man ya i   save   givhan   long mifala.*
       man this PM able.AUX help.INTR PREP 1PL.EXC
       This man can help us.

(122) *Mi mi   no   gat   mane, nao mi   go*
       1SG 1SG.PM NEG have.TR money then 1SG.PM go.AUX

       kaon   long hem long tu hundred taosen   vatu.
       make.account.INTR PREP 3SG PREP two hundred thousand vatu
       I didn't have any money, so I went and borrowed two hundred thousand vatu from him.

(123)   *Man ya i   mekem   i   krangke   long   sista blong hem.*
        man this PM make.TR PM be.twisted.INTR PREP sister POSS 3SG
        This man has sexually assaulted his sister.

(124)   *No, gel ya i   wantem   mared   long wan man Ambae.*
        NEG girl that PM want.AUX be.married PREP one man Ambae
        No, that girl wants to marry a man from Ambae.

(125)   *I   no   stret   blong   pikinini ya i   mekfane*
        PM NEG be.straight.INTR for.PURP child   this PM make.funny.INTR

        long   olgeta.
        PREP 3PL
        It isn't right for this child to be making fun of them.'

(126)   *Man ya nomo i   stap melek   long nani long   ples   ya.*
        man this only PM CONT milk.INTR PREP goat PREP place this
        This man is the only one here who milks goats.

(127)   *Ale, bae yumi   ova   long sing ya wantaem bakegen,*
        OK FUT 1PL.INC repeat.INTR PREP song this one.time again

        nao yumi   finis.
        then 1PL.INC finish.INTR
        OK, let's repeat the song one more time, and then we will finish.

(128)   *Mifala   i   tangkyu   long   olgeta finis.*
        1PL.EXC PM thank.you.INTR PREP 3PL   already
        We have already thanked them.

In these sentence structures, we are not confronted by a set of intransitive verbs each followed by *long* heading one of the types of phrases given previously. Here, the *long* does not match any of those statements. Some people have suggested that the *long* functions here as a marker for an indirect object, but that doesn't stand scrutiny, in that the verbs show the signs of being intransitives, and an indirect object is still an object and can only follow transitive verbs. These verbs are commonly intransitive verbs, but in this situation, function as transitive verbs followed by the preposition *long* as a transitive marker, which is then followed by a direct object of the verb.

There appears to be a number of issues which should now be examined to resolve this conflict. Firstly, there is the need to examine a set of verbs where there is fluctuation between the transitive verb and the related intransitive verb with *long*:

Subject + *i* + Transitive Verb + Object versus Subject + *i* + Intransitive Verb + *long* + Object

Then there is the need to examine a set of reflexive verb structures which follows a pattern of

Subject + *i* + Reduplicated Verb + *long* + Object-Echoing-The-Subject

And then there is the need to examine a set of verb structures which follows a pattern of

Subject + *i* + Intransitive Verb + *long* + Direct Object + *long* + Indirect Object

Each of these sets of structures presents an argument for the support of the proposal that an intransitive verb with *long* can function as a transitive verb.

4.2 TRANSITIVE VERBS WHERE FLUCTUATION OCCURS

There are some verbs in Bislama which occur both as transitive verbs with a direct object and as related intransitive verbs followed by the preposition *long* and apparently direct objects. These verbs sometimes appear in dialect differences between different speakers of Bislama, but in some cases, as in two forms used by the one speaker, without difference in meaning. They occur in the transitive verbs with no -*Vm* suffixes,[10] and in the transitive verbs with -*Vm* suffixes and in one case, among the reciprocal verbs.

4.2.1 TRANSITIVE VERBS WITH NO SUFFIX

Among the transitive verbs which do not take the -*Vm* suffix, but which show this feature, would be the following:

(129)   *save*   to know
        lego   to leave, to let go, to release
        lukluk   to look, to look at
        lukaot   to look out, to look after
        singaot   to call, to invite
        seraot   to share out

Each of these verbs needs to be considered separately.

With the use of the verb *save*, there is the standard usage (130), and at the same time there is a variant in use by a number of people (131):

(130)   *Mi   mi   save   ol fasin blong man ya.*
        1SG 1SG.PM know.TR PL way POSS man that
        I know that man's ways.

(131)   *Mi   mi   save   long   ol fasin blong man ya.*
        1SG 1SG.PM know.INTR PREP PL way POSS man that
        I know that man's ways.

The second of these two forms is not as widely used now as it has been, though it has surfaced in a variety of situations, and is well known to those who have spoken the language for any length of time. Some people have seen the usage as centred in Pentecost, while others have seen it as a variety of the Solomon Islands 'Pijin Blong Yumi' or Papua New Guinea Tok Pisin brought back to Vanuatu by those who have trained in the Solomons or PNG. Users of the expression do not recognise any difference in meaning from the more widespread form.

With the use of the verb *lego*, the issue is more open. Where *lego* means 'to leave' or 'to let go the rope' meaning to die, the usage is straightforward:

(132)   *Hem i   lego   Santo long Tasde.*
        3SG PM let.go.TR Santo PREP Thursday
        He left Santo on Thursday.

(133)   *Mi   mi   luk   se   hem i   rere   blong*
        1SG 1SG.PM look.TR saying 3SG PM be.ready.INTR to.PRP

---

10   The transitive suffix has the allomorphs -*em*, -*um*, -*im*, -*rem* and -*m*, and will be referred to here as -*Vm*.

> lego   rop.
> let.go.TR rope
> I think he is ready to die.

However, when the verb *lego* is used with the meaning 'to release', the support for the two forms would be about even across the community:

(134) a. *Hem i   lego   woman blong hem, i   tekem wan woman Ambae.*
         3SG PM let.go.TR woman POSS 3SG PM take.TR one woman Ambae
         He has left his wife and taken a woman from Ambae.

    b. *Hem i   lego   long woman blong hem, i   tekem wan*
       3SG PM let.go.TR PREP woman POSS 3SG PM take.TR one

      woman Ambae.
      woman Ambae
      He has left his wife and taken a woman from Ambae.

Then again, when the verb *lego* is used to mean 'to drop (a man) in his tracks', the more common use in the north, at least, is of *lego long* in place of *lego han* or *lego han long*:

(135) a. *Hem i   lego   long man ya we   i   flatemgud*
         3SG PM let.go.INTR PREP man that where PM flatten.good.TR

      hem.
      3SG
      He dropped the man in his tracks, completely flattening him.

    b. *Hem i   lego   han long man ya we   i   flatemgud*
       3SG PM let.go.TR hand PREP man that where PM flatten.good.TR

      hem.
      3SG
      He dropped the man in his tracks, completely flattening him.

The support for this structure *lego long man* would be as widespread as would be the support for *lego rop*. There is a possibility that a separate intransitive use of *lego* has arisen here (i.e. *lego long*), but taking the three examples together, it is simpler to see the verb functioning two ways.

With the verb *lukluk*, there is fluctuation between the transitive verb and the more common occurring intransitive verb *lukluk long*. Thus, there are two forms, both carrying the same meaning:

(136) a. *Hem i   wantem   lukluk   ol wok ya.*
         3SG PM want.AUX look.look.TR PL work this
         He wanted to see the work.

    b. *Hem i   wantem   lukluk   long ol wok ya.*
       3SG PM want.AUX look.look.INTR PREP PL work this
       He wanted to see the work.

With the three remaining verbs, the situation is more open, simply because the fluctuation being described is obvious for all to see. These three verbs all occur as transitive verbs with no -*Vm* suffix, as transitive verbs with the -*Vm* suffix, and as intransitive verbs with the

long transitive marker. Together with a fourth verb *selaot* or *selaotem* meaning 'to shell out (copra)', they appear to break the traditional pattern of Bislama verbs where the accepted form for *-aot* verbs is *ROOT-Vm-aot*. It could always be claimed that they present an alternative pattern for a small set of these verbs, comprised of *ROOT-aot-Vm* with a membership of four verbs. There appears to be an age difference in the usage of these forms, the forms *lukaotem, singaotem, seraotem* and *selaotem* being more common among the younger speakers. Examples of the three relevant verbs are given in examples (137) - (145), beginning with *lukaot*:

(137) a. *Olgeta oli   stap lukaot   mane ya, be oli   no*
        3PL   3PL.PM CONT look.for.TR money that but 3PL.PM NEG

        faenem.
        find.TR
        They went looking for the money, but they didn't find it.

    b. *Olgeta oli   stap lukaotem   mane ya, be oli   no*
        3PL   3PL.PM CONT look.for.TR money that but 3PL.PM NEG

        faenem.
        find.TR
        They went looking for the money, but they didn't find it.

(138) a. *Man ya bambae i   lukaot   long ol pikinini blong mi.*
        man this FUT   PM look.after.INTR PREP PL child   POSS 3SG
        This man will look after my children.

    b. *Man ya bambae i   lukaotem   ol pikinini blong mi.*
        man this FUT   PM look.after.TR PL child   POSS 3SG
        This man will look after my children.

There is a difference in meaning between the two uses *lukaot* and *lukaot long* which is recognised by a significant number of speakers. However, in each instance, the two meanings are taken up by the form *lukaotem*.

Examples of the verb *singaot* are:

(139) a. *Hem i   singaot man ya se   "E! Yu   kam!"*
        3SG PM call.TR man this saying hey 3SG.PM come.INTR
        He called to the man, "Hey, come here!"

    b. *Hem i   singaotem man ya se   "E! Yu   kam!"*
        3SG PM call.TR   man this saying hey 3SG.PM come.INTR
        He called to the man, "Hey, come here!"

(140) a. *Hem i   singaot   long mi blong mi   go   kakae*
        3SG PM invite.INTR PREP 1SG POSS 1SG.PM go.AUX eat.INTR

        wetem hem long   naet ya.
        with   3SG PREP   night that
        He invited me to go and eat with him that night.

    b. *Hem i   singaotem mi blong   mi   go   kakae*
        3SG PM invite   1SG for.PURP 1SG.PM go.AUX eat.INTR

> *wetem hem long   naet   ya.*
> with   3SG PREP night that
> He invited me to go and eat with him that night.

There is again a difference in meaning between the two uses *singaot* and *singaot long* which is well recognised by many speakers. However, again, in each instance, the two meanings are taken up by the form *singaotem*. There appears to be only one use of *singaot* (displayed below) which seems to be very widely accepted by all ages and groups of speakers.

(141)   *Long Ingles, yu   singaot tok ya 'referendum' olsem wanem?*
        PREP English 2SG.PM call.TR talk this referendum like   what.INTR
        In English, what would you use for the word 'referendum'?

The use of *singaotem* appears to be unacceptable in this usage. '

Examples of the verb *seraot* are:

(142) a. *Taem oli   seraot   ol yam ya, bambae wan haf i   blong*
          time 3PL.PM share.TR PL yam this FUT   one part PM for.CMP

          yu.
          2SG
          When they divide these yams, one part will be yours.

      b. *Taem oli   seraotem ol yam ya, bambae wan haf i   blong*
          time 3PL.PM share.TR PL yam this FUT   one part PM for.CMP

          yu.
          2SG
          When they divide these yams, one part will be yours.

(143) a. *I   wok blong olgeta blong   oli   seraot   long   ol*
          PM work POSS 3PL   for.PURP 3PL.PM share.INTR PREP PL

          yam ya.
          yam this
          It is their work to divide up these yams.

      b. *I   wok blong olgeta blong   oli   seraotem   long   ol*
          PM work POSS 3PL   for.PURP 3PL.PM share.INTR PREP PL

          yam ya.
          yam this
          It is their work to divide up these yams.

There is a difference in meaning between the two uses *seraot* and *seraot long* which is again recognised by many speakers. However, again, both meanings are taken up by the form *seraotem*. There is also the use of *seremaot* which appears to have come initially from a separate root *serem* meaning 'to discuss dreams, etc.', 'to share confidences, etc.', but which over the last 25 years has developed two meanings, 'to share, meaning to discuss something' and 'to share, meaning to divide between two people', with the latter meaning then giving rise to the meaning *seremaot* as 'to divide'.

(144)   *Taem oli   seremaot   ol yam ya, bambae wan haf i*
        time 3PL.PM share.out.TR PL yam this FUT   one part PM

> *blong   yu.*
> for.CMP 2SG
> When they divide these yams, one part will be yours.

(145)   *I   wok blong olgeta blong   oli   seremaot   ol*
          PM work POSS 3PL   for.PURP 3PL.PM share.out.TR PL

yam ya.
yam this
It is their work to divide up these yams.

This use of *seremaot* appears to be a fairly recent addition to Bislama. The important difference with these three verbs is the relationship between the different forms *ROOT-Vm OBJECT* and *ROOT long OBJECT* to give the same meaning of the verb which is very widely known to most speakers of Bislama. This fluctuation between the two forms each yielding the same meaning is clear evidence that the two structures are alternatives.

4.2.2 TRANSITIVE VERBS WITH SUFFIX

There is a significant group of verbs in Bislama where the members show both the form *ROOT-Vm OBJECT* and the form *ROOT long OBJECT* in fluctuation. For example:

(146) | | | | |
|---|---|---|---|
| *admitim* | to admit | *admit long* | to admit |
| *agensem* | to oppose | *agens long* | to be opposed to |
| *bangem* | to bump into | *bang long* | to bump into |
| *bilivim* | to believe | *bilif long* | to believe |
| *divosem* | to divorce | *divos long* | to be divorced from |
| *draevem* | to drive | *draeva long* | to be the driver of |
| *droem* | to draw | *dro long* | to draw |
| *enjoem* | to enjoy | *enjoe long* | to enjoy |
| *kavetem* | to covet | *kavet long* | to covet |
| *kisim* | to kiss | *kis long* | to kiss |
| *konfesem* | to confess | *konfes long* | to confess |
| *kontestem* | to contest | *kontes long* | to contest |
| *lesinim* | to listen to | *lesin long* | to listen to |
| *maredem* | to marry | *mared long* | to be married to |
| *melekem* | to milk | *melek long* | to milk |
| *operetem* | to operate | *operet long* | to operate |
| *pleim* | to play | *plei long* | to play |
| *raonem* | to surround | *raon long* | to surround |
| *saenem* | to sign (documents) | *saen long* | to sign (documents) |
| *spelem* | to spell (words) | *spel long* | to spell (words) |
| *welkamem* | to welcome | *welkam long* | to welcome |

There are 21 verbs listed here, but the list is certainly not complete. Examples of the more 'traditional' verbs are:

(147) a. *Man ya i   divosem   woman blong hem.*
man that PM divorce.TR woman POSS 3SG
That man has divorced his wife.

   b. *Man ya i   divos   long woman blong hem.*
man that PM be.divorced PREP woman POSS 3SG
That man is divorced from his wife.

(148) a. *Nao long fes blong mifala   evriwan, hem i   kisim*
then PREP face POSS 1PL.EXC everyone 3SG PM kiss.TR

   woman ya.
woman that
Then in front of us all, he kissed the woman.

   b. *Nao long fes blong mifala   evriwan, hem i   kis   long*
then PREP face POSS 1PL.EXC everyone 3SG PM kiss.INTR PREP

   woman ya.
woman that
Then in front of us all, he kissed the woman.

(149) a. *Hem i   wantem   maredem wan woman Pama.*
3SG PM want.AUX marry.TR one woman Paama
He wanted to marry a woman from Paama.

   b. *Hem i   wantem   mared   long wan woman Pama.*
3SG PM want.AUX be.married.INTR PREP one woman Paama
He wanted to marry a woman from Paama.

(150) a. *Ol kwaea oli   welkamem   mifala   daon long sanbij.*
PL choir 3PL.PM welcome.TR 1PL.EXC down PREP beach
The choirs welcomed us down on the beach.

   b. *Ol kwaea oli   welkam   long mifala   daon long*
PL choir 3PL.PM welcome.INTR PREP 1PL.EXC down PREP

   sanbij.
beach
The choirs welcomed us down on the beach.

Certainly, some of the verbs listed are relatively new to Bislama, and for them, the problem of apparent fluctuation shown here could perhaps be put down to the fact that they haven't 'settled down' into the language and 'adopted' one form or the other. However, the fact that many older verbs listed here reveal the same basic pattern indicates that there is an issue that relates to the question being examined, and that issue points very strongly in the direction that, say, *maredem* and *mared long* are two alternative ways of saying the same thing, 'to marry'.

4.2.3 Reduplicated Verbs

There is one reciprocal verb in Bislama which shows both the form *ROOT-ROOT-Vm OBJECT* and the form *ROOT-ROOT long OBJECT* in fluctuation (where *OBJECT* is coreferential with *SUBJECT*). For example:

(151) a. *Nao long fes blong olgeta evriwan, tufala i kiskisim tufala.*
then PREP face POSS 3PL everyone 3DU PM kiss.kiss.TR 3DU
Then in front of everyone, the two of them kissed one another.

 b. *Nao long fes blong olgeta evriwan, tufala i kiskis long*
then PREP face POSS 3PL everyone 3DU PM kiss.kiss.TR PREP

 tufala.
3DU
Then in front of everyone, the two of them kissed one another.

Again, this usage represents one in about 30 usages in this form, but the fact that it occurs at all has to be treated as significant. Here again, the two forms show that the *-Vm OBJECT* and the *long OBJECT* are equivalent forms, and the object in each is equivalent to the *SUBJECT* of the verb.

4.3 Reduplicated Reciprocal Verbs Using *long*

There is a group of reciprocal verbs in Bislama which does not follow the normal form for these verbs (i.e. transitive verbs with the suffix), but rather follows the form *SUBJECT ROOT-ROOT long OBJECT*. This set of verbs is one of three types of reduplicated verb made up from intransitive verbs, but the point to be drawn from this structure is that the *OBJECT* following *long* is coreferential with the initial *SUBJECT*. In other words, if the *SUBJECT* is *tufala*, the *OBJECT tufala* refers to the same two people.

There are ten verbs where the *SUBJECT* and the *OBJECT* marked by *long* are identical. Examples are given of each verb:

(152) *Tufala gavman ya bifo, oltaem tufala i stap*
3DU government this time.past always 3DU PM CONT

 fraefraet long tufala.
fright.fright.INTR PREP 3DU
The two governments here before were always afraid of one another.

(153) *Oltaem tufala ya i stap givgivhan long tufala.*
always 3DU that PM CONT help.help.INTR PREP 3DU
Those two are always helping one another.

(154) *Nao long fes blong olgeta evriwan, tufala i kiskis long*
then PREP face POSS 3PL everyone 3DU PM kiss.kiss.INTR PREP

 tufala.
3DU
Then in front of everyone, the two of them kissed one another.

(155)   *No,   tufala velej ya   i   kloklosap   nomo long   tufala.*
       NEG 3DU village that PM be.close.close.INTR only PREP 3DU
       No, the two villages are quite close to one another.

(156)   *Oltaem tufala i   krokros   long tufala.*
       always 3DU PM be.cross.cross.INTR PREP 3DU
       The two of them are always cross with one another.

(157)   *Long taem ya, tufala i   stap   lanlan   long   tufala.*
       PREP time that 3DU PM CONT learn.learn.INTR PREP 3DU
       At that time, the two of them learned from one another.

(158)   *Tufala i   girap,   tufala i   stap   lanlanwis   long*
       3DU   PM get.up.INTR 3DU PM CONT language.language.INTR PREP

       tufala.
       3DU
       The two of them began to speak to each other in their own language.

(159)   *Long ol toktok   blong tufala, tufala i   no   longwelongwe*
       PREP PL talk.talk POSS 3DU   3DU PM NEG be.distant.distant.INTR

       long   tufala.
       PREP 3DU
       As far as their two positions were concerned, they were not very far from each
       other.

(160)   *Tufala i   stap   raorao   oltaem long   tufala.*
       3DU   PM CONT row.row.INTR always PREP 3DU
       The two of them are always having a row with one another.

(161)   *Tufala i   stap   sweswea   long tufala long   lanwis*
       3DU   PM CONT swear.swear.INTR PREP 3DU PREP language

       we   i   no   blong   talem.
       which PM NEG for.CMP tell.TR
       The two of them were swearing at each other in very offensive language.

The verbs discussed here present a very powerful argument for the fact that the *SUBJECT* and the *OBJECT* identified by *long* are identical, as in the case with the reciprocal transitive verbs. This argument certainly establishes the claim being made that for reciprocal intransitive verbs, the preposition *long* can identify a noun phrase coreferential with the *SUBJECT* which functions here as an *OBJECT*, and so by implication, goes a long way to establishing the thesis of the paper.

4.4 INTRANSITIVE VERBS MARKING DIRECT AND INDIRECT OBJECTS WITH *long*

There is a group of intransitive verbs in Bislama which is identified by the fact that, under certain circumstances, the members may show both a *DIRECT OBJECT*, marked by *long*, and an *INDIRECT OBJECT*, also marked by *long*. Example (162) illustrates a 'normal' transitive verb showing both direct (*tok ya*) and indirect objects (*long mifala*):

(162)   *Plis   yu   traem   talemaot   tok   ya   long   mifala.*
         please 2SG.PM try.AUX tell.out.TR talk that PREP 1PL.EXC
         Please try and tell us the story.

The following are examples of similar structures:

(163)   *Plis   yu   traem   stori   long   mifala   long*
         please 2SG.PM try.AUX tell.story.INTR PREP 1PL.EXC   PREP

         tok   ya.
         talk   that
         Please try and tell us the story.

(164)   *Mi   mi   no   wantem   giaman   long   yu   long*
         1SG 1SG.PM NEG want.AUX lie.INTR PREP 2SG PREP

         tok   olsem.
         talk   like.that
         I don't want to deceive you with that sort of talk.

(165)   *Hem i   no   kaon   long   mi   long   wan samting   nating.*
         3SG PM NEG owe.INTR   PREP 1SG PREP one something nothing
         He doesn't owe me anything.

(166)   *Papa blong mifala   i   tokrere   finis   long   mifala*
         father POSS 1PL.EXC PM talk.ready.INTR already PREP 1PL.EXC

         long   ol   samting   ya.
         PREP PL something this
         Our father had already spoken to us about all these things.

These factors, together with the fact that an intransitive verb does not take a direct or an indirect object, lead to the conclusion that, in Bislama, there is a structure comprised of an intransitive verb followed by *long* followed by an object, which functions as a transitive verb.

5. LINKS BETWEEN TRANSITIVE AND INTRANSITIVE VERBS

In a study of in excess of 1,030 intransitive verbs to examine the links between intransitive and transitive verbs, the following facts were discovered. Of that number, about 550 verbs are always intransitive. About 160 move from intransitive to the transitive + *long* form of the transitive with an object. About 150 move from the transitive form with an object, to a resulting intransitive state where the initial object becomes the subject of the stative intransitive verb. About 100 move directly from intransitive to transitive by the addition of the transitive marker *-im/-em/-um/-m/-rem* and a following object. Then about 35 verbs move between intransitive and transitive states without any formal change in status. About 15 move all the way from an intransitive verb to a transitive verb with a direct object, to a second stative intransitive verb, where the object of the transitive verb becomes the subject of the stative intransitive verb. And there would be about another 10 verbs, which are normally intransitive verbs but which behave as transitives with *se* marking some sort of speech following.

Looking at this whole group more closely, more than 550 verbs maintain their intransitive status at all times. These would be verbs like *resis* 'to run quickly, to race', *flae* 'to fly', *spel* 'to take a rest, a spell'; verbs like *gud* 'to be good', *waes* 'to be wise', *rabis* 'to be ridiculous'; and all the special verbs like *baeawin* 'to run with the wind', *badfren* 'to be a 'bad friend', an enemy', *frangkofon* 'to be French speaking'. These verbs do not normally show any potential to change their form and thus always remain intransitive.

The next largest group is the group of about 160 intransitives which become transitives with *long*. This group has already been discussed, but there are a few verbs in this group where the transitive form differs considerably in meaning from the corresponding intransitive root. Thus the verb *go long* 'to mount' is sufficiently different from the verb *go* 'to go' as to be entered under a separate heading, and the same would apply to *tok long* 'to rebuke' which is similarly distant from *tok* 'to talk'.

The next largest group would be the group of about 150 transitive verbs with objects, which result in intransitive statives where the original object becomes the new subject of a stative intransitive verb. This group is clearly demonstrated in the following examples:

(167) a. *Hem i   flatem   ples ya.*
        3SG PM flatten.TR place this
        He levelled the place.

   b. *Ples ya i   flat.*
        place this PM be.level.INTR
        The place is level.

(168) a. *Hem i   fulumap   tang long masut.*
        3SG PM fill.up.TR tank PREP diesel
        He filled the tank with diesel.

   b. *Tang i   fulap   long   masut.*
        tank PM be.filled.INTR PREP diesel
        The tank is full of diesel.

This group is not to be confused with the following group of intransitive verbs which become transitives.

The next largest group is the group of about 100 intransitive verbs where the verb stem is extended by the addition of one of the set of *-im/-em/-um/-m/-rem*, and the same subject now becomes the subject of a related transitive verb with an object. This group is clearly demonstrated in the following examples:

(169) a. *Olgeta oli   disaed.*
        3PL   3PL.PM decide.INTR
        They decided.

   b. *Olgeta oli   disaedem poen ya.*
        3PL   3PL.PM decide.TR point this
        They decided the issue.

This group is separated from the previous group by the retention of the subject, indicating a relationship of intent, rather than of result.

The next largest group is the group of about 35 intransitive verbs which become transitive verbs without change in external form. This group is clearly demonstrated in the following examples:

(170) a. *Hem   i   save.*
      3SG PM know.INTR
      He knows.

    b. *Hem   i   save   ol   man ya.*
      3SG PM know.TR PL man this
      He knows all these people.

(171) a. *Hem   i   wantem   kakae.*
      3SG PM want.AUX eat.INTR
      He wants to eat.

    b. *Hem   i   wantem   kakae pig.*
      3SG PM want.AUX eat.TR pig
      He wants to eat pork.

This list may appear larger than might have been expected, but it includes a number of compounds such as *haremsave* 'to understand', *luksave* 'to recognise', *lukluksave* 'to get to know by looking at', *mekemsave* 'to teach someone a lesson' and *meksave* 'to teach someone a lesson, to put someone to shame' as well as *save* 'to know'.

The second smallest of these groups is the group of 15 intransitive verbs which follow both the third and the fourth groups above. These verbs occur as intransitive verbs, and with the same subject they occur as transitive verbs with objects, and then the objects occur as subjects of stative intransitive verbs. This group is clearly demonstrated in the following examples:

(172) a. *Olgeta oli   stap   rus   long garen.*
      3PL   3PL.PM CONT barbecue.INTR PREP garden
      They are in the garden barbecuing.

    b. *Olgeta oli   stap   rusum   taro.*
      3PL   3PL.PM CONT barbecue.TR taro
      They are barbecuing taro.

    c. *Taro i   rus.*
      taro PM be.barbecued.INTR
      The taro is barbecued, ready to eat.

(173) a. *Naoia,   hem i   stap   wok.*
      at.present 3SG PM CONT work.INTR
      Right now, he is working.

    b. *Hem i   stap   wokem   enjin.*
      3SG PM CONT work.TR engine
      He is working on the engine.

    c. *Enjin i   wok   nao.*
      engine PM be.working.INTR DEIC
      The engine is working well now.

The fact that so few verbs appear to follow this course is a clear indication that the separation presented here is valid.

The last group of intransitive verbs would normally add about 10 verbs to the group of intransitive verbs which also appear as transitive verbs without any external change in form.[11] In Bislama, the verb forms which are followed by *se* and an utterance in direct or indirect speech are normally transitive, so that forms such as *bilif* 'to believe that', *ting* 'to think that' and *hop* 'to hope that' should be regarded as transitive. Examples are as follows:

(174) a. *Mi mi   no   ting.*
       1SG 1SG.PM NEG think.so.INTR
       I don't think so.

   b. *Hem i   ting   se   tok ya i   rabis.*
      3SG PM think.so.INTR saying talk that PM be.rubbish.INTR
      He thought that that statement was ridiculous.

(175) a. *Long taem ya, tufala i   bilif.*
       PREP time   that 3DU PM believe.INTR
       At that time, both of them believed.

   b. *Jif i   bilif   se   stori ya i   tru.*
      chief PM believe.INTR saying story that PM be.true.INTR
      The chief believed that the story was true.

On this analysis, the largest of the groups moving across the intransitive/transitive divide is the group that uses *long* to indicate an object following. It is not clear that this fact has been recognised in the past, and it is certainly important for future preparation of dictionaries, etc.

6. DISCUSSION

The material here has been presented in four parts. In the first section, the four basic sentence structures in Bislama were discussed, perhaps in somewhat more detail than the prime need of this paper would have required, but in necessary detail to complete the analysis of the four groups. In the second section, the other uses of the preposition *long* were presented, apart from its use as a possible marker for direct objects with transitive verbs. In the third section, the arguments for the use of *long* as a transitive marker for transitive verbs were presented. And in the fourth section, the way that verb roots move between transitive and intransitive forms was examined, showing that the apparently intransitive roots that take *long* to mark a following object show the greatest movement from intransitive to transitive forms.

The Macquarie dictionary lists 13 definitions of the word 'object' in English, one of which is: "8. *Gram.* (in English and many other languages) the noun or its substitute which represents the goal of an action (in English either *direct* or *indirect*) or the ending point of a relation (in English expressed by a preposition)". In Bislama, the transitive verb has been defined primarily as a verb of the form *ROOT-Vm* with possible compounds such as *-ap*,

---

[11]   This group represents a further category of verbs in Bislama, which appear both as intransitive verbs and as transitive verbs without the addition of the *-Vm* suffix.

-aot, *-bak*, etc, added. There is a restricted list of transitive verbs of the form *ROOT*, the members of which are clearly transitive because of the presence of the following direct object. The remaining verbs are defined as intransitive verbs. The material presented here suggests this definition of intransitive verbs is inadequate for Bislama, and that there is a further series of verbs here which are normally intransitive, but which take an object marker *long* to appear as formally transitive verbs. In effect, the marker *long* functions in a similar way to the marker *-Vm* with transitive verbs of the form *ROOT-Vm* or the marker Ø with transitive verbs of the form *ROOT*, which carry no such marker.

In the third section of this paper, a long list of intransitive verbs is identified by the fact that the *long*-phrase following the verb is of a different type from any of the previous list of *long*-phrases which may follow a verb. Many of these verbs can be translated by transitive expressions in any given Melanesian language, or in English or French, but that sort of approach cannot be treated seriously. The question is not how these verbs may be translated into a foreign language, but whether they are a distinct and separate group of verbs in Bislama which need to be treated separately for the management of the Bislama grammar. The evidence presented is that they do form such a group, because of the different way that *long* is used with the phrases that follow them.

These verbs are then looked at for their relationship to the existing verb structure in Bislama. It can be shown that in Bislama, fluctuation exists between intransitive verbs with the *long* marker and a variety of regular verbs. With the transitive verbs with no *-Vm* suffix, there are six verbs from about 35 roots, which show this kind of fluctuation, with no difference in meaning between the two forms. With the transitive verbs with the *-Vm* marker, at least 20 verbs are presented showing this fluctuation, again with no difference in meaning between the two forms. With the reciprocal transitive verbs, there is one verb from about 30 such verbs, which shows this kind of fluctuation, with again, no difference in meaning between the two forms.

There is a set of verbs in Bislama formed by the reduplication of intransitive verbs, where in the reciprocal structure, the members of the Subject and the members of the Object marked by the *long* marker are all part of the one group and interact with one another. The relationship of this structure to that formed by the reciprocal transitive verbs is such that there can be no doubt that in this structure, the preposition *long* marks what is formally a direct object.

Crowley (1990a:19) appears to give consideration to something roughly equivalent to this issue in the introduction to this Bislama dictionary, where he states under '5.1 Transitive Verbs':[12]

> Many verbs that are formally intransitive and for which no formally equivalent transitive equivalent of this type exists, can be followed by a noun phrase expressing the person or the thing affected by the action, with the preceding preposition *long*. Such constructions could be termed 'lexically complex transitives', e.g.
>
> | *Mi* | *oda* | *long* | *hambega* | *jips.* |
> |------|-------|--------|-----------|---------|
> | 1SG.PM | order.INTR | PREP | hamburger | chips |
>
> I ordered a hamburger and chips.

---

[12]   I have inserted morpheme glosses in Crowley's two examples.

> *Radio   i   brodkas   long   program.*
> radio   PM   broadcast.INTR PREP program
> The radio broadcast a program.

Such lexically complex transitives are entered only in the intransitive form, on the assumption that, when a transitive equivalent suggests the possibility for an object to appear and if no derived transitive equivalent in the *-im/-um/-em/-m* is listed, then the object will automatically be introduced by *long*.

Thus in the dictionary, under 'long² (prep)', he states "8. affected noun phrase following a formally intransitive verb *Bae yu rato long ol lif i go wanples.* Rake all the leaves together".

Apart from this reference, no other indication has been found in the literature to suggest that a 'formally intransitive verb' can give rise to the results described in this article.[13] The argument presented here is not stated in terms of a beginning in English or French, or even in a Melanesian language, and goes further than does Crowley, in suggesting that these transitive verbs present a third group among the transitives, namely a transitive verb plus *long* plus a direct object, and that they should be listed separately in dictionaries, etc. The listing of these verbs as intransitive and transitive would show the same structure as verbs such as *kakae* 'to eat' and *save* 'to know' where they are listed as either intransitive or transitive, depending on how they are used in different sentences.

The conclusion to be drawn from the material here presented is that there is a set of intransitive verbs, which are capable of functioning as transitive verbs when they are followed by the preposition *long* as a direct object marker and a direct object.

REFERENCES

Crowley, Terry, 1990a, *An illustrated Bislama-English and English-Bislama dictionary.* Vila, Vanuatu: The Pacific Languages Unit and the Vanuatu Extension Centre of the University of the South Pacific.
1990b, *Beach-la-Mar to Bislama: the emergence of a national language in Vanuatu.* Oxford Studies in Language Contact. Oxford: Clarendon Press.

---

[13]   At the conference, Dr Crowley called my attention to his recent book, *Beach-la-Mar to Bislama* (Crowley 1990b), in which there is some further discussion of this topic, not previously published.

NEW DEVELOPMENTS IN LITERACY IN PAPUA NEW GUINEA LANGUAGES

Nicholas Faraclas

1. THE EVOLUTION OF CRITICAL LITERACY IN PAPUA NEW GUINEA

If we are to define Critical Literacy as the process 'reading and writing one's life', then it would be very difficult to cite a particular date for the advent of Critical Literacies in Papua New Guinea. In most Papua New Guinean traditions, every event in the life of an individual or a community is 'read' for its underlying meaning. No event is considered to be unmotivated. The unquestioning acceptance with which most of the world's 'literate' people face the often oppressive 'facts' of their lives is something relatively new in Papua New Guinea. The scope for individual expression and voice in writing one's life, that is, in the determination of the general goals and the daily rhythms and activities of one's life, is much wider in 'preliterate' Papua New Guinea than in the average print literate society. Here we are faced with a paradox: if anyone in the world today can be said to be practicing Critical Literacies in their daily lives, it is the most traditional and most print illiterate populace of a country like Papua New Guinea. The lives of these 'illiterates' are relatively unaffected by the dominant discourses which 'read and write' the lives of the majority of the print literate peoples of the world.

1.1 COLONIALISM, CARGO CULTS AND CARGO LITERACY

Print literacy began in Papua New Guinea with the arrival of the colonialists and slave traders in the mid to late 1800s. Their basic message to the people of Papua New Guinea was the message of Cargo: what Papua New Guineans are, do, or have is evil or inferior and must be rejected, while the new imported Cargo (foreign commodities), its agents (the missionaries, colonial government and companies), and their lifestyle (practices, knowledge, etc.) are good and must be acquired and emulated. Under such influences, Papua New Guineans began to unquestionably accept the Cargo as good and valuable. Some Papua New Guineans started to reject their own customs. In the process of repudiating their traditions, Papua New Guineans have begun to lose the remarkable degree of critical analysis and control that they have exercised over their lives for millenia. The Cargo Cult and the dominant discourses it propogates play a role in the shaping of desires and identities of every individual and community in Papua New Guinea today.

It can be said that print literacy and its associated discourses and institutions (functional literacy, the Northern education systems, etc.) have done more to destroy Critical Literacies in Papua New Guinea than any other force. In the process of learning to 'read' the Bible, Papua New Guineans were taught by their mentors that their traditions had to be rejected, in favour of the 'godly' ways of their new masters. When the colonial government established a

---

system of primary education, reading and writing was taught exclusively in English from story books whose main characters were Australian (appropriately named Mr and Mrs White) with the typical Cargo lifestyle, complete with high covenant house, car, nuclear family, office job, meat pies, etc. The only Papua New Guinean in the books was the houseboy.

1.2 INDEPENDENCE AND THE CARGO DISCOURSE ON DEVELOPMENT

Since Independence, Mr and Mrs White have been replaced by the 'Melanesian Series' whose main characters are Papua New Guineans, but whose lifestyle is nearly identical to that of the White family that they replaced. As this paper is being written, Papua New Guinean children are still being punished for speaking their own languages in the English-only schools. While the essential message of Cargo has been the same throughout the entire history of Northern style literacy and education in Papua New Guinea, the dispensers of Cargo have changed. Under the Australian administration, Papua New Guineans hoped to gain access to Cargo first through the missions; then gradually the schools became the gatekeepers. After Independence, the government was expected to deliver the goods. But now, in the 'New World Order', Cargo comes increasingly via the big companies and big bank development programmes and projects.

The effects of the Cargo Cult go far beyond the realm of literacy and education. Indeed, the dominant discourse on development in Papua New Guinea can quite appropriately be named the Cargo discourse on development. The World Bank/International Monetary Fund and the foreign companies are aggressively pushing Cargo development. The message is basically the Cargo Cult message, extended to the domain of control over labour and resources: Papua New Guinea has no 'development' and no viable means to 'develop' itself. If Papua New Guinea wants development, it will have to import it in the form of Cargo, owned and operated outside Papua New Guinea. In this discourse, development is seen as a set of objects and projects such as plantations, mines, logging operations, big buildings, luxury cars, alcohol, plastic food, consumer goods, etc. Questions about why these things are valued, how they are obtained, what they replace, and who controls and benefits from this type of 'development' process are not permissible within the Cargo discourse.

As a result of the Cargo discourse on development, most Papua New Guineans approach the whole question of improvement of the quality of their lives with a profound sense of powerlessness. Nearly all Papua New Guineans are incredibly powerful by world standards and have under their control and within their own communities excellent and abundant resources which could be used to improve their quality of life substantially. But because of the Cargo discourse on development, these community resources are usually discounted or completely ignored, in favour of inferior, and inappropriate resources from outside the community, which can only be obtained by relinquishing community and individual control over land, resources and labour.

The products of the Papua New Guinea education system are designed to promote and perpetuate Cargo development in the country (Ahai & Faraclas 1993). The 67 per cent who begin school but are 'pushed out' before Grade 10 acquire during their short academic careers a distaste for life and work in their villages and a correspondingly strong appetite for the Cargo life of Mr and Mrs White. While they learn few if any skills that will allow them to assume the types of employment that would give them access to the Cargo, they are also deprived of the traditional education which would have given them the skills to make use of

the resources in their villages. Meanwhile, the one per cent who attend University are trained from a very early age to live and love the Cargo life far away from their villages, in boarding schools (from Grade 7 on, students usually live on campus) and in Australia (the top percentiles of Papua New Guinean high school students, along with a few students from 'less developed' provinces, are automatically given scholarships to complete their schooling abroad).

The 30 per cent or so who never enter Grade 1 are arguably the happiest, and in some cases the most materially prosperous Papua New Guineans. These are the people who continue to practice the Critical Literacies which were bequeathed to them by their ancestors. These Critical Literacies represent an important developmental achievement whose significance extends far beyond the borders of Papua New Guinea.

1.3   THE REVIVAL OF CRITICAL LITERACIES IN PAPUA NEW GUINEA: THE MOVEMENT FOR LOCAL LANGUAGE LITERACY

The revival of Critical Literacies in Papua New Guinea began in the late 1980s, as an attempt to move from a literacy defined as a set of mechanical skills for reading the Bible to a literacy that included elements of experience, process, critical thinking and creative self-expression (Stringer & Faraclas 1987). The results of the introduction of a new pedagogy for literacy called the 'Multi-Strategy Method' on the one hand, and the implementation of a new community-based methodology for starting and maintaining literacy programmes called the 'Community Framework' on the other, provided an important impetus for the birth of a significant grassroots movement for 'Local Language Literacy' in Papua New Guinea by 1989.

What distinguished this movement from the literacy efforts that preceded it, was that it was moving beyond 'print literacy' and 'functional literacy'. Besides advocating the initial teaching of reading and writing in a language familiar to the learner (rather than in English) for obvious pedagogical reasons, the movement for Local Language Literacy was promoted as a process that could play a major part in the struggles of indigenous peoples to maintain their languages and cultures in the face of the onslaught of the languages and discourses of Cargo. Local Language Literacy was also seen as a means to provide indigenous communities with the opportunity of establishing and maintaining literacy programmes themselves, using their own ideas and locally available resources, thus challenging the Cargo notion that all 'development' must be imported and controlled from outside the community. Given its emphasis on the preservation and development of local languages and cultures, the focus of this movement was largely confined to local language literacy for preschool children.

1.3.1   THE MULTI-STRATEGY METHOD: STUDENT CONTROLLED LEARNING

The most effective pedagogy for Critical Literacy in Papua New Guinea has proved to be the Multi-Strategy Method which was originally developed as part of the Local Language Literacy movement to reflect traditional Papua New Guinean teaching and learning styles (Stringer 1988). The Multi-Strategy Method has as its goal the facilitation of a student-controlled learning process, with demystified and flexible procedures for teaching and materials production. The Multi-Strategy Method consists of two parallel 'tracks': the Story

Track and the Workbook Track, each with its own separate teacher, lessons, time allotment, approach and materials.

The Story Track is based on a Whole Language approach (as described in Edelsky 1991) where students are reading and writing their own stories from the very first day of classes. The Story Track is focused exclusively on reading and writing for meaning. Word attack skills are relegated entirely to the Workbook Track. The Story Track teacher acts as a model and never corrects students, stressing confidence and reading for meaning and enjoyment. All of the the Story Track materials are composed and produced by the community or, whenever possible, by the students themselves.

The Workbook Track uses a set of purely structurally-oriented key word/syllable based primers, that do not attempt to include any reading or writing for meaning. If a set of primers has already been designed and printed for the local language, these can be easily adapted and used as the Workbook Track primers. The Workbook Track teacher corrects students' mistakes and stresses accuracy.

There is no attempt to integrate the two tracks at the level of instruction. Each day, students participate in a rich variety of Whole Language experiences in the Story Track and are drilled in the full range of word attack strategies in the Workbook Track. Students are left in control over the process of integration, putting it all together at their own pace, when they are ready.

1.3.2 THE COMMUNITY FRAMEWORK: COMMUNITY-CONTROLLED PROGRAMMES

Like the Multi-Strategy Method, the Community Framework was developed as part of the movement for Local Language Literacy in Papua New Guinea and has become an important element in the implementation of Critical Literacy programmes. If a community opts for print literacy, it is expected to plan, finance and manage its own programme. A Literacy Committee is formed by the community to manage the programme. About US$200.00 must be raised by the community to buy the paper, ink and silkscreens necessary for the community to write and print all of the local language story books and primers which will be used in their classes, as well as other items such as blackboard paint, chalk and pencils. Communities themselves are responsible for locating a space to hold classes and for payment of teachers. Outside help is only needed for a few days to design a working alphabet and primers, if these are not already available, and for a four-week teacher training/materials production course, held in the village itself.

1.4 CRITICAL LITERACY, NGOS AND THE PNG TRUST

As the movement for Local Language Literacy developed and more and more communities began to organise around literacy projects, it became rapidly apparent that even this expanded conception of literacy was still inadequate and naive. Non-Governmental Organisations (NGOs) from around the country who had used the new framework and methodology to establish successful children's programmes attempted to start adult literacy classes, but were finding this much more difficult. Meanwhile, women's organisations and other NGOs involved in programmes for social transformation began to respond to a rapidly growing demand for literacy programmes by the communities in which they were working.

NGOs oriented towards Local Language Literacy and social transformation NGOs began to realise that they both shared a vision of community work as a process of community members taking control over their lives. In 1990, these two groups of NGOs formed a network called the Papua New Guinea Integral Human Development Trust (or PNG Trust). The PNG Trust was partly inspired by the Solomon Islands Development Trust, which had been working successfully for social change at the community level in the Solomon Islands since the early 1980s.

The term Integral Human Development refers to the type of development which is prescribed for Papua New Guinea both by the National Constitution as well as by the National Philosophy of Education. Integral Human Development explicitly mandates human-centred political, social, economic and spiritual development and education 'for the liberation from all forms of oppression' (Matane 1986). It was felt that this vision of development was a basis upon which an alternative discourse on development could be built for Papua New Guinea, to contest the prevailing Cargo discourse.

Many versions of Critical Literacy are developing in Papua New Guinea. There has been no attempt to impose a single model, but there is an active attempt to promote communication, dialogue and exchange among PNG Trust member NGOs, so that one can benefit from the other's ideas and experiences. Some groups are expanding the scope of their work from print literacy to 'literacy and awareness' (often a precursor to Critical Literacy). Other groups who have been involved in movements for social change are incorporating print literacy training into their programmes as well as using the framework provided by the Critical Literacy movement to reconceptualise how they might go about working with communities to bring about social transformation.

1.4.1 COMMUNITY DIALOGUES

PNG Trust training for Critical Literacy workers focuses its attention not only on the Multi-Strategy Method and the Community Framework, but also on the Community Dialogue process. The PNG Trust trains members of village and settlement communities in the skills and techniques that they need to actively engage themselves in participatory dialogues with their communities around various issues. Teaching and preaching (the Cargo models for educational work) are discouraged at all costs. Instead, workers are trained to ask questions and to encourage community members to discuss and to identify their own problems and goals for themselves and to devise their own plans for solving their problems and achieving their goals. These dialogues begin the process of community mobilisation and the formulation by the community of its own vision of development. The community's vision of development is seen as a product of its analysis of its own local problems and goals in the context of its analysis of the problems and goals of the larger communities to which it belongs: Papua New Guinea and the world community.

Print literacy is only introduced when and where a community identifies it as an important element in the solution of a community problem or in the achievement of a community goal. The community dialogue process includes traditional forms of community discussion as well as Freirean codifications and questioning techniques. There is no need however, for a team of literacy workers from outside to go into the community to identify 'generative words'. The Whole Language component of the Multi-Strategy Method makes it possible for community viewpoints and voices inspired by the dialogues to be transformed immediately

into materials that the community can use to learn to read and write with, from the very first day of print literacy classes. In this way, community members can proceed immediately to Freire's 'generative themes' stage, before actually mastering or even opting for print literacy. As much as possible, Critical Literacy in Papua New Guinea has rejected linear sequencing, in favour of an inclusive holistic approach that approximates traditional patterns of organising human activities.

1.4.2 CRITICAL LITERACY WORKERS AND NGO NETWORKS

Community members themselves have the best knowledge of their own problems and goals in life, as well as the greatest capacity to devise and implement equitable and sustainable strategies for solving those problems and for achieving those goals. Unfortunately, community members are often the last people to be consulted about what needs to be done in their communities and how to go about doing it. The PNG Trust training team works in close association with the grassroots NGOs who belong to the PNG Trust network to identify key community members who can be trained to involve their communities in the dialogue process. The PNG Trust trains community members who have an ongoing day-to-day relationship with the people to become Critical Literacy workers. Most of these Critical Literacy workers are Pushouts (here I use the more accurate term 'Pushout' instead of 'Dropout') from Grades 6, 8 or 10. The NGO network members of the PNG Trust organise district level follow-up training workshops to reinforce the skills gained by their Critical Literacy workers at PNG Trust courses, as well as to adapt these skills to the particularities of local conditions.

1.4.3 MATERIALS FOR CRITICAL LITERACY

The PNG Trust has found that the most effective and well-received Critical Literacy materials are the ones that the community members design and produce themselves as a result of their discussions during the dialogue process. Locally-produced materials allow the people to tell their own story with their own voice. Due to the fact that there is no single unifying national language in Papua New Guinea, and because language and culture are inextricably bound together, it is important that Critical Literacy materials and messages are designed and produced in all of the country's 869 languages. Locally-produced materials, designed and written by the people themselves and printed on their own low cost silkscreen printers, are maximally adapted to local cultural and linguistic sensitivities and cost much less than materials printed centrally in a single language.

The great majority of the population is print illiterate, so that it is essential that Critical Literacy materials and messages be designed for both print literate and print illiterate community members. During PNG Trust courses, participants are trained to facilitate the local writing and printing of literacy books, posters and leaflets, to encourage the formation of local theatre groups, and to work with community members to compose songs and dances. When the equipment is available, participants are also trained to use a set of awareness videos produced in Papua New Guinea and abroad.

2. CRITICAL LITERACY, POWER AND CONTROL: GIVE PRACTICE A CHANCE

It is impossible to do Critical Literacy work without being immediately confronted by the question of control. In Papua New Guinea, the ultimate goal of the Critical Literacy movement is to enable people to exert or reclaim control over their lives through the process of critically analysing the realities that they are living (critical reading) as well as through the process of actively creating those realities (critical writing). The Critical Literacy movement in Papua New Guinea has found that the contradiction around who controls Critical Literacy is one that cannot be resolved in theory, but it can be struggled with in practice. It is only through that struggle and the lessons learned from it that we can construct Critical Literacies that have power to transform society. The Critical Literacy movement in Papua New Guinea therefore adopts a constructivist theory of knowledge (Lankshear & McLaren, in press).

All meaningful praxis must be situated within some discourse. Critical Literacy workers in Papua New Guinea are constructing alternative discourses for social change within which they can work with communities until such a point as the communities themselves are able to deconstruct both the dominant discourses as well as these alternative discourses, the eventual goal being the construction by the communities themselves of their own discourses for the transformation of their own realities.

2.1 CRITICAL LITERACY AND CONTROL: CONTESTED GROUND

One of the major potential contributions of Critical Literacy at the level of praxis is the deconstruction of the literacy worker as 'expert' or 'professional'. It was not until Freire that the locus of power in literacy programmes began to shift from literacy professionals from outside the community to the community members themselves. Freire has, however, been accused of not making this shift as completely as necessary. The internal problems experienced by the Nicaraguan programme, for example, can be traced directly to issues of control over curriculum and content (Lankshear & McLaren, in press:220-223). These weaknesses were admitted by Freire himself (Gee 1992:40-43) and they are understandable given the constraints under which Freire laboured at the time. Building on the work of Freire, but incorporating traditional Papua New Guinean conceptions of literacy, praxis and control, a more thoroughgoing critique of the role of the 'expert', and a Papua New Guinean version of the Whole Language approach, new Critical Literacies are taking shape in Papua New Guinea. As a result, Papua New Guineans are achieving previously unimaginable levels of community control over curriculum, content, teaching, training and materials writing and production, as well as over the definition of literacy itself.

The NGOs and the communities with whom the PNG Trust works have made it clear that, if Critical Literacy workers are not to become the next set of Cargo dispensers, their attitudes will need to be radically different from those of the literacy workers that preceded them. This change in attitudes must be determined by the attitudes and demands of the communities themselves. There is no way to predict before entering a community what will be appropriate. All preconceived notions about how Critical Literacy 'should' be done need to be critically analysed and in no way should they be allowed to get in the way of the community taking control over the process. The typical attitudes of 'experts' or 'professionals' are not acceptable, and must be replaced by an unshaking commitment to the establishment between Critical Literacy workers and the community of relationships of equality, respect, trust and engagement.

2.2 THE CONTESTED GROUND OF CONTENT

Although the goal of Critical Literacy is community control, the Critical Literacy worker may not be able to avoid intervening in the community dialogue process, especially at the beginning. Community control has been interpreted by some literacy workers who have attempted to appropriate the movement for Critical Literacy in Papua New Guinea as an excuse to avoid active engagement in community work. Nothing could be further from the truth. Working with community members to enable them to identify and solve a particular problem in their lives requires a tremendous amount of work and commitment, much more than that required of community workers who themselves attempt to 'solve' the problem on behalf of the community.

The process of Critical Literacy does not occur in a vacuum. Dominant discourses will hold sway over people's minds wherever these discourses are not consciously and vigorously challenged and deconstructed. If the community are not accustomed to applying this type of critical analysis to dominant discourses, it is the task of the Critical Literacy worker to encourage this process. Critical Literacy workers can stimulate the critical analysis and deconstruction of the Cargo discourse of development and other dominant discourses by juxtaposing to them alternative discourses, such as Integral Human Development or traditional Papua New Guinean discourses on control, land tenure, etc.

Alternative discourses are not introduced to the community as 'the truth' but instead as a different way of looking at things. These alternative discourses are deliberately unfinished and open to community input so that, as much as possible, they pose questions rather than providing answers. Critical Literacy workers present alternative discourses in a self-critical way, pointing out their own contradictions and deficiencies. Critical Literacy workers must realise that the alternative discourses that they bring to the community reflect their own point of view, their own subjectivity. This helps to ensure that they continue to interact with communities as co-learners, rather than as teachers or preachers.

Communities cannot begin the process of finding solutions to problems until they have identified and understood the causes of these problems. Critical Literacies use questioning techniques that can help community members to get to the root causes of their problems and to avoid the tendencies to passively accept problems as the 'natural order of things', to mistakenly attribute blame to the wrong agent, or to blame themselves. Since many of the causes of community problems lie outside the community, it is absolutely essential that Critical Literacy workers are familiar with global problems, issues and trends and share these knowledges with community members in the course of the dialogues. There is no community in Papua New Guinea today that remains unaffected by events in the rest of the country and the rest of the world. Papua New Guinean Critical Literacy workers attempt to engage community members in discussions about models for development, women's issues, the 'debt crisis', the AIDS epidemic, environmental issues, etc. No one of these problems can be fully and meaningfully understood without some preliminary understanding of the others.

2.3 THE CONTESTED GROUND OF METHODOLOGY

The development of the Multi-Strategy Method illustrates how both traditional ways as well as a particular relationship of praxis to theory have contributed to the movement for Critical Literacy in Papua New Guinea. In traditional Papua New Guinean societies, the acquisition by children of skills such as gardening and fishing is mainly done by observation

of and participation in the daily activities of their elders. There are, however, certain knowledges that are 'taught' more formally, such as the boundary marks of traditional lands or the knowledges, languages, songs, etc., learned in initiation ceremonies and on other special occasions. On these grounds, it could be said that there is a basis in traditional educational practice for both the observation/participation oriented Whole Language approach and the more structurally-oriented word attack skills approach to learning print literacy.

In practice, many Papua New Guineans come to the print literacy process with existing notions about how literacy should be taught. The influence of traditional Northern education systems, whose approach has been strongly biased towards word attack skills at the expense of reading and writing for meaning, is still quite strong, especially among the members of communities who are likely to become involved in the administration and implementation of community-based literacy programmes. A literacy methodology which excludes or trivialises a word attack skills component would not be readily accepted by most communities. Pressure from Whole Language theorists to do away completely with syllable-based primers has come up against pressure from Papua New Guinean communities to retain them.

As a test of the the Multi-Strategy Method, Stringer (1988) set up three initial literacy classes for three groups of children who spoke the same Papua New Guinean language. Group One was taught with a Whole Language approach, Group Two with a word attack skills oriented approach, and Group Three with a dual (Multi-Strategy) approach. At the end of this experiment, Group One could look at the pictures in their books and improvise wonderful stories about them, but they had great difficulty decoding the graphemes on the page. Group Two could sound out the words on the page, syllable by syllable, but their reading was mechanical and comprehension was low. Only Group Three could both grasp the meanings of the passages and decipher the written code with competence. The most dramatic result from Group Three, however, was their capacity to write creatively. These findings show how a praxis that is controlled by community members themselves and informed by their traditions can help literacy workers to make better choices between the various alternatives made available to them by the methodologists and theorists. Community control can also provide literacy workers with the courage to reject all of these ready-made imported options and with the impetus to create new methodologies and theories.

In the case of the Multi-Strategy Method, several significant breakthroughs were made that challenged the existing assumptions about pedagogies for literacy. In the first place, the Multi-Strategy Method resists the pressure to 'choose sides' in the great debate between the proponents of Whole Language and word attack skills oriented approaches. It opts instead to give equal weight to both, and expose students to as many elements as possible of both approaches every day, thus attempting to provide a learning situation that is as rich and varied as the traditional one. If Critical Literacy is to be a community-controlled enterprise, theoretical preferences will need to be balanced with community preferences. Critical Literacy in Papua New Guinea is not a technicist quest for 'the ideal pedagogy'. It is rather a struggle to develop, together with the community, a set of work practices and styles which will allow community members to take as much control over the Critical Literacy process as possible.

The constraints of a community-based praxis were instrumental in the development of perhaps the most important theoretical contribution that the Multi-Strategy Method has made: its novel approach to the integration of reading and writing for meaning with word attack skills. Some Australian Whole Language teachers still find it difficult to integrate word attack skills into their teaching routines, even after extensive formal training and with the support of

a battery of error analysis techniques and teaching aids designed to identify and solve particular problems experienced by individual students. If Papua New Guinean communities are to be in control of the processes of teacher selection, training and payment, it is necessary that the teaching method be demystified and straightforward to the point that an unpaid Grade 6 Pushout would be able to master it during a one-month training course and continue to teach it thereafter with minimal supervision and few if any teaching aids. The Multi-Strategy Method does just this, by separating the two approaches completely.

If it is not necessary for teachers to integrate the two approaches in the same lessons, the lessons become maximally easy to teach. Confusion is avoided by having separate teachers teach the separate approaches. An indication of the power unleashed by this process at the community level is the fact that over the past four years, more literacy programmes have been started in Papua New Guinea than in the last one hundred years. Thousands of Pushouts have been trained to become successful Story Track and Workbook Track teachers in hundreds of Critical Literacy programmes throughout the country, thus providing them with the incentive and opportunity to become productive and respected members of their home communities.

2.4 THE CONTESTED GROUND OF ORTHOGRAPHY

The traditional role of 'experts' in the control of the design of orthographies and of the writing and printing of literacy materials is a good example of the practices and attitudes that the Critical Literacy movement in Papua New Guinea has been struggling against. The 'experts' have so idealised and mystified the process of designing alphabets for previously unwritten languages, that it takes many of them up to one year just to complete the phonological analysis upon which the alphabet will eventually be based. To make matters worse, these 'experts' often waste several years more arguing with community members about why the community's notions about how their language should be written do not match our scientific notions. The technicist quest for 'the perfect alphabet' both denies the community any significant voice in how their language will be written, and also delays for years any practical action by the community to implement their literacy programmes.

In the development of the movement for Critical Literacy in Papua New Guinea, the process of designing alphabets has been demystified. Now, a Critical Literacy worker can ascertain the major phonological contours of any language and choose the appropriate graphemes within just a few hours (Stringer & Faraclas 1987; Faraclas 1987). All decisions concerning which symbols are to be used are made by the community itself. If one of their decisions is pedagogically unsound, they soon become aware of it, since the best test of a new orthography is its use in literacy materials. In any event, areas where an in-depth phonological study is necessary or where a community's preferences clash with a linguist's judgements constitute in almost every case a minute problem, calling into question the use of no more than two or three symbols. Imagine for a moment how much easier life would be for all of us if our orthographic headaches in English were confined to the erratic behaviour of only two or three letters! As was the case in the area of methodology, an approach based on community control has had revolutionary consequences in the area of orthography design. Over the past three years, the Critical Literacy movement has created alphabets for more than 150 languages in Papua New Guinea, surpassing the number of alphabets created by all of the 'experts' over the last 100 years.

2.5 THE CONTESTED GROUND OF MATERIALS WRITING AND PRODUCTION

Because they attempt to integrate some reading for meaning into what is essentially a word attack skills oriented method, the average time that it takes outside 'experts' to devise Gudschinsky-style primers for a Papua New Guinean language is three to five years. The process is totally controlled by the 'experts', and so complex as to make it necessary for them to call upon the aid of consultants specialised in the task. There is no possibility for community members to take part in the process. All materials are formatted and printed 'professionally' at a print shop.

The novel way that the Multi-Strategy Method treats the question of integration has revolutionised the materials production process, allowing any community to write and print a full set of literacy materials in their own langue in a few weeks, with very little input from experienced workers from outside. Because the Story Track is completely meaning oriented and ungraded, any community members who are print literate can compose and produce the stories that constitute the Story Track materials themselves, with a minimal amount of training. Because the Workbook Track is wholly oriented towards word attack skills and there is no attempt to integrate meaningful sentences into the Workbook Track primers, they are relatively easy to design. Papua New Guinean Critical Literacy workers can now design an alphabet and the full set of four primers for a new language in two days, with the help of a few native speakers.

The opportunities made available by these advances for an increase in community control over the content and production of materials are enormous. For the first time, it has become possible for community members themselves to incorporate their own stories, knowledge, identities, viewpoints and voices directly and immediately into their literacy materials. Over the past three years, PNG Trust Critical Literacy workers have worked together with communities all over Papua New Guinea to produce full sets of literacy materials for more than 100 languages, proving in the process that local materials production in all 869 languages of Papua New Guinea is not only possible, but more feasible than centralised materials production in one or a few 'national' languages.

2.6 THE CONTESTED GROUND OF TRAINING

PNG Trust training courses place just as much emphasis on the reasons for doing Critical Literacy as on the procedures for carrying out Critical Literacy programmes. It is only when people have an understanding not only of how to do something, but also why they are doing it that they can begin to take control over the process. The course content and daily schedule of activities are discussed and determined by the participants at the beginning of the course and renegotiated every morning before work starts. Although the process is a bit slow at the beginning, by the end of most courses the participants have accomplished much more than they would have at any pre-planned course. It is common for participants to work until after midnight for weeks on end to meet training and materials production goals that they have set for themselves.

The value placed on inclusivity and collective work in many Papua New Guinean societies has had a profound effect on how Critical Literacy training is carried out. In principle, there is absolutely no 'streaming' or 'tracking' at any level. Critical Literacy trainers, programme coordinators, supervisors, community dialogue animators, Story Track teachers, Workbook Track teachers, materials producers and other Critical Literacy workers of all sorts attend the

same courses. No one is excluded. The question of control is once again crucial here. Critical Literacy workers cannot be expected to be able to make independent decisions about their work, unless they are familiar with the effects that these decisions will have on coworkers with different spheres or levels of responsibility. At every course, all of the participants are given the chance to observe and to participate in the training of every category of Critical Literacy worker as well as in the production of every type of Critical Literacy material. In this way, every participant has the opportunity to get an overview of the entire process and to attempt to master the skills necessary to control whatever parts of the process she or he chooses. Each local NGO organises its Critical Literacy programme in a different way, so that each participant is expected by their community to learn a slightly different set of skills at any given course.

Critical Literacy workers are recycled through the same course as many times as they are willing and able to participate. Most Critical Literacy workers master the skills necessary to start the community dialogue process, to teach one of the literacy Tracks, and to produce Critical Literacy materials by the end of the first course that they attend. Those who attend the course two or three times usually gain enough skills to supervise Critical Literacy workers in their districts. Critical Literacy workers who attend more courses often become trainers or provincial coordinators. As the pool of Critical Literacy trainers has grown, the trainers themselves have demanded in-depth training to address the specific problems that they face in the field. In response to these demands, the PNG Trust held its first national courses specifically for Critical Literacy trainers in 1992.

2.7 CONTESTING THE DEFINITION OF LITERACY ITSELF

The ultimate contested ground is the notion that print literacy is a necessary component of any Critical Literacy programme. The Papua New Guinea experience indicates that it is not. Critical Literacy was arguably strongest in Papua New Guinea when print literacy was completely absent and many Melanesian communities are currently relearning to read and write their lives in Critical Literacy programmes, without the aid of print literacy. This does not mean that most communities will not make print literacy an integral part of their Critical Literacy. Most will. But the way in which print literacy is implemeted must not be counterproductive to the ultimate goal of Critical Literacy: the reclamation by the community and the individuals in it of some control over their destinies.

REFERENCES

Ahai, Naihuwo and Nicholas Faraclas, 1993, Rights and expectations in an age of 'debt crisis': literacy and integral human development in Papua New Guinea. In Peter Freebody and Anthony R. Welch, eds *Knowledge, culture and power: international perspectives on literacy as policy and practice*, 82-101. London: Falmer Press.

Edelsky, Carole, 1991, *With literacy and justice for all: rethinking the social in language and education*. London: Falmer Press.

Faraclas, Nicholas, 1987, Developing or revising alphabets. In Susan Malone, ed. *Developing Tokples education programmes in Papua New Guinea*, 43-47. Ukarumpa, Papua New Guinea: Summer Institute of Linguistics.

Gee, James. P., 1992, Social gravity, discourses, and education. Paper presented to the Louisiana State University Department of Curriculum and Instruction.

Lankshear, Colin and Peter McLaren, eds, in press, *Critical literacy: politics, praxis, and the postmodern*. Albany: S.U.N.Y. Press.

Matane, Paulias, 1986, *A philosophy of education for Papua New Guinea.* (Ministerial Committee report.) Waigani, Papua New Guinea: Ministry of Education.

Stringer, Mary, 1988, Can adults learn to read using the Multi-Strategy Method? *Read Magazine* 23:10-18.

Stringer, Mary and Nicholas Faraclas, 1987, *Working together for literacy.* Wewak, Papua New Guinea: Christian Books Melanesia.

DIFFICULTIES IN TRANSLATION AND PUBLICATION IN THE LANGUAGES OF VANUATU

GREG FOX

1. INTRODUCTION

A few years ago, Malcolm Muggeridge (1976:12), in his typically acidulous way, referred to the new translations of the Bible saying, "each, as it seems to me, stylistically speaking, more flat and unprofitable than the last...". The more I am involved in translation, especially as I look at my efforts in the early 1970s, I realise the difficulty and complexity of the task. Instead of producing something which reflects the beauty and glory of the original, we are in danger of coming up with something of the nature of a stewed strawberry.

A translator of a previous generation produced a Vanuatu language New Testament which was only comprehensible to the locals if it was read alongside the Authorised Version of the Bible. Codrington (1972:vii), in his work *The Melanesians*, made the following statement, quoting Fison, a missionary to Fiji:

> When a European has been living for two or three years among savages (sic), he
> is sure to be fully convinced that he knows all about them; when he has been ten
> years or so amongst them, if he be an observant man, he finds that he knows
> very little about them and so begins to learn.

Translation is a difficult task and even the distinguished and elegant Authorised Version of the Bible (also called the King James Version) required a number of revisions from 1611 to 1769, when it attained the form used by churches today. After 220 years there has been an attempt to eliminate the archaisms and the occasional howler and keep the beauty. This has given us the New King James Version (sometimes called the Revised Authorised Version), which I believe would not fall victim to Muggeridge's strictures.

I would like in this paper to focus attention on some of the difficulties a person translating a document into the languages of Vanuatu would face. My experience is drawn from team translation work into three languages over the past twenty-four years, into the languages of the Big Nambas of North West Malakula; that of Ifira Island, which makes Vila harbour more placid, at least from a naval point of view, and an inland dialect of Lenakel, West Tanna, spoken at Lounapkiko.

The difficulties are to be considered under five headings: phonetics, vocabulary, syntax, literacy and publication.

2. PHONETICS

There are plenty of phonetic traps for the unwary in all three languages that we have studied. Even the Ifira language, with its relatively simple phonology, no apico-labial consonants, no gutturals, no voiceless consonants, has its complexities.

The exclusive restricted plural of *u enofo* 'I stay' is normally written *mat enofo* by the literate Fila Islanders, but the real truth of the matter is that the phonetic form is [mat.ɛn.nó.fo]. Similarly *u ékata* goes to [mat.ɛk.káta].

One has the contrast between [téi.ao] 'morning' and [te.á:o] 'mid-day'. Co-articulated [t] at the beginning of words such as *tfiafi* 'evening' and *tmatenga* 'death' can be difficult to pronounce. Very often single vowels at the end of words are whispered, as in *tmatonga* 'white man' and *tmatangi* 'wind'.

But these are relatively trifling compared to Big Nambas tongue twisters like [a.pa.pə.ɣəβ.pəlt] 'they will soon join together' or [i.pa.pə̥χ.pəχs.pəndr̃] 'he will shortly crush them to death'.

The co-convener of this Conference, John Lynch, has outlined the phonetics of the coastal dialect of the Lenakel language of West Tanna in a masterly way, and we have found it a great help in coping with the exigencies of an inland version of the same. Time and time again, we have found his observations to be accurate. The mission orthography of fifty odd years ago did not adequately represent the phonology, and it has been challenging and encouraging to find an answer to our perplexities.

If I might give a brief outline of the idiosyncrasies of the Lenakel dialect, voiceless consonants are ubiquitous, not just the nasals *n*, *m*, *mw* and *n*, but also *l*, *r*, *v* and *w*. For the fine details, you need to see John Lynch's *Grammar of Lenakel* (1978:7-21) and hear the words articulated by an informant, but here are some examples: [iɨna:M] 'I saw' and the ubiquitous [uuŊin] 'God'.

There does seem to be a greater incidence of the mid-central vowel [ɨ] than has been previously realised. It is very common in the interior dialect and the more I hear coastal people, I seem to hear it a lot there too. In the interior, there is contrast between [nu] 'yam' and [nú] 'water'. The vowel in the first example is rounded, whereas in the second it is not.

Words in Lenakel seem to attain great lengths without taxing the mental processes of the speaker and in some cases the reader. For example:

[tɨ.rɨ.si.ri.ká.lɨ.na:n]   he will not deceive
[kɨ.saR.i.ná.ti.na:n]   they do not know

The more I am involved in learning new languages, the more care I take in the early stages of articulatory and acoustic phonetics. I seem to be almost gazing down the throats of informants sometimes! One of the most important pieces of advice I have received about phonetics and language in general is to realise that I am not the teacher in this regard, but that I am the humble pupil. There are no rewards in Bible Translation these days for second-rate phonetics.

3. VOCABULARY

In the area of vocabulary, we as translators encountered difficulties on Fila Island of a kind which we didn't encounter on Malakula or Tanna. The existence of a settled ecclesiastical culture enabled us to elicit instant vocabulary items from the senior pundits, but often these words were meaningless to those under 55 years of age. In other words, we were presented with hoary archaisms, which were quite useless to us as contemporary communicators. Our most respected authority used many Pango-Erakorisms in his Fila, which might have been understandable at the time of the Second World War, but were no use to the people we were trying to instruct. We eventually had to take his translation of Mark's Gospel to a younger man, who passed away in 1992 at the age of 60, so that we might get it into a form that was understandable to the present generation.

One of the most difficult problems was rendering the clause: 'he said to him'. Our Erakorising informant said it was *tuagk kateia*, but this gave us problems for two reasons. Words in Atara (language of) Ifira do not characteristically end in a consonant, and also the younger generation either would not understand it or would think it was connected with the clause *tuage eia* ('he left him'). Young people tend to say *tokua neia*, but this was considered barbarous by the pundits. Another option was *tukuage kateia*, which is close to the Mele dialect. We finally settled on *tokua n kateia*. We dare not pontificate on the worthiness of this rendering, but feel that it is the best that we can do. Bible translators, like lexicographers, can never do a perfect job. The best that can be said is that the work is 'not unsatisfactory'.

However, on the credit side, we had relatively few problems in Ifira with abstract terms like 'righteousness' [totonuřanga], 'covenant' [atařa taksoksokiařanga] and 'gospel' [třongořongořaga mešie].

The West Tannese languages are also well supplied with abstract nouns. These are formed from verbs by the discontinuous nominalising morpheme [n.........a:n]. The late Dr William Armstrong, in his revisions of an earlier translation, was able to secure quite a number of these for Mark's Gospel and the Acts of the Apostles. There are plenty of examples of which I give a few:

[nɨ.nii.a.tɨ.βa:n]	testimony	[nɨ.pɨR.i.e.na:n]	belief
[na.kɨL.e.a:n]	theft	[na.khar.tɨ.ta:n]	slander

The Big Nambas language has its nominalisers – [na- ~ n-] and the suffix [-i.ɛn]. The first nominaliser gives us such words as [narp] 'hitting device' and [na.lu] 'shotgun cartridge', hardly appropriate for a message of peace and love! The word 'love' itself gave us some problems, as it always does. There is a word [φə.tə.mi.ɛn] but the word from which it is formed is the verb 'to laugh', 'to burst into laughter'. And we needed not only 'love', but 'grace', 'mercy', 'loving-kindness' and more.

There were also technical terms which gave us difficulties, terms which did not have an exact parallel in the Oceanic cultures with which we were engaged. Words such as 'Holy Spirit' gave us pause; there were plenty of spirits around, but we did not want a malevolent one! Problems also arose with weights and measures, trees and even the precious stones of the Apocalypse.

We needed particular terms for the shipwreck of Acts Chapter 27. Verse 16 is a good example and reads in the Authorised Version:

And running under a certain island which is called Clauda, we had much work to come by the ship.

Today's English Version (also called *Good News Bible*) reads:

We got some shelter when we passed to the south of the little island of Cauda. There, with some difficulty, we managed to make the ship's boat secure.

(*Cauda*, or if you will *Clauda*, are textual variants in the Greek.)

Bislama rendered this:

Nao   mifala i-pas long smol   aelan ya Kaoda, long saed
Now   we   passed   (the).small island this Cauda, on   the.side

long saot.   Long ples ya   mifala i-haed   smol, nao mifala
on   the.south. On   place this we   sheltered a.bit, then we

gat jans blong putum dinggi   i-stap gud. Be   ol   boskru
got (a).chance to.put (the).dinghy secure.   But the crew

ol   i-hadwok   tumas...
they worked.hard very...

The Bislama helped us to get a framework in which to begin to translate into the vernacular, but the Ifira example of this verse has its own character:

Go   napo gani matetere tmarumaru tenuku raf tapa
And when we   passed   to.shade.of island they call

Klauto, mat posokia poji   kekela plakea mawosaranga.
Clauda, we made.fast the.boat small with   weariness.

The Bislama tends to be somewhat periphrastic, whereas on occasions our own translations tended to be elliptical.

When it was absolutely necessary, we resorted to transliteration for words like 'yeast', 'sycamore' and 'chrysoprase', but we would hope that the number of such vocabulary items would not exceed a few dozen for the whole New Testament. If it was possible to find a term in Bislama, it was possible to find the word in the vernacular as well.

4. SYNTAX

The main problem in the area of syntax was the absence of a passive in the three languages studied. The Greek New Testament which was our ultimate source document, abounds in passives. A typical example follows (Ephesians 3.8):

ἐμοὶ τῷ ἐλαχιστοτέρῳ πάντων τῶν ἁγίων ἐδόθη ἡ χάρις αὕτη
emoi to:i elaxistotero:i panto:n to:n hagio:n edothe: he: xaris haute:
to.me the very.least   of.all   the saints was.given   grace.this
To me, who am less than the least of all the saints, was this grace given...

The Bislama rendered this:

Mi mi no haeman,   mi daon   moa long ol narafala man   blong God.
I   am not a.great.man I am.inferior more to   all other   people of   God.

> *Be long gladhat   blong God, hem i-givhan long mi*
> But in   the.grace of   God, he   helped   me
>
> *blong mi mekem gudfala wok   ya...*
> to   me do   good   work this

Big Nambas renders it like this:

> *Arna vtmienan itu   si   laha a   kana la   nsusupa kasiv'*
> In   grace.his he.gave this to   me   who   am   smaller than
>
> *m'ertuan Atua udlani ha...*
> people.of God   all   (emphasiser)
> In his grace He gave this to me who am inferior to all the people of God.
> (He refers to God (*Atua*), a word extensively used in the previous verse.)

Fila Island:

> *Awau ufi tagata u feneifo   kiaro siria taagata merie tope.*
> I   am a.man I go.down below than   people good   all
>
> *Se   Atua tufakina age katwau sau merie na.*
> But God   gave   to   me   grace   this
> I am a man who is inferior to all the good people, but God gave me this grace.

Lenakel:

> *Nivitaan ik   kamofa kam iio iirim irisuaas akin li nirim*
> Grace   this they.gave to   me   who   inferior very to people
>
> *ausiim miin.*
> holy   (plural)
> They gave this grace to me, who am inferior to the holy ones.

In each case the basic approach has been to convert the passive into an active and look for a subject. In the cases of Bislama, Big Nambas and Fila, 'God' or a pronominal expression referring to him became the subject. In the Lenakel draft, we have settled on a third person non-singular subject prefix (*k-* in *k-am-ofa*).

Another problem was with the translation of relative clauses. Old Testament Hebrew has an expression whereby an adjectival clause of place is neatly expressed, as in Joshua 1.3:

כָּל־מָקוֹם אֲשֶׁר תִּדְרֹךְ כַּף־רַגְלְכֶם בּוֹ לָכֶם נְתַתִּיו

kol ma: qo: m asher tiδro:χ kaφ raɣləχem bo: la:χem na: θatti:w
Every place   **which** will.tread sole.of your.foot **on.it** to.you I.have.given.it
Every place on which the sole of your foot shall tread, I have given it to you...

A literal translation of this into Bislama would read similarly:

> *Evri ples **we** (ananit blong) fut blong yufala bae i go **long hem**, ples ya mi mi*
> *givim long yufala (finis).*

More freely:

> *Evri ples **we** yufala bae i purumbut **long hem**, mi mi givim finis long yufala.*

Big Nambas similarly:

*Nut   udlani **la**   pavv'el   **aranan** ha,   nttu   sarei*
Place   every   which   you.will.walk on.it   (emphasiser) I.give   completive (plural)

*a **kam'i**.*
to you

Fila Island:

*Nogona tope **gani** kato   saria **gani,** uku   vage   n*
Place   every which   you (restrictive plural).will   walk on.it, I.have   given to

kotou.
you (restrictive plural)

So at least three Vanuatu languages replicate a common Hebraic syntactic feature.

5. LITERACY

Among the Fila Islanders this has proved to be no problem and we presented them with the completed New Testament in 1993, with the reasonable assumption that they will be able to cope with it. We have not composed primers or arranged special literacy classes.

The situation among the Big Nambas proved quite different and it was very difficult teaching men over 40 years of age how to cope with reading. The only diacritic they had learnt to manage was the trigger on a twelve-gauge shotgun. After two years of daily teaching, we found that these men were only able to deal with the simplest of primers and certainly not with the complexities of the Big Nambas New Testament. We found that they recognised the pictures and memorised the text of the primer, but were unable to read.

On the other hand, the youth, who had mastered the rudiments of the English alphabet, were quite comfortable with all that we were able to produce for them. They read aloud to the illiterate members of the family and knowledge was transmitted. After all, oral communication was to them the age-old means of assimilating knowledge.

We are now finding some villages in the north-west of the Big Nambas region opening up to vernacular literacy. The teachers are local Brenwei men and the future looks bright. We have not done any serious work on primer construction in the Lenakel language, but it looks as if it will be a repeat of the Malakulan situation.

6. PUBLICATION

I remember a former Vila resident bemoaning the fact that the Bislama New Testament didn't come out more quickly and that the day had been won by the *Good News Bible* in English. The person in question had very little real idea of what was involved. We ourselves encountered similar complaints from Fila Islanders who expected that the New Testament would be completed within six months, or at the latest in a year or two.

The publication of a vernacular document is a massive task. The more one learns of the vocabulary, idioms and syntax of a language, the more one's earlier efforts look paltry. I imagine that my wife Helen and I would have revised the Fila New Testament about six times since it was first typed onto a computer.

We had problems too in presenting a manuscript to the typist, who did not know the language, in a form that was unambiguous. We had to correct her errors as well as our own.

Consistency was a major problem. If the spelling of a word was changed in one place, it had to be changed throughout the whole document. If we chose a different rendering for the word *high priest*, it had to be changed passim.

We feel that one of the nobler acts of the Fila Islanders has been the underwriting of the major cost of the printing of the Fila Island New Testament. The Ifira Land Trust gave us 750,000 vatu for this, so that it may now be distributed free to the respective households. We realise that despite our most careful efforts, perfection eludes us. The Big Nambas New Testament had half a verse missing in John's Gospel, for which we created a printed sticker to make good the lacuna. It is wearying work, but it is rewarding work, and it is a great pleasure to be able briefly to share something of our insights with you all.

REFERENCES

Codrington, R.H., 1972, *The Melanesians*. New York: Dover Publications. (1st edn 1885)
Lynch, John, 1978, *A grammar of Lenakel*. PL, B-55.
Muggeridge, Malcolm, 1976, *Jesus*. London: Fontana/Collins.

AN HONORIFIC SUB-DIALECT USED AMONG BIG NAMBAS WOMEN

HELEN FOX

1. INTRODUCTION

The Big Nambas tribe of North West Malakula has been visited by several anthropologists and has been of considerable interest, in that it retained its traditional culture, including cannibalism, longer than other tribes in Vanuatu. They were considered a problem to outsiders, in that they were unwilling to adapt to the incoming Government's views on medicine, agriculture, sanitation and marriage customs, to name a few.

Linguistically, little was done or gleaned by anthropologists passing through, and the language, with its seeming lack of vowels, and several apico-labial sounds, proved difficult to analyse accurately. Our arrival in 1969 marked the first detailed committal of the language to writing (Fox 1979). Seven years' living amongst the Big Nambas people revealed interesting aspects of the language, including an extensive catena of avoidance and honorific terms, which had to be employed by women only.

Jean Guiart's research in 1951 touches on this. He cited a list of phrases which are used by women as one way of showing respect to anyone with the rank of chief, or to their own son. These phrases take the place of the equivalents in normal speech used by males, or by females talking among themselves or to their inferiors. Guiart (1952:160) says:

> Par ailleurs, sans qu'il y ait contrepartie du côté de son fils, la mère doit, en s'addressant à lui, employer certaines expressions à l'exclusion d'autres.
>
> Ainsi, elle ne dira pas:

paxani	=	mange!	mais /*palixani*
ker/namar?	=	as-tu faim?	mais *kë/mawarra/mimilin?*
			= éprouves-tu la faim?
naveyam	=	ton nambas	mais *nil nam* = ton ornement
bwetem	=	ta tête	mais *notam; noteyaram*
			(pour les cheveux)
lemam	=	ton coude	mais *ⁿdaom*
tlèm	=	ta jambe	mais *fa/ⁿdamam*
këⁿi	=	entends-tu?	mais *këwawarani?*
varani	=	appelles!	mais *nak vèr'èn nèn!*
mbatri!	=	coupes!	mais *fa si!*
talè	=	couteau	mais /*favas*

> tous ces termes étant ceux employés par une femme en parlant à un chef.

375
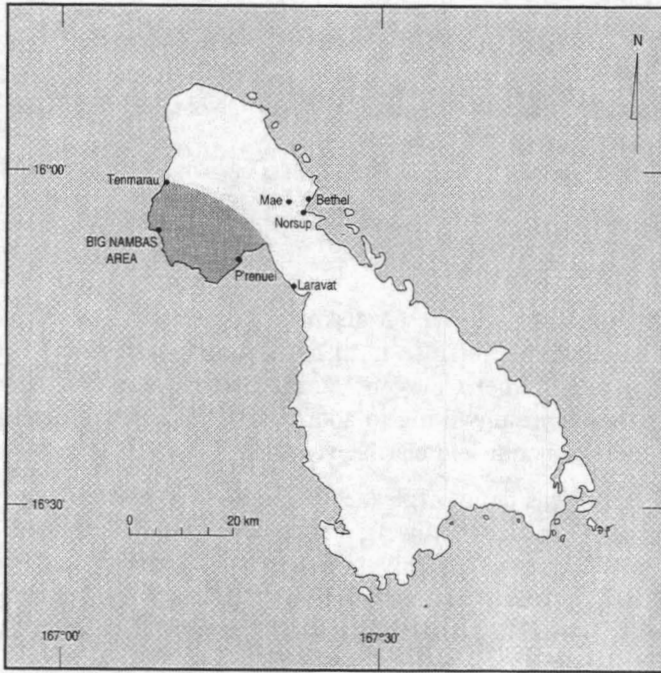
MAP 1: MALAKULA, SHOWING THE AREAS IN WHICH THE BIG NAMBAS LANGUAGE IS SPOKEN
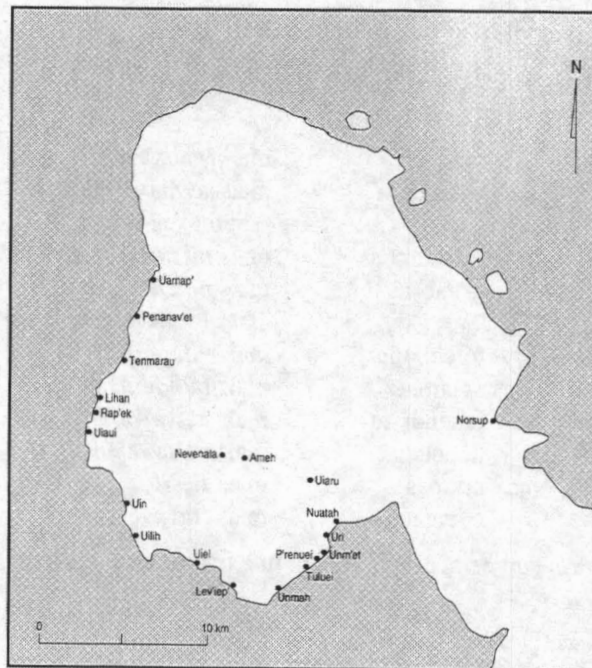
MAP 2: VILLAGES IN THE BIG NAMBAS AREA

2. SOCIAL CONTEXTS OF AVOIDANCE VOCABULARY

During our time in Malakula, discussions with the women of Brenwei and Tulwei villages revealed that all women were familiar with the alternative vocabulary and that the extent of it was much greater than Guiart was able to ascertain. At the present day, the use of the forms above has virtually died out, as there has been some reduction of the powers of a chief and of the powers of a son over his mother. Sons, particularly the firstborn, were accorded great honour in early Big Nambas culture. For example, a mother had to bow low when her firstborn son passed by, and he was given the right to discipline the rest of the family. A mother might even use him to protect her against her husband's blows, when the latter was in a rage. At the present day, respect is still shown, but not in the use of an alternative vocabulary when speaking to these men. When a man of chiefly rank is standing, a women has to remain seated, or assume a crouching position. I have witnessed women actually kneeling before the paramount chief, on his arrival on the scene.

At the same time that these terms of respect were used, there was also an extensive vocabulary of avoidance to be used by females – a vocabulary understood by men and children, but used only by women, who were required to replace the names of some every-day objects and actions with quite different words. The reason for this was to avoid breaking a taboo – the taboo of speaking aloud the name of certain men who had a taboo relationship to a woman. This system of taboo relationships is still enforced today, even though the special avoidance vocabulary is no longer used by women under fifty years of age.

Every woman after marriage stands in a relationship of avoidance to certain members of her husband's family – namely his father and paternal uncles, and his elder brothers and male cousins. When a girl is purchased in marriage (always from another clan), she is taught by her mother-in-law the list of men whom she must avoid. She must not look at them, eat at their homes, greet them or talk to them. If she meets one of them on the road, she must step off the road and conceal herself in the bush. If accidentally she should be seen by them in the village, she must draw her headdress over her face.

This avoidance even extends to mentioning the name of her taboo relatives. Women refer to their taboo men in conversation by their kinship titles. For example:[1]

> *eina-k*
> father-in-law-my
> my father-in-law

or:

> *arkishap'ən-ak*
> taboo.relative-my
> my taboo relative

or by the general term:

> *arki   lil-ak*
> someone big-my
> my exalted person

---

[1] The following Big Nambas orthographic symbols require some explanation: *d* is prenasalised; *v* is bilabial; *p'*, *m'* and *v'* are all apico-labial; *h* is a velar fricative, voiced intervocalically and voiceless elsewhere; and *r* is trilled. Stress normally falls on the penultimate syllable.

To make it clear to which of the many taboo males she is referring, she may expand the phrase as follows:

> arkishap'ən-ak   asən a   Kaili...
> taboo.relative-my near referential marker Kaili
> my taboo relative related to Kaili...

(In this case Kaili would be a non-taboo name to her.)

3. AVOIDANCE STRATEGIES

Up to the present day, all Big Nambas women strictly avoid referring to their taboo male relatives by their name. However, in the past, up till about 1955, not only was a woman under compulsion to avoid saying his name, but she also had to avoid saying any word in ordinary usage that might sound similar to his name or part of his name. For example, in English if one's father-in-law was called Sandy, one could never use the work 'sand' to refer to the common substance, but would have to employ some other term, because of the homophony of the name and the object.

The overlap of ordinary terms and names is considerable, as every name has a meaning and names are drawn from everyday vocabulary. For example, *Sənari* is a man's name meaning 'Tricky' or 'Man who tricks others'. A female who is in an avoidance relationship with the man *Sənari* and wants to use the verb *sənar* 'trick' in a sentence must find another term. In fact, she would already have been taught the word by her mother-in-law and would have heard others who are 'taboo' to *Sənari* use it. The verb 'to trick' that she employs is *palv*, which is nothing like the ordinary term which others might use.

In another example, a man's name *Anel* is found in a common word of different meaning: *navanel* 'road'. So to avoid offence, his taboo females must refer to a road as *təma*, a word not found anywhere else.

Some of these substitute terms are merely semi-synonymous words already in use in the language: a circumlocution to avoid uttering a taboo name may be employed in many cases, rather than a coined word. For example, instead of referring to a chair (*napəl*) by its usual form, a woman may use the synonymous phrase *səvs nai* 'piece of wood', if her taboo man has *napəl* in his name. However, most of the substitute or avoidance words are not used elsewhere in the language and are specially coined words.

The following is a list of men's names with their meanings, with homophonous terms in the language which females must avoid using if they are in a taboo relationship with the man, and the terms which are substituted.

The list is in two parts. Table 1 lists avoidance terms which are synonyms found in normal speech, while Table 2 gives avoidance terms which are specially coined words, not found elsewhere in the language.

TABLE 1: AVOIDANCE TERMS USING SYNONYMS

MAN'S NAME AND MEANING	RELATED NORMAL VOCABULARY	WOMEN'S AVOIDANCE TERM
Tau-i (The man who puts or arranges things)	*i-tau-i* he-puts-it	*i-uln-i* he-lets.go.of-it
Tu-sai (names *Tu-napit* compounded from *Tu-lili* the verb *tau* *Tu-np'el* 'put')	or *i-tu sei* he-puts a.thing	*i-uln sei* he-lets.go.of a.thing
Lei (The man who sees)	*i-le-i* he-sees-it	*i-p'e-i* he-watches-it
P'əlten (The man who gathers)	*i-p'əlten sei* he-gathers things	*i-p'las-i* he-sticks.together-it
Tu-napəl (The man who puts the seats out)	*napəl* seat	*səvs nai* piece.of wood
I-tei (The Shredder)	*i-te-i* he-shreds-it	*i-en nivəs m'ar* he-uses a.strip of wild.cane
Pətən (Head man)	*pət-ən* head-his	*nut eia nan* place above his or *nut-an* place-his

TABLE 2: AVOIDANCE TERMS USING SPECIALLY COINED TERMS
(not found elsewhere in the language)

MAN'S NAME AND MEANING	RELATED NORMAL VOCABULARY	WOMEN'S AVOIDANCE TERM
Tavi (The Crusher)	*i-tav-i* he-crushes-it	*i-mən-i* he-presses.down.on-it
Rap'ei or *Turap'ei* (The Avenger)	*i-rap'e-i* he-pays-him	*i-mənah-i* he-takes.vengeance.on-him
Sənari (The Trickster)	*i-sənar-i* he-tricks-him	*i-palv-i* he-tricks-him
M'aten (The man who is at the centre of things)	*m'ate-n* eye-his	*nirah nen* eye his
P'əlp'əlei (He who lights up things)	*i-p'əlp'əle-i* he-shines.on-it	*i-titip'əl* he-shines.a.light
Nep'-naten (The bottom of the barrel – i.e. the last born)	*nep'-v'en* fire-burn a burning fire	*tivrar* fire

	nap'-ən bottom-his	*palu-an* bottom-his
	naten basket	*sihap'ən* basket
Ahnav'et (The Rock)	*nav'et* stone	*mivi* or *marak* stone
Nauei (Water)	*nauei* water	*tarah* water
Anel or *Hinel* (The Glorious One)	*navanel* road	*təma* road .
Ahəli (The Builder)	*i-həl-i* he-builds-it	*i-uian-i* he-builds-it
Ani (The Man of Action)	*ni* bamboo.knife	*nivkar* bamboo.knife
Kal-hapat (The Supporter)	*na-kal* post	*livat* post
	i-kal-i he-props.up-it	*i-livt-i* he-props.up-it
Pasi (He who treads on others)	*i-pas-i* he-treads.on-it	*i-vadrən-i* he-treads.on-it
Sapei (The Follower)	*i-sape-i* he-follows-him	*i-padalu-i* he-follows-him
Itei (The Shredder) (See also in first list, where synonyms are used.)	*i-te-i* he-shreds-it	*i-mire-i* he-shreds-it
Sihari (The Troublemaker)	*i-har-i* he-scrapes-it	*i-səlme-i* he-scrapes-it
Sənsi (The Man who Shuts)	*i-səns-i* he-stops.up-it	*i-l-i* he-stops.up-it
Uhei (The Stirrer)	*i-uhe-i* he-stirs.up-it	*i-v'ərhe-i* he-stirs.up-it
Etnap'tih (no meaning known)	*i-p'tir* he-stands.up	*i-vilapəh* he-stands.up
Ahi (he who pours out) *Ahəpətahən* (he who leads pigs out at chief's *namaki* (pig-killing) ceremony)	*i-h-i* he-pours.out-it	*i-təp-i* (synonym) *i-pian-i* he-pours.out-it (new word)

Hav'i (He who bears the chief's son in his arms at a *namaki* ceremony)	*i-hav'-i* he-carries.in.arms-him	*i-tnav'e-i* he-carries.in.arms-him
Ahua (The Strong Man)	*i-hua* he-is.strong	*i-mraka* he-is.strong
Lamu or *Nellamu* (Bamboo)	*lamu* bamboo	*slip'* bamboo
Təpi (He who 'picks off' people in guerilla warfare)	*i-təp-i* he-pecks.at-it	*i-vəde-i* he-pecks.at-it
Hanpətpua (The man who eats the head of the pig)	*i-han-i* he-eats-it	*i-hraṇ-i* he-eats-it
		or
		i-liran-i he-eats-it
Arpi (The Killer)	*i-rp-i* he-kills-him	*i-vlah-i* he-kills-him
Tuamu (The man who goes first)	*i-tauamu* he-goes.first	*i-ulnav'in* he-goes.first
M'aləh (Kava)	*m'aləh* kava	*tihav'ət* kava
Sein (Plant used as decoration in dances)	*sein* plant.used.as. decoration.in.dances	*aslanev'* plant.used.as.decoration. in.dances

Added to these are certain terms not involving the taboo man's name, but which are objects close to him and are therefore unmentionable. When a woman wishes to say, 'my taboo man's house' she may not say it literally, that is,

        a   uta-n   a   eina-k
        at house-his r.m. taboo.man-my

but must say

        a   vətlim   tap'əs
        at enclosure taboo

4. CONCLUSION

So it can be seen that Guiart's list of alternate terms to be used with important men had further ramifications. The list of respectful terms of address that he found has been confirmed by speakers of the Big Nambas language, even though his phonology is not altogether accurate.

However, it should be stressed that the words in his list were not used in the presence of one's taboo man, as a woman would never get close to a taboo man and would never speak

to him. The words that Guiart heard were only used with male children or high-ranking men not taboo to the speaker.

Whether used to address one's son or to avoid using the name of a taboo man, this specialised vocabulary indicates to what degree the women were required to show subservience to men in the days when the Big Nambas culture was almost unaffected by external culture contact. The fact that the sub-dialect was accompanied by bowing, hiding oneself and the fear of dreadful happenings if the taboos were broken, shows that these terms were indeed an indication of the lesser position of women, and this is still the case to the present day.

REFERENCES

Fox, G.J., 1979, *Big Nambas grammar. PL*, B-60.

Guiart, J., 1952, Organisation Sociale et Politique de Nord Malekula. *Journal de la Société des Océanistes* 8/8:160.

ON PREPOSITIONS IN SOLOMON ISLANDS PIJIN

ERNEST W. LEE

1. INTRODUCTION[1]

Forms in a language can be categorised in various ways. Fox (1950:144-169) organises his treatment of particles (including prepositions) in the Nggela language of the Solomon Islands according to form. He begins with the single vowel (V) forms (both particles and affixes) and proceeds through single consonant (C) forms (affixes) and consonant plus vowel (CV) forms. Each subgroup is listed alphabetically and the various uses of each are detailed. This, like a dictionary, has the advantage of helping the reader to see the various uses of homophonous forms without having to search throughout the grammar, but has the disadvantage of not showing the semantic or syntactic structure of the language without searching for it. I have chosen to organise Solomon Islands Pijin (hereafter Pijin) prepositions and phrases with preposition-like functions according to function, form and distribution.

Most earlier works on Melanesian pidgins and creoles[2] had very little on prepositions and much of what was in sources available to me cannot be found under the category of prepositions. Guy (1974:12) lists prepositions as a part of speech in Bislama, but discusses them as introducers of complements under the heading of subordination (pp.32-38). He does, fortunately, cross-reference the appropriate sections under the heading of prepositions in an index (p.54). Although not intended as a grammar, Scorza and Franklin (1989:21-40) in their chapter on grammatical features in *An advanced course in Tok Pisin* do not even mention prepositions as such, although a little on *long* and *bilong* does show up in the text. Todd's (1984:195) section on Tok Pisin has a few lines on prepositions. Heubner and Horoi (1979a:172-175) do not include a section on prepositions but some of the relevant information is subsumed in the chapter on relative clauses and elsewhere. Some recent works

---

[1] I am grateful to Brenda Boerger for comments on an earlier draft of this paper, and to participants in a special forum at the Honiara Centre of the University of the South Pacific at which a version of this paper was presented in August 1993.

[2] It is not my intent here to discuss the question of whether Torres Strait Creole is a Melanesian creole. The term 'Melanesian pidgin' is frequently used to refer only to Tok Pisin, Solomon Islands Pijin and Bislama. Keesing (1988:8), however, clearly includes Torres Strait Creole along with these three in such statements as "...other [besides Tok Pisin] Melanesian Pidgin dialects--Bislama, Solomons Pidgin, Torres Strait Creole...". Harris (e.g. 1986:286, 292) clearly rejects any connection between Aboriginal Kriol (via its precursor Northern Territory Pidgin) and Early Melanesian Pidgin of the Queensland plantations, but he gives no indication of rejecting Early Melanesian Pidgin as the antecedent of Torres Strait Creole (p.7) and clearly accepts it as at least an antecedent of Torres Strait Creole (pp.36, 292). Clark (1979:48) in his tree diagram actually shows a closer historical connection of Bislama, Pijin and Torres Strait Creole to each other than any of these with Tok Pisin. For the purposes of this paper, Torres Strait Creole is included as a Melanesian creole.

---

now available to me give more attention to prepositions. Crowley (1990b:12f.) gives only one paragraph on prepositions in the introduction to his Bislama dictionary, but treats them extensively elsewhere (1990c:75-87). For Broken (Torres Strait Creole), Shnukal (1988:55-61) has a reasonably detailed description of prepositions.

As in other Pacific pidgins and creoles, as well as in the substrate languages of the Solomon Islands, ordinary prepositions in Pijin are quite limited in number especially compared to languages like English. Some of the pidgins and creoles (e.g. Tok Pisin of Papua New Guinea) have even fewer prepositions than Pijin. Some of the more common prepositions in Pijin listed alphabetically are: *abaot/abaotem* 'about', *antap* 'on top of', *blong* 'of', *fo* 'for', *from* 'from', *insaet* 'inside', *kasem* 'until', *long* 'at', *olsem* 'like' and *wetem* 'with'.

The prepositions of Pijin are of three types which I label *simple*, *verbal* and *nominal*. Codrington, as early as 1885 (see p.552), distinguished prepositions for some of the Solomon Islands languages as "1. Simple, 2. Nouns, 3. Verbs". Lichtenberk[3] (1984:57) classifies To'aba'ita prepositions as true, nominal and verbal. Codrington's 'nouns' correlate with one of the two subclasses of Lichtenberk's 'nominal prepositions'. Pijin has no equivalent to Codrington's 'nouns'; my 'nominal prepositions' correlate rather with Lichtenberk's other subclass of 'nominal prepositions'. Crowley labels the parallel classes in Bislama as 'full' (1990c:81f.), 'verbal' (1990c:83ff.) and 'adverbial' (1990a:13). Of the specific Pijin prepositions listed above, *blong*, *fo* and *long* are simple; *insaet* and *antap* are nominal; the others including *from* and *olsem*, I will argue, are all verbal.

The simple prepositions are all one syllable and the two with a final consonant (*-ng*) often drop the consonant in normal speech. The three prepositions in this class are further characterised by having a very general semantic content and primarily showing case relationships. The preposition *fo* 'to, for' does not have a comparable parallel in either Tok Pisin or Bislama, but Broken has a parallel *po*. The source and function of *fo* are examined below in light of substrate languages, a sister language Broken, the superstrate language English and universal tendencies.

The verbal prepositions are characterised by requiring the transitive verb suffix {-(V)m} (optional in the case of *abaotem* 'about'). Many of them involve motion or action and can also function as verbs. These are examined in light of substrate languages, verb serialisation and Bislama.

The nominal prepositions are characterised by having the potential of standing alone or being preceded and/or followed by *long*. Most of them are locational in nature.

The following abbreviations for grammatical terms are used, some of them following Keesing (1988):

CON	continuative	PL	plural marker
DAT	dative preposition	POSS	possessive preposition
DEI	deictic	SG	singular
DIR	directional marker	SRP	subject referencing pronoun
DU	dual		(only in examples from Keesing)[4]
EXC	exclusive	TOP	topicalisation marker

---

3   Material from Lichtenberk is to be considered as tentative and preliminary.
4   Although I basically concur with Keesing in his analysis of subject referencing pronouns, they are not indicated in my Pijin examples since it is not relevant to this paper.

INC   inclusive

LOC   locative preposition

TRI   trial

TRS   transitive suffix

The following abbreviations are used for referencing examples from texts:

GHB   *Solomon Islands Pijin: grammar handbook* (Heubner & Horoi 1979a)

RR1   *Buk fo Ridim an Raetem Pijin: Buk 1* (Lee, ed. 1981a)

RR2   *Buk fo Ridim an Raetem Pijin: Buk 2* (Lee, ed. 1981b)

SKS   *Samfala Kastom Stori...* (1982)

SSH   *Solomon Islands Pijin: special skills handbook* (Heubner & Horoi 1979b)

TBD   *Bikfala Faet:...[The Big Death:...]* (White et al., ed. 1988)

2. PREPOSITIONS

Semantically, the three simple prepositions, *blong, long* and *fo* are much more generic than either the verbal or nominal prepositions. Formally, the simple prepositions are normally unstressed and, as already noted, the *-ng* of *long* and *blong* are frequently dropped in speech, becoming *lo* and *blo* respectively. Distributionally, they always (unlike English) have an obligatory overt object immediately following them even when there is one in the preceding context.

2.1 SEMANTICS AND FUNCTION OF SIMPLE PREPOSITIONS

The primary function of the three simple prepositions is to show a case relationship between the immediately preceding word(s) and the immediately following word(s) within a sentence rather than to convey specific meaning themselves. How these prepositions are translated into English is largely dependent on the meanings of the words which they relate. Each preposition is given a designation, but the designation does not cover the whole range of relationships into which the specific preposition enters.

The preposition *long* is the most general. It can variously be translated in English as 'in, at, to (destination), from (source), on, by, with' etc. This does not mean that *long* changes its meaning; it is simply almost devoid of meaning. More often than not it refers to some kind of locational relationship so it is glossed as LOC. With certain verbs it may relate the action to a substance out of which something is constructed or an instrument with which the action is carried out.

The preposition *blong* can be thought of as basically possessive, that is, whatever follows *blong* in some way 'possesses' that which precedes it and therefore glossed POSS. More frequently than not, however, it does not strictly show possession. For example, in *akis blong mi* 'my axe' it likely shows clear possession whereas in *dadi blong mi* 'my father' it shows a kinship relation and in *bele blong mi* 'my belly' it shows a part/whole relationship. In the above examples, *blong* is combined with the following pronoun and translated into English as a possessive pronoun. If the following word is a noun, *blong* is often translated as an apostrophe plus 's'. Otherwise, *blong* is normally translated as 'of'.

The preposition *fo* can be thought of as a dative (glossed DAT) pronoun. Dative is a term often used in languages to cover a relationship which shows that someone or something is the recipient or beneficiary of something or of some action. Neither of the Pijin dictionaries available (Simons & Young 1978; Guyer-Miller 1989) give word classes for dictionary entries but both include *fo* with the meanings of 'to' and 'for'.

As noted earlier, the other Melanesian Pijins all have cognate forms of *long* and *blong*, but only Broken has a cognate form (*po*) of Pijin *fo*.

2.2 DISTRIBUTION OF THE SIMPLE PREPOSITIONS

Examples (1) and (2) illustrate objects following the prepositions but no objects preceding them (example (1) illustrates both *long* and *blong*):

(1)   *Hemi kanduit go insaet <u>long</u> haos <u>blong</u> olketa waetman.*
      he   cannot   go inside LOC house POSS PL   white.man
      He couldn't go into the white men's house. (TBD:98)

(2)   *An ami olketa givim kam <u>fo</u>   mifala.*
      and army they   give DIR DAT us.EXC
      And the army gave them to us. (TBD:102)

Examples (3) - (6) have an object in the preceding context, but an overt pronominal object is also required following the preposition. In this respect Pijin differs from English. Note that in example (3) the free rendering in English also requires an overt object after 'to', but does not require one in examples (4) - (6) after 'about', 'to' and 'for'. Example (7) has no equivalent of the preposition *blong* in the English rendering; to translate it showing possession would require something like '...man whose name was...'. Whether a preposition in English can be stranded, that is, be used without a following object, depends largely on the type of context in which it occurs, whereas none of the simple prepositions of Pijin can ever be stranded.

(3)   *<u>Pipol olsem</u>, mifala   no save duim enisamting long <u>olketa</u>.*
      people like.that we.EXC not able do   anything   LOC them
      People like that, we can't do anything to them. (TBD:103)

(4)   *<u>Samting   wea</u>   olketa lanem mifala long <u>hem</u>...*
      something which they   taught us   LOC it
      Something which they taught us about... (TBD:103)

(5)   *<u>Tri wea</u>   olketa Japan taemap hem long <u>hem</u> brek.*
      tree which PL   Japan tie.up him LOC it   break
      The tree which the Japanese tied him to broke. (TBD:91)

(6)   *<u>Hu   nao</u>   olketa wakem gaden fo   <u>hem</u>?*
      who TOP they   make   garden DAT him/her
      Who are they making a garden for? (GHB:102)

(7)   *Olketa Japan kasholem <u>wanfala man</u> nem blong <u>hem</u> Maelangi.*
      PL   Japan capture   one   man name POSS him Maelangi
      The Japanese captured a man named Maelangi. (TBD:90f.)

In Pijin, it is normal for phrases with *long* or *fo* to occur in their expected slot in a clause even though a complete parallel phrase (e.g. *fo wanem* in (8)) or an adequate equivalent (e.g. *wea* in (9)) occur in a fronted or other preceding construction:

(8)   *<u>Fo   wanem</u> nao olketa i   katem plande hevenat <u>fo   hem</u>?*
      DAT what   TOP they they cut   plenty heavy.nut DAT it
      What are they cutting so many heavy nuts for? (GHB:112)

(9)   *Mifala   go-go-go   kasem disfala hol   ia   wea   olketa*
      we.EXC CON-CON-go arrive this   cave DEI where PL

      flaeng fokis i   stap long hem.
      flying fox   they   stay LOC it.
      We kept on going until we got to this cave where flying foxes stay. (RR1:13)

In these examples the final *fo hem* and *long hem* could be deleted, but it is more natural *with* them whereas in the English gloss it would be unnaturally redundant to have 'for' at both the beginning and the end of the first example or to add 'in it' to the second example.

2.3 *fo* IN PIJIN – OLD OR NEW?

Although neither Bislama nor Tok Pisin have a cognate of *fo*, it is very common in Pijin. In one text of 277 words (Todd 1984:270) I counted 17 instances of *fo*. Its use as a preposition signals a dative or beneficiary relationship and can normally be translated by English 'to' or 'for' even though many of the instances would be equivalent to English 'to' in infinitive constructions and often with a sense of purpose.

(10)   *An hemi baebae baem samfala tul fo waka long hem.*
      and he   will   buy some tool to work LOC it
      And he'll buy some tools to work with. (Todd 1984:270)

(11)   *Olketa jes   stat fo   kam   long taem ia.*
      they   just   start to   come LOC time DEI
      They just began to come at that time. (TBD:101)

Examples showing a beneficiary relationship:

(12)   *Mitufala   tekem kam samfala sugaken fo   iu.*
      we.DU.EXC take   DIR some   sugarcane DAT you.SG
      We brought you some sugarcane. (RR2:44)

(13)   *Mi kanduit ansarem fo   iutufala.*
      I   can't   answer DAT you.DU
      I can't answer them for you. (Follows 'Don't ask me any questions.') (TBD:58)

(14)   *...olketa givim kam fo   mifala.*
      they   give   DIR DAT us.EXC
      ...they gave them to us. (TBD:102)

In some contexts *fo* and *long* are mutually substitutable. Compare the previous example with this one:

(15)   *...olketa givim nomoa long mifala.*
      they   give   only   LOC us.EXC
      ...and they gave them to us. (TBD:102)

What is the source of Pijin *fo*? Is it recent or old in Pijin? Is it something taken from the superstrate English since the divergence of Pijin from the earlier plantation Melanesian Pidgin or is it something which Bislama and Tok Pisin have lost? As noted above, to my knowledge, the only other Melanesian pidgin/creole that has a productive cognate form (*po*) is Broken. Shnukal (1988:61) describes *po* as showing a relationship of benefit or reason. Because of their form it is evident that *po* and *fo* derive lexically from English 'for'. Did

Broken and Pijin independently borrow this preposition from English or do they reflect a common history of Melanesian Pidgin? Or is there something common to pidgins and creoles that would lead us to expect this development?

As a preposition *fo* and *po* occur where *long* is normally used in Tok Pisin and Bislama. The two languages also share a common use of *fo/po*, however, for which neither Bislama nor Tok Pisin use *long*. This is in purpose constructions which are translated into English as infinitives. Bislama uses *blong* for these constructions and Tok Pisin uses the cognate *bilong*. The following examples are all taken from the Gospel of Mark 1:24.

Pijin:

(16)   *Ating iu kam fo spoelem mifala ia!*
        Probably you've come to destroy us!

Broken:

(17)   *Yu bin kam po tere mipla, a?*
        Have you come to tear us?

Bislama:

(18)   *Ating yu kam blong spoelem mifala!*
        Probably you've come to destroy us!

Tok Pisin:

(19)   *Ating yu kam bilong bagarapim mipela?*
        Probably you've come to destroy us?

For this passage from Mark's Gospel, Hawaiian Creole also has *fo* parallel to Pijin and Broken, whereas Aboriginal Kriol has *blanga* which is parallel to the Bislama and Tok Pisin forms.

The comparable use of the cognate forms in Broken and Pijin would seem to reflect the fact that either they share a common history or they have both dropped *b(i)long* in favour of *fo/po* because of substrate influence or universal tendencies in pidgins and creoles. It is easy to see how both Pijin and Broken could have borrowed the English *for* in the cases where there is a benefactive or recipient relationship. It is less easy to see why both languages would have extended it to the infinitival use thus replacing both *blong* and *long* for some uses.

One possible line of borrowing is from the now archaic (according to the *American heritage dictionary*, p.512) use of the sequence *for to* to express purpose in English. English also uses *for* when asking about the purpose of an action although the response will have *to* before a verb as in 'What did you do that for? I did it to...'. Evidence from earlier stages of Melanesian Pidgin is not readily available to me, but Dutton's (1980) interview with two New Hebridean kanakas in North Queensland does reveal the use by one speaker of *fə* as a benefactive preposition (p.15) and of *po* both as a benefactive preposition (*...onli wan lili pi:si po yu, lili pi:si po mi...* 'only one little piece for you, a little piece for me...', p.52) and in purpose constructions with a following verb (*...po wokabaut* 'to walk about', p.29, 30) and with a following nominal (*wat ... fo?* 'what...for' and *po nating* 'for nothing', p.30). With the exception of the purpose constructions with a following verb, all of these uses translate into English with 'for'. Considering the fact that this man had come to Queensland in the latter part of the nineteenth century and did not have a lot of contact with

other pidgin speakers during the latter part of his life, it is not possible to determine how much of his use of *po* was due to later English influence. The use in the purpose construction *po wokabaut* 'to walk about' is less likely from later English influence unless English *for to* was in general use around him.[5]

A more likely possibility is that both Pijin and Broken independently borrowed English 'for' as a dative preposition partially replacing *long* and extended its use to purpose constructions partially replacing *blong*. Evidence for this comes from the widespread tendency of pidgins and creoles throughout the world to use the same particle for both uses. Bickerton (1981) has a number of examples from several of the creoles which use derivatives of English 'for' or French 'pour' with both clear prepositional uses and purposive or related uses which he refers to as complementisers. The notions of purposive and benefactive are semantically related, with the complement of the one normally verbal and the complement of the other nominal. This line of reasoning supports the independent origin of *fo* in Pijin and *po* in Broken being due to the general tendencies of pidgins and creoles to acquire a dative-type preposition and for its use to be extended to that of complementiser (see Bickerton 1981:30-33).[6]

Pijin *fo* is not a recent, that is, post-World War II development. Keesing (1988:224) cites a speaker from Simbo from the Western Solomons who learned Pijin on Malaita as a policeman in the 1920s. In a short text of 32 words, this speaker used *fo* three times in infinitive constructions. The speakers who told their stories for *Bikfala faet* were all men who had been involved in World War II and had presumably all learned Pijin not later than the 1930s. Their stories are replete with instances of *fo* in all of its functions. There are some instances of alternation of *fo* and *long* as noted above, but in infinitive constructions, I observed only *fo* in those stories.

As to the substrate languages, there is ample evidence for a form with dative relationship for a good number of languages. Kwaio has *fa-* which Keesing (e.g. 1988:220) translates as 'for' following the verb for 'give' and 'carry' and as 'to' following the verb for 'run away'. In each of these cases the parallel sentences for Pijin all have *fo*. To'aba'ita (Lichtenberk 1984:61f.) also uses *fa* (recipient/benefactive) but Lichtenberk treats it as a nominal preposition obligatorily preceded by the true preposition *'i* and, like Kwaio, obligatorily followed by the inalienable possessive construction. Many, if not all, of the Oceanic languages of the Solomons have similar prepositions with many of them reflecting a common origin.[7] It may also be significant that for at least Kwaio and To'aba'ita speakers (both from the northern half of Malaita) who contributed heavily to the development of Pijin, the form of their preposition *fa* is very close phonologically to Pijin *fo*. It is conceivable that the phonological similarity has contributed to the adoption of *fo* in Pijin.[8]

---

5   Suggested as a possibility by David Walsh (pers.comm.) for all of the instances of pidgin derivatives from 'for' with a notion of purpose.

6   I have heard comments that Broken is more like Pijin than any of the other Melanesian pidgins. It is likely that a few transparent parallel uses such as that of *po* and *fo* in the two languages are the source of such comments.

7   For example: Longgu on the south-east coast of Guadalcanal (Ivens 1935:618), Inakona (=Koo) on the south-west coast of Guadalcanal (Capell 1930:127), Cheke Holo (=Maringe) on Santa Isabel (White et al., ed. 1988:xxxii).

8   Simons (1986) uses a similar argument for Pijin *nao* as topic marker, perfect marker and sentence connector. To'aba'ita has *na, na'a* and *ma*, respectively, for these functions and other Malaitan languages have similar forms including *na* instead of *ma* as a sentence connector. Although Pijin *nao* corresponds in function with 'now' only as a sentence connector (not in all dialects of English), its extension to the

The evidence from the substrate languages supports the presence of *fo* in Pijin as a dative whether or not its origin is in any way dependent on the substrate languages. Of the languages cited, however, apart from Kwaio and To'aba'ita, the forms suggest that they are verbal prepositions. For Proto Oceanic Pawley (1973:143f.) lists **pani* as a verbal preposition whose function is most commonly dative.[9] It would appear that for languages like Kwaio and To'aba'ita, the verbal preposition has changed its status. This would be a natural progression and To'aba'ita has three verbal prepositions which have deverbalised variants in some contexts (Lichtenberk 1984:66) showing the process at work.

As to the infinitive/purpose constructions, Kwaio normally uses a different particle *'a-* followed by a subject referencing pronoun (Keesing 1988:240) although one example (p.244) uses *fa* (see above) without a subject referencing pronoun for a very similar function:

(20)   ...*leka fa-na kwaikwailo-ngari.*
         go   for-it hunt-canarium.nuts
         ...go to gather canarium nuts.

This construction with *fa* appears to be very close to the Pijin use of *fo* for purpose. Lichtenberk (1984:62) also cites To'aba'ita *fa* with a purpose function following two words meaning 'time'. Otherwise, the purpose/infinitive type constructions in To'aba'ita are normally introduced by the true preposition *ni* 'purpose/instrumental' (Lichtenberk 1984:34, 59). In light of the very uncommon use of the dative-type preposition as a complementiser in the substrate languages, it would appear that the extension of the use of *fo* to the purposive use in Pijin is likely not related to the substrate languages.

Hence, it appears that the strongest weight of evidence is that Pijin and Broken independently borrowed a dative form from English and extended its use to purpose/infinitive constructions as part of a universal tendency which both Bislama and Tok Pisin have resisted in the retention of *long* for dative uses and *blong* for the purposive use. Its origin in Broken could have been from other Pacific pidgin sources but this could hardly be the case for Pijin. The English purposive 'for to' and 'for' in questions about purpose may give some support to the uses, but are less likely the source. The substrate languages of the Solomons support both a dative form and a purposive form, but only weakly support the same form for both since the dative preposition is extended to purpose in very limited situations. In conclusion, however, I cite Keesing's (1988:111) observation:

> Once more we see why...substrate influence, superstrate influence, diffusion, and universals of grammar must all be seen as mutually complementary and interactive, not mutually exclusive, processes. The intersection of universal logics and faculties, language-learning strategies, and both substrate and superstrate models opens up particular paths for simplification, borrowing, and grammatical reanalysis.

In the next section we will see some of the same processes but with a different mix where substrate influence carries a greater weight.

---

other uses appears to be connected to the similarity of form between English 'now' and the Malaitan particles.

9   Given the predictable line of development Durie (1988:21) suggests that the verbal prepositions reconstructed by Pawley may actually represent shared innovations rather than shared retentions.

3. VERBAL PREPOSITIONS

Perhaps the most obvious and also a very significant distinction in Pijin prepositions is that some take a suffix {-(V)m} . For those acquainted with Melanesian pidgins, it will be apparent that the suffix is identical in form to the transitive suffix. Before considering the identification of these with the transitive suffix as prepositions, a look at the transitive suffix itself will be helpful.

3.1 ALLOMORPHS OF TRANSITIVE SUFFIX AND THEIR DISTRIBUTION

The allomorphs of the Pijin transitive suffix are: -*em*, -*im*, -*um* and -*m*. The allomorph -*m* normally follows stems ending with a vowel (e.g. *daevam* 'to dive for' (intransitive: *daeva* 'to dive') although some speakers use -*em* following the non-high vowels *a* and *o* (e.g. *troem* 'to throw' instead of *trom*) and a majority of speakers use -*im* in *duim* 'to do' in preference to *dum*.[10] For consonant-final stems, -*em* normally follows a preceding non-high vowel (*e, a, o*, e.g. *kolem* 'to call') and -*im* normally follows a preceding high vowel (*i, u*, e.g. *kilim* 'to hit'). In some cases a preceding *u* is followed by -*um* for many speakers. These are mostly words with an *h* or a bilabial consonant preceding the *u* of the stem (*hukum* 'to hook'; *pulum* 'to pull').[11] There are, however, conflicting phonological pressures such that most speakers use -*im* after a verb-final *s* following both high and non-high vowels (*blesim* 'to bless'). For some speakers this is also true of the verb-final alveolar consonants *t*- and *n*- (e.g. *hatim* rather than *hatem* 'to scold'). Finally, polysyllabic verb stems ending in *ar*- may optionally have -*em* or drop the *r*- and use only -*m* (*hamarem, hamam* 'to pound'). Although the prepositions in Pijin taking the transitive suffix are few in number, the same patterns of distribution of the suffix hold for them as well as for verbs.[12]

3.2 SUBSTRATE INFLUENCE AND FUNCTION OF THE TRANSITIVE SUFFIX

The function of the transitive suffix very closely parallels that of the substrate languages. The first item on Keesing's (1988:98) list of what we might expect to find in a hypothetical Pacific pidgin created in an Eastern Oceanic situation, but which we would not otherwise find in a pidgin, is "a transitive suffix to mark agent-object relations". Keesing elaborates on this point in his chapter on structures and sources of pidgin syntax. He notes (p.119) that the "form '-him' suffixed to verbs was undoubtedly brought to the Pacific as part of the European repertoire for 'talking to natives'", but he also argues (p.119f.) that the way in which speakers of Oceanic languages analysed the form was equivalent to the transitive suffixes in their own language which derive from Proto Oceanic *-i*. He observes (p.21) that a "morphologically unmarked form of the transitive suffix embodies an implicit third-person singular pronominal object marker" in both Melanesian Pidgin and Eastern Oceanic languages.[13]

---

10   The form *du*- cannot occur independently although it does occur as part of a few other lexical items: *kanduit* 'to be unable to', *durong* 'to commit an offence (normally of a sexual nature)', and *dugud* 'to perform a righteous act'.

11   In Bislama -*um* is the norm following *u* in the root.

12   A few transitive verbs do not take the object suffix (e.g. *save* 'understand': *mi no save enisamting* 'I don't know anything') and some others can take it but normally don't (e.g. *torowe(m)* 'throw away, discard').

13   According to Keesing (1988:120), Proto Oceanic also had a small class of verbs marked as transitive by a suffixed object pronoun which some of the daughter languages (including Kwaio which Keesing

He gives examples (p.121) from Pijin ((21) and (23)) and Kwaio ((22) and (24)). Note that the second Pijin example (23) has an implicit (presumably explicit in the preceding context) third person object in the absence of an overt object.[14]

(21)   *Mi no luk-im   pigpig blong iu.*
I   not see-TRS pig   POSS you.SG
I didn't see your pig(s).

(22)   *Ku   'ame aga-si-a   boo a-mu.*
I.SRP not   see-TRS-it pig POSS-you.SG
I didn't see your pig(s).

(23)   *Mi no luk-im.*
I   not see-TRS
I didn't see them.

(24)   *Ku   'ame aga-si-a.*
I.SRP   not   see-TRS-it
I didn't see them.

Examples could be cited from other Solomon Islands languages, but this is not necessary. Keesing has adequately treated the Oceanic influence in the development of the Melanesian Pidgin transitive suffix.

3.3 FORMS WITH THE TRANSITIVE SUFFIX AS PREPOSITIONS

The forms in Pijin which clearly have the transitive suffix and serve as prepositions in at least some contexts are *wetem* 'with', *agensim* 'against', *raonem* 'around', *falom* 'along, according to', *winim* 'beyond (for comparison),' *(go/kam) kasem* 'until', *krosim* 'across' and *abaot(em)* 'about'. Semantically most of these are somewhat specific and most of them also function as transitive verbs. To my knowledge, apart from *abaot(em)* for which the suffix is optional, none of these occur as prepositions without the suffix in any speech that would be considered as acceptable Pijin. Keesing (1988:122,181) refers to some of these as prepositional verbs noting that they are used as prepositions. Camden (1977:133), for Bislama, lists *wetem* as a preposition (and also as a stative verb) but none of the others are listed as prepositions. Crowley (1990c:82ff.) calls the cognate forms which occur in Bislama verbal prepositions. This includes all of them except *abaot(em)* for which Bislama apparently has no comparable preposition and *winim* for which Bislama normally uses *bitim* (but cf. Camden (1977:134) who also lists *winim* for comparisons). Apparently neither Tok Pisin nor Broken have verbal prepositions like Pijin and Bislama.

Do the verbal prepositions of Bislama and Pijin stem directly from the grammaticalisation of serial verbs into verbal prepositions as Crowley (1990c:76, 85f.) suggests for Bislama or do they directly reflect such verbal prepositions in the substrate languages without an intermediate serial verb state? There is also the further question as to whether *from* 'from' and *olsem* 'like' which have a final *-m* also belong to the same class. Before examining these

---

describes) generalise for all transitive verbs. Could it be that Pijin {-(*V*) *m*} more closely parallels the third singular object pronoun of the substrate languages than the Proto Oceanic transitive suffix?

14   Keesing's spelling of some Pijin words has been adjusted and his glosses (including abbreviations) and punctuation have been modified to agree with those used in this paper.

questions, examples of some of the verbal prepositions in Pijin showing their function and distribution are given here. One of the most common of these in Pijin is *wetem*:

(25)   Olketa kam <u>wetem</u> olketa waetman   hu   i   bringim kam sios.
         they   come with   PL   white.man   who   they   brought DIR church
         They came with the white men who brought the church. (TBD:97)

Of the others *agensim* and *abaotem* occur frequently with verbs of speaking:

(26)   Hemi tekem Jisas... an   toktok strong <u>agensim</u> tingting blong hem ia.
         he   take   Jesus and talk   strong against   thinking POSS him DEI
         He took Jesus...and talked strong against his thinking. (Mark 8:32)

(27)   Hem ia   nao wanfala stori <u>abaotem</u> wankaen ,smolfala pipol...
         it   DEI TOP one   story about   one.kind small   people
         This is a story about a kind of dwarf... (SKS:11)

(28)   Evri waetman stat   fo toktok <u>abaot</u> wo.
         every white.man begin to talk   about war
         Every white man began to talk about war (coming to the Solomons). (TBD:13)

Raonem and *falom* are less common but both occur in (28):

(29)   Hemi talem olketa... fo sidaon <u>falom</u> sanbis <u>raonem</u> aelan ia.
         he   tell them   to sit   along beach around island DEI
         He told them...to sit down along the beach around the island. (SKS:21)

Kasem as a preposition usually combines with a continuative to form a complex preposition:

(30)   ...mifala no lukim olketa go-go   <u>kasem</u> distaem.
         we.EXC not see   them   CON-CON until   now
         ...we haven't seen them until now (and not now). (TBD:58)

(31)   Go from ivining go <u>kasem</u> moning.
         go from evening CON until   morning
         (They) went on from evening till morning. (TBD:60)

Like transitive verbs, these prepositions may also occur without a following overt object, that is, they may be stranded or orphaned. The object may be fronted for discourse connection or as part of a normal question order or the object may be part of an earlier context implied or overt. Crowley (1990c:83) reports for Bislama that an overt following object (of either verb or preposition) is uncommon if the referent is inanimate, optional if animate but non-human, and almost obligatory if human. Although there may be a tendency in this direction in Pijin, there seems to be greater flexibility than in Bislama. Some Pijin examples with stranded verbs (two in (32)) and prepositions (including one with a human referent (33)) are:

(32)   Evrisamting mifala   sev-<u>em</u>   olketa bon-<u>em</u>.
         everything we.EXC   save-TRS   they   burn-TRS
         Everything we saved they burned. (TBD:102)

(33)   Sajen   meja an wanfala koprol wet-<u>em</u>   tufala   lukaoatem mifala.
         sergeant major and one   corporal with-TRS they.DU look.after us.EXC
         A sergeant major and one corporal with him looked after us. (TBD:103)

(34)   *Disfala loa nao hemi toktok strong agens-im.*
this   law TOP he   talk   strong against-TRS
This is the law he talked strong against.

(35)   *Wanem nao bae iu stori long mifala abaot-em?*
what   TOP will you story LOC us.EXC about-TRS
What will you tell us a story about?

(36)   *Olketa kam from tufala taon ia an evri ples wea stap*
they   come from two   town DEI and every place which stay

raon-em.
around-TRS
They came from those two towns and every village around them.

3.4 *from* AND *olsem* AS PREPOSITIONS WITH TRANSITIVE SUFFIX

Formally, *from* and *olsem* look like words with a final transitive suffix, although the *-m* of *from* and *-m* or *-em* of *olsem* are not from the same historical source as the forms occurring with transitive verbs and the other prepositions. Camden (1977:25,78) and Crowley (1990b:83,173) concur that one function of both *from* and *olsem* in Bislama is that of preposition. Is it possible that Pijin *from* and *olsem* have been reanalysed by analogy as having the transitive suffix? Although there is no independent **fro or **ols (or **olse)[15] they may be viewed as roots. The *wet-* of *wetem*, the *kas-* of *kasem*, and the *agens-* of *agensim* cannot occur independently either, but because of their parallel with English, it is easier to think of them as roots. There are also many verbs which cannot occur without the transitive suffix as, for example, *tal-* in *talem* 'to tell'.

There is, furthermore, at least one verb where a final *-m* has apparently been reanalysed in Pijin. Pijin takes the verb *klaem(ap)* 'to climb' with a root final *-m* for which the English source 'climb' can be either transitive or intransitive and reanalyses the final *-m* as a transitive suffix and drops it to create an intransitive counterpart *klae*:[16]

(37)   *Kuiktaem trifala stat fo klae-m-ap tri ia nao.*
quickly   they.TRI begin to climb-TRS-up tree DEI TOP
The three of them began to climb up the tree immediately. (SKS:13)

(38)   *Taem olketa go-gohed fo klae...*
when they   CON-proceed to climb
When they proceeded to climb.../While they were climbing... (SKS:13)

The normally intransitive verb *kam* 'to come' may also have acquired a transitive sense that appears mainly as a request form as in (39) - (40):

(39)   *Kam wanfala tin taio.*
come one   tin Taiyo
Give me (or hand me) a tin of *Taiyo* (tuna).

---

15   Broken, however, optionally drops the *-m* of the transitive suffix from verbs and also from *olsem* resulting in *olse* (Shnukal 1988:174). This suggests the possibility that *olsem* may at one time have been a verbal preposition in Broken.

16   Some speakers also use *klaem* as an intransitive.

(40)   *Kam moa!*
        come more
        Kick it to me again! (overheard in soccer game)

It is possible that *kam* in such examples is an ellipsis rather than a transitive verb. Would, however, this use of *kam* have come about had it not had a final -*m* making it look like a transitive verb? Whether or not the -*m* of *kam* has been reanalysed as a transitive suffix, it is clear that the -*m* of *klaem* has been so reanalysed.

It is interesting to note that all of the Melanesian pidgins/creoles drop the final -*ng* of *long* and *blong* either optionally or regularly. As noted above, the -*ng* is frequently dropped in normal speech in Pijin and, according to Camden (1977) and Crowley (1990b) this is also true of Bislama. The evidence for Broken (Todd (1984:70) and a translation of Mark's Gospel would indicate that the loss of -*ng* is regular for both of the prepositions although Shnukal (1988) does list *long* and *blong* as variants. The loss of -*ng* is not unexpected in light of it being in unstressed particles, but it does differ from the -*m* final prepositions which do not lose the -*m*.[17]

Crowley (1990c:84f.) also notes that the final -*m* and -*em* of Bislama *from*, *wetem* and *olsem* are identical in form with the transitive suffix. He concludes that these three prepositions join with the five forms *kasem*, *bitim*, *agensem*, *raonem* and *folem* to form a subclass of prepositions. He does this on the basis that any of them can be orphaned and all of them end with either -*m* or -*em*.

The evidence presented above shows that from the perspective of form in Pijin, it is probable that *from* and *olsem* have been reanalysed as having the final transitive suffix. Neither of these are used as verbs in Pijin, but neither are *wetem* and *abaot(em)*. In fact, in light of Solomon Islands Pijin being the only Melanesian pidgin with *abaot* as a preposition,[18] it is likely a relatively recent (post-Queensland era)[19] preposition in Pijin to which speakers optionally suffix the -*em* by analogy with the other verbal prepositions. The parallel preposition in some of the substrate languages is also a verbal preposition (e.g. Tolo *hinia* 'about', Crowley, S. 1986:14). Interestingly, Terry Crowley (1990c:85) notes that some speakers of anglicised Bislama occasionally borrow 'without' and frequently add the transitive suffix to form *wetaotem* on the basis of analogy.

Distributionally, and consequently functionally in respect to their object, *from* and *olsem* also behave like transitive verbs and the other prepositions with the transitive suffix. Unlike the prepositions without the transitive suffix, they may occur with a following object or may have it in the preceding context or even implied with no overt following object. The first of each set of the examples has an overt following object and the second no following object.

Examples with *from*:

(41)   *Mi kam* <u>*from*</u>   *ples ia   go-go   mi kasem iu   tude.*
        I   come   from.TRS   place DEI   CON-go   I   arrive   you   today
        I came from there and kept coming until I got to you today. (SSH:94)

---

17   The exception of Broken *olse(m)* has already been noted.
18   The others use -*baot* (Bislama) or -*baut* (Tok Pisin and Broken) as a verbal suffix.
19   Keesing (1988, taken from Young (1926:207)) cites one example from 1910 "...he tell-'im altogether heathen people about Jesus...". Examples like this written by an English speaker, however, may not reliably represent the pidgin.

(42)   *Iu   goaot   from!*
        you.SG go.out from.TRS
        Get out of here! / Go out from him! (exorcising a demon)

Examples with *olsem*:

(43)   *An aelan ia   tu olsem   kastom aelan.*
        and island DEI too like.TRS custom island
        And that island also was like a traditional island. (SSH:94)

(44)   *Tufala... kaikaim puding   an   olketa samting olsem.*
        they.DU eat   pudding and PL   thing   like.TRS
        The two of them...ate pudding and things like that. (SSH:98)

There is also some evidence from the substrate languages for *from*. The grammatical sketch given by Keesing in his *Kwaio dictionary* (1975:xxix) lists eight quasi-verbs (prepositional verbs in Keesing (1985, 1988)). One of these is *fa'asia* 'away from' which would equate with Pijin *from*. The *-si* of *fa'asia* is from the same source as other *-Ci* forms used as the transitive suffix in Kwaio, and the *-a* is the third singular object pronoun. Also the prepositions in Kwaio which do not take the transitive suffix use a different series of pronouns (Keesing 1975:xxvii). To'aba'ita also has *fasi* 'away from' as a verbal preposition (Lichtenberk 1984:66). It, like two of the other To'aba'ita verbal prepositions, also has a deverbalised form which can occur before a noun phrase. The verbal form must be used if there is either no overt following object or a following independent pronoun.

Semantically, *from* and *olsem* tend to be more specific in meaning, patterning with the prepositions which take the transitive suffix. As a preposition, *from* is used for source, including direction from (e.g. *goaot from* 'go out from') and cause (e.g. *dae from* 'die because of'), and *olsem* means 'like' (e.g. *luk olsem wanem* 'look like what?'). This is in contrast to the non-suffixed prepositions which are quite generic semantically.

With the additional evidence regarding the distribution of *from* and *olsem,* the substrate evidence from Kwaio and other languages for *from*, and the somewhat specific semantic connotation of these two prepositions, along with their form, it appears that they have been reanalysed and are best considered as taking the transitive suffix and belonging to the subclass of verbal prepositions which take this suffix.

3.5 ORIGIN OF VERBAL PREPOSITIONS

The question was raised in §2.3 as to whether the verbal prepositions of Bislama and Pijin stem from the grammaticalisation of serial verbs into verbal prepositions as Crowley (1990c:76, 85f.) suggests for five of them in Bislama which function both as verbs and prepositions, or whether they all directly reflect verbal prepositions in the substrate languages without an intermediate serial verb state. Crowley (1990c:76) argues that the verbal prepositions *kasem, bitim, agensem, raonem* and *folem* in Bislama relatively recently acquired prepositional functions in addition to verbal functions and that "this synchronic bifunctionalism could be most easily explained by assuming that the prepositional constructions have arisen out of earlier serial verb constructions".

Bickerton (1981:119) argues that languages with only serial verbs to mark case would likely develop prepositions since serial verbs are a more marked means of expressing case relationships than are prepositions. Discounting substrate influence as providing the source

for the original appearance of these serial verbs in pidgins and creoles, he claims (p.120f.) that:

> ...the problem...of unambiguously identifying case roles while...change is under way--must have been a problem in creolization too, if we assume what must almost certainly have been the case in at least some pidgins, i.e., that the latter did not contain (or at least did not contain a full range of) prepositions. Without prepositions and without inflectional morphology, how else could oblique cases be distinguished if not by serial verbs?

In concluding his discussion of serial verbs and prepositions, Bickerton (p.130f.) observes:

> With regard to the types of complementation featuring serial verbs, it would seem that the strongest constraint on such developments was the availability of superstrate prepositions for case marking purposes. Where prepositions were available...they would be chosen over serial models. In the absence of superstrate prepositions, serialization would always be chosen. I suspect that it was reinvented, rather than selected in most if not all cases; but if not, if it was indeed selected out of a range of substrate alternatives, the present theory would remain unaffected. This theory claims that verb serialization is the only answer to the problem of marking cases in languages which have only N and V as major categories. Thus, if such structures were selected from a substratum, they were selected because they offered the only answer, not merely because they happened to be present in the substratum...

Applied to Bislama and Pijin, Bickerton's claim would mean that the English superstrate influence was not strong enough to supply the range of prepositions needed, so serialised verbs were developed to mark cases not already marked by *long* and *blong*. Some of the serialised verbs in turn would have later become prepositions.

I turn now to the Oceanic substrate. Durie (1988) examines verb serialisation and "verbal prepositions" in Oceanic languages. He discusses (p.1) the small word class or classes which many Oceanic languages have which morphologically and syntactically "fall somewhere between verbs and prepositions" and which are usually referred to with "double-barrelled terms...such as *prepositional verb* or *verbal preposition*". He notes (p.1f.) that these "classes typically include some forms which bear no relation to any independently occurring verbs, and others which can occur independently as verbs". This is precisely the status of the verbal prepositions of both Bislama and Pijin assuming that Durie is not including the transitive suffix in his "no relation to independently occurring verbs". Durie's primary focus is on presenting a typology of verbal-preposition phenomena in Oceanic languages by appealing to the diachronic interpretation, and although he deals with how the classes of words intermediate between verbs and prepositions relate to serial verb constructions, he does not intend to convey that every such intermediate word has derived from a serial verb. Following Bickerton's reasoning above would lead one to conclude that for pidgins and creoles, any such intermediate word would always be a temporary step from serial verbs towards fully fledged prepositions.

What I understand from Crowley's (1990c:76) conclusions on Bislama is that the verbal prepositions in current usage have "relatively recently" developed from serial verbs in "modern Bislama". Crowley (1990c:64-75) carefully treats verb-verb sequences in Bislama which he concludes are not cases of verb serialisation, as well as those which are genuine

cases of verb-serialisation, and follows this with evidence from verb serialisation in Paamese, one of the substrate languages, which is very similar to that of Bislama. By one of Crowley's criteria for genuine serialised verbs in Bislama, namely the obligatory use of the predicate marker in directional serialisation (1990c:69) and its optional although syntactically conditioned absence in stative serialisation (1990c:71f.), Pijin would now be devoid of serial verb constructions. The predicate marker, or subject referencing pronoun (SRP) à la Keesing, never occurs preceding either the directional particles nor parallel 'stative' particles (e.g. *haed* in *talem haed* 'tell secretly') in Pijin. Although other words may intervene between the verb and a following directional or stative particle, they appear to have been grammaticalised in Pijin.

Crowley does not indicate what he means by either "relatively recently" or by "modern Bislama", but I would assume that he means more recently than the Queensland plantation era. If not, the term modern Bislama would seem to me to be a misnomer. The point of this is that the parallels and overlap of the verbal prepositions of Pijin and Bislama are so close that I find it difficult to think of them as independent developments; and if they were part of a common development, this would almost certainly have been during the Queensland plantation era. The form, function, distribution and lexical items are all identical or nearly so, including those which to my knowledge bear no evidence of ever having had a separate verbal function in either language (*wetem, from* and *olsem*). The evidence of verbal prepositions throughout the Oceanic languages of both Vanuatu and the Solomon Islands including the possibility of some reconstructed for Proto Oceanic (Pawley 1973:142-147) leads me to suggest that it seems more likely that, rather than transitive verb serialisation arising and this developing into verbal prepositions, there was a general common availability of verbal prepositions in the substrate languages as pointed out by Keesing (1988:180ff.) and that these available categories were adopted using English lexical items (both verbal and prepositional) in Melanesian Pidgin before the repatriation of the Melanesians in 1906.

4. NOMINAL PREPOSITIONS

Much of what is expressed in English by specific prepositions alone (e.g. 'behind') or by complex prepositions (e.g. 'in back of') is expressed in Pijin by locational prepositions either alone or as part of a phrase. The term 'locational' is used broadly here to include location in space or time. These locational words could be viewed as a subclass of nouns or perhaps adverbials. For To'aba'ita, Lichtenberk (1984:63ff.) treats such words as 'spatial prepositions', a subclass of his 'nominal prepositions'. Crowley (1990b), for Bislama, refers to them as 'adverbial prepositions'. Pijin includes at least the following: *antap* 'on top', *andanit* 'underneath', *aotsaet* 'outside', *bihaen* 'behind', *botom* 'bottom', *franda* 'front', *insaet* 'inside', *mamana* (widespread from Malaitan languages but not used in all areas) 'front', *melewan* 'between', *narasaet* 'other side' and *saet* 'side'.

These words are usually preceded *or* followed by *long*, but may occur alone or preceded *and* followed by *long*. Huebner and Horoi (1979a:66) list the following as all having the same meaning:

(45) a. *Baero i stap   long antap long tebol.*
      b. *Baero i stap   antap long tebol.*
      c. *Baero i stap   long antap   tebol.*
      d. *Baero i stap   antap   tebol.*

> pen   it remain LOC on.top LOC table
> The ballpoint pen is on the table.

They also list *baero i stap long tebol* as equivalent, but if we substitute another location word such as *andanit* 'underneath' or *botom* 'bottom', the *long* alone is not substitutable with either of those meanings; it would still mean 'on the table'. Below are examples from natural texts.

Insaet alone:

(46) *Tufala   digim hol   an   berem devol ia   <u>insaet</u> hol   ia.*
      they.DU dig   hole and bury   devil DEI inside hole DEI
      The two of them dug a hole and buried the devil inside the hole. (SSH:104)

Long insaet:

(47) *Hemi jes go stret   daon nao   <u>long insaet</u> bele blong   mi.*
      he   just go straight down TOP LOC inside belly POSS me
      He just went straight down into my belly. (RR1:54)

Insaet long:

(48) *Oo, wanfala fis   hemi <u>insaet long</u> bele blong   mi ia.*
      oh   one   fish he   inside LOC belly POSS me DEI
      Oh, a fish was inside my belly. (RR1:54)

Long insaet long:

(49) *Disfala jaean hemi dae <u>long insaet long</u> haos blong hem.*
      this   giant he   die LOC inside LOC house POSS him
      This giant died in his house. (SSH:46)

I have made no rigorous study, but my impression is that programs aired on the Solomon Islands Broadcasting Corporation (SIBC) using these locationals without any *long* is much more common than in ordinary speech. The SIBC register often reflects considerable English influence.

On the other hand, the vernacular languages seem to have similar locational words which often require an equivalent to a preceding *long* and a following noun or pronoun signalling possession of the locational word. If the substrate languages have any influence, the possessive use would lead one to expect *blong* in Pijin rather than *long* following a locational preposition, but the evidence of the other Melanesian pidgins would indicate that the use of *long* in such contexts was very early. Concerning these locational words, Keesing (1988:119) notes:

> ...that in dealing with spatial relationships, Melanesian Pidgin dialects (especially as used by older speakers who learned them on plantations) reveal their Oceanic roots. Particularly in EO languages, terms for spatial locations ("in front", "behind", "inside", "underneath") are morphologically nouns, treated as inalienably possessed by the following noun, and often marked with a preceding locative particle...Older speakers of Solomons Pidgin characteristically use English-derived spatial terms (*andanit long kiniu* or *fastaem long haos*) as if they were nouns.

I have not specifically studied the speech of older versus younger speakers and am not familiar with the second example Keesing cites, but I have observed that most Pijin speakers commonly use constructions of this type. The languages below are samples of Solomon Islands vernaculars with constructions similar to *long* preceding a locational word. To'aba'ita (Simons & Simons 1981:13) uses the locative-marker *'i* plus one of eleven locational-prepositions: *'i maana* 'in front of'.[20] Kwaio (Keesing 1985:68) optionally uses *i* in similar constructions. Cheke Holo of Santa Isabel (White et al., ed. 1988:xxxii) has a particle *ke* which must precede the locationals: *ke lamna* 'inside'.

The prevailing pattern in the written Pijin texts available is locational plus *long*. This is also true of Bislama and Tok Pisin.

5. EPILOGUE

Much remains to be done on the prepositions of Pijin (to say nothing of the overall grammar of Pijin), but hopefully this paper will provide a basis for further studies. It is also hoped that this paper will be available to Solomon Islanders and help them to have a greater appreciation of the origins and complexities of the grammar of Pijin. Even among the well-educated there is a general conception that Pijin does not have a grammar. Although too technically oriented for most speakers of the language, there are a good number who should be able to profit from reading it and I hope that it will stimulate some of them to do research and publish on the language which has become a major unifying factor in the Solomon Islands culture.

REFERENCES

Bickerton, Derek, 1981, *Roots of language*. Ann Arbor: Karoma Publishers.

Bowden, John, 1992, *Behind the preposition: grammaticalisation of locatives in Oceanic languages*. PL, B-107.

Camden, William G. [Pastor Bill Camden], 1977, *A descriptive dictionary: Bislama to English*. Vila, New Hebrides [Vanuatu]: Maropa Bookshop.

1979, Parallels in structure of lexicon and syntax between New Hebrides Bislama and the South Santo language as spoken at Tangoa. *Papers in pidgin and creole linguistics* No.2:51-117. PL, A-57.

Capell, A., 1930, The language of Inakona, Guadalcanal, Solomon Islands. *Journal of the Polynesian Society* 39:113-136.

Clark, Ross, 1979, In search of Beach-la-mar: towards a history of Pacific Pidgin English. *Te Reo* 22:3-64.

Codrington, R.H., 1885, *The Melanesian languages*. Oxford: Clarendon Press.

Crowley, Susan Smith, 1986, *Tolo dictionary*. Guadalcanal, Solomon Islands: Guadalcanal Culture Centre.

Crowley, Terry, 1990a, *Beach-la-Mar to Bislama: the emergence of a national language in Vanuatu*. Oxford Studies in Language Contact. Oxford: Clarendon Press.

1990b, *An illustrated Bislama-English and English-Bislama dictionary*. Vila, Vanuatu: The Pacific Languages Unit and the Vanuatu Extension Centre of the University of the South Pacific.

1990c, Serial verbs and prepositions in Bislama. In John W. M. Verhaar, ed. *Melanesian Pidgin and Tok Pisin: proceedings of the First International Conference of Pidgins and Creoles in Melanesia*. Studies in Language Companion Series 20:57-89. Amsterdam: Benjamins.

Durie, Mark, 1988, Verb serialization and "verbal-prepositions" in Oceanic languages. *Oceanic Linguistics* 27:1-23.

---

[20]   English has very close parallels for some of these and some of the English prepositions have derivations which include simpler prepositions plus nouns such as 'inside', 'outside', 'underneath (-neath from OE *neothan* 'below')'.

Dutton, Tom, 1980, *Queensland Canefields English of the late nineteenth century (a record of interview with two of the last surviving kanakas in North Queensland, 1964)*. PL, D-29.

Fox, C.E., 1950, Some notes on Nggela grammar. *Journal of the Polynesian Society* 59:135-169.

Gudnius: Matiu, Mak, Luk, Jon (The Four Gospels in Solomon Islands Pijin). Suva, Fiji: The Bible Society in the South Pacific.

Guy, J.B.M., 1974, *Handbook of Bichelamar: Manuel de Bichelamar*. PL, C-34.

Guyer-Miller, Laura, 1989, *Peace Corps Solomon Islands Pijin - English dictionary*. [Honiara, Solomon Islands: Peace Corps.]

Harris, John W., 1986, *Northern Territory pidgins and the origin of Kriol*. PL, C-89.

Heubner, Thom and Stephen Rex Horoi, 1979a, *Solomon Islands Pijin: grammar handbook*. Peace Corps Language Handbook Series. Brattleboro, Vermont: ACTION/Peace Corps.

1979b, *Solomon Islands Pijin: special skills handbook*. Peace Corps Language Handbook Series. Brattleboro, Vermont: ACTION/Peace Corps.

Ivens, W.G., 1935, Grammar of the language of Longgu, Guadalcanal, British Solomon Islands. *Bulletin of the London School of Oriental and African Studies* 7:601-621.

Keesing, Roger M., 1975, *Kwaio dictionary*. PL, C-35.

1985, *Kwaio grammar*. PL, B-88.

1988, *Melanesian Pidgin and the Oceanic substrate*. Stanford, California: Stanford University Press.

Lee, Ernest W., [1981], *Solomon Islands Pijin: a spelling survey*. [Honiara, Solomon Islands]: Solomon Islands Christian Association and Solomon Islands Translation Advisory Group.

Lee, Ernest W., ed., 1981a, *Buk fo Ridim an Raetem Pijin: Buk 1*. Honiara, Solomon Islands: Pijin Literacy Project of the Solomon Islands Christian Association.

1981b, *Buk fo Ridim an Raetem Pijin: Buk 2*. Honiara, Solomon Islands: Pijin Literacy Project of the Solomon Islands Christian Association.

Lichtenberk, Frantisek, 1984, *language of Malaita, Solomon Islands*. *Working Papers in Anthropology, Archaeology, Linguistics, Maori Studies* No.65. Auckland: University of Auckland, Department of Anthropology.

Mark 1:16-18. [Compilation of short portion of the Gospel of Mark in 6 Pacific pidgins and creoles.] Xerox.

Morris, William, ed., 1971, *The American heritage dictionary of the English language*. Boston: American Heritage Publishing Co. and Houghton Mifflin Co.

Pawley, Andrew, 1973, Some problems in Proto-Oceanic grammar. *Oceanic Linguistics* 12:103-188.

Samfala Kastom Stori and Kastom Wei from Solomon Aelan an Narafala Kandre, 1982. Honiara, Solomon Islands: Pijin Literacy Project of the Solomon Islands Christian Association.

Scorza, David and Karl J. Franklin, 1989, *An advanced course in Tok Pisin*. Ukarumpa, Papua New Guinea: Summer Institute of Linguistics.

Shnukal, Anna, 1988, *Broken: an introduction to the creole language of Torres Strait*. PL, C-107.

Simons, Gary and Linda Simons, 1981, *A sketch grammar of To'abaita language, Malaita, Solomon Islands*. Honiara, Solomon Islands: Solomon Islands Translation Advisory Group and Summer Institute of Linguistics.

Simons, Linda, 1986, Malaitan influence on two grammatical particles in Solomon Islands Pijin. *Papers in pidgin and creole linguistics* No.4:53-65. PL, A-72.

Simons, Linda and Hugh Young, 1978, *Pijin Blong Yumi: a guide to Solomon Islands Pijin*. Honiara, Solomon Islands: Solomon Islands Christian Association.

Todd, Loreto, 1984, *Modern Englishes: pidgins and creoles*. Oxford, England: Basil Blackwell.

White, Geoffrey M., 1988, *Cheke Holo (Maringe/Hograno) dictionary*. PL, C-97.

White, Geoffrey M. et al., ed., 1988, *Bikfala faet: olketa Solomon Aelanda rimembarem Wol Wo Tu [The big death: Solomon Islanders remember World War II]*. Honiara, Solomon Islands: Institute of Pacific Studies and the Solomon Islands Extension Centre of the University of the South Pacific, and the Solomon Islands College of Higher Education.

STARTING FROM SOMEWHERE: A CASE FOR THE USE OF MELANESIAN PIDGIN IN SCHOOL-BASED LITERACY EDUCATION IN VANUATU AND THE SOLOMON ISLANDS

HEATHER LOTHERINGTON

1. INTRODUCTION

Choosing the official language medium of formal education in multilingual countries is a delicate task based on sensitive cultural, linguistic, social and political considerations as well as historical, economic and pedagogical realities (Goodman, Goodman & Flores 1978).[1] Bilingual, perhaps even multilingual, education is essential for most; children from minority language backgrounds will inevitably achieve some measure of bilingualism as a consequence of attending school in all but rare vernacular classes. But given that language has the power to constrain as well as to augment understanding, it is crucial that educational policy planners consider very carefully how to prepare children for education in another language. Through what medium should literacy, the cornerstone of education, be introduced?

This paper is concerned with helping early primary school children learn to read. The children considered are those in the Solomon Islands and Vanuatu, Melanesian countries within the University of the South Pacific region. These children are presently being introduced to literacy in schools via a world language. This paper argues in favour of introducing initial literacy in a language which is used at the community level, where emergent literacy begins, in order to facilitate literacy acquisition, promote the development of language skills, and improve community involvement in education.

Children in these Melanesian countries speak in the vicinity of 180 languages, most of which do not enjoy a literate tradition extending much beyond religious texts, if that. Furthermore, English (and in Vanuatu, French as well) is a language which children must master if they are to succeed at formal schooling. According to the Ministries of Education in the Solomon Islands and Vanuatu, the present policy is to introduce literacy through immersion study in English (or French). Both English,[2] and by association, literacy, are, thus, contextualised in formal educational practice.

---

[1] I am grateful to colleagues at the University of the South Pacific, Joseph Wale and Kenneth Fakamuria for their insightful comments on literacy and language usage in the Solomon Islands and Vanuatu, respectively, and David Jenkins for his critical comments on an earlier draft of this paper. Thanks also go to Jeff Siegel of the University of New England for his helpful comments on the version of this paper presented at FICOL.

[2] This paper will confine itself to the English-stream population, but remarks made about education in English apply similarly to education in French.

© Heather Lotherington

It has been well demonstrated, however, that initial literacy does not begin in school with formal instructional programmes but in the home and community with exposure to reading as a natural activity (Curtis 1986; Goodman & Goodman 1979; Heath 1983). The establishment of school language and literacy programmes which are pedagogically discontinuous with and unsupportive of prior community learning creates an institutional mystique around school for both children and parents alike. The decision to provide all formal education in a high-status, colonially-introduced language that does not have currency at the community level further excludes the community from significant educational participation.

This paper argues that we can give Melanesian children a better chance to be successful readers, writers and learners by introducing text to them in a medium they can already use. This would reduce the disparity between community and school learning and provide intergenerational support for literacy acquisition. Given the complex linguistic demography of Melanesia, vernacular literacy education is an exceedingly challenging proposition, although programme precedents have been set in regions of similar linguistic complexity, such as the Village Tok-Ples School Project of Bougainville and Buka (Saovana-Spriggs 1984) and the PNG Trust critical literacy work (Faraclas, this volume). It is the position of this paper that primary schoolchildren in the Solomon Islands and Vanuatu should be given the opportunity to become literate in their respective dialects of Melanesian Pidgin (MP), Pijin and Bislama, where vernacular literacy instruction is not feasible (such as in urban areas), while, at the same time, studying the world language to which they will eventually transfer their literacy skills.

2. LITERACY DEVELOPMENT

2.1 EMERGENT LITERACY

Although literacy is often viewed in Pacific communities as 'something children learn in school', the overwhelming evidence is that emergent literacy begins in the child's preschool years at home and in the community (Clay 1991; Curtis 1986; Heath 1983; Wray & Medwell 1991). Print is encountered as a natural occurrence in the context of home and community life in such places as shop and road signs, labels on food packages (including chewing gum and soft drinks), printed t-shirts, incoming or outgoing mail, and money, for example. Functional literacy skills are seen in practice in the casual reading of a newspaper, for instance, or the reverential reading (or singing) of religious texts (Goodman & Goodman 1979; Heath 1983). Curtis (1986) showed that preschool children from both monolingual and bilingual contexts who were exposed to literacy events in the home and community developed what she termed 'graphic sense': discriminatory perceptions of what a 'word' was in either English or Spanish (e.g. not *iii*, but *fin*; not a picture of a flower, but *flower*), as well as ideas about where certain content words were on the page (e.g. *kitty* on a page picturing a cat). Heath (1983) in her seminal ethnographic study of literate traditions in rural communities in the southern US found that two socioculturally diverse communities steeped their children, unconsciously, in their own literate traditions, neither of which was supported by instructional practices and values in further school literacy programmes. Children developed contextually appropriate literacy skills, such as 'reading' shop and road signs, identifying names on addressed letters, recognising and even 'writing' their names, reacting appropriately to prayers and hymns.

Goodman and Goodman (1979:139) state that, although learning to read should be viewed as natural learning, "Teaching children to read is not putting them into a garden of print and leaving them unmolested." As Wray and Medwell (1991:80) state:

> We do not wish to argue that the kinds of experience of using literacy which children get at home are in any way sufficient for them to develop as fully literate people. Schools do have a role to play.

The notion of school-initiated literacy has been reinforced by the concept of 'reading readiness': a view of literacy development positing that children become 'ready' to read at a certain age, which is accommodated accordingly in the curricula of formal schooling (Wray & Medwell 1991). However, children beginning school are, in fact, at quite different levels of preparation for literacy instruction contingent not only on individual differences but also, importantly, on their home and community literacy experiences (Clay 1991). Time and time again, experts in literacy education tell us that school literacy programmes should extend children's prior literacy experiences (Clay 1985; Heath 1982; Goodman 1985, 1986). Children who come to school from impoverished literacy backgrounds – in this case, those coming from village communities where print materials are scarce and do not form part of everyday life – must be pedagogically accommodated in school such that they can catch up with children who are coming to school with rich literacy experiences (Clay 1991). This applies to disadvantaged rural children who are expected to follow the same curriculum as their urban counterparts as well as to children from diverse social and linguistic backgrounds within the same classroom at school.

In any case, even if all children in the class have similarly poor prior literacy experiences, as might happen in a small remote village school, the literacy programme, if imported, as it will probably be if the language of instruction is equally imported, cannot be based on any relevant prior community learning. A programme of literacy instruction based on national needs and conditions is pedagogically more appropriate (Hallak 1993). Furthermore, creating a national programme of literacy instruction for the Melanesian child which can be conducted in a community language will help to facilitate intergenerational literacy (Nurss & Rawlston 1991; Sticht & McDonald 1990).

2.2 LINGUISTIC AND COGNITIVE DIMENSIONS OF LITERACY

Literacy is enormously complex. It is an indispensible educational building block. Literacy development predicts educational possibilities. It transforms social and cultural institutions. Literacy is powerful conceptual knowledge.

Researchers cannot precisely define what happens when we read because we cannot see the brain in action. We do know that reading is an interactive meaning-seeking process in which the reader and the text act together (National Academy of Education 1985); and that it is a problem-solving activity that grows in power and flexibility with practice (Clay 1991).

To read, we must be able to decode visual information – print – and process it cognitively and experientially in order to construct meaning. In order to read the reader must synthesise two basic sources of information: visual (print) and non-visual (background knowledge). Print must be mapped onto known experience in order for meaning to be constructed.

Obviously, understanding the language encoded in print is essential. However, literacy requires far more than a threshold comprehension level of the language in print; the kind of linguistic proficiency children must have in order to read and write is qualitatively demanding.

School literacy requires what Cummins terms "cognitive-academic language proficiency (CALP)" (Cummins 1991a:16); an ability to process cognitively-demanding and context-reduced text. CALP is not dependent on the child's surface fluency of the language (i.e. how well the child speaks the particular language), but on his or her general conceptual and linguistic proficiency in any language (Cummins 1983). According to Cummins' linguistic interdependence principle, children transfer language skills learned in a language they know to a new language; they utilise a "common underlying proficiency" (Cummins 1983:42). So the child learning how to read and write in MP initially is not just developing his or her MP skills but a deeper conceptual and linguistic proficiency that will help him or her to develop literacy in a second language, such as English.

3. BILINGUAL EDUCATION

3.1 BECOMING BILINGUAL

Formal education in the Pacific is conducted fundamentally in a world language. Many children come to school as bilinguals. However, few are proficient in the language of knowledge and power on which the school runs.

Children who naturally pick up a second language in childhood become bilinguals without even trying. Under these conditions of acquisition, their command of both languages is unconscious. Children would normally pick up Bislama through everyday community interaction where there is linguistic heterogeneity in Vanuatu; the same applies to Pijin in the Solomon Islands.

Children in Melanesia learn English as a second language (ESL) at school, however. This requires conscious effort. Children learning a second language do not have the natural contextual supports surrounding their L2 development that they had in the development of their native language (L1). They do not have five or six years of life in which to absorb and try out the language in which they are immersed, unthreateningly, in a full emotional and functional range of use by competent speakers. They are not permitted trial-and-error language learning. Instead, they have a limited context, a classroom, in which school topics are discussed, often by non-native speakers who present a less than perfect model of the language. Children are called upon to produce a language they have had too little exposure to and are criticised, often harshly, for making the most natural of mistakes.

Similarly, acquired L2 proficiency for preschoolers does not include a conscious effort to learn in a threatening environment in which consequential tests and social embarrassment over mistakes in usage are part of the experience. Proficiency in an acquired L2 will depend on many factors, including how long and how much language use the preschool child has been exposed to. However, for urban children in the Solomon Islands and Vanuatu, proficiency in Pijin and Bislama will be developed within a

community of competent speakers. For what is estimated to be thousands of children, MP will be an L1.[3]

3.2 L2 IMMERSION EDUCATION

Language education policy varies from country to country in the Pacific. However, two models of bilingual education are prevalent. This paper will refer to these as the second language immersion model and the vernacular literacy model.

Melanesian countries put children into an immersion situation where they enter an English-speaking classroom from their first day at school. They are expected to acquire literacy in a second language which they are simultaneously learning.

The basic underlying theory in immersion education is communicative competence: children will learn to use the target language if it is used as the medium of communication for authentic purposes in the classroom. However, in Melanesia, teachers are often found to be using either the vernacular or MP as the real medium of spoken communication while operating in an English-medium print environment. This is not English immersion.

Children are thus required to learn to read in a language they do not know and are getting very little aural contact with. Moreover, school learning does not provide a continuation of community learning where family members can follow and even help the progress of their children learning to read so there is little contextual support outside the school for the school language. These children face at least two sets of variables affecting reading success which put them at-risk: educational context, and teacher (Flood & Lapp 1990).

Bilingualism can either be additive (i.e. the L2 is added to the learner's L1), or it can be subtractive (i.e. the L2 replaces the learner's L1 (Lambert 1990)). When communicative support for the L1 is provided in the home, school or community, the acquisition of an L2 in an educational context results in additive bilingualism; that is to say, the learner adds a language to his or her linguistic repertoire. However, when use of the L1 is not maintained for whatever reason, the bilingualism process becomes subtractive rather than additive, and acquisition of the L2 effectively promotes substitution of the L2 for the L1.

There are a tragic number of examples of suppressive immersion programmes which have attempted to eradicate the L1 of minority language speakers and replace it with a higher prestige L2, resulting in such problems as atrophied L1 development, inadequate L2 proficiency, poor academic achievement, and negative sociocultural identity (Cummins 1991b; McCarty 1993). This is no longer language immersion; it is language submersion (cf. Baker 1993).

The poor academic and linguistic performance of minority children subjected to oppressive 'educational' programmes of this sort has given rise to language deficit theories, such as "semilingualism" (Skutnabb-Kangas 1981:248). Children have been seen as semilinguals when they manifest poor language development and do not learn to use any language fluently. Skutnabb-Kangas argues that semilingualism results from discriminatory

---

3   Personal communication, Dr John Lynch, Director, Pacific Languages Unit, USP.

social and educational practices for minorities emphasising subtractive bilingualism rather than from any cognitive-linguistic deficit.

In the Solomon Islands and Vanuatu, the Ll is not officially supported in school literacy programmes. Instead, learners are introduced to literacy in a high-status world language which is equated with educational success and high prestige jobs. Teachers, however, who are, by and large, not native speakers of English, may be using the vernacular or MP to explain things to children. In this case, children who are supposed to be immersed in English for purposes of acquiring a sufficient threshold level of the language to be able to apply it to the acquisition of literacy, are, in fact, learning that the vernacular or MP is the language of real communication.

Immersion education is not intrinsically bad, of course; immersion programmes have been very successfully implemented in other contexts, notably in Canada, Ireland and Wales (Baker 1993). For example, the Canadians have developed a much-discussed French immersion programme in which children, mainly anglophones, begin school in French, acquire literacy in French, and are at or above grade level achievement with their monolingual anglophone peers by Grade 8 (Swain & Lapkin 1981).

The French Canadian early total immersion programme seems, on the surface, to be structurally comparable with the Melanesian English immersion model which this paper claims to be biased against success because of the information overload for young children. However, on closer examination of the whole educational context, there are major differences in social and educational support for the programmes.

The population in French immersion in Canada is not the sum total of Canadian children in Class 1 as it is in immersion education in the Solomon Islands and Vanuatu. French immersion is optional in Canada. Students who show problems in coping with the schoolwork can be voluntarily withdrawn from the programme. Melanesian students do not have the alternative of L l education.

Furthermore, middle-class children of parents who wish them to have a head start in acquiring bilingualism in the official languages of Canada to ensure sound prospects for future employment are over-represented in French immersion programmes (Lapkin, Swain & Shapson 1990). Therefore, the students enrolled in French immersion do not necessarily represent a normal sample of the Canadian population.

Importantly, the middle-class homes from which most French immersion children come typically support literacy development in that parents read to their children, provide a good model of language and literacy, and reinforce their children's studies in English. Children from homes such as these may well come to school as L l literates. These immersion-educated children are given maximum social support to become additive bilinguals. Comparable support for L l literacy is unavailable to children in Melanesia.

3.3 VERNACULAR LITERACY EDUCATION

In the majority of Pacific countries, the policy is to educate children to basic literacy and numeracy in their L1 while providing core instruction in the L2. Children then transfer literacy skills learned in the L1 to the L2 which becomes the medium of the classroom after basic vernacular literacy has been achieved.

Although the vernacular literacy model is the more facilitative programme for encouraging initial literacy, it is only practicable where both schoolchildren and their teacher share the same L1 or the teacher is, at least, a proficient speaker of the vernacular. Furthermore, the intention is that children will transfer literacy skills and carry on their education in the world language, whether English or French, despite the fact that the metropolitan second language has varied levels of support outside and, in fact, inside the classroom, where teachers often continue to use the vernacular as the de facto medium (Lo Bianco 1990).

An excellent international example of a vernacular literacy programme is the English-Navajo language arts programme at the Rough Rock Community School in north-eastern Arizona. The school, which is located in a large Navajo reservation is developing and implementing its own Navajo-English bilingual programme, turning its shortcomings into strengths for both students and teachers alike. McCarty (1993:182) cogently sums up the history of American Indian education:

> The history of schooling for indigenous groups in the United States is, first and foremost, one of external, largely federal control over the education process...It is a history informed by explicit policies designed to extinguish indigenous languages through "sink or swim" methods still prevalent in Indian schools – methods based on the unusual assumption that all-English instruction for non-English speakers accelerates their English proficiency and academic achievement. Abundant research from many cultural and linguistic contexts proves that assumption dead-wrong...

In reaction to previous widespread academic failure resulting from these sink-or-swim methods of federal government implemented English immersion education, the Rough Rock Community School has begun to reclaim its culture, language and academic success through bilingual whole language pedagogy.

The Rough Rock School faced many problems, most of which will be familiar to Pacific educators (McCarty 1993):

(i) a lack of printed materials in the L1 (Navajo);

(ii) a lack of culturally appropriate literature;

(iii) a lack of local teachers qualified to teach the vernacular; and

(iv) students with varying proficiency levels in both the L1 (Navajo) and the L2 (English).

Their solution has been to discard what amounted to a curriculum of oppression encouraging language submersion, and to spend available funds towards the following (McCarty 1993:184):

(1) developing English and Navajo oral language and literacy using whole language pedagogy;

(2) staff and materials development; and

(3) classroom-based research on children's emerging literacy and alternative literacy/biliteracy assessment.

The Rough Rock's investment in itself has resulted in a curriculum of Navajo values in which authentic literature is being produced and self-published by teachers in conjunction with local artists. Although the programme is still evolving, and still facing many problems, preliminary evaluations make clear the progress being made. It is noteworthy that children making greatest gains on both local and national measures of achievement are bilingual students experiencing cumulative, uninterrupted initial literacy experiences in Navajo (McCarty 1993).

According to Cummins (1991b), improvement in indigenous students' education is dependent on the extent to which their interaction with adults in the school context reaffirms their cultural identity and generates academic and personal confidence. Another factor of major importance is community participation in curriculum development and school operation. Rough Rock is doing both of these things.

Cummins (1991b) asserts that the most important factor in the success of bilingual education is the maintenance and valuing of sociocultural identity. Therefore, whether a child is from a minority language background or from a majority language background is highly significant. High-status English speakers learning French in an officially bilingual English-French country have nothing to lose and everything to gain by learning the other official language. Research has shown that anglophone children in French immersion suffer no erosion of language and cultural identity (Genessee 1987). On the other hand, American Indian children in an officially monolingual English-speaking country have shown poor progress in oppressive immersion programmes designed to 'get them speaking English as soon as possible'. Children's cultural heritage is thereby devalued and subtractive bilingualism is encouraged.

4. INTRODUCING AN MP-ENGLISH BILITERACY PROGRAMME

Literacy is being taught in MP in Melanesia, mostly to adult populations, but also in preschools, and in non-transitional church-run instructional programmes which are not meant to prepare students for English-medium schools (Siegel 1993). Far fewer adults would require literacy programmes if they learned to read as children, of course.

For example, at the Goroka YWCA in Papua New Guinea, the 'Kisim Save Skul Bilong Ol Meri' (The Gaining Knowledge School For Women) teaches literacy in Tok Pisin, along with other life skills in an outstandingly successful programme for women. The *skul* includes a *rum buk* (library) of materials in Tok Pisin, some of which have been been written by students and staff (Maben & Chapman 1990).

In Vanuatu, the Melanesian adult literacy project began teaching literacy in Bislama to one adult and one preschool class in Malekula in 1989. Since then, the project has expanded to four islands and is continuing to grow despite initial problems faced, viz. lack of teaching materials, suspicion of the Ni-Vanuatu people, and limited official attention given to Bislama literacy (Netine 1993).

In the year of literacy (1990), the USP Centre in Honiara, Solomon Islands, began a literacy programme that promulgated the teaching of Pijin literacy to some of the estimated 85 per cent of people in the Solomon Islands who are thought to be functionally illiterate (Mosley 1991). The Literacy Association of the Solomon Islands (LASI) is committed to

feeding what they term 'literacy hunger'. They teach and write literacy materials for adults in Solomons Pijin.[4]

Given that literacy educators are successfully mobilising programmes for adults and preschoolers in MP, why not extend MP literacy to schoolchildren? A vernacular education model of bilingual education, using Bislama and Pijin for urban and linguistically heterogeneous areas, is a feasible and highly preferrable alternative to the existing English immersion mode of education practised in primary schools in both the Solomon Islands and Vanuatu. The problems are, of course, many, as they are for communities around the world. However, instituting initial literacy in the vernacular, where possible, and in MP, where it has been acquired and widely used during preschool years, as the medium of the classroom and the printed page would have pedagogical, linguistic, social and political advantages.

One important advantage would be that children would start from somewhere; they would have a better chance of learning to read because they would be familiar with the medium of the text and could map print onto known experience. Involving the community in the writing of stories for schoolchildren based on familiar values and experiences would further encourage children's utilisation of background knowledge in reading. Community-written stories would also promote better home-school communication, providing support for children's early studies as well as opportunities for intergenerational learning.

Children would have a better chance to succeed in school, having an improved sociocultural identity and L1 development resulting from an appreciation of the value of a community language and the shared culture embodied in the use of that language. They would then have a better chance to read to learn as they continue on in school with stronger literacy and language skills.

Using MP in school would help to decrease the dislocation of preschool community-based learning and school learning, making school attendance less traumatic and estranged from the community. There would be a healthy desanctification of the institution of the school because it operated, at least in the early classes, in a shared community language. Furthermore, MP-medium materials would provide a tie-in to adult literacy instruction.

Using MP in a formal school programme would lend it greater legitimacy. The status of Solomons Pijin and, to a lesser extent, Bislama, which already enjoys official recognition, would thus be raised.

Of course, limitations and problems exist. Since pidgins evolve much more rapidly than other natural languages, there may be a problem in establishing a standard. This is less of a problem in Vanuatu where the orthography has gelled through print.

It is, of course, important to note that literacy in Bislama or Pijin is recommended only where a school programme of vernacular literacy is impracticable, and viable only where children have acquired and used the language in their preschool years.

Appropriate curricula and materials would have to be developed and written. Teachers would need increased professional development not only in MP literacy but also in ESL for the successful teaching and transfer of classroom language media. However, fears that literacy in MP will negatively affect the acquisition of standard English should be allayed.

---

4   Personal communication, Jack Rekzy, Co-ordinator, LASI.

According to Siegel, ed. (1993:9), "the use of pidgins and creoles to teach literacy has no negative effect on the subsequent acquisition of the standard form of the lexifier language".

Preschool literacy experiences would still be limited as long as books in community languages are in short supply around the home and community. However, with cumulative community support, local literacy resources for adults and children alike could be created and collected.

Lastly, there may be a lack of community support for comprehensible education in an available language because it lacks mystique and, so, appears to be a low-status alternative, which it is not.

5. CONCLUSION

Although there is no shortage of practical problems in implementing community language-based initial literacy instructional programmes, the advantages in children's pedagogical, cognitive, linguistic and sociocultural development outweigh the problems.

This position paper presents a theoretical justification for rethinking language policy for Melanesian school literacy programmes. It argues that initial literacy programmes in the Solomon Islands and Vanuatu be nationally reclaimed and rethought, given the importance of using a community language to develop language and literacy skills. The purpose of the paper is to spur relevant empirical research: feasibility studies introducing literacy in Bislama and Solomons Pijin need to be conducted in linguistically favourable areas, such as in the urban capital cities of each country. The vernacular should be used for literacy instruction in homogeneous language communities.

Many concrete questions will need answers. Before a pilot programme can be developed, it will be necessary to know what percentage of the population in each of these countries would, by virtue of its linguistic make-up, benefit from an MP literacy programme. This would include communities splintered by languages if MP is widely used as a lingua franca as well as urban areas in which MP has creolised into L1 status. Crowley (1993) has interpreted the 1989 census in Vanuatu to present a picture of communities where Bislama is spoken, alone or in conjunction with English and/or French.

Pilot studies would have to devise a balanced programme giving maximum benefit to children such that they acquire literacy skills and a sufficient threshold level of English to transfer these skills successfully and carry on learning.

The need for children in the Solomon Islands and Vanuatu to develop a sound, literate proficiency in English which, as a world language, brings with it access to knowledge and power, is not questioned in this paper. Rather, it motivates the discussion. Children are not successfully coping with the great demands made on them in acquiring literacy and this high-status language all at once, any more than they do elsewhere in the world where fundamental support for literacy or ESL is not available in the home and community. English and literacy should be treated as two different hurdles which can meet up when children have been given maximum opportunities to make the connection and move on. Melanesian children's needs for language and literacy must be seen as baseline skills in learning, not as obstacles in themselves.

REFERENCES

Baker, Colin, 1993, *Foundations of bilingual education and bilingualism.* Clevedon, England: Multilingual Matters.

Clay, Marie M., 1985, Beginning literacy in two languages. *Singapore Journal of Education* No.7, 3-14.

1991, *Becoming literate: the construction of inner control.* NZ: Heinemann Educational.

Crowley, Terry, 1993, Linguistic demography: interpreting the 1989 census results in Vanuatu. Paper presented at the First International Conference on Oceanic Linguistics, Port Vila, Vanuatu, July 1993.

Cummins, Jim, 1983, *Heritage language education: a literature review.* Toronto, Ontario: Ministry of Education.

1991a, *Language learning and bilingualism.* Sophia Linguistica No.19. Japan: Sophia University.

1991b, Preventing pedagogically-induced learning difficulties among indigenous students. *Journal of Navajo Education* No.8, 3-9.

Curtis, J., 1986, The development of graphic sense: preliterate children's knowledge about written language. Doctoral dissertation, University of Toronto.

Flood, James and Diane Lapp, 1990, Reading comprehension instructions for at-risk students: research-based practices that can make a difference. *Journal of Reading* No.33, 490-496.

Genessee, Fred, 1987, *Learning through two languages: studies of immersion and bilingual education.* Cambridge, Mass.: Newbury House.

Goodman, Kenneth S., 1985, On being literate in an age of information. *Journal of Reading* No.28, 388-392.

1986, *What's whole in whole language?* Richmond Hill, Ontario: Scholastic Canada.

Goodman, Kenneth S. and Yetta M. Goodman, 1979, Learning to read is natural. In L.B. Resnick and P.A. Weaver, eds *Theory and practice of reading,* vol.1, 137-154. Hillsdale, N.J: Erlbaum.

Goodman, Kenneth, Yetta Goodman and Barbara Flores, 1978, *Reading in the bilingual classroom: literacy and biliteracy.* Rosslyn, Virginia: National Clearinghouse for Bilingual Education.

Hallak, Jacques, 1993, Investing in the future: educational priorities for developing countries. Paper presented at the 25th Anniversary Lecture Series, University of the South Pacific, Suva, Fiji, June 1993.

Heath, Shirley Brice, 1982, What no bedtime story means: narrative skills at home and school. *Language in Society* No.2, 49-76.

1983, *Ways with words: language, life and work in communities and classrooms.* Cambridge: Cambridge University Press.

Lambert, W.E., 1990, Persistent issues in bilingualism. In Birgit Harley, Patrick Allen, Jim Cummins and Merrill Swain, eds *The development of second language proficiency.* Cambridge: Cambridge University Press.

Lapkin, S., M. Swain and S. Shapson, 1990, French immersion research agenda for the 90s. *The Canadian Modern Language Review* No.46, 638-674.

Lo Bianco, Joseph, 1990, Language in bilingual classrooms – Samoa as an example. In Anthony Liddicoat, ed. *Vernacular languages in South Pacific education,* 45-48. Melbourne: National Languages Institute of Australia.

Maben, A. and D. Chapman, 1990, The gaining knowledge school. *Tok Blong Ol Meri.* The World YWCA Pacific Area Office Newsletter No.4, 6.

Mosley, Lesley, 1991, USP Solomon Islands Centre Programme for the Year of Literacy. In Elizabeth C. Reade Fong and Jayshree Mamtora, eds *Literacy and Pacific women,* 19-25. Suva: Fiji Association of Women Graduates.

McCarty, Teresa L.,1993, Language, literacy and the image of the child in American Indian classrooms. *Language Arts* No.70, 182-192.

National Academy of Education, 1985, *Becoming a nation of readers: the report of the commission on reading.* Pittsburgh: The National Academy of Education.

Netine, Enikelen, 1993, Vanuatu. *Pidgins and Creoles in Education (PACE) Newsletter,* No.4, 3.

Nurss, J.R. and S. Rawlston, 1991, Family stories: intergenerational literacy. *TESL Journal* No.1, 29, 32.

Saovana-Spriggs, R., 1984, Village Tok-Ples schools project. In Pacific Languages Unit, ed. *Report on the conference – Pacific languages: directions for the future.* Vila, Vanuatu: University of the South Pacific.

Siegel, Jeff, 1993, Pidgins and creoles in education in Australia and the southwest Pacific. In F. Byrne and J. Holm, eds *Atlantic meets Pacific: a global view of pidginization and creolization,* 299-308. Amsterdam: Benjamins.

Siegel, Jeff, ed., 1993, *Pidgins and Creoles in Education (PACE) Newsletter*, No.4.

Skutnabb-Kangas, Tove, 1981, *Bilingualism or not: the education of minorities*. Clevedon, England: Multilingual Matters.

Sticht, Thomas G. and Barbara A. McDonald, 1990, *Teach the mother and reach the child: literacy across generations*. Literacy Lessons. Geneva: UNESCO, International Bureau of Education.

Swain, Merrill and Sharon Lapkin, 1981, *Bilingual education in Ontario: a decade of research*. Toronto, Ontario: Ministry of Education.

Wray, David and Jane Medwell, 1991, *Literacy and language in the primary years*. London: Routledge.

BORROWINGS IN URIPIV

ROSS MCKERRAS

1. INTRODUCTION

As with all languages of Vanuatu, many words and phrases continue to be borrowed into the Uripiv language.[1] A few come from nearby languages and other dialects of the language, but the vast majority come from Bislama, and, behind that of course, from English. This results in many native words falling out of use. There is concern about this, and a move to return to purity of language, especially among some older men. But often people use Bislama or English words without being aware that they are doing so. An example of this occurred one day when I overheard a group of people talking about a *lanis* (from English 'launch'); then a younger person remarked that *lanis* was not a true language word, and he asked an older man what was the 'real Uripiv' word for it. After a few moments' thought the older man replied that the real Uripiv word was *kata*, unaware that this too comes from an English word, 'cutter'. The position is rather like people from Australia or New Zealand objecting strongly to Americanisms coming into their language, but accepting as their own Americanisms that came in over ten years ago because they no longer recognise them! However, most Bislama borrowings are recognised by everyone, even if a little thought is required sometimes, because virtually everyone is fluent in Bislama. Also the phonetic shape is unchanged – a Uripiv speaker will pronounce the word the same way whether he is using it as a Bislama word in speaking Bislama, or as a Uripiv word in speaking Uripiv. There is no changing of dress, as for example the English words 'bus' and 'dollar' undergo when borrowed by the Maori language, becoming almost unrecognisable as *pahi* and *taara*.

2. THE EFFECT OF BORROWINGS ON THE LANGUAGE

Let us now give brief consideration to the question of how and to what extent the Uripiv language is affected by borrowings.

Firstly we should note that the great majority of borrowings have no effect at all on the grammatical structure of the language. Those that do are a minority, and the effect is small. It is like pouring water into a bottle of soft drink; the water displaces some of the soft drink, which runs out, but the shape of the bottle stays the same. So borrowings have displaced some of the words of Uripiv, but the shape or grammar of the language is basically unchanged.

---

[1] This language is spoken by about six thousand people living on North-East Malekula. For more details see McKerras (1989 a, b and c).

© Ross McKerras

Here are some examples of structural change caused by borrowings:

(1)   *Nukat san.*
       I.have   one
       I have one.

Here the Bislama word *gat* (here spelt *kat*) is the borrowing, and with its introduction into the language the older structure (which is however still heard) – see example (2) – has been altered and shortened.

(2)   *Nga inu san otoe.*
       of   me   one 3SG.exist
       I have one.

(3)   *fes   nanu*
       first   thing
       the first thing

In example (3) the introduction of the Bislama word *fes* has brought with it a reversal of the usual Uripiv word order where the noun comes first in the noun phrase.[2] The 'correct Uripiv' way of saying this, which many are now consciously reverting to, is:

(4)   *nanu nga   womu ne-n*
       thing which first of-it
       the thing which is first

Another common example is the use of the Bislama transitive ending,[3] which is only and always used on borrowed Bislama verbs:

(5) a. *Rrapstat.*
        1PL.IRR.start
        We will start.

    b. *Rrapstatem.*
        1PL.IRR.start.TR
        We will start it.

This of course makes the borrowing conspicuous.

These examples show a certain grammatical pressure being exerted by Bislama on Uripiv language; in each case a borrowed word brings with it a grammatical change. It is noteworthy too that in two out of the three examples above, a briefer expression results.

In passing here we should remark on the influence of Uripiv language on Bislama as it is spoken by Uripiv people; while words would not usually be taken from Uripiv into Bislama, since the usual purpose of using Bislama anyway is to communicate with a non-Uripiv speaker, yet the grammatical and phonetic influence of Uripiv is evident listening to a Uripiv person speaking Bislama. As everywhere in Vanuatu, Bislama takes its local colouring from the idiom and structure of the local language(s). So the influence is not just one way, but is two way, as with any bilingual community.

---

2   This is not always the case; note for example the common phrase *naim sukul* (lit. 'house school') 'church (house)'.

3   Uripiv verbs take a variety of transitive endings (see McKerras 1989a), but *-em* is not normally one of them and occurs only on Bislama borrowings.

Any idioms that are of widespread use in Bislama which are found in the language are suspect as borrowings, of course; however, it is likely that these idioms were already in the language, and came into widespread use in Bislama because they happened to be common to many languages of Vanuatu.

(6)   *e-rres   nga e-rres*
        3SG-good REL 3SF-good
        very good

This example exactly parallels the Bislama idiom *gud we gud*, and in example (7) is also said exactly as in Bislama.

(7)   *Batu-n   o-toe.*
        head-his 3SG.REAL-exist
        He is clever.

Perhaps in the same category too are certain phonological features, such as the tendency for final *ng* to be lost in the common words *long* (in Bislama) and *bbong* (in Uripiv).

3. WHY ARE SOME WORDS DISPLACED BY BORROWINGS AND NOT OTHERS?

Now in answer to the question which words are displaced and why, we note first that nearly all the words displaced by borrowings are nouns or verbs (where 'verb' includes adjectives). This is no doubt the usual pattern of borrowing, followed for example when so much French vocabulary was added to basic Anglo-Saxon English during the period when French culture and literature was highly esteemed in England. Introduced items, too, are usually referred to by introduced names, such as *plen* 'aeroplane', *tep*, 'table', *kap* 'corrugated iron sheeting'. However occasionally local labels stick, some of these more than others; examples are *roplet* (dry banana leaf) for 'paper', *delrrurr* for 'iron'.[4] Some of these are translations of the name, such as *nevöt* 'stone' for 'money' (since vatu, the nation's unit of currency, means 'stone'), and *metali ne ling* (lit. door for wind) which is seen as the etymology of 'window'. But these are in the minority, and it is a good general rule to say that a new thing will mean a borrowed name. In the same way introduced concepts or abstractions are now conveniently expressed by borrowed terms, such as *kastom* 'traditional way of life', *vot* (vote), *raet* (right or privilege), *mersin* 'medicine' – where typically, each word comes from English, but through Bislama, with Bislama pronunciation and Bislama meaning-area.

Among non-introduced things, we note first that numbers, some colour words, and some kinship terms have been prone to displacement. No doubt in the case of numbers, and perhaps also with colours, we can blame the education system (education was in the Uripiv language up until about 1960, when the Government took over and established English schools). This is clear when we note that the colour terms most often displaced are the ones most likely to be discussed in the classroom: *o-songsong* 'it is red', *e-ingango* 'it is yellow', *e-jejen* 'it is green/blue'. Other colour terms that have specific reference to fauna and flora, things encountered in everyday life outside the classroom, are not displaced.

---

4   *Delrrurr* is found in Acts 12:10 (published in 1910). Other good examples are *lemrot* 'biscuit' (literally 'crunchy thing'), *nevis tingting* 'guitar' (literally 'crying bow'), *lerow mare* 'aeroplane' (literally flying-above thing), *wene lepek* 'shilling' (literally wild-yam fruit), *drrav nabin* 'thousand vatu note' (literally 'sail canoe', because of the picture of the sail canoe on it), and *newri* 'truck, car' (literally 'crab'!).

With kinship terms, there is a tendency particularly among children to use *brata* as a simplification, where the language has the two words *tasi-n* and *tuwa-n* (lit. younger brother his, older brother his); then *sista* comes in too, perhaps to go with it. But interestingly, the common usage *mama* instead of *tasu* for 'mother' stands in contrast to the firm position of the Uripiv word *tata* 'father'. Evidently this is the clearest case of a borrowing coming in through women from other islands married into the Uripiv community; while the father teaches his children to call him *tata*, the mother, despite her fluency in Uripiv (which most such women attain) prefers to be called *mama*. This is especially true of wives from Wala-Rano, where no language word other than *mama* seems to be known. Other borrowings in this area are *apu* 'grandparent', which also comes from the Wala-Rano dialect, and the common *famle* for 'family' (instead of *niaken*), and *jeneresen* 'generation' instead of *dul*. People's names are mostly from English, but a noteworthy trend seen in at least four families on Uripiv now is for the youngest son in a large family to go by a 'custom' name. It should be noted that borrowings are virtually absent among certain groups of nouns, notably body parts, canoe parts, wind directions, house parts, astronomical terms (including star names, thunder, lightning, cloud, rainbow, sun, moon) and names of indigenous fauna and flora.[5]

Verbs are often borrowed because their meaning-area is more specific than the available Uripiv word. In this way the Uripiv word is not completely displaced. For example, *e-apen* (it happened) is more specific than *e-plari* (literally 'it came out'), which previously did duty for that meaning; and *o-stop* 'it stopped' seems more suitable for such things as engines than the broader *o-mosi* 'he stops/spells'.

Other examples are *karen* 'garden' (*orsel* can mean 'garden' or also the whole area where gardens are made); *lanwis* 'language' and *wod* 'word', splitting up the semantic range of *nale*; *sol* 'salt', where before *dis* 'sea' did duty; *e-minem* 'it means' where before something like *o-wosi* 'it carries' did duty; *e-sendem* 'he sent' where before *e-lai* or *o-koni* was used (*e-sendem* is more specific than *e-lai*, which can mean 'give', 'take', or 'send'; however it is also broader in a way, since it can also cover *okoni*, which refers to sending a person). This is like *brata* above, covering *tuwa-n* and *tasi-n*. Ross Clark (1982) gives two other examples of words from Bislama (borrowed in the case of his study, into the Fila-Mele language of Efate), which have broader meanings than their nearest native equivalents: *was* 'to wash' and *kuk* 'to cook'. Both of these are also borrowed into Uripiv. In this case, as Clark also points out, these words could be borrowed because they were used in 'areas of association' with Europeans -- this is perhaps more significant.

Clark also talks about 'uninhabited areas of semantic space', giving as examples the borrowings *lanem*, *mas*, *impotan* ('learn', 'must', 'important'), all of which are also borrowed into Uripiv; these are further examples of words being borrowed because their meaning-area is more specific than the native words. The semantic space was not uninhabited, but covered by a word which in the light of new circumstances seemed to need help.

However, there are notable cases where borrowings have not taken place; so the multi-use word *ko*, which serves where Bislama has at least four words (*mo* 'and', *be* 'but', *nao* 'and then', *oraet* 'all right'), maintains its position, giving ground only to *oraet* in the speech of some.

---

5   Exceptions: *pos* 'post' usually instead of *nabur*; *nakato* 'hermit crab' instead of *natu*; and *at se nevö* 'cup sponge' (literally 'hat of turtle') and *at se moivel* 'sea-egg' (literally 'hat of sea-snake').

Another reason for borrowing, as noted above, is brevity; so *o-loli lesi* (literally 'he does-looks') becomes *e-traem* 'he tried it'; *e-vinvin ore* (literally 'he come-come blocks it') becomes *e-finisem* 'he finished it'; and *e-jipjipteni* becomes *o-joinem* 'he joined them'.

Among words other than nouns or verbs, displacement by borrowing is quite rare, as noted above. Such words seem to be more fundamental to the language, perhaps more closely tied to its structure. So all pronouns, possessive words, verbal affixes (except in the case of Bislama transitive endings being used on borrowed Bislama verbs), words indicating the tense and moods of verbs, locatives, interrogatives, exclamations, greetings, hesitation forms, nearly all adverbs, and sundry other small words, are not displaced. However, linking words used at the beginning of sentences are sometimes prone to displacement, for example *Taem* ('time') *nga...*'when' (lit. 'time that') for *Daron nga...*, and such things as the more sonorous and impressive '*At the same time...*' instead of '*Ko...*'. The common displacement of *kele* in its sense of 'too, also' by *tu* is like that noted above for *eplari* and *omosi*. So *inu tu* 'I too' instead of *inu kele* (sometimes *inu kele tu* is heard).

A study of twelve stories collected by Sanita Kenneth in 1974, working for the Vanuatu Cultural Centre, showed that the ten storytellers, all older men, used 59 Bislama borrowings in about 330 lines of text. The favourite borrowing by far was *taem* 'time, when', used in all the stories but one. However, it is noteworthy that eleven of these stories were local history or folktales, and these contained only 32 borrowed words; the 27 additional borrowings all occurred in one of the stories, in which a man told of going to army training camp during World War Two. In this story most of the borrowed words could be broadly classified as having to do with army, or government, or shipping. On the other hand one man used only one Bislama word in 39 lines of text telling a folktale. Of course among younger speakers the proportion of borrowings will be higher. In a 250-line text which I transcribed in 1992 from a speaker of about 30 who has lived in Vila (the capital of Vanuatu) for a long time, there were about 80 borrowed words. These were used a total of 188 times and made up just over 10 per cent of the total number of words (about 1,700).

4. SUMMARY

In summary, many words have been and are being borrowed into the Uripiv language, and as a result some words are falling out of use. This has been particularly evident in areas of contact between local people and Europeans, such as with common words used in the classroom, in church, in contact with colonial government administrators, in shipping and plantation work, and generally for new things and ideas. Otherwise, words tend to be borrowed for their more specific meaning-area, or because of their brevity.

However, there is now a strong feeling that the purity of the language needs to be restored, and many people are trying to avoid the use of borrowed words, at least in public speeches. Also, contrary to the fears of some, it appears that few words have actually been completely forgotten. This is due to the excellent memories of the older people. In preparing the dictionary (McKerras 1989c), we went through all the published works of the Presbyterian missionary John Gillan (for references see McKerras 1989a), amounting to about 500 pages of Bible translations and stories, and were able to recognise every word he used, with only two exceptions (which are possibly misprints) – despite the fact that his

works have been disused for decades.[6] The Uripiv language will certainly survive, though it continues to change, like all languages.

REFERENCES

Clark, Ross, 1982, 'Necessary' and 'unnecessary' borrowing. In Amran Halim, Lois Carrington and S.A. Wurm, eds *Papers from the Third International Conference on Austronesian Linguistics*, vol.3: *Accent on variety*. *PL*, C-76.

Lindstrom, Lamont, 1988, Bislama into Kwamera: code-mixing and language change on Tanna. ASAO meetings, Savannah, Georgia, USA.

McKerras, Ross, 1989a, A sketch of Uripiv grammar. MS.

1989b, A sketch of Uripiv phonology. MS.

1989c, Uripiv-English dictionary. MS.

---

6   Lindstrom (1988:30) made the same kind of study, with similar results, for Kwamera on Tanna.

THE OCEANIC SUBSTRATE IN MELANESIAN PIDGIN/CREOLE REVISITED:
A TRIBUTE TO ROGER KEESING

GILLIAN SANKOFF

1. INTRODUCTION[1]

Anyone who speaks an Austronesian (An) language located in the geographical area where the contemporary Bislamic languages – Bislama, Pijin and Tok Pisin – are spoken, and who has also learned one of these languages, has had the shock of recognition at finding unsuspected parallels and commonalities, especially in the realm of syntax, semantics and discourse structure. As we would say in my own 1970s vintage Tok Pisin: *"Kas! em olsem ol i tok long Tok Ples ia!"*

In 1979 Camden (1979:53, cited in Goulden 1990:26), for example, used the Vanuatu language Tangoan as a basis of comparison with Bislama:

> not because it has any special relationship with Bislama not shared by other...Oceanic type languages...Rather, Tangoan is regarded as broadly representative of this substantial group of Oceanic type languages, with the implication that a comparison between Bislama and any other such language...would probably show comparable results.

In 1985, Simons (1985:54, cited in Goulden 1990:26) explained her use of To'abaita in comparing it with Solomon Islands Pijin (SIP) as follows:

> I do not mean to imply that To'abaita is any more closely related to SIP than any other of the Malaitan dialects...But I do assume that To'abaita is representative of all the Malaitan languages and therefore it is appropriate to use it specifically in making a comparison to SIP.

Goulden himself acknowledges that his knowledge of Lusi led him to spot parallels between Lusi and other West New Britain languages on the one hand, and Tok Pisin – in particular the variety that Goulden (p.6) refers to as "distinctly New Britain" – on the other.

In my own case, the *tok ples* or local language in question is the Austronesian language I learned in 1966-67 when I first went to Papua New Guinea: Buang, a Morobe Province An language of the Central New Guinea branch. In several of my papers on Tok Pisin (TP), I

---

[1]   I am indebted to a number of scholars present at FICOL, as well as others with whom I have corresponded or talked in person, for helpful discussion of issues raised in this paper. In particular, I wish to thank John Lynch, Terry Crowley, Ann Chowning, Suzanne Romaine, Nick Faraclas, Andy Pawley, Peter Mühlhäusler, Miriam Meyerhoff and Bill Labov. My own fieldwork with Suzanne Laberge in Lae, 1971, forms the basis for much of the data presented here, and I thank Suzanne as well as the many Lae area residents who helped us and agreed to be recorded for this study. In so far as I have failed to learn from these people or follow their good advice, it is my own fault.

have drawn on Buang as an initial inspiration for parallels, and then explored other Melanesian Austronesian (MAn) languages in which similar structures are to be found.

Of course, it was Roger Keesing (1988), who brought most strongly into prominence the idea that what he called Melanesian Pidgin was modelled very closely on the substrate languages of the south-western Pacific. Keesing's proposal was that the languages of the Eastern Oceanic branch of MAn languages, including "the languages spoken in the eastern Carolines, Rotuma, Fiji, and the Gilberts" (p.69) as well as, of course, the languages of the Solomons and Vanuatu, were the most significant in moulding the nineteenth century Pacific pidgin that was antecedent to the modern Bislamic languages. This work of his is an ambitious attempt to delineate "the core syntactic structures of Oceanic languages" (p.69), and to show in breadth and in depth how Melanesian Pidgin offers "unmistakable evidence of the stamp of Oceanic grammar" (p.119). In Keesing's own words (p.106), he

> sought to provide a framework in time and space within which plausible sociolinguistic processes of substrate influence, in 'conspiracy' with superstrate influences and universal constraints and faculties, could have operated...In doing so, I have provided a plausible explanation of why it is possible to take *any Oceanic language of the Southwestern Pacific* and, in comparing it with a dialect of Melanesian Pidgin, make a case for substrate influence [emphasis mine].

Part of Keesing's rich legacy to Pacific linguistics is, then, the forceful case he made for a vision of Solomons Pijin, Bislama and Tok Pisin as Oceanic An languages. He felt that the substrate should take centre stage in our analyses of the Bislamic languages. But if I share many broad areas of agreement with Roger, I also disagree with him on many points, and this makes his absence from among us all the more difficult to bear. I would have loved to spend more time arguing with him. Indeed, I think I will be debating with Roger for many years to come. It is a tribute to him that his contribution was so rich as to provide us with so much meat that it will take the rest of us a long time to chew. It is in this spirit of exchange, of respect, of love of controversy, but above all of the shared joy of uncovering the historical building blocks that shaped the evolution of the modern languages of the south-western Pacific, that I dedicate this paper to Roger Keesing's memory.

Keesing's scenario of the development of the Bislamic languages in the nineteenth century is one controversial aspect of his work, another being his downplaying of variability. His statement (1988:53) that until the 1880s there was a single dialect of Pacific Pidgin would initially seem to reflect the consensus already established by other scholars.[2] Mühlhäusler (1978:81), for example, speaking of the first decade of existence of Samoan Plantation Pidgin (SPP), 1867-79, states that:

> Because of a number of factors, including common recruiting grounds for most Pacific plantations and a number of linguistic conventions that had emerged in Pacific Jargon English, this early form of SPP did not differ greatly from the plantation pidgins found in Queensland or New Caledonia.

---

[2]   It is clear, however, that there are important differences among the accounts provided by Mühlhäusler (1976, 1978), Clark (1979-80), Keesing (1988) and Crowley (1990a). A sociolinguistic analysis of early contacts in the pidginisation process in Queensland appears in Sankoff (1985); my own historical synthesis will appear in a book-length treatment currently in preparation.

However, both Mühlhäusler and Crowley have acknowledged, and dealt head-on with variation at all levels (including that found in the written documents of the nineteenth century),[3] and both reject Keesing's emphasis on the structural uniformity of nineteenth century Pacific Pidgin. Crowley (1990a:40), for example, states that:

> It is almost certain...that at any particular time, there were also structural differences between one variety of Melanesian Pidgin and another, even if these were only small, and even if these only represented greater preferences towards one variant over another.

Mühlhäusler (1985b:36) documents variation and discontinuity in most of the Pacific pidgins, explaining that this discontinuity has been a result of at least four major factors: "rapid changes in population composition and population movements,...different functional requirements, changing patterns of language transmission,...[and] planning or other outside interference". In this paper, as in all of my previous work, I take the analysis of variability to be crucial to analysing the structure of TP. I will not deal further here with the historical issues still being debated and investigated by several scholars including myself, except to make it clear that, as far as TP is concerned, I endorse the general conclusions reached by Mühlhäusler (1976, 1978) and Mosel and Mühlhäusler (1982). It is clear that a separate TP tradition began with the approximately 1,000 workers from the Bismarck Archipelago who served on plantations in German Samoa between 1879 and 1889 (Mosel & Mühlhäusler 1982:167). TP continued its development on the German plantations in the Bismarck Archipelago itself during the 1890s, and after 1900, in both that area and on the mainland of New Guinea (Kaiser Wilhelmsland).

The question of substrate per se is the particular focus of the present paper, in which I will deal mainly with TP, making comparisons with SIP and Bislama where possible. To date, two major monographs have been devoted to this question. Mosel (1980) deals with Tolai alone, focusing mainly on lexical and morphological properties. Goulden (1990) surveys 27 languages from fourteen different subgroupings of the Oceanic branch of An, including 11 from Vanuatu, 7 from the Solomon Islands, and 9 from Papua New Guinea (7 of the 9 being from New Britain and New Ireland). In carrying out meaningful comparisons across the contemporary Bislamic languages, we are fortunate in having a good deal of new research that has appeared since Keesing's work went to press. On Tok Pisin, there is further work by Mühlhäusler (1987, 1990) and myself (Sankoff 1990, 1991, 1993, 1994; Sankoff & Mazzie 1991), as well as contributions by scholars who are newer to the Tok Pisin scene: Romaine (1990, 1993); Faraclas (1988); and Verhaar (1991). On Bislama we have Tryon (1987); on Pijin there is Jourdan (1985a,b) and Simons (1985). Studies on all three languages are found in Verhaar (1990). Most important, however, is Crowley's rich contribution (1990a). Not only has Crowley's research added enormously to our knowledge of the development of the contemporary grammar of Bislama, but it has also provided the most detailed comparisons to date of many crucial grammatical features in all three of the modern Bislamic languages.

In this paper, I discuss substrate impact on Tok Pisin grammar in general, and illustrate with features which have already been debated in the literature, and others which I have

---

3   Keesing (p.41) notes that "almost all observers [in the nineteenthth century] have heavily anglicized their renderings of pidgin" yet, as Crowley points out, Keesing does not draw the inference that this problem casts doubt on his assertion of structural uniformity. Crowley's view is that "one could just as easily argue that what was uniform were only Europeans' *perceptions*" (1990a:40).

discovered in recent research. Where possible, I provide comparisons from the literature on the state of parallel phenomena from the two sister languages. What we can conclude about substrate influence may eventually help us assess some of the important unresolved questions having to do with the history of the Bislamic languages. I deal with features that represent (1) grammatical categories whose underlying semantics are typical of MAn languages; (2) discourse patterns; (3) interclause relations; (4) the development of both pre-verbal and post-verbal tense, mood and aspect marking in TP; and finally (5) the 'core' grammatical pattern as proposed by Keesing involving subject-referencing particles (SRP).

2. GRAMMATICAL CATEGORIES WITH UNDERLYING MAN SEMANTICS

As pointed out recently by Goulden, no reasonable person 'could come to a conclusion other than "substrate influence" to account for grammatical categories like those found in the Tok Pisin pronominal system: the inclusive/exclusive distinction, and the robustness of duals and (more weakly) trials. Another such feature common in rural Tok Pisin at least until the 1970s was the 'same sex' versus 'cross sex' semantics of the terms for siblings: *barata* and *susa* respectively. This resulted in confusion on the part of many an expatriate who assumed that these terms held fixed-gender referents as in English, rather than being tied to the sex of speaker as in many MAn languages. Another such feature is the use of the reciprocal 'other' in constructions where English would use 'the one' versus 'the other' (Keesing (1988:241, 246) discusses this in SIP, and it is also a feature of Tok Pisin). Features that are highly marked, especially characteristic of a substrate Sprachbund, and not attested in relevant superstrates or other creoles, are indeed the easiest to identify as sources for pidgin/creole grammatical patterns. But their very markedness also seems to mark them as likely transmission casualties.

The obvious case in the Bislamic languages would seem to involve the distinction between alienable and inalienable possession, about which Keesing (pp.117-118) says:

> Despite the near universality of the distinction of inalienable possession in Oceanic languages, it is not surprising that this distinction is neutralised in Pacific pidgins...The path of simplification here entails a "developmental conspiracy" in relation to superstrate speakers, to whom the alienable-vs.-inalienable distinction would have been unacceptable or opaqu...In the real scenario, they clearly did not. I infer that this kind of neutralisation of surface distinctions and markings would be a fundamental process in the formation of pidgins even in the limiting case where those who contribute to its formation all speak related languages.

One problem with this line of argumentation is that there are numerous counter examples. If Keesing's statement held in general, TP could not have developed the confusing (to Europeans) kinship semantics of siblings, nor the unnecessary (to Europeans) distinctions that force one to indicate whether the 'plural' is in fact only a couple, or to make explicit whether or not the hearer is included as a referent in the 'first person plural'. More importantly, however, with reference to inalienability in particular, I think that Keesing (and, in all fairness, Goulden and Crowley after him) was too hasty in concluding that the grammatical category of inalienability is not represented in the Bislamic languages.

What, after all, does 'inalienability' mean? It means that an object like a mother, or an arm, or a tail, cannot exist without being possessed. There is no such thing as 'an arm': it

has to be somebody's arm – mine, yours, or a third party's. That the alienability/inalienability distinction is typically grammaticalised in MAn languages has been recognised for at least twenty years (Lynch 1973). Now if you are a speaker who has learned that there is a certain class of objects that is always referred to as being possessed, you are going to tend to refer to them consistently as being possessed, even in a language that does not have a special morphological means of doing so. It is Sapir's notion of "habitual modes of expression" that speakers carry over from their first languages into new languages, and it is these habits that eventually lead to the grammaticalisation of distinctions that speakers consistently make.

Consider the following narrative fragment:[4]

(1) a. *Na, liklik barata bilong en ia i-wari tru;*   [Mr G.Z.]
        and little brother POSS him DEM worry very

    b. *na em i-tok strong na em i-krai.*
       and he speak loud and he cry

    c. *Tok, "O, yumi no ken slip long hul bilong ston ia nogat.*
       say oh we NEG can sleep PREP hole POSS stone DEM no

    d. *Yumi mas go slip long arere long – as bilong diwai ia".*
       we must go sleep PREP side PREP base of tree DEM

    e. *Orait, **bikpela barata bilong en** tokim **mama bilong en** olsem*
       so big brother POSS him tell mother POSS him thus

      nau...
      then

    a. And, **his little brother** was terribly worried;
    b. and he shouted and he cried.
    c. He said, "We mustn't sleep in this cave.
    d. We have to go sleep along side of – at the base of this tree".
    e. So, **his big brother** told **his mother** as follows then...

The free English translation seems quite clear. The story is about the middle brother in a family, whose little brother was terribly worried and whose big brother then said something to their mother. But there is no such person. There are only two brothers, and the usage 'his brother' is always reciprocal. A free English translation that didn't mislead English readers as I have done above would have to phrase it: 'the big brother' and 'the little brother'. This

---

4   Abbreviations used in this paper are as follows:

ADJ	adjective	LOC	locative
AUX	auxiliary	NEG	negative
CLIT	clitic	PART	particle
COMP	completive	PL	plural
CONT	continuative	POSS	possessive
DEI	deictic	PREP	preposition
DEM	demonstrative	PRF	perfect
DET	determiner	PUNCT	punctiliar
DU	dual	RHET	rhetorical
EXC	exclusive	SG	singular
FOC	focus	SRP	subject referencing pronoun
INTENS	intensifier	TRS	transitiviser
INTERJ	interjection		

segment contains three of the 276 noun phrases (NPs) which Claudia Mazzie and I classified as "semantically inalienable for speakers of MNAN [=MAn] languages" in our study of TP determiners (Sankoff & Mazzie 1991). We had undertaken the study in order to see whether there was any evidence that distinctions like specfic/non-specific, or definite/indefinite, showed a tendency towards grammaticalisation in TP, and our total sample included 1,865 NPs from the recorded speech of 16 TP speakers. We looked at many possible influences on whether an NP was determined or occurred bereft of any determiner. 'Inalienability' (according to what we took to be typical Melanesian semantics) was the biggest single factor. Table 1 presents the results, confirming our hypothesis that TP speakers were encoding nouns that Austronesian speakers tend to code as 'inalienable' with possessives at a much higher rate than other nouns. Whereas only slightly more than half (53%) of nouns in general occur with a determiner of some kind, 85% of 'inalienables' do, and overwhelmingly, this determiner is a possessive.

TABLE 1: CONTRAST BETWEEN ALIENABLE AND INALIENABLE NPS IN THE SPEECH OF 16 TP SPEAKERS, IN TERMS OF CO-OCCURRENCE WITH DETERMINERS AND POSSESSIVES

	INALIENABLE NOUNS	ALIENABLE NOUNS	ALL NOUNS
% determined	85%	53%	58%
% possessed	74%	12%	21%
N	(276)	(1589)	(1865)

As Capell (1969:42) remarked, determiners are not a typical grammatical category in the languages of the area, though they do occur in some. Inalienability, however, is a category in language after language, and apparently the speakers of Tok Pisin also find a means to express it, marking nouns as being possessed in contexts where many other languages would use a different category of determiner. Keesing is right in stating that we do not find a morphological distinction between two types of possessed objects; nevertheless Tok Pisin speakers in their habitual modes of expression appear to reflect the infuence of the inalienable category in very consistently giving it expression. Such habits have, in other cases, led to grammaticalisation of distinctions, and the habits of rapid speech here as well might eventually lead to the kind of morphophonological distinctions that separate alienable from inalienable possession in other MAn languages.

For those familiar with An languages, it is surely not surprising to find another way in which one of the modern Bislamic languages encodes a distinction that shows underlying Oceanic semantics. Doubtless more such parallels will be brought to light in future work in the area. In beginning my evaluation of substrate influence by discussing the case of inalienability, however, my major point is not simply to add one more case to the list. Rather, I intend it as an illustration of the possibility of uncovering important tendencies and patterns in language by a systematic analysis of language use – more specifically, by the quantitative analysis of a corpus derived from natural speech. From the point of view of pidgin/creole studies, there are two major advantages to be gained from the use of quantitative methods. The first is the suitability of quantitative methods for dealing with the variability one typically finds in pidgin and creole languages. The second is the appropriateness of quantitative methods for indicating the kinds of trends in speech that reflect grammaticalisation processes, about which more in the following sections.

3. DISCOURSE

In this section I discuss two discourse patterns: the first, clearly related to An languages; the second, possibly related to Papuan languages.

3.1 FOCUS

The first concerns the evolution of an apparently substrate-related focusing strategy in TP as illustrated in (2) and (3).[5] In (2), the best English gloss (one offered by most TP dictionaries) seems to be the reflexive. In (3), however, *yet* focuses on the responsible party, *yu*, and seems here better translated with a cleft, one of the constructions used for focus in English.

(2)   *Ol Pisin na mi harim.   Ol **yet** harim   tu.*   [Mrs M.T.]
        3PL TP   and 1SG understand 3SG FOC understand too
        They speak Pidgin and I understand. They understand it **themselves** too!

(3)   *Tok "Orait yu **yet** kilim pikinini bilong mi".*   [Mr Do.]
        say alright 2SG FOC kill   child   POSS 1SG
        (She) said, "Alright, **you're the one** who killed my child".

Yet has several other functions in Tok Pisin. Negative and positive temporals are illustrated in (4) and (5) respectively from the speech of Chavi, a Sepik area man who had apparently learned TP on New Britain as an indentured labourer in the 1920s. Interviewed by Margaret Mead, transcriptions of Chavi's texts were published in Hall (1943).

(4)   *Mi no   savi   tok **yet**, mi   nufela boi.*   [Chavi, in Hall 1943]
        1SG NEG know talk   yet   1SG new   boy
        I didn't know how to talk [Pidgin] yet; I was a new boy.

(5)   *Bel   bilong mi   i hot **yet** i stap.*   [Chavi, in Hall 1943]
        belly POSS 1SG hot   still stay
        I am still angry [my belly is still hot].

Lastly, it is used as an intensifier:

(6)   *Oloman! mitupela   i-kam longwe **yet**!*   [Mr T.D.]
        INTERJ 1DU.EXC come far   INTENS
        Man! the two of us came from **very** far away!

Several other particles serve as intensifiers in Tok Pisin, with uses quite parallel to those of *yet* in (6). These include *tru* and *moa*, both of which are well attested with *longwe* (*longwe tru*, and *longwe moa*), as well as *stret* (as an intensifier, almost uniquely confined to the child native speakers in our 1971 sample). None of these forms, however, is used to focus on nominals, in a way that would be parallel to *yet* as a focus particle. Table 2 shows the distribution of *yet* in the corpus I examined, according to the various functions I have just discussed. I was astonished when I tabulated these cases to discover that not a single 'noun + *yet*' example occurred. Though a sentence like (7) sounds fine to my ear, such a sentence, with noun + *yet*, is unattested in my data.[6]

(7)   **Lina yet* i-kam.*

---

5   For further details, see Sankoff (1993).
6   *Wanpela* and *tasol* are to some extent as focus markers/limiters with nouns.

TABLE 2: INSTANCES OF *yet* ACCORDING TO VARIOUS FUNCTIONS FROM THE 1930S TO THE 1970S [ADAPTED FROM SANKOFF 1993]

	1920s Chavi	1960s Mope	1971 Adults	1971 Children	Total
temporal - neg. 'not yet'	11	8	-	1	20
temporal - pos. 'still'	3	10	8	6	27
intensifier w. adj/adv.	-	3	3	-	6
focus particle w. pronoun	4	8	13	4	29
Total	18	29	24	11	82

To judge from the distribution of Chavi's examples, it looks as if *yet* came into the language as a negative polarity item, likely modelled after the English 'not yet'.[7] 'Not yet' denies that an expected change has happened; 'still' references an unexpected prolongation. Chavi had only a few positive instances of *yet,* as in (5), but these became preponderant later on. Whereas *yet* with negative occurred much more often than with positive for Chavi (11 as opposed to 3); in the 1960s, the positive uses outnumbered the negative (10 as opposed to 8). Negatives have virtually disappeared in the speech of the adults and children recorded in 1971 (1 as opposed to 14). I hypothesised something like the following as a potential path of evolution:

'not yet' ---> 'still' ---> INTENSIFIER ---> FOCUS PARTICLE

The problem was, however, that the 'generalised intensifier' use did not appear with Chavi. How, I wondered, could *yet* have made the transition between a temporal particle with primarily negative uses and a focus particle without passing through the 'generalised intensifier' stage? At this point, I decided to investigate focus in MAn languages, in which I found a number of interesting parallels.

Many MAn languages use postposed affixes or particles for emphasis or focus. Senft (1986:116) describes two 'emphatic' morphemes in Kilivila, -*ga* and -*la.* The many examples he cites are highly reminiscent of Tok Pisin:

(8)   *Yegu-la   ba-lukwe-m   liliu Tudava.*   [Senft 1986:117]
      I-**myself** I.will-tell-you myth *Tudava*
      I myself will tell you the myth of *Tudava* (and no one else).

(9)   *Kai-tala-ga   beku e-sisu wala o gu bwala besatuta.*
      stone-one-**indeed** stone it-exist only in my house now
      blade   blade
      Indeed, there is just one stone-blade left in my house now.

Senft (p. 54) also describes "a fourfold series of emphatic pronouns" (myself, yourself, etc.) in Kilivila, supplying many examples demonstrating meanings glossed both as 'self' and 'just' (cf. TP *tasol*). The fourth set of emphatic pronouns is found in usages Senft describes

---

7   According to the *Oxford English dictionary* (1994), the use of *yet* in the sense described as "implying continuance from a previous time up to and at the present (or some stated) time" is "archaic or dialectal except in negative context". The most recent example they cite is "You know you look ill yet, very ill" (J.S. Winter, *Bootle's children*, v., 1888). About this construction "with negative preceding", the OED says "the more usual, now the only regular, construction". Though clearly the positive construction was still used to some extent in the nineteenth century, it is likely that the negative was the model for early TP speakers (among other things, it would have been heard with emphatic enunciation, and in shorter strings such as 'not yet' in answer to a question).

as 'idiomatic' (e.g. one can answer with the equivalent of *mi yet*, 'I myself', when asked 'How are you?' or 'Who's there?'). Similar 'idiomatic' usages are also found in the several other Austronesian languages I looked at. Kilivila shares with TP not only the idiomatic use of a 'pronoun+ focus marker' construction, but also the formal distinction between the focus markers used with pronominals and those that apply to other parts of speech.

Another MAn language, Buang, shows similar patterns. Buang has one set of postposed emphatic markers specific to pronouns, and marked for person (the first person is *ngau*, so, for example, the response to 'Who did it?' is *ke ngau* (TP *mi yet/tasol*) 'I myself', 'I'm the one'). Buang also has another invariant marker *mu*, used both with nouns and pronouns.

In Manam, a third MAn language, Lichtenberk (1980) describes two 'intensifiers', *-tina* and *-tu?a*, both used with nouns and the former also with verbs, the meanings glossed variously as 'very, real, genuine, exact, just, much'. A 'limiter' (like *tasol*), *-ba(ya)*, is also "used to form the persistive aspect" (p.204). There is also the 'specifier' *-ma*, meaning 'the same, very', as in "That's the very man!" (p.364). Then there are two 'focus markers': the clitics *-?a*, "always the rightmost element of the constituent that carries the focus marker" (p.477), and *-be* (p.480 ff.). Lichtenberk glosses the focused constituents in English with clefts or underlining, noting that *-?a* represents a "stronger focus" than *-be*. He notes (p.481) that *-be* "is especially common...with emphatic pronominal forms, with emphatic numeral expressions...with locative expressions that refer to a point of origin...and with temporal expressions that refer to a time in the past". Again, we see that despite the applicability of each focus particle or intensifier to several parts of speech, there is some specialisation. In both these respects, the situation is parallel to TP. There is also the interesting connection between a form that can be used both as an intensifier and as a marker of persistive aspect, perhaps just the connection that is made between *yet* 'still' and *yet* intensifier and focus marker. Parallels with TP are clear in the overlap between the semantic domains to which the various intensifiers and focus markers in Kilivila and Manam apply.

In Kwaio, the postposed marker *mola*, referred to by Keesing (1985:93) as a "limiting qualifier", occurs with both nouns and verbs. In the former case it usually means 'only', and occurs only when "the head noun is quantified by a numeral" and when "the speaker is emphasizing that the total number of entities is small". In the nominal paradigm, this is apparently the closest *mola* gets to the 'emphatic' function, but in the verbal system, we see a little extension towards the emphatic uses common in the other languages. With verbs, *mola* usually means 'just' or 'only', but Keesing also notes that it "sometimes conveys the meaning of 'really' rather than 'just' or 'only'". Though some of the functions of Kwaio *mola* overlap with the Kilivila, Manam, Buang and TP 'limiters', it may be that the use of such a qualifier as a focus marker is particular to the New Guinea Austronesian languages we have examined. This is consonant with the idea that Eastern Oceanic languages may have set some of the general patterns found in TP as well as in its sister languages, but the closer parallel TP shows with the New Guinea area Austronesian languages is, I believe, the result of the heavy influence it underwent from Tolai.

In Mosel's *Tolai texts* (1977), we find a particle that is remarkably parallel to the forms we have been examining. Not only is it parallel in function, but its form is a happy surprise

to anyone seeking an explanation for TP *yet*: the Tolai equivalent is *iat*. Examples from Mosel's texts (her glosses) [8] include:

<u>Focus marker with a pronoun:</u>

(10) *Iau* **iat** *pa 'au manga nukure mala ra   tinata i*
      I   PART not I   very   know   well DET story of

      nam ra   tubuan   [Mosel 1977:85-87]
      DEM DET *tubuan*
      I **myself** don't know very well the story of that *tubuan*.

<u>Intensifier with a temporal:</u>

(11) *...nam ra   marum* **iat**...   [Mosel 1977: 78, 82]
      DEM   DET   night   PART
      ...that **very** night...

<u>Focus marker with a noun:</u>

(12) *Dia   ga pait nam ra   tubuan, a   Tolai* **iat**
      they.4 TA make DEM DET *tubuan* DET Tolai PART

      dia   ga pait ia.   [Mosel 1977: 86, 88]
      they.4 TA make it
      The Tolai **themselves** made this *tubuan*, they made it.

[I think a closer translation might be: 'They made this *tubuan*, the Tolais **themselves** made it'.]

Mosel (1980) includes *iat* in a list of Tolai words considered to be possible sources for TP lexical items, and glosses it as a 'particle'. The Methodist Overseas Missions dictionary (1964:54) contains more information:

> **iat 1.** emphatic part., myself, yourself, etc.; **ia iat** he himself, **iau iat,** I myself. As such it is also used as a warning, a caution, etc., e.g. **u iat** (1) to a person in danger, you yourself, there is no one to look to but yourself, (2) You yourself, I shall look to no one but yourself, (3) Please yourself, do as you think proper, (4) You have no one to blame but yourself, you were the cause. **2.** Used as a comparative. **Ia ra ngala iat**, it was and is the larger. **3.** Is used with adverbs, very, still, early, as **ania** formerly, **ania iat** 'still further back; **a malana iat** 'the early morning'; **vailik iat** far, very far, **uro iat** [unglossed in the dictionary - GS]. **4.** It seems to refer to the past. **Damana iat**, it was like that before, originally (and is still); **utul a bung iat,** three days ago.

Lanyon-Orgill (1960) adds that in the case of *a malana iat*, the sense of *iat* is to be taken as 'real', the real or true morning being the early morning. Clearly, *iat* possesses the major meanings of the emphatic markers found in TP and the other New Guinea Austronesian languages we considered. As an intensifier, *iat* is used particularly with temporal and spatial expressions, and it is also a focus marker ('emphatic' or 'reflexive'). Lastly, the glosses given for the 'past reference' and 'comparative' uses would certainly encompass English

---

8 Mosel's interlinear glosses consistently label *iat* a particle, and in the introduction to her texts, she notes (1977:ix) that 'PART' means "emphatic particle". However, she rarely provides any gloss for these particles in her free English translations, and often I concur that forcing an English equivalent would be quite awkward. Examples (10) - (12) are the exception in this regard.

'still'. This provides the probable link for Tolai speakers' identification of their *iat* with English *yet*, which also means 'still', despite its more usual English collocation as a negative polarity item.

I examined a sample of Mosel's texts to see how Tolai use of *iat* parallels TP speakers' use of *yet*. In eight of these texts totalling 462 lines and representing five speakers, I found 54 instances of *iat*, with the various functions as shown in Table 3.

TABLE 3: INSTANCES OF TOLAI *iat* ACCORDING TO VARIOUS FUNCTIONS

Functions of *iat*	No. of cases
focus marker with noun:	23
focus marker with pronoun:	10
intensifier with locative/temporal:	16
other intensifier (adverbial):	2
other	3
Total	54

The major difference between the contemporary usage of Tolai *iat* and TP *yet* is that *yet* as a focus marker is specialised to pronouns, whereas *iat* occurs with both nouns and pronouns. Both, however, are used as intensifiers with locatives, temporals and other adverbials.

The puzzle of where *yet* came from and why it developed as it did seems to be solved. Speakers of Austronesian languages in the contact situation heard English *yet*, used mainly as a negative polarity item, but also sometimes as the positive 'still'. Tolai speakers identified it with their own *iat*, an intensifier also associated with the meaning 'still'. *Iat*, however, has focus-marking functions that English *yet* has not. *Yet* was pressed into service as a focus marker in Tok Pisin, and also, over time, drastically reduced its function as a negative polarity item. Its distribution in contemporary TP is split between adverbial intensification and the focusing of pronominals, much the way *iat* works in Tolai, and the way other emphatics, focusers, reflexives and limiters do in MAn languages, located to the right of the element they modify. It is not surprising that in the area of focus, with its great importance in rhetoric, the speakers of TP have shaped their language to fit the patterns their ancestors have used from *bipo yet*.

3.2 'OVERLAY' CONSTRUCTIONS IN NARRATIVE

Work on narrative texts in TP has revealed a discourse pattern that resembles the "overlay" type of construction discussed in the context of Papuan languages by Grimes (1972). See example (13). (Note that commas indicate phrasing of the speaker, and there is a clear 'full stop' intonation at the end of each line.)

(13) a. *Narapela man, em i-putim wanpela wetpela gras pisin.*   [Mr T.D.]
       other   man   he put.on   a   white   feather bird
       The one man put on a white feather.

   b. *Narapela em i-putim, blakfela, bilas.*
      other   he put.on   black   dressed.up
      The other man put on a black feather, as a decoration.

c. ***Putim*** *nau,   na   i-go.*
put.on PUNCT and go
Having put them on, they/he went off.

Here, a verb is first used in an apparently finite context – the *i-putim* of (13a) and (13b) – but then carrying the story further, it is repeated in a context where it has a non-finite flavour, as in (13c), prior to the next finite verb that carries the narrative forward. I originally noted this pattern during my initial (1977) exploration of the cliticisation of *i-* (Sankoff [1977] 1980:265). My idea was that the context illustrated in (13c) would be a conservative one in terms of the generalisation of *i-*, which I thought was being grammaticalised as a finite verb marker. In further exploration of the patterning of *i-* (to be discussed in §5), it has turned out that this context does not significantly differ from other syntactic environments in terms of the presence of *i-*. It is, however, clearly distinctive in the absence of a subject pronoun in clause-initial position (as opposed, for example, to a position following coordination).

Looking into the history of this phenomenon, I found numerous examples in the speech of both Tagarak and Chavi, Sepik area speakers whose stories were transcribed by Gregory Bateson and Margaret Mead respectively, and published in Hall (1943). See examples (14) and (15). Note that in (15c), the non-finite form is actually overlaid on a noun, *skel*, rather than a previous verb.

(14) a. *Na Ainjang* **karim** *em   i go daun.*   [Tagarak, in Hall 1943]
       and Ainjang carry him go down

   b. ***Karim*** *i go na   putim ananit long haus   bilong em.*
       carry   go and put   under LOC house POSS him
       And Ainjang carried him down. Carried him off and put him underneath his house.

(15) a. *Nau mi   stanap long mak, ol   i* **makem** *mi.*   [Chavi, in Hall 1943]
       then 1SG stand LOC mark they mark   1SG

   b. ***Makem*** *mi   finish, mi   go sidaun long* **skel***.*
       mark   1SG COMP 1SG go sit   LOC scale

   c. ***Skelem*** *mi   finish, nau em   i tok: "Orait, yu   go daun, wok".*
       weigh   1SG COMP then 3SG say   alright 2SG go down work

       Then I stood at the mark and they measured me.
       After being measured, I went down to the scale.
       After weighing me, he said, "Alright, you go off to work".

These contrast with other examples that seem to have similar discourse structure but different syntax, such as (16), in which the repeated verb appears with both *i-* and subject pronoun:

(16) a. *Na Kowi i putim long nek bilong em, surukim* [Tagarak, in Hall 1943]
       and Kowi put   LOC neck POSS 3SG slip.tight

       em, na   i **fasim***.*
       3SG and fasten

   b. *Em i* **fasim** *nau,   na em   i toktok long ol   sisa   bilong mi tufela.*
       3SG fasten   PUNCT and 3SG talk   LOC PL sister POSS 1DU.EXC

> And Kowi put it [the noose] on his neck, slipped it tight, and fastened it.
> Having fastened it, he talked to our sisters.

The episode of Tagarak's story cited as (16) shares with the one from Mr T.D. (a Papuan language native speaker from Chimbu) in (13) the use of *nau* to punctuate or close off the action of the overlaid verb before continuing with the subsequent event. Keesing (1988:178) analyses Bislama *nao* as a perfect marker,[9] with "exactly the same force" as the perfect-marking particles in the Malaita languages, that is, they "articulate a state at a reference time (the time of the speech event) to an earlier state or event to indicate that the two are essentially and inseparably connected, and to focus attention on the present state". Following Simons (1985), Keesing notes that such a perfect marker is homonymous with a postposed topicaliser in many Malaitan languages, and that *nao* is also a topic marker in SIP. Most of the examples of *nao* in Keesing's texts do not co-occur with' an 'overlaid' verb as in TP examples (13) - (16), serving instead to punctuate events each of which moves the action forward. In (17b), however, we see an example in SIP that is quite reminiscent of the TP overlaid structure (punctuation, interlinear glosses and English translation as in the original; I have begun new lines for each clause).

(17) a. *mifala*   **go** *faend-em nate,*   [Tome Kwalafane'ia, in Keesing 1988:245]
          SRP(weE)   go find-TRS   nut

          ia?
          RHET

     b. **googo** *finis*   *nao*
          AUX   be.finished PRF

     c. *mifala*   *teke nate ia*   *kam* nao,
          SRP(weE) take nut DEM DEI PRF

     d. *mifala*   *sidaon weit-em   olketa siton*   *nao...*
          SRP(weE) sit   with-TRS PL   stone PRF

     We went to hunt for canarium nuts.
     And then we took those nuts.
     We sat down with stones...

This is an excerpt from Keesing's 1984 recording of Tome Kwalafane'ia, "a Kwaio man in his sixties who had worked on plantations in the late 1930s, then had served with the Solomon Islands Labour Corps in World War II" (p.231). In this excerpt, the instances of *nao* at the ends of the clauses in (17c) and (17d) serve to punctuate events in the story. In (17b), however (a line which is not glossed separately, but together with (17c) in Keesing's English translation), there is a partial repetition of the verb of (17a), which makes this *nao* seem functionally akin to the *nau* of the TP examples in (13c) and (16b), and *finish* in (15b) and (15c).

Another example from SIP, cited as (18), shows overlay quite parallel to the TP construction, with the second *kat-emu* occurring with no subject pronoun or SRP. Like the TP case in (14b), the speaker, Jonathan Fifi'i, uses the post-verbal *googo* auxiliary (see §5).

---

9   He also notes (following Simons 1985) that the same particle often serves as a topicaliser, following a
    noun or pronoun, a usage that is also common to SIP *nao*.

(18) a. *nao hem-i   kat-emu wan-fala*   [Jonathan Fifi'i, in Keesing 1988:233]
         so   SRP(he) cut-TRS one-ADJ

         fisi   long   hemu.
         piece POSS it

     b. *kat-emu googo finis,*
         cut-TRS AUX   be.finished

     c. *hem-i   safen-em   lelebeti bodi bulong hem.*
         SRP(he) shave-TRS slightly body POSS   it

         So anyway, he cut one piece of it.
         He cut it and then
         he shaved down the casing slightly.

As far as Bislama is concerned, *nao* does not figure in the list of tense/mood/aspect (TMA) markers discussed by Crowley (1990a:211-212), though it clearly functions as a topicaliser as it does in SIP and TP. The existence of 'overlay' structures has not been discussed in the literature on either Bislama or SIP, to my knowledge. The several dozen pages of texts I have personally examined in SIP (in Keesing 1988) contain one or two other examples in addition to the two cited here; the Bislama texts I have looked at in the collection do not appear to contain close parallels to the TP examples which are fairly frequent in my texts.

My current tentative summary of the distribution of 'overlay' constructions in the Bislamic languages is that they appear to be more characteristic of TP than of the other two languages. Such constructions are not typical of English, and I would suggest that substrate influence is the likely source. I first thought that this influence might be from the Papuan languages, where medial verbs in narration do not appear fully inflected. Further checking, however, confirmed that this pattern predates the massive post-World War II spread of TP to native speakers of the Papuan languages of the New Guinea highlands. Attestations prior to World War II, when An influence can be considered to have been dominant, may point to MAn languages as models. The two Sepik area men from whose 1930s texts I cited examples were themselves native speakers of Iatmul, a Papuan language; however, they learned TP on the Gazelle Peninsula, almost certainly from speakers of MAn languages, in the 1920s. A more extensive examination of early texts as well as of likely substratum sources would be necessary to better understand the history of this development in TP. To what extent the influence of Papuan speakers (like Chavi, Tagarak and Mr T.D. in (14)), has been responsible for the spread of this discourse feature in TP is also not known. This is clearly a topic that merits further investigation.

4. INTERCLAUSE RELATIONS

In this section I attempt very briefly to set the record straight as to the analysis Penelope Brown and I (Sankoff & Brown 1976) proposed of relative clauses marked with *ia*, another area in which our original proposal posited a substrate origin for the beginnings of the grammaticalisation that we observed in TP. We suggested that the unstressed TP *ia* that is frequently postposed to nouns and pronouns has been, through frequency of usage, "downgraded" from a deictic to a determiner (a transition widely attested in the history of the world's languages). Occupying that slot, it was in a position to be pressed into use as a

bracketing device, for whatever kinds of constituents might typically follow a noun – other single nouns, phrases, or whole clauses, as exemplified in (19) - (21).

(19) *Disfela ia,   ol   i-kosim em   haumas?*   [Mrs Ta.]
      this   DEM 3PL charge 3SG how.much
      This one here, how much do they charge for it? (pointing to a piece of cloth)

(20) *Em liklik barata ia   [mi tok ia].*   [Mrs M.S.]
      it little brother DEM 1SG talk DEM
      It's the little brother I'm talking about.

(21) *Dispela man ia,   [lek bilong en i-dai ia],   em*   [Mrs L.G.]
      this   man DEM leg of   his die DEM 3SG

      i-stap insait nau.
      stay   inside PUNCT
      This man whose leg was injured, he stayed inside.

In justifying our proposal that fluent second-language (pidgin) speakers innovated this strategy, we said that "this is particularly likely...because many Austronesian languages of the New Guinea and island Melanesian area show striking parallels" (Sankoff & Brown 1976:663). We illustrated the parallel first from Buang, and then cited Ray's 1926 work showing similar structures in Iai, Nguna, Tasiko, Uripiv and Tangoa.

Keesing's objection to this scenario is apparently twofold. Firstly, he says (1988:113) that the phenomenon is "not really a bracketing at all, since *ia* occurs [in all three daughter languages] in the same environments in the absence of the embedded clauses". This is quite puzzling to me, since this is the precisely the pattern we discussed at length in the original paper as the source of the later developments we observed in TP. Keesing goes on to dispute the idea that grammaticalisation of *ia* has involved stress reduction, stating (P.115) that "for Oceanic speakers the form has always been an unstressed *ia*". In N+*ia* constructions, whether or not involving embedded clauses, I would certainly agree that *ia* is likely always to have been unstressed. The stress reduction would have been between the putatively original 'place adverb' origin, with English source 'here' as originally discussed by Mihalic (1957), and the postnominal usage. In the 1976 paper, Brown and I said nothing about stress reduction in the N+*ia* environment, stating however that we did occasionally find instances of *ia* used as a place adverb. Nor did we suggest that the development from place adverb to postposed determiner occurred within TP itself. That N+*ia* constructions are found in nineteenth century sources in no way alters the scenario we painted. We cited evidence (Sankoff & Brown 1976:255) for the N+*ia* construction in both Bislama and SIP. That part of the development which seemed unattested in the other languages was the putting to use of the N+*ia* strategy in the service of relativisation.

Now, what we called *ia*-bracketing is a development we saw in 1971 in the speech of people from all over Papua New Guinea who were based in the Pacific Islands Regiment's Igam Barracks outside Lae. We doubted it was a 'Lae area' feature because of the regional diversity of our speakers and because of their personal histories of geographic mobility. Whether such a development has in fact occurred in TP's sister languages, or indeed whether it has survived and become more regular within Tok Pisin itself in the subsequent 20 years, I do not know. Whatever its fate, this innovation was clearly the contribution of second-language TP speakers whose mother tongue backgrounds predisposed them to find such a relativisation strategy congenial in another language. Brown and I used the development of

this relativisation strategy to argue that grammaticalisation is often spearheaded not by a first generation of native speakers, but by fluent second-language speakers in a speech community undergoing creolisation.

5. EVOLUTION OF AUXILIARIES IN TP

According to Crowley (1990a:201), "tense, aspect, and mood categories in modern Melanesian Pidgins represent one of those areas which is most noticeably different between the three varieties. These differences are therefore likely to represent innovations since the end of the recruiting era at the end of the nineteenth century". The onion-like system of auxiliaries I posited for TP (Sankoff 1984) differs from the other two languages particularly in its elaboration of the aspectual auxiliaries occurring to the right of the main verb. A revised view of the TP verb phrase is schematised as follows:[10]

$$\text{"T"-M} \qquad\qquad \text{A} \qquad\qquad\qquad \text{A} \qquad \text{"T"}$$

$$\text{(CLIT) (NEG)} \begin{Bmatrix} bin \\ ken \\ mas \\ nap \end{Bmatrix} save\ \ laik \begin{Bmatrix} go \\ kam \\ kamap \\ kirap \end{Bmatrix} V_1\ (V_2) \begin{Bmatrix} igo \\ ikam \\ istap \end{Bmatrix} ...\ pinis$$

The pre-verbal auxiliaries that derive mainly from English main verbs and modals are somewhat more similar to those occurring in the other languages. In Sankoff (1991) I describe some of the changes in the meanings of the irrealis marker *bai*, and also discuss semantic developments in the modals *laik* (volitional; also future) and *ken* (mainly deontic modal; specialised to the negative imperative). As yet, it is unclear whether any of these changes is related to substrate influence. Another modal, *(i)nap*, carries both deontic and epistemic meaning. It has apparently evolved into a 'raising' verb that can occur in a higher clause that embeds another clause.

As far as the syntax of *bai* is concerned, Suzanne Laberge and I suggested (Sankoff & Laberge 1973) that it had undergone the following changes: reduction from *baimbai* to *bai*; progressive loss of stress of the monosyllabic form; redundancy, in co-occurring with adverbs having future meaning; and word-order change (from sentence-initial to post-subject). Romaine (1990) has shown the dramatic continuation of the word-order changes through the mid 1980s. However, I am fully in agreement with Crowley (1990a:213-216) on Melanesian pidgin in general, and here disagree quite strongly with Keesing, that *bai* has not managed to become part of the verb phrase – try as it might. The observation originally made by Woolford (1977) still holds, and a sentence like (22) is ungrammatical.[11]

(22)   *Mi no bai kisim*. [**bai** does not jump over neg; observation due to Woolford 1977]

A last pre-verbal element that appears to have undergone change that brings it into line with substrate patterns is the modal *(i)nap* (< Eng. 'enough'). Its use as a pre-verbal auxiliary, occupying the position that other modals such as *laik* and *ken* would also occur in, is illustrated in (23). It is also attested, however, as in (24), as a higher predicate under

---

10   This is a modified version of the schema originally presented in Sankoff (1984:113).

11   In discussing this point with Romaine in 1992, she said that although she had not specifically looked at negation across her own massive data base, she was fairly certain that she had not seen examples of *bai* occurring to the right of *no*.

which is embedded a complement clause, a pattern that has been observed in at least one substrate language.

(23) Ai, poroman, mi no **nap** i-kam arasait ia.   [Mr D.]
      hey friend   I NEG able come outside DET
      Hey, buddy, I can't come outside!

(24) I-no **nap** long yutupela marit.   [Mr D.]
      su   loVBu be   melu   marit [cf.Buang]
      NEG able   COMP you.two marry
      It is not possible (i.e. permissible) for you two to marry.

TP apparently diverges most considerably from SIP and Bislama in the development of the post-verbal aspectual auxiliaries. Though TMA markers occurring to the left of the main verb are traditionally treated as auxiliaries, those occurring to the right have usually been treated as serial verbs. According to Goulden (1990:116):

> TP has a construction in which verbs of motion such as *go* 'go' and *kam* 'come' are used as directive co-verbs following the main verb, and comparable constructions are also found in Pijin and Bislama. *go* is used to denote movement away from the speaker and *kam* to denote motion towards the speaker...the locative verb *stap* can also be used in the *go/kam* slot, and indicates the place where something has come to rest, or within which a motion occurs.

He notes that serialisation of this sort is very common in the MAn languages, "many of which use a construction similar to that used by TP".

Looking at the data from Chavi and Tagarak, the view of *kam* and *go* put forward by Goulden seems to be supported by many examples:

(25) a. Mi wanfela tasol i stap nau,   [Chavi, in Hall 1943]
         1SG alone   just stay PUNCT

     b. mi kalap i go long wata hia...
         1SG jump go LOC water DET

         I was the only one left then,
         and I jumped into the water...

(26) Nau   mifela   ran stret   long pasich i **kam**.
      PUNCT 1PL.EXC run straight LOC passage come
      So then we came running straight through the passage.

Moreover, "the place where something has come to rest" seems an apt description of (27), and of numerous other examples like it:

(27) Mi go sidaun long haus boi i stap.
      1SG go sit   LOC house boy stay
      I went and stayed in the barracks.

Two other observations can be made about post-verbal *stap* in this period. Firstly, we note that in many cases, the original locative sense of 'stay' has been replaced by a more abstract sense of 'staying' (i.e. the notion of continuation). This is widely recognised in the literature on TP. Laycock (1970:xxii) states that *i stap* is a "common aspect marker...for continuous action". Wurm (1971:39) puts it this way:

> Verbs followed by *i stap*...or preceded by *stap* indicate actions which are continuous, have started at a time which is before the point of time immediately preceding the one at which the action takes place, continue at the same level of intensity during the time referred to, and it is implied that the action will continue after that time, with indefiniteness concerning the length of time during which it will continue.

Mühlhäusler (1985a:378) identifies post-verbal *i stap* as a progressive. For example:

(28)   *Ol   i wok i stap   tudak.*   [Chavi, in Hall 1943]
       3SG work CONT night
       They kept working until night.

Secondly, *stap* is not only used in the post-verbal serial construction, but is also used frequently on its own, singly or iterated up to five times, to convey the idea that things continued pretty much the way they were, as illustrated in the underlined portions of (29) and (30).

(29)   *Em   i go stap wantaim nadafela big brada   bilong* [Chavi, in Hall 1943]
       3SG go stay with   other   big brother POSS

       em. I stap.
       3SG stay
       He went and stayed with his other big brother. And there he stayed.

(30)   *Mi   stap long em. Stap stap stap stap stap*   [Chavi, in Hall 1943]
       1SG stay LOC 3SG stay stay stay stay stay
       I stayed on and on in it.

As far as *kam* and *go* are concerned, most observers note the 'directional' component mentioned by Goulden. According to Laycock (1970:xxiii):

> Closely related to the...aspect markers are the directional markers *i kam* and *i go* (more common in Highlands Pidgin than in Lowlands Pidgin), which indicate whether a verb of motion describes an action which approaches the speaker or which goes away from him.

Both Laycock and Wurm, however, discuss another use of *i go*. According to Wurm (1971:45), *i go* is also used to indicate continuous action "even if no movement is implied". Wurm goes on to suggest a meaning difference between *i stap* and *i go* as continuative markers:

> The difference between *i stap*...and *i go* is that the latter denotes actions which are expected to continue at equal intensity level for a considerable time after the time referred to in the clause, whereas in the case of *i stap*, indefiniteness concerning the duration of the action after that time is implied.

This subtle distinction does not seem to be borne out in the data I have examined. Rather, though *stap* is still used to some extent as a continuative, it appears to have been largely replaced by *go*, which now also occurs as an 'independent continuative' the way *stap* did in examples (29) and (30). The parallelism between the older use of *stap* and the modern use of *go* is illustrated by comparing example (31) from Chavi with (32) from Mona S., a woman from one of the three Labu villages south of Lae who was 22 when I recorded her in 1971.

(31) a. *Em   bilong Miwot,*   [Chavi, in Hall 1943]
        3SG POSS Miwot

     b. *nau   ol   imekim bigfela bilong em   long Kishit.*
        PUNCT 3SG make   big   POSS 3SG LOC Kishit

     c. *Nau   ol   ikatem skin bilong em   long Kishit.*
        PUNCT 3SG cut   skin POSS 3SG LOC Kishit

     d. *I stap. Nau   em   i bigfela,*
        CONT PUNCT 3SG big

     e. *em   imarit, nau   ol   itok...*
        3SG marry PUNCT 3SG say

        He was from Miwot,
        but he was brought up in Kishit.
        They circumcised him in Kishit.
        And so it went. When he was grown,
        and he was married, they said...

(32) a. *Na ol   i go i stap long maunten ia*   [Mona S.]
        and 3SG go stay LOC mountain DET

     b. *na ol   i-wet long bikpela guria   ia   i-go.*
        and 3SG wait LOC big   earthquake DET CONT

     c. *I go i go, nogat.*
        CONT   NEG

     d. *Na ol   ikam bek gen.*
        and 3SG come back again

        And they went and stayed on this hill
        and waited for the earthquake.
        Kept on [waiting], but it didn't happen.
        So they came back.

In (32b), Mona uses *go* to modify the stative verb *wet* 'wait'. She follows up in (32c) by using *i go i go* as an independent phrase, to indicate that this waiting continued for some time, in a way quite parallel to Chavi's use of *i stap* in (31d). Another example shows post-verbal *go* actually modifying the main verb *stap*:

(33)   *Mipela   stap igo   igo.*   [Mrs N.S.]
        1PL.EXC stay CONT CONT
        We stayed on (and on and on).

What about *go*, *kam* and *stap* pre-verbally? Though both Wurm and Laycock mention that *stap* can occur pre-verbally with a meaning similar to its post-verbal 'continuative' meaning, the more than 230 instances of *stap* I examined in data from the 1930s, 1960s and early 1970s contain cases of its use as a main verb, a post-verbal auxiliary, and an independent continuative as in (31) above, but not a single case of pre-verbal *stap*. As far as *go* and *kam* are concerned, there has never been any suggestion of a 'continuative' meaning attaching to their use in the pre-verbal context. They seem simply to mean 'go and x' or 'come and x', as in (27) where Chavi 'went and stayed' in the barracks. In another example that shows both

pre-verbal and post-verbal *go*, the preverbal *go* can be glossed simply as 'went'. The post-verbal *go* indicates the progressive (i.e. the continuity of swimming as encoded in the English *-ing*). Far from meaning that they swam off in some direction, the sentence means they kept swimming around.

(34)   *Mipela   i go swim   i go.*   [Mrs N.S.]
        1PL.EXC go   swim   CONT
        We went swimming.

Occasionally *kirap* 'get up' (characterised by Mühlhäusler (1985a:178) as 'inchoative') or *kamap* 'arrive' will be used pre-verbally, meaning roughly 'up and do/did x'.

The view that post-verbal *go*, *kam* and *stap* in TP are parallel to, and possibly modelled on, the serial verbs in the MAn substrate languages is consonant with understanding their primary meaning as being a directional adjunct to the main verb, with *stap* constituting a special 'stationary' case. Such systems are clearly found in relevant MAn languages, including Tolai. On the other hand, understanding post-verbal *go*, *kam* and *stap* as basically being continuous or progressive aspect markers, with *kam* and some uses of *go* also containing directional content, is a view conducive to their analysis as right-branching auxiliaries. I suggested in 1984 that a right-branching auxiliary system might be more consistent with the word order of SOV languages, and that perhaps the influx of Papuan substrate speakers in the past 50 years of TP history has helped promote the development of such a system. Wurm (1971) and Laycock (1970) both noted that this construction was more typical of the TP of the Highlands, where only Papuan languages are found.

If, however, *i-* is actually a 'predicate marker', as the classic view would have it, the fact that post-verbal *go*, *kam* and *stap* tend very strongly to occur with *i-* would mean that these are indeed 'predications' (i.e. a 'serial verb' view is the more reasonable one to adopt). And co-occur with *i-* they do, to such an extent that some authors (e.g. Wurm and Laycock) consistently refer to post-verbal *go*, *kam* and *stap* as *i go*, *i kam* and *i stap*, as we can see in the various quotations in the preceding discussion.

A quantitative study of the use of *i-* (Sankoff 1994) demonstrated that although *i-* is categorical in this context for the 'Premodern' speakers, this was not the case for the 1971 adult or child speakers I analysed. If the modern speakers have not retained *i* consistently in this context, does this mean they have reanalysed *i*, or does it mean they have reanalysed post-verbal *kam*, *go* and *stap*? This question will be taken up in the next section, in the context of a discussion of *i*.

Before proceeding to this last question, let us summarise the situation regarding the use of *kam*, *go* and *stap* after the main verb across the three Bislamic languages. Apparently there is some use of 'directional' *kam* and *go* in all three. For SIP, Keesing (1988:245) makes this point in connection with the post-verbal *kam* in example (17c) above: "For the common Oceanic directionals 'hither' and 'thither' (in Kwaio *mai* and *kau*), Pidgin uses *kam* and *go*. In Bislama and Tok Pisin, these directionals are rendered with serial clauses, *i kam* and *i go*". Crowley (1990b:70) argues that the directionals are one of two types of "genuine serialization" in Bislama, and he includes *stap* with these as a "posture type verb".

Bislama has shown one development from this construction type towards aspectual marking, in that *go* post-verbally is the source of the frozen form *gogo*. Crowley (1990a:212, 216) describes this as an iterative marker that has evolved since the 1950s. In SIP, Keesing (p.233) glosses post-verbal *googo* simply as 'AUX' (discussing the example

cited as (18b) above), and notes that "Fifi'i is using *googo finis* here...as equivalent to Kwaio *kee sui*". Though he glosses *sui* (variously as 'be finished' and 'then'), *kee* is also glossed simply as 'AUX', and it is unclear what its semantic contribution is: continuative perhaps more than iterative, from the context. In TP, the iterative marker is the pre-verbal *save*, but, as we have seen, both post-verbal *stap* and *go* have been described as markers of continuous aspect. Since, as most observers agree, they usually occur with *i*, there is the possibility that they have also been reanalysed as frozen forms in which initial *i* has no meaning or function (i.e. *igo*, *istap* rather than *i go* and *i stap*).

Whatever the best synchronic analysis of post-verbal *stap*, *go* and *kam* in TP, it is clear that, of the three Bislamic languages, it is in TP that this construction is most highly elaborated. Substrate influence from An languages is clear in the initial 'directional' stage that is shared by all three. What the unique circumstances are that have led TP to further elaboration in this direction are not entirely obvious, but may have to do with either the specifically Melanesian An languages with which it has been in contact longest, or with the later influence of Papuan languages.

6. MELANESIAN PIDGIN 'CORE GRAMMAR' AND THE QUESTION OF *i-*

At the heart of Keesing (1988) was a discussion of *i-*, referred to in much of the previous literature as a 'predicate marker'. Keesing analysed it as a "subject referencing particle" or SRP, built as a calque on the grammars of Oceanic languages. I had in fact independently proposed that *i-* could be regarded as a subject marker (Sankoff 1984), but suggested that pending a full-scale analysis of trends over time, and of the effects of creolisation, it was not clear how successive generations of speakers had in fact incorporated it into their grammars. In readdressing the question here, I will attempt to accomplish two goals.

Firstly, I will re-evaluate the picture I painted in my own earlier analysis (Sankoff 1977). I argued that *i-* had been cliticised from 'he' in a grammaticalisation process involving the reanalysis of a discourse pattern in which 'he'/*i-* was initially used in focusing subject nouns. Keesing provided a very fair-minded summary of my arguments, but took me to task for not seeing this construction as a calque on the Eastern Oceanic pattern of referencing nominal subjects with a pronominal copy in immediate pre-verbal position. Initially, then, I will use the data available to me for TP to evaluate Keesing's position on the origin of *i-* as a calque, and his analysis of it as a subject referencing particle rather than a predicate marker.

This debate, however, refers mainly to developments prior to the period for which our richest current data is available. Secondly, then, I will use materials from the twentieth century to discuss developments with respect to TP *i-*, which seems to have undergone considerable change over the past fifty years.

6.1 PREDICATE MARKER OR SRP: ORIGINS AND GRAMMATICAL STATUS

As with many academic controversies, most of the debate about *i-* has concerned matters on which the data are fairly thin: in this case, developments that occurred as part of the genesis and early evolution of Pidgin English in the Pacific in the nineteenth century. Scholars are reasonably agreed on the unity, prior to about 1880-85, of what came to be the three modern Bislamic languages, and agree that they began evolving separately at about this time. The ancestors of the present-day Bislama speakers, the Ni-Vanuatu of the then New

Hebrides, were the first to become involved in large numbers in the labour trade for plantation work, followed by Solomon Islanders and then Papua New Guineans. The early history of Beach-la-Mar is thus what must be investigated first, and on this, Crowley's extensive work is authoritative.

According to Crowley, the attested pronouns in early Beach-la-Mar (1840s-1860s) were as presented in Table 4. His thorough examination of the corpus available from that period leads him to observe (1990a:193) that, in the third person, "there was a consistent distinction between subject and object forms" and that, in the first person, "there is evidence for an optional separate subject form as distinct from the object form".

TABLE 4: ATTESTED PRONOUNS IN EARLY BEACH-LA-MAR (1840S-1860S)
[REPRODUCED FROM CROWLEY 1990A: HIS TABLE 5.1, P.193]

Person	Subject	Object
First Person	*mi, ae*	*mi*
Second Person	*yu*	*yu*
Third Person	*i*	*im*

Crowley (p.231) documents the introduction of *hem* as a subject in the 1870s-1890s period, during which time it was used less frequently than *i*. He continues (p.224):

> Between the turn of the century and the end of the 1920s, a number of additional pronominal categories are attested for the first time while the extent of variability in the system appears to have been reduced. The earlier variable use of *ae* and *mi* was resolved with the original object form completely replacing the subject form. In the third-person singular *hem* also replaced *i* as the canonical pronoun.

This is a view entirely consonant with my own (1977) reconstruction of developments through the 1920s. In addition, Crowley's research supports my analysis of the initial uses of the N+*i* construction as representing focus.

How does Keesing's picture differ from this one? Noting that Oceanic languages typically have two kinds of third person pronouns, focal pronouns and SRPs, Keesing argues that basically from the beginning, speakers of these languages associated the English 'he' [=*i*] with the Oceanic SRP, and tended to use it where their languages would dictate the use of SRPs. I had proposed that at the the time when 'he' [=*i*] was the subject pronoun, N+*i* structures were used only in a small minority of cases with full NPs, and seemed to have "contrastive force" (Sankoff 1980:262) or to be used with particularly long subject NPs. When *(h)em* replaced *i* as a subject pronoun, the N+*i* strategy became generalised as the normal unmarked pattern, losing its pragmatic force. Later we see the N+*em* sentences being used in similarly marked pragmatic circumstances. Keesing (1988:152) argues against this view, stating that:

> The far simpler analysis, simply on linguistic grounds, is to see *hem* as the pronoun that fits into the subject-NP slot, so that *hem i* sequences are grammatically parallel to, for example, *tana man i* in "Tanna man he lazy, he plenty lazy, he no like work" (Tanna, New Hebrides, 1867 – Adams 1984:174) - *even if <u>hem i</u> does not turn up in the early texts.* [my emphasis]

Perhaps this is a far simpler analysis, on linguistic grounds, but it is not quite in accord with the historical record, as Keesing himself admits. The first *(h)em+i* sequence I noted was in Churchill's 1911 compendium; the earliest citation Keesing locates is from Torres Straits

creole in 1898. Keesing cites turn of the century examples to illustrate that *mi mi* and *iu iu* sequences were being used, parallel to *em i.* Crowley, however, argues persuasively that these structures were always used in a minority of cases, and always represented focus, not the unmarked strategy.

Supporting my original view of the matter, then, is the sequence of attestations in the historical record, as well as the apparent pragmatic force of the examples in which we find pronoun doubling, inferrable not only from their semantic content but also from the fact that such examples always constitute a minority of cases. Let us assume for a moment, however, that it is simply the patchiness of the historical record that is responsible for the gap in early attestations of *(h)em* subject. Why would we not find N+*i* sentences occurring more frequently? According to Keesing (1988:145):

> If indeed what to English speakers was a "resumptive" and syntactically and semantically redundant "he" was being analyzed by Oceanic speakers as an SRP, what is crucial is in fact *not* the occurrence of this pronoun following noun subject, but the maintenance of subject reference pronominally in subsequent clauses. We have seen that in many Oceanic languages it is precisely in the clause where a noun subject is introduced that the otherwise obligatory SRP is optionally...deleted.

If the SRP is simply always optional with a subject noun, we have no explanation of why this construction was rare early on and became regular later. Moreover, there is an increased burden of argument on Keesing that there be a formal distinction between focal pronoun and SRP, such that when one finds in a text an item that could be either, it will be clear which it is. If focal pronouns and SRPs were all homonymous, postulating two separate series would indeed be unmotivated. Unfortunately, in most persons, such homonymy does exist. Keesing proposes the paradigm found in Table 5 for the pronouns of 1920s-1930s Solomons Pidgin:

TABLE 5: KEESING'S ANALYSIS OF SUBJECT PRONOUNS IN SIP OF THE1920S-1930S [HIS TABLE 12.2, 1988:192].

[Note: I have indicated those pronouns for which there is a formal difference between focal pronoun and SRP in bold.]

Number and person	FP	SRP
Singular 1	*mi*	*mi*
Singular 2	*iu*	*iu*
Singular 3	**hem**	**hem-i, i**
Dual 1 inclusive	*iumi(tufala)*	*iumi(tufala)*
Dual 1 exclusive	*mitufala*	*mitufala*
Dual 2	*iutufala*	*iutufala*
Dual 3	**tufala**	**tufala(-i), i**
Plural 1 inclusive	*iumi*	*iumi*
Plural 1 exclusive	*mifala*	*mifala*
Plural 2	*iufala*	*iufala*
Plural 3	**olgeta**	**olgeta(-i), i**

Only in the third person is there a formal distinction between the focal pronoun and the SRP. Thus, for example, if one finds a *mi mi* sequence in a text, one analyses the first as the focal

pronoun and the second as the SRP. If one finds only one such pronoun, it is, by definition, the SRP. Now what about the third person? Apparently for duals and plurals, if one finds *tufala-i*, or *olgeta-i*, this in itself represents only the SRP, and not the focal pronoun plus SRP. But the bracket around the (*-i*) in both these cases apparently means it is optional, and so either *tufala* or *olgeta* on its own *can* represent an SRP – thus erasing the formal distinction that would enable us to tell which was which other than by definition. To me, an additional problem here is that it is very unlikely that a form containing three or four syllables would cliticise and become part of the verb phrase (which is the way Keesing defines SRPs). Typologically, cliticisation tends overwhelmingly to involve unstressed monosyllables.

There remains only the third person singular case, where the SRP can apparently be either *i* or *hem-i*. Here, Keesing admits reanalysis of the surface strings he finds because in many cases *hem-i* appears in environments where his model predicts an SRP. Thus he must postulate that speakers have redefined *hem-i* as an SRP. At other times he simply finds *i* in the same environments, so it is also, as before, an SRP. Allowing these two options in apparent free variation certainly vitiates any attempt to explain the occurrence of *i* per se. However, we are provided with an environment in which *hem* would not be permitted (i.e. in immediate pre-verbal position). Thus one should not (and apparently does not) find cases of, for example, *hem go. Further, Keesing argues that in the 'nonverbal' sentences (locatives and equationals), where substrate languages show only focal pronoun subjects, and not SRPs (there being no verb for them to cliticise to), Solomons Pidgin shows the same pattern. The examples he adduces (p.168) are, however, nominal rather than pronominal, and so remain inconclusive. Although he cites (p.169) one example containing a pronoun from Pionnier's 1913 paper, this is also unclear since it is a dictionary definition not containing any predication. Nevertheless, it is on this point that I believe Keesing's model provides an interpretation of regularities observed by other scholars. It is well accepted that *i* in TP, for example, occurs less frequently with equationals than in other environments (e.g. Wurm 1971:13). It should be said, however, that a 'predicate marker' interpretation might equally well account for these facts: in the absence of a predicate, the predicate marker would also be absent.

Where does this leave us in interpreting *i*? To my mind, the bulk of the evidence still points to an interpretation according to which early early N+*i* constructions represent focus, just as later N+*em* constructions do, once *(h)em* had replaced *i* as subject pronoun. However, I do believe that the overwhelming evidence brought to bear by Keesing regarding the SRP pattern in Oceanic languages probably exerted a continuing influence on speakers to innovate a construction that leads to strings in the Bislamic languages resembling the output of a grammar containing SRPs. Indeed, this is likely to have been one of the forces leading to the generalizing of *i* to non-focused contexts, so that it eventually became the unmarked pattern.

In understanding the replacement of subject 'he' [=*i*] with *(h)em*, however, it is important to remember the social context. Melanesians in contact with Europeans in the 1860s, and to some extent the 1870s, had a much greater chance of learning English patterns because of the small scale of operations and the higher ratio of English speakers. Someone who worked on a small vessel fishing for bêche-de-mer, for example, would have a better opportunity to learn English than someone who was a member of a large labour line on a plantation. The greater salience of object pronouns of English would make them easier to learn on the basis of limited contact than the less salient subject pronouns. Thus *(h)em* and *mi* replaced *i* and *ae/ai* in subject position, thereby creating a pronominal system unmarked for case. Was 'he'

[=i] pushed into another status by its previous pronominal function being taken over by a different form? If i --> em was a 'push' chain because of the demographic factors in the pidginisation situation just outlined, it was also a 'pull' chain because of the SRP pattern Keesing demonstrates in the substrate languages. Indeed, it is likely that the substrate SRP pattern motivated many unstable experiments with pronominal systems during the nineteenth century, of the sort described by Keesing (1988:70-88). It is certainly possible that a construction analysed as FOCUS + SUBJECT by some speakers (as Crowley and I envision the early data) was analysed as SUBJECT+ SRP by others (as Keesing interprets these same data).[12]

In summary, I feel there is much to learn from Keesing's exposition of the pronominal systems of Eastern Oceanic languages, and would agree that they have been a continuing factor in the analysis Melanesians have made first of the English pronominal system, and then of the Pidgin spoken by other Melanesians from whom they learned it. If Keesing has not convinced me of the grammatical status of i as an SRP throughout the history of Bislama and of SIP, he has certainly brought into focus the potential the system carries for receiving differing analyses. It is to the reanalysis of i by generations of TP speakers since the 1920s that we turn in the next section.

6.2 THE REANALYSIS OF i IN TP (1920-70)

In a quantitative analysis of i in TP, the sample of speakers from whom I examined texts was chosen in order to look at change over time; differences among contemporary second-language speakers according to substrate (adult speakers of Austronesian versus Papuan languages); and creolisation. Table 6 shows that whereas the 'Premodern' speakers recorded by anthropologists in the early 1930s used i 65% of the time, this had decreased to 41% for the creole speakers of 1971.

TABLE 6: OVERALL USE OF i- BY FOUR GROUPS OF TP SPEAKERS

[Note: Only 2 or 3 cases of i- were found with the hundreds of mi, yu and yumi subjects examined, and so these forms were excluded from the tabulations. The proportion of use of i- was calculated for the following subjects: em, ol, all -pela forms, all full noun subjects, and zero-subjects. Post-verbal stap, kam and go did not vary by person of the subject, thus all instances were considered. 'Children' are the actual children of adults in the 'Coastal' and 'Highlands' samples.]

Group	No. of speakers	Substrate language family	Speaker generation	Approx. birth dates	Mean % i-	No. of tokens
'Premodern'	3	2 Papuan; 1 MAn	adult	1900-1915	65%	845
'Coastal'	4	MAn	adult	1931-1948	64%	777
'Highlands'	4	Papuan	adult	1935-1945	55%	1032
'Children'	6	(TP native)	child	1954-1964	41%	1289

It is clear from Table 7 that the post-verbal environment is the most favourable to the use of i-, for all speaker groups, though no group in the modern period has retained the

---

12 Keesing's discussion of i- as a calque begins with his citing of Hall's view of the matter, according to which it "reflects a merger of the substandard English habit of recapitulating a subject by means of a pronoun...and the Melanesian-Micronesian feature of morphologically distinct pronouns that recapitulate subjects and introduce predicates, as in Marshallese ladrik e-gerabal 'the boy, he works'" (Hall 1966:83). Hall's original insight is still the key beginning point for an understanding of the evolution of i.

categorical system of the 'Premodern' speakers.[13] It is also clear, however, that the verbs *kam*, *go* and *stap* in *all* environments are highly likely to occur with *i-*. One possibility, then, is that *i-* with these verbs has simply been reanalysed as part of the lexical items themselves (i.e. that *kam*, *go* and *stap* are now represented in TP speakers' lexicons as *ikam*, *igo* and *istap*). Though younger speakers have reduced their usage of *i-* to 88% in this environment, they have reduced it even more drastically in all of the other environments, so that the grammatical environments appear to be more differentiated for them than for the older speakers.

TABLE 7: PERCENTAGES OF *i-* PRECEDING VARIOUS PREDICATE TYPES, FOR 8 ADULTS AND 6 CHILDREN FROM THE 1971 SAMPLE

	Premodern		Coastal Adult		Highlands Adult		Children	
PREDICATE TYPE	%	N	%	N	%	N	%	N
post-verbal *go*, *kam*, *stap*	100%	(45)	97%	(64)	95%	(88)	88%	(115)
pre-verbal *go*, *kam*	93%	(29)	95%	(38)	94%	(32)	68%	(63)
main verb *go*, *kam*, *stap*	79%	(101)	90%	(168)	92%	(186)	72%	(265)
negation	76%	(45)	97%	(29)	97%	(35)	69%	(29)
other pre-verbal auxiliaries	92%	(61)	80%	(30)	75%	(48)	57%	(46)
main verb (**not** *g,k,s*)	52%	(482)	43%	(443)	33%	(640)	19%	(760)
TOTAL		(763)		(772)		(1029)		(1278)

A quantitative, multivariate analysis of the factors leading to retention of *i-* was used to test whether the most important factor in the retention of *i-* was the lexical item itself, or the position (pre-verbal versus main verb versus post-verbal). Results indicated that for the 'Premodern' generation there was a categorical difference between the post-verbal environment and the others; that for the 1971 adult generation, both Coastal and Highlands speakers, there was no significant difference according to position; and that the 1971 native speaker generation was again significantly more likely to use *i-* in the post-verbal environment than in the other two environments for *go*, *kam* and *stap*. Main verbs other than *kam*, *go* or *stap* were already the least likely category for the use of *i-* among the Premodern speakers, and their usage shows a progressive decline of about ten percentage points across each of the four categories. Fewer than one in five main verbs other than *kam*, *go* or *stap* was used with *i-* by the child speakers. More detailed results from the analysis of ten different factors, including person of the subject, syllable structure of the predicate, and position in the string are discussed in Sankoff (1994), however these details will be recapitulated here only in so far as they help us to understand (a) the analysis of post-verbal *kam*, *go* and *stap*, an unresolved issue from the previous section of this paper; and (b) the issue of the analysis of *i-* as 'predicate marker' versus SRP.

From the materials we have at hand, it looks as if the analysis of *i-* has been a problem for TP speakers, as well as for linguists, during this period. Before proceeding to outline my interpretation of the analyses of *i-* made by successive generations of speakers, it is important to look at one more set of data, showing the overall frequency of *kam*, *go* and *stap* as a proportion of all verbs used by the speakers. Table 8 shows that whereas *go* constituted only

---

13   When I began this study, I had thought this categoriality might be an artefact of the conditions under which the texts were recorded from Chavi and Tagarak – the relatively slow speech of someone whose words are being transcribed in longhand. However, this was also true of the third member of this group: the older speaker from New Britain whose tape recording I transcribed myself.

roughly one in ten verbs used by the Premodern speakers, contemporary adults used it more frequently. For the child speakers, more than one in five of all the verbs used was *(i)go!* Their use of *go* particularly increased in the 'post-verbal auxiliary' category. Whereas for contemporary adults, the post-verbal category consists of a ratio of 2:1:1 for *go*, *stap* and *kam* respectively, the ratio for the children is 4:1:1.

TABLE 8: *Go, kam* AND *stap* AS A PERCENTAGE OF ALL VERB TOKENS IN THE CORPUS

	PREMODERN	COASTAL & HIGHLANDS	CHILDREN
go	11%	15.0%	22%
kam	7%	10.5%	7%
stap	5%	6.5%	6%
Total	23%	32 %	35%
N = ALL VERBS	(801)	(1809)	(1289)

My reading of the data is as follows: by the 1920s-1930s, the period I am here calling 'Premodern', *i-* had already been reanalysed as a predicate marker, according to the scenario outlined in §6.1. For the 'Premodern' speakers, post-verbal *i-go*, *i-stap* and *i-kam* were indeed predications (i.e. serial constructions), no doubt modelled on the widespread MAn substrate pattern. For them, *i-* was more clearly associated with the third person than it is now (Sankoff 1994). They had also begun, in part probably for phonological reasons, to show some weakening of *i-*, such that their pattern even in the third person was variable, rather than categorical. The generation that followed them began to increase its overall use of *kam*, *stap* and particularly *go*, as shown in Table 8. As *go* took on more aspectual than directional meanings, it became more closely associated with the main verb and was reanalysed as a continuative marker. What was for the 'Premodern' generation a serial verb construction was not seen as a serial construction any more, so something other than 'predication' was made of the *i-* that was so obviously associated with these verbs in the speech of their elders. This generation, represented here by both Coastal and Highlands adults of the early 1970s, apparently associated the *i-* with the verbs themselves, and it looked as if *go*, *kam* and *stap* were simply becoming lexicalised as *igo*, *ikam* and *istap*. Their children, however, in carrying the overall deletion process further, have retained the post-verbal environment as the main stronghold of *i-*, making their speech look once again like that of their ancestors some fifty years earlier, as if it were the output of a grammar in which post-verbal *i-go*, *i-stap* and *i-kam* were serial verbs.

Only an analysis that is driven by a theoretical bias towards the most abstract and general functions of grammatical particles would assign the role of 'predicate marker' to *i-* for the creole speakers. The quantitative analysis of current trends shows that this function, if it existed, is being lost or has been lost already.

7. THE SUBSTRATE REVIEWED

What can we conclude about the influence of substrate languages on TP? Firstly, there can be no doubt that three features of An grammar are reflected in TPs current development: the grammaticality of inalienability; the use of postposed focus particles; and the innovation in

relative clauses to use the postposed determiner as an opportunity for bracketing. In the TMA system, we see similar reflections of an An influence in the developments with respect to modals, in the shift of *bai* to iterative and punctual aspect marking, and in the evolution of post-verbal auxiliaries, which may reflect the influence of Papuan speakers.

Given this powerful evidence for substratal effects, it is surely appropriate that this paper be dedicated to the memory of Roger Keesing. His intimate knowledge of the Austronesian languages of the Solomon Islands, coupled with his keen observations on the process of language contact, led him to a fierce advocacy of substratal influence across the board. Although his approach to data was firmly rooted in the traditional paradigm of analysis by selective examples, and his theoretical drive led him to neglect the role of internal evolution in the Bislamic languages, his basic insight emerges almost unscathed.

Finally, we must be puzzled by the erosion of the *i*- marker with the new generation. Here we must directly confront the mystery which for me motivated this work, an instance of a development which must challenge all linguists: the fact that grammatical particles disappear as soon as they are created. This phenomenon appears in the history of many languages, but the rapid evolution of TP brings it to our attention over and over again. The preposition *long* is reduced to *l*, the auxiliary *save* to *sa*, *laik* to *la* or syllabic *l*, *baibai* to *b*. These reductions are only the obvious, audible evidence of the attrition process. The further reduction to zero, direct or indirect, is a normal consequence, and the subsequent morphologisation (or grammaticalisation) of these zeros leads to a reanalysis of the original system. It is easy to account for this process by a facile evocation of principles of least effort and the desire to speak quickly. But our whole understanding of the process of grammaticalisation as the creation of grammar is challenged by the finding that grammar can disappear as soon as it is created. The resolution of this mystery will most likely be found only through detailed studies of grammar in use through large-scale observations of face to face interaction.

REFERENCES

Adams, R., 1984, *In the land of strangers: a century of European contact with Tanna, 1774-1874*. Pacific Research Monographs 9. Canberra: Australian National University.

Camden, William G., 1979, Parallels in structure of lexicon and syntax between New Hebrides Bislama and the South Santo language as spoken at Tangoa. *Papers in pidgin and creole linguistics* No.2, 51-117. *PL*, A-57.

Capell, Arthur, 1969, *A survey of New Guinea languages*. Sydney: Sydney University Press.

Churchill, W., 1911, *Beach-la-Mar: the jargon or trade speech of the western Pacific*. Washington, D.C.: Carnegie Institution.

Clark, Ross, 1979-80, In search of Beach-la-Mar: towards a history of Pacific Pidgin English. *Te Reo* 22-23:3-64.

Crowley, Terry, 1990a, *Beach-la-Mar to Bislama: the emergence of a national language in Vanuatu*. Oxford: Clarendon Press.

1990b, Serial verbs and prepositions in Bislama. In Verhaar, ed. 1990:57-89.

Faraclas, Nicholas, 1988, Rumours of the demise of Descartes are premature. *Journal of Pidgin and Creole Languages* 3:119-135.

Goulden, Rick J., 1990, *The Melanesian content in Tok Pisin. PL*, B-104.

Grimes, Joseph E., 1972, Outlines and overlays. *Language* 48:513-524.

Hall, Robert A., Jr., 1943, *Melanesian Pidgin English: grammar, texts, vocabulary*. Baltimore: Linguistic Society of America.

1966, *Pidgin and creole languages*. Ithaca, N.Y.: Cornell University Press.

Jourdan, Christine, 1985a, Creolisation, nativisation or substrate influences: what is happening to BAE in Solomon Islands Pijin. *Papers in pidgin and creole linguistics* No.4, 67-96. *PL*, A-72.

1985b, Sapos Iumi Mitim Iumi: urbanization and creolization in the Solomon Islands. PhD thesis, Australian National University.

Keesing, Roger M., 1985, *Kwaio grammar. PL*, B-88.

1988, *Melanesian Pidgin and the Oceanic substrate*. Stanford: Stanford University Press.

Lanyon-Orgill, Peter A., 1960, *A dictionary of the Raluana language (New Britain, S.W. Pacific)*. Victoria, B.C.: The author.

Laycock, Don, 1970, *Materials in New Guinea Pidgin (Coastal and Lowlands). PL*, D-5.

Lichtenberk, Frantisek, 1980, A grammar of Manam. PhD dissertation, University of Hawaii.

Lynch, John, 1973, Verbal aspects of possession in Melanesian languages. *Oceanic Linguistics* 12:69-102.

Methodist Overseas Missions, 1964, *A Kuanua dictionary*. Rabaul: Methodist Mission Press.

Mihalic, Francis, 1957, *Grammar and dictionary of Neo-Melanesian*. Westmead, NSW: The Mission Press.

Mosel, Ulrike, 1977, Tolai texts. *Kivung* 10/1-2.

1980, *Tolai and Tok Pisin: the influence of the substratum on the development of New Guinea Pidgin. PL*, B-73.

Mosel, Ulrike and Peter Mühlhäusler, 1982, New evidence of a Samoan origin of New Guinea Tok Pisin (New Guinea Pidgin English). *Journal of Pacific History* 17:166-175.

Mühlhäusler, Peter, 1976, Samoan Plantation Pidgin English and the origins of New Guinea Pidgin: an introduction. *Journal of Pacific History* 11:122-125.

1978, Samoan plantation Pidgin English and the origin of New Guinea Pidgin. *Papers in pidgin and creole linguistics* No.1, 67-119. *PL*, A-54.

1985a, Internal development of Tok Pisin. In S.A. Wurm and P. Mühlhäusler, eds *Handbook of Tok Pisin (New Guinea Pidgin)*, 75-166. *PL*, C-70.

1985b, The number of Pidgin Englishes in the Pacific. *Papers in pidgin and creole linguistics* No.4, 25-51. *PL*, A-72.

1987, Tracing predicate markers in Pacific Pidgin English. *English World-Wide* 8:97-121.

1990, On the origins of the predicate marker in Tok Pisin. In Verhaar, ed. 1990:235-249.

Oxford English dictionary, 1994, On-line version, accessible through the University of Pennsylvania Library System.

Pionnier, J.-N., 1913, Pigeon English ou Bichelamar. *Revue de Linguistique et Philologie comparée* 46:109-117, 184-198.

Ray, Sidney H., 1926, *A comparative study of the Melanesian island languages*. Cambridge: Cambridge University Press.

Romaine, Suzanne, 1990, Change and variation in the use of *bai* in young children's creolized Tok Pisin in Morobe Province. In Verhaar, ed. 1990:187-203.

1993, The decline of predicate marking in Tok Pisin. In F. Byrne and J. Holm, eds *Atlantic meets pacific: a global view of pidginization and creolization*, 251-260. Amsterdam: Benjamins.

Sankoff, Gillian, 1977, Variability and explanation in language and culture: cliticization in New Guinea Tok Pisin. In M. Saville-Troike, ed. *Linguistics and anthropology*, 59-73. Washington, D.C.: Georgetown University Press.

1980, *The social life of language*. Philadelphia: University of Pennsylvania Press.

1984, Substrate and universals in the Tok Pisin verb phrase. In D. Schiffrin, ed. *Meaning, form, and use in context: linguistic applications*, 104-119. Washington, D.C.: Georgetown University Press.

1985, Touching pen, marking paper: Queensland labour contracts in the 1880s. In Deborah Gewertz and Edward Schieffelin, eds *History and ethnohistory in Papua New Guinea*, 100-126. Oceania Monograph No. 28. Sydney: University of Sydney.

1990, The grammaticalization of tense and aspect in Tok Pisin and Sranan. LVC 2:295-312.

1991, Using the future to explain the past. In F. Byrne and T. Huebner, eds *Development and structures of creole languages: essays in honor of Derek Bickerton*, 61-74. Amsterdam: Benjamins.

1993, Focus in Tok Pisin. In F. Byrne and D. Winford, eds *Focus and grammatical relations in creole languages*, 117-140. Amsterdam: Benjamins.

1994, An historical and evolutionary approach to variation in the Tok Pisin verb phrase. *Parasession on Variation and Linguistic Theory*. Chicago Linguistic Society 30.

Sankoff, Gillian and Penelope Brown, 1976, The origins of syntax in discourse: a case study of Tok Pisin relatives. *Language* 52:631-666.

Sankoff, Gillian and Suzanne Laberge, 1973, On the acquisition of native speakers by a language. *Kivung* 6:32-47.

Sankoff, Gillian and Claudia Mazzie, 1991, Determining noun phrases in Tok Pisin. *Journal of Pidgin and Creole Languages* 6:1-24.

Senft, Gunter, 1986, *Kilivila: the language of the Trobriand Islanders.* Berlin: Mouton de Gruyter.

Simons, Linda, 1985, Malaitan influence on two grammatical particles in Solomon Islands Pijin. *Papers in pidgin and creole linguistics* No.4, 53-65. *PL*, A-72.

Tryon, Darrell, 1987, *Bislama: an introduction to the national language of Vanuatu. PL*, D-72.

Verhaar, John W.M., ed., 1990, *Melanesian Pidgin and Tok Pisin.* Amsterdam: Benjamins.

1991, The function of *i* in Tok Pisin. *Journal of Pidgin and Creole Languages* 6:231-267.

Woolford, E., 1977, Aspects of Tok Pisin grammar. PhD dissertation, Duke University.

Wurm, S.A., 1971, *New Guinea Highlands Pidgin: course materials. PL*, D-3.

VARIATION IN NALIK GRAMMAR

CRAIG VOLKER

1. INTRODUCTION[1]

Nalik belongs to the Lavongai/Nalik Network of Austronesian languages of northern New Ireland (Ross: 1988:291; see map). It is spoken in villages on both the east and west coasts of the island and is bordered by Kara, another Austronesian language, to the north, and by Kuot, the only non-Austronesian language in New Ireland, to the south. The Nalik language has also been referred to as Lugagon, Fesoa and Fessoa (Grimes 1988:528) – all names of Nalik-speaking villages.

There are four geographic dialects of Nalik distinguished by relatively minor lexical variation: Northern East Coast, Southern East Coast, West Coast and Laefu Village. There is a strong tendency towards dialect levelling, especially among young speakers. There are quite noticeable lexical and phonological differences between these four dialects and the transitional dialects along the Nalik-Kara border, which may form a separate language. Data from these transitional dialects have not been used in this paper.

Recent census reports have regrettably not included data on non-urban language use, and recent and reliable information about the number of Nalik speakers is not available. However in the mid-1990 census a total of 3,210 people were recorded as living in villages in the Nalik area, with an additional 796 living in areas where transitional dialects linking the Nalik and Kara languages are spoken (PNG National Statistical Office 1992). This totals 4,006 persons. It can be reasonably assumed that about the same number of Nalik people live outside the Nalik area as do non-Nalik people in the Nalik area, so three to four thousand can be taken as a very rough approximation of the total Nalik population.

Today there are no monolingual Nalik speakers. All Nalik children attend English-medium primary school for six years. A more influential contact language, however, is Tok Pisin, which all Nalik speakers know. Indeed, for an increasing number of Nalik speakers this is the dominant language, especially in settings outside the home, and some younger ethnic Nalik use Tok Pisin to the exclusion of Nalik. Because many people now living in Nalik villages are not ethnic Nalik and do not understand the language well, it is rare to have public meetings which are entirely in Nalik. At weekly Monday morning village meetings, for

---

[1]   This paper is based on data collected during fieldwork in New Ireland made possible through the kind cooperation of the *mai mai* (clan orators) and community of Madina village, New Ireland, and the financial support of the National Science Foundation (through NSF Grant no. BNS-8819825), the East-West Center, Goroka Teachers College, and Gifu University for Education and Languages. This support is gratefully acknowledged. I would also like to acknowledge the assistance of the Institute of Papua New Guinea Studies, the New Ireland Provincial Government, and the New Ireland University Centre in facilitating administrative matters concerning my fieldwork.

451

example, the most important announcements are made in Tok Pisin, although often they are repeated and discussed in more detail in Nalik. Many other important public activities, such as school and religious meetings, are held entirely in Tok Pisin or English.

The mixed background of most families today plays an important part in this decrease in the use of Nalik. In a survey of students at one Nalik primary school, less than half the students reported that both their parents were Nalik.

In such a situation it is not surprising that the Nalik lexicon has been heavily influenced and, in the opinion of most older speakers, impoverished by Tok Pisin. At the same time, there is noticeable grammatical variation between different groups of speakers. This paper will examine nine types of grammatical variation found and discuss the possible motivation for this variation.

2. VARIATION INVOLVING VERBAL CONSTRUCTIONS

Four types of variation involving verbal constructions can be found in Nalik, dealing with passives, comparative constructions, negation and the choice of durative markers. The first three types of variation are between the speech of older traditional men and that of all other speakers, while in the choice of durative markers, it is between the speech of young and middle-aged men and that of all other speakers.

2.1 PASSIVE

The only people using passive constructions are older men with strong ties to traditional culture, usually *maimai* (clan orators). The formation of passives resembles that of English. Nalik is an SVO language. When a sentence undergoes passivisation, the underlying direct object becomes the surface subject, while the underlying subject is moved to the end of the sentence and marked by the oblique preposition *pa(n)*. The verb takes a passive participle form.

The following two sentences illustrate this. The first is non-passive with the subject *a vaat* 'the stone' and the direct object *a laplap* 'the sarong':[2]

(1)   *A   vaat   ka   taar   a   laplap.*
       ART   stone 3SG   tear   ART   sarong
       The stone is tearing the sarong.

---

2   The following abbreviations are used in this paper:

ADJ	adjectival verb	NP	noun phrase
ART	article	NSG	non-singular
CAUS	causative	OBL	oblique marker
COM	comparison	PASS	passive
DU	dual	PL	plural
DUR	durative	RED	reduplicated syllable
EXC	exclusive	SG	singular
FUT	future/irrealis	SM	subject marker
IN	inalienable	SPC	specific article
LOC	locative	TR	transitive
NEG	negative	i and j	are used to distinguish any two non-identical constituents
NOM	nominalisation		

The second sentence is the passive equivalent of the first. With passivisation the underlying direct object *a laplap* 'the sarong' moves to the sentence underlying subject position, the verb *taar* takes the participial form *raamataar*, while the underlying subject is in the sentence-final position as the head of a prepositional phrase beginning with the oblique marker *pa(n)*:

(2)   A   laplap ka   raamataar pan a   vaat.
          ART sarong 3SG PASS.tear OBL ART stone
          The sarong is being torn by the stone.

This passive construction may be nominalised, as in the following sentence in which *gu lis* 'you give' has undergone passivisation and subsequent nominalisation, becoming *a telasing sunum* 'your kindness':

(3)   Ka doxo marazat pan a   telas-ing   sunum.
          3SG good much   OBL ART PASS.give-NOM of.you.SG
          Thank you very much for your kindness (lit. that which was given by you).

Neither of these constructions was recorded in the speech of women or younger or middle-aged men. Indeed, some younger men judged sentences such as the two above to be ungrammatical. This is done even by speakers who are familiar with the passive construction in English.

Instead, younger speakers use direct object fronting to place focus on direct objects. Thus, to emphasise the direct object *a laplap* 'the sarong' in (1) a younger speaker produced the following sentence with the direct object fronted and no change in the verb:

(4)   A   laplap a   vaat ka   taar.
          ART sarong ART stone 3SG tear
          The sarong, the stone is tearing.

The motivation for the loss of passive constructions appears to come from both Tok Pisin and, somewhat surprisingly, English. Tok Pisin does not have a passive construction and direct object fronting is a strategy used by many Tok Pisin speakers to emphasise the direct object. Although the English passive construction is very similar to that of Nalik and primary education in English has been universal in New Ireland for over a generation, this English construction is still not accessible to most Nalik speakers. It is usually not taught until high school, which less than half of all Nalik children are able to attend, and even there it is usually taught by Papua New Guinean teachers who themselves rarely use it. The relatively few Nalik speakers who have a sufficient command of English to be able to understand and use English passives with ease tend to be members of the national elite under forty years of age who live in urban areas outside New Ireland. Because of their isolation from other Nalik speakers and their subsequent linguistic insecurity regarding Nalik, they have little influence on the use of Nalik in its homeland.

2.2 COMPARATIVES

To form comparatives, older men with high traditional status use one of two constructions with either an adjectival verb followed by the comparative verb *paamu* or the comparative verb *vu* followed by an adjectival verb. In either case the second verb in this serial construction has the transitive suffix *-ing*, so that the noun phrase being used as a point of comparison is a direct object.

Traditional comparative construction A:

NP$_i$	SM	ADJ	*paamuing*	NP$_j$

(5) *A   vaal   zunum   ka   vaaxor paamu-ing a   vaal   zina.*
    ART house of.you.SG 3SG new   COM-TR ART house of.he
    Your house is newer than his house.

Traditional comparative construction B:

NP$_i$ SM   *vu*   ADJ-*ing* NP$_j$

(6) *Ali   ka   vu   brav-ing John.*
    Ali   3SG COM tall-TR   John
    Ali is taller than John.

Today most speakers replace the comparative verb *vu* by the Tok Pisin / English loan *moa* 'more', with the oblique marker *pan* replacing the transitive suffix *-ing*.

Innovative comparison construction:

NP$_i$ SM   *moa*   ADJ   OBL   NP$_j$

(7) *Ali   ka   moa   brav   pan   John.*
    Ali   3SG COM tall   OBL John
    Ali is taller than John.

As with the passive construction, the motivation for this innovation appears to be the result of a conspiracy between grammatical influences from both Tok Pisin and English being brought into Nalik along with the loan *moa*. Whereas in the traditional Nalik constructions the noun phrase which is the measure of comparison has a direct object grammatical relation, in both Tok Pisin and English it has an oblique grammatical relation, marked by *long* and *than* respectively. The innovative Nalik construction is a calque of the Tok Pisin equivalent with the oblique preposition *long*:

Tok Pisin comparison construction:[3]

NP$_i$ SM   *moa*   ADJ   OBL   NP$_j$

(8) *Ali   i   moa   bikpela   long   John.*
    Ali   SM COM tall   OBL John
    Ali is taller than John.

---

3 Although Tok Pisin *i* is usually analysed as a verbal marker, Keesing's (1988) analysis of it as a "subject reference pronoun" (i.e. subject marker) brings out the identical grammatical structures of the Tok Pisin and innovative Nalik comparative constructions.

The English equivalent of this construction uses *more* and *than*. English *than* not only reinforces the oblique grammatical relation of the noun phrase which is the measure of comparison, but also influences both the choice of the oblique marker *pan* rather than the oblique marker *ku(n)*, which is also available in Nalik, and the unusual form of *pan* which is used in comparative constructions. Elsewhere *pa(n)* is like other Nalik prepositions ending in *-n*, deleting the final *-n* when the following word begins with a consonant. In comparative constructions *pan* always has a final *-n*, even when the following word begins with a consonant, such as *John* in the example above. With this final *-n*, Nalik *pan* resembles and even rhymes with its English equivalent *than*.

2.3 NEGATION

As with passives and comparatives, there is variation in the use of negation between older Nalik men with traditional ties and other speakers. For most speakers, the use of the future marker *na* is obligatory in all sentences in which negation is expressed by the negative marker *pen/wen*,[4] as in the following sentence:

(9) *Ga   na   wen faral.*
     1SG FUT NEG write
     I won't write (anything).

While older men with high traditional status were likewise recorded using the future marker with the negative marker, they also produced sentences such as the following, with a negative marker, but no future marker:

(10) *A   rapti di   bur   naan l-a   rabarau, ka   pen*
     ART man 3NSG consecrate he   LOC-ART fence   3SG NEG

     do-dor   ausait.
     RED-speak outside
     The man whom they consecrate in the sacred enclosure may not speak outside (about the details of his consecration).

Sentences such as these were judged ungrammatical by younger speakers.

The motivation for this variation appears to be a shift in the meaning of *na* from being a future to an irrealis marker.[5] Among older speakers a negated activity may or may not involve future activity, so the use of *na* is optional. For younger speakers all negated activity is irrealis, so the use of *na* is obligatory.

2.4 DURATIVE MARKERS

Nalik has two preverbal durative markers, *-t* and *i*. For most speakers *-t* is used with transitive verbs, and *i* is used with intransitive verbs. Their use can be seen in the following two sentences, with transitive *firing* 'yell' and intransitive *viang* 'ascend', respectively:

---

4   Negation in Nalik can also be expressed by prefacing the sentence with *kavit* 'no'. Unlike sentences with the negative marker *pen/wen*, these sentences are grammatical either with or without the future marker *na*.

5   I am indebted to Nicholas Faraclas for this observation.

(11) *A   rapti ka-t   fir-ing   fa-wut   maam.*
      ART man 3SG-DUR yell-TR CAUS-come we.EXC
      A man was yelling out to us.

(12) *A   ravin ka   i   viang.*
      ART woman 3SG DUR ascend
      The woman is ascending (i.e. heading south-east).

These two durative markers can differentiate between the transitive and intransitive use of the same verb. For example, in the first of the following two durative sentences, *naxaam* 'think' has a direct object *nu* 'you', so transitive *-t* is used, while in the second there is no direct object, so intransitive *i* is used:

(13) *Uwe, ga-t   naxaam buling nu.*
      ah   1SG-DUR think   always you.SG
      Ah, I'm always thinking of you.

(14) *Ga   i   naxaam be.*
      1SG DUR think   only
      I'm just thinking.

While the preceding explanation is true for most speakers, among many young and middle-aged men this distinction between the two durative markers is being reinterpreted. Instead of differentiating transitivity and intransitivity, they differentiate degrees of duration, with *i* being stronger than *-t*. Thus, for these speakers example (14) is a stronger (i.e. longer) version of example (13). No speakers who make this innovative distinction make it with all verbs. No two innovative speakers have exactly the same verbs which are marked for this innovation, but high frequency verbs, such as *naxaam* 'think', are more likely to have this innovation than low frequency verbs. Thus, the innovation is spreading throughout the lexicon at the same time that it is spreading throughout the population.

The motivation for this innovation appears to come from Tok Pisin, albeit in an indirect fashion. Tok Pisin has only one durative marker, *save*. It also has an invariable subject marker *i*, which comes immediately before the verb. Younger Nalik speakers appear to draw an analogy between the Tok Pisin *i* and the Nalik *i*, even though they have different grammatical functions in the two languages. At the same time, the fact that Tok Pisin has only one durative marker influences bilingual Nalik speakers to have only one durative marker in Nalik as well. The result of these two influences from Tok Pisin is that Nalik *i* is becoming used in environments where before *-t* would have been used. For example, both of the following sentences with durative markers and a direct object *ni* 'I,' were accepted by many younger speakers, with the first, using *i*, being judged as 'stronger' than the second, with *-t*:

(15) *Ka   i   ngot-ngot   ni.*
      3SG DUR RED-mock I
      He's mocking me.

(16) *Ka-t   ngot-ngot   ni.*
      3SG-DUR RED-mock I
      He's mocking me.

Although there are not yet any speakers who use *i* to the exclusion of -*t*, this can be expected to be the next logical development in the use of duratives in Nalik.

3. VARIATION INVOLVING NOUN PHRASES

Three types of variation involving noun phrases were recorded among different Nalik speakers. These involve the use of plural and dual markers and the marking of inalienable possession. In all three cases, the innovation involves the loss of a marked feature. Influence from English and Tok Pisin is also evident, particularly regarding inalienable possession.

3.1 THE PLURAL MARKER

The regular marking of plural in Nalik uses the plural marker *mun* between the article and noun. For example:

(17) a. *a   yai*   b. *a   mun yai*
       ART tree   ART PL   tree
       the tree   the trees

Two words describing female humans use the irregular plural marker *fu* rather than *mun*:

(18) a. *a   ravin*   b. *a   fu-ravin*
       ART woman   ART PL-woman
       the woman   the women

(19) a. *a   fnalik*   b. *a   fu-fnalik*
       ART girl   ART PL-girl
       the girl   the girls

Many younger and middle-aged speakers use both the regular and the irregular plural markers together with these words, as in the following sentence. Even speakers who do not use these redundant plural forms themselves usually judged them grammatical. Only older men judged them ungrammatical.

(20) *a   mun fu-ravin,   a   mun fu-fnalik*
     ART PL   PL-woman ART PL   PL-girl
     the women, the girls

This innovation results in the loss of a marked irregularity. One would expect that the redundant *fu-* would be absorbed into the noun. As yet, however, this has not happened, so that all speakers judged noun phrases such as the following, using *fu-* with a singular noun, ungrammatical:

(21) **a   fu-ravin   azaxei*
     ART PL?-woman   one
     one woman

One might also expect that there would be speakers who leave out *fu-* with these words and use only the regular plural marker *mun* (i.e. **a mun ravin*). There are not, at least not yet, many speakers for whom this is grammatical.

3.2 THE DUAL MARKER

Normally, all Nalik noun phrases begin with the article *a*. An exception is when the dual marker *uru* or its short form *u* is used. For example:

(22) a. *uru nalik*   b. *u   nalik*
         DU boy   DU boy
         two boys   two boys

The long form of the dual marker, *uru*, is homophonous with the numeral 'two'. Like other indigenous numerals (as opposed to Tok Pisin loan numerals), the numeral *uru* follows the noun, which is preceded by the article. For example:

(23)   *a   nalik uru*
         ART boy   two
         the two boys

A number of speakers were recorded using *uru* after the article *a*, but before the head noun. For example:

(24)   *a   uru nalik*
         ART DU boy
         the two boys

Most of the speakers using this form were children or teenagers, although a few were in their twenties. None of these speakers was recorded using the short form of the dual marker *u*, either preceding or following the head noun.

Since Tok Pisin does not have an article, the influence of Tok Pisin on this construction can only be indirect. Tok Pisin numerals are in common use in Nalik and, as in Tok Pisin itself, they precede the head noun they modify. For example:

(25)   *a   sikis nalik*
         ART six   boy
         the six boys

A more likely source of this innovation is a conspiracy between the tendency among young bilingual Nalik speakers to drop marked grammatical features, together with the English use of the article before a numeral (e.g. *the two boys*). In this regard it is noteworthy that all the speakers using this innovation have received primary school education in English.

The fact that none of the speakers using this innovation used the short form of the dual marker *u*, either with or without a preceding article, indicates that these speakers now analyse *uru* only as a numeral, not as a dual marker which also has a shortened form. This is consistent with the hypothesis that this innovation represents a convergence with English, which has neither a dual grammatical category nor a shortened form of *two*.

3.3 ALIENABLE AND INALIENABLE POSSESSION

The distinction between alienable and inalienable possession is a well-known characteristic of Oceanic languages. For this reason, perhaps the most surprising variation between the speech of different groups of Nalik speakers is the lack of distinction which many speakers are now beginning to make between alienable and inalienable possession.

Traditionally, Nalik has used either a possessive pronoun or the preposition *si* 'of' to mark alienable possession. For example:

(26) a. *a   baxot saraga*
        ART money of.I
        my money

     b. *a   vaal   si Tahirih*
        ART house of Tahirih
        Tahirih's house

The inalienable possession of body parts (including spiritual body parts such as soul, shadow and name) and family members (including the Deity and inalienable customary land) is traditionally expressed with inalienable possessive suffixes. For example:

(27) *a   mit-nagu*
     ART hand-my.IN
     my hand

(28) *a   iza-gu*
     ART name-my.IN
     my name

(29) *a   yaya-naande*
     ART grandparent/child-their.IN
     their grandparent/child

Today there is a continuum of use ranging from the most conservative speakers who follow the patterns described above to the most innovative speakers, who seldom use the marked inalienable forms. Innovative speakers, for example, were recorded using alienable possessives with all three of the inalienable nouns in the examples above:

(30) *a   mit saraga*[6]
     ART hand of.I
     my hand

(31) *a   iza zaraga*
     ART name of.I
     my name

(32) *a   yaya   zi naande*
     ART grandparent/child of they
     their grandparent/child

---

6   The alternation between /s/ in (30) *saraga* 'my' and /z/ in (31) *zaraga* 'my' (and between *si* 'of' in (26) and *zi* 'of' in (32)) is not significant; under most circumstances fricatives are voiced when immediately preceded by a vowel or liquid.

In this continuum there is so much variation that it is rare for any two speakers to agree on the use or non-use of inalienable possessives with all words. In addition to variation between speakers, the loss of markedness for inalienable possession seems to spread item by item through an individual's lexicon, rather than being lost all at once as a grammatical category. Inalienable forms tend to be retained less with common words than with relatively uncommon words. For example, in the following sentence inalienable possession is used with the infrequent kinship term *moro* 'maternal relative', but not with the more common *nalik* 'boy, son':

(33)   *Masingkarei ga   saxot ga   na   bur   ta   moro-gu*
       but   1SG like   1SG FUT consecrate SPC maternal.relative-my.IN

       o   ta   nalik surago...
       or SPC boy   of.I
       But (if) I want to consecrate a certain maternal kinsman or a certain son of mine...

The younger and less traditionally-oriented speakers are, the more likely they are to use alienable rather than inalienable forms with body parts and kinship terms. In any age group, males are less likely to use inalienable forms than females. Moreover, this trend is more pronounced among Northern East Coast dialect than West Coast dialect speakers. This can be seen in the difference in the speech of grade five and six children aged ten to thirteen from West Coast dialect speaking Luapul village and Northern East Coast dialect speaking Madina village, all of whom attend Madina Community School. When asked to introduce themselves in Nalik, Luapul children invariably used the conservative inalienable form shown in example (28), while Madina children invariably used the innovative alienable form shown in example (31). This indicates that the centre of this innovation has been with young males from the Northern East Coast dialect who are not traditionally oriented.

The motivation for this innovation is threefold. In addition to the trend in Nalik to discard marked grammatical constructions such as the inalienable possessives, neither Tok Pisin nor English has such forms. In this regard it is noteworthy that the only high schools in the Nalik area are two boarding schools, each with two or three hundred predominantly non-Nalik boarders. Both are located in the Northern East Coast dialect area. Northern East Coast children are therefore exposed to a greater amount of Tok Pisin and, to a lesser extent, English, from teenage role models than children in other areas.

4. VARIATION WITH THE PREPOSITION *feraxei*

To express 'with', most speakers use the preposition *feraxei* followed by the oblique marker *pa(n)* (usually realised as *wa(n)* for phonological reasons). For example:

(34)   *A   rate xa   dor-dor   feraxei wan a   ravin.*
       ART man 3SG RED-speak with   OBL ART woman
       The man is chatting with a woman.

But a number of younger and middle-aged speakers, as well as a few older speakers with weak traditional ties, shorten *feraxei* to *fexei* (or *vexei*) and use it without *pa(n)*. For example:

(35)   *Ga   zi-zir   vexei naande.*
        1SG RED-sit with   they
        I'm sitting down with them.

One loquacious teenager who is a popular leader in his peer group was recorded using a different shortened form of this preposition, *fara*, together with the transitive suffix *-ing* instead of the oblique marker *pa(n)*, as in the following sentence. It is not clear if this is a personal idiosyncrasy at this stage or whether it is used by other speakers.

(36)   *naanda vaagdul fara-ing John*
        they   all   with-TR   John
        all of them (together) with John

These innovations seem to reflect a feeling that, for many speakers, the use of *pa(n)* with *feraxei* is at least old-fashioned, and possibly ungrammatical. This is undoubtedly due to the influence of Tok Pisin *wantaim* and English *with*, neither of which is followed by an oblique marker, such as Tok Pisin *long*. The lack of agreement about the 'correct' form of the innovation may reflect insecurity about the grammatical relation which the noun phrase following *feraxei* should have once the oblique marker has been discarded. The second innovation, with a transitive marker identifying it as a direct object, may be the result of interpreting Tok Pisin *wantaim* as a stem ending in *-a*, *wanta*, so that it resembles Nalik *fara*. The final *-im* of *wantaim* is then analysed as the Tok Pisin transitive suffix *-im*, the equivalent of Nalik *-ing*. Such an interpretation would result in a clearly marked direct object grammatical relation of a noun phrase following both Tok Pisin *wantaim* and Nalik *fara(-ing)/feraxei*.

5. CONCLUSION

The nine innovations resulting in the variation discussed in this paper are summarised in Table 1. These innovations are the result of bilingualism in Tok Pisin among all speakers and widespread knowledge of at least basic English among even some older speakers. Both of these have been caused by the great social change which Nalik society has experienced in this century. The increasing dominance of Tok Pisin has resulted in linguistic insecurity among some speakers which may be an early indication of language death.

As one would expect, the centres of innovations are generally younger speakers and/or speakers who have relatively weak traditional ties and status. The centre for at least one innovation, the loss of marked inalienable possessive forms, is in the Northern East Coast dialect area. Just as the innovations spread through the population at an uneven rate, so too do they spread unevenly through the lexicon of each individual speaker.

For the most part the language is changing at its weakest points, which are its marked features. This is especially so where the loss of a marked feature is reinforced by Tok Pisin or English forms. This represents the convergence of the grammars of the two or three languages which bilingual and trilingual Nalik speakers use. Since this convergence is in the direction of Tok Pisin and English away from traditional Nalik forms, one must conclude that Tok Pisin and English are dominant in relation to Nalik.

TABLE 1: RECENT INNOVATIONS IN NALIK		
INNOVATION	USED ESPECIALLY BY WHOM?	POSSIBLE MOTIVATION
1. no passive	all but older traditional men	Tok Pisin, PNG English loss of marked feature
2. *moa* comparatives	all but older traditional men	English, Tok Pisin
3. future with negation	all but older traditional men	reinterpretation of future marker as irrealis
4. *i* durative with transitives	young and middle-aged men	Tok Pisin loss of marked feature
5. use of *mun* plural marker with irregular *fu-*	all but older traditional men	loss of marked feature
6. article with dual marker	teens and children	English loss of marked feature
7. no alienable / inalienable distinction	younger speakers, men, North East Coast	English, Tok Pisin loss of marked feature
8. no oblique marker after *feraxei* 'with'	teens and children	Tok Pisin, English
9. transitive marker after *feraxei* 'with'	male teenager	reinterpretation of grammatical relation

REFERENCES

Grimes, Barbara F., ed., 1988, *Ethnologue: languages of the world*. Dallas: Summer Institute of Linguistics.

Keesing, Roger, 1988, *Melanesian Pidgin and the Oceanic substrate*. Stanford: Stanford University Press.

Ross, M.D., 1988, *Proto Oceanic and the Austronesian languages of western Melanesia. PL*, C-98.

Ihan manu ata Raga 'NAMES OF BIRDS BELONGING TO RAGA': AN EMIC CLASSIFICATION OF THE BIRDS OF NORTH PENTECOST

D.S. WALSH AND RICHARD LEONA

1. INTRODUCTION

This paper aims primarily to present and comment on Richard Leona's subgrouping of the labelled *manu* 'bird' categories of his first language, Raga, which is spoken on North Pentecost, Vanuatu. The presentation also associates the Raga *manu* terms with both the formal ornithological and the lay English nomenclatures.[1]

1.1 LOCALE, TOPOGRAPHY AND VEGETATION

Pentecost Island, in north-eastern Vanuatu, between 15°23' and 16° south, and between 168°4' and 168°14' east, is so named because Cook sighted it on Whit Sunday in 1774. Its local names, Raga and Arag, have been effectively supplanted by Pentecost, despite some general post-independence pressures to localise introduced placenames. The island is about 58 kilometres from north to south, and up to 13 kilometres from east to west.[2]

The northern and central regions consist primarily of raised coral limestone, reaching up to about 940 metres above sea-level in the central region, while the southern region consists in part of raised coral limestone, and in part of various volcanic rocks. Much of the eastern coastline is rugged and inhospitable, with extensive cliffs, and is frequently pounded by the turbulent *tahi mauri* '(the) sea (that is) alive/living'; while the western coastline is predominantly gentler, with many small sandy beaches lapped by the usually placid lee-shore *tahi mate* '(the) dead/calm sea'.

The northern third of Pentecost is the homeland of about 3,500 speakers of the Raga language. This region has smallish areas of flat land on the western and northern coasts, an undulating plateau of between about 150 and 200 metres above sea-level in the northern eight kilometres, and a higher undulating plateau of between about 250 and 320 metres above sea-level in the southern part. Most of the Raga people live in villages on the northern and western coastal land, on the plateaux, and, as a result of recent increasing pressure of

---

© D.S. Walsh and Richard Leona

population on cultivable land, on the less accessible and more mosquito-ridden eastern coastal region.

The natural forest cover of North Pentecost has been modified in virtually all the easily to moderately accessible areas and even in some of the less accessible areas, by many centuries of slash-and-burn subsistence horticulture, and has been affected in some (mainly coastal) areas by the planting of coconut trees for copra production. The rotating cycle of subsistence horticulture has created considerable areas of second-growth natural vegetation cover in varying stages of maturity. Four broad etic types of vegetation-complex may therefore be distinguished: coastal, current garden-land, fallow garden-land and virgin forest.

1.2 LANGUAGE AND ORTHOGRAPHY

The Raga language is a member of a lower-order grouping within the notional Eastern Oceanic (EO) subgroup of East Austronesian,[3] and its closest relatives are the languages of north-eastern Vanuatu.[4]

Most of the orthographic symbols used for the Raga data have one-letter-one-phoneme values, and have broadly conventional sound values, with the following exceptions: *b* is a bilabial stop with or without voicing, *bw* is a bilabial stop with voicing and labio-velarised release, *ḡ* is a velar stop with voicing and homorganic prenasalisation, *v* is a labio-dental fricative with or without voicing, *vw* is a labio-dental fricative with or without voicing and with labio-velarised release, *g* is a velar fricative with or without voicing, *mw* is a bilabial nasal with labio-velarised release, and *n̄* is a velar nasal.[5]

1.3 ETIC AVIFAUNAL PERSPECTIVE

There are two substantial published ornithological studies which cover Vanuatu: Mayr (1945, republished 1978) in which Vanuatu is considered along with the other regions of the south-west Pacific, and Bregulla (1992) which is devoted exclusively to Vanuatu. According to Mayr (1978:176) there are "about 54 native species of land and fresh-water birds known from this region [Vanuatu]", and he also associates a few sea and seashore birds with Vanuatu. Bregulla describes 121 land, freshwater, sea and seashore species as present in Vanuatu (1992:77-274), of which about 80 breed there (pp.56-61), including 35 land and freshwater species which are ornithologically recorded as breeding on Pentecost (pp.71-75).

1.4 RAGA DATA SOURCES

The Raga data for this paper were obtained by the authors in the course of compiling a dictionary of the language. The main ongoing Raga input on *manu* has been from Richard Leona with substantial assistance in the early stages from Peter Saḡai, and with many valuable supporting contributions from other Raga speakers.

---

3   The basis for, and the composition of, EO are considered in Biggs (1965) and Pawley (1972).
4   The relevant lower-order groupings of the languages of northern and central Vanuatu are considered in Tryon (1976:79-93) and Walsh (1982).
5   For *b*, *bw* and *d* there are phonologically conditioned homorganically prenasalised allophones, but the relevant conditioning does not occur in the context of the cited data.

At various times between 1969 and 1982 three kinds of information on *manu* were accumulated: (i) fieldnotes on the size, shape, plumage, habitat, cultural significance, etc., of the referent or range of referents for each labelled *manu* category; (ii) the associating, by three Raga speakers, of the *manu* labels with stuffed bird specimens, labelled in terms of the ornithological and the lay English nomenclatures, which were on display in 1972 in the Cultural Centre Museum in Port Vila;[6] and (iii) checking and refining of the associating of the *manu* labels with the ornithological and lay English nomenclatures when Mayr (1978) became available. Some supplementary refining of ornithological detail also came from conversations with Ralph Bulmer and from correspondence with Jared Diamond. The latest inputs have been Leona's subgrouping statement for the labelled *manu* categories, and Walsh's use of Bregulla (1992) and Marchant and Higgins (1990, 1993) to further refine the *manu* glosses.

2. AN EMIC SUBGROUPING OF THE LABELLED *manu* CATEGORIES

In this section Leona's emic subgrouping of the labelled *manu* categories is presented. Leona regards this subgrouping as being essentially that which is generally current among Raga speakers. These subgroups are covert categories; they do not have specific unitary labels, but they can be, and are, referred to by means of the descriptive constructions which are used below.

In this subgrouping presentation the labelled *manu* categories are associated with both the formal ornithological and the lay English nomenclatures. Within the glosses, page references to the two main ornithological sources are preceded by M for Mayr (1978) or B for Bregulla (1992). The following symbols are used: ~ occurs between alternant or variant labels; in the Raga *manu* labels a hyphen indicates a morpheme boundary within a word, and (-) indicates a possible such boundary.

2.1 *manu-n imwa* 'BIRDS OF (THE) HOUSE'

These are *manu* which are familiar in and around the house, and which often nest in the roof timbers.

2.1.1 *bet(-)bete-a(-)ulu*

Hirundo tahitica subfusca Pacific Swallow (M188, B215); ~ House Swallow ~ Coast Swallow ~ Welcome Swallow (B215). Recorded as breeding on Pentecost (B72). (See also 2.4.2)

2.2 *manu-n mahava* 'BIRDS OF (THE) SPACE' ~ *manu-n mahava ten lañi* 'BIRDS OF (THE) SPACE UNDER (THE) SKY'

These are *manu* which habitually fly high in the space between the earth and the sky.

---

6   The specimens in the Cultural Centre display were mounted and labelled primarily by Bregulla.

2.2.1 *arulai*

Falco peregrinus nesiotes Peregrine Falcon (M178, B128). Although there is as yet no ornithological record of this species on Pentecost, the Raga identification is unequivocal.

2.2.2 *mala*

Circus approximans approximans Swamp Harrier (M178, B125-126); ~ Marsh Hawk ~ Marsh Harrier ~ Australasian Harrier (B125). Recorded as breeding on Pentecost (B72).

2.2.3 *mal-kal-bwiru*

Accipiter fasciatus vigilax Australian Goshawk (M177, B123); ~ Brown Goshawk (B123). Although this species has been ornithologically recorded only for Aneityum (M177, B124) and possibly Efate (B124), the Raga identification is unequivocal.

2.3 *manu-n mwanea* 'BIRDS OF (THE) GRASS' ~ *manu-n tano* 'BIRDS OF (THE) GROUND'

These are *manu* which are usually found on the ground in open grassy areas.

2.3.1 *boro-gai*

Rallus philippensis sethsmithi Banded Rail (M179); *Gallirallus philippensis sethsmithi* Banded Rail ~ Buff-banded Rail (B138).[7] Recorded as breeding on Pentecost (B72).

2.3.2 *bwat-bwiru* ~ *bwiru*

Porphyrio porphyrio aneityumensis Purple Swamphen (M179); *Porphyrio porphyrio samoensis* Purple Swamphen ~ Purple Gallinule (B143).[8] Recorded as breeding on Pentecost (B72).

2.3.3 *mwalau*

Megapodius freycinet layardi Incubator Bird (M178, B132); ~ Scrub Fowl (B132). Recorded as breeding on Pentecost (B72). Occurs also as 2.5.1.16.

2.3.4 *tarere-sañvulu* 'COMB-TEN'

A variety of *toa* (2.3.5).

---

[7]   *Gallirallus philippensis* (B138) is supported by Marchant and Higgins (1993:495).

[8]   Marchant and Higgins (1993:577) prefer 'Purple Swamphen' for *Porphyrio porphyrio*, as 'Purple Gallinule' is already in use for *Porphyrio martinica*.

2.3.5 *toa*

Gallus gallus Red Jungle Fowl ~ Wild Fowl ~ Jungle Fowl (B136); also various domestic fowl breeds and Jungle Fowl-domestic fowl crosses.

2.4 *manu-n tahi* 'BIRDS OF (THE) SEA (AND SEASHORE)'

Some of these *manu* fly over the open sea, and some are found around the seashore.

2.4.1 *ahi-gari* 'MOVE/TURN OVER (THE) SHELLFISH CALLED *gari*'

Pluvialis dominica fulva Pacific Golden Plover (M37); *Pluvialis fulva* Pacific Golden Plover ~ Lesser Golden Plover ~ Eastern Golden Plover (B149).[9] A migratory visitor which spends September-April/May in Vanuatu.

2.4.2 *bet(-)bete-a(-)ulu*

Collocalia vanikorensis vanikorensis Vanikoro Swiftlet (M149); *Aerodramus vanikorensis vanikorensis* Uniform Swiftlet ~ Vanikoro Swiftlet ~ Island Swiftlet ~ Lowland Swiftlet (B206). Recorded as breeding on Pentecost (B72). (See also 2.1.1.)

2.4.3 *man-duru-one* 'BIRD (THAT) POKES BEACH-SAND'

Numenius phaeopus variegatus Whimbrel (M39, B153); ~ Asiatic Whimbrel (B153). A migratory visitor which spends September-March/April in Vanuatu.

2.4.4 *man-ḡeḡe* 'BIRD (WITH) SPREAD WINGS'

Sterna fuscata serrata Sooty Tern (M25, B164-165); ~ Wideawake Tern (B164). "[It] is a pelagic species and in normal conditions comes to islands only to breed" (B165). It has not been recorded as breeding on Pentecost, and when it comes inland it is regarded as a sign of an impending cyclone.

2.4.5 *man-seḡe* 'BIRD (WITH) BENT WINGS'

Fregata minor Pacific Man-o'-War (M20); ~ Great Frigatebird ~ Man of War bird ~ Sea Hawk (B103); and/or *Fregata ariel* Least Man-o'-War (M20); ~ Least Frigatebird ~ Lesser Frigatebird ~ Man of War bird ~ Sea Hawk (B104).

2.4.6 *man-siro-boe* 'BIRD (THAT) SEEKS PIG'

Diomedea exulans Wandering Albatross (M6, B81); and/or *Diomedea epomophora sanfordi* Royal Albatross (M6, B81).

---

9   Marchant and Higgins (1993:800) agree with B149-150 on distinguishing *Pluvialis fulva* 'Pacific Golden Plover' from *Pluvialis dominica* 'American Golden Plover'.

2.4.7 ova

The dark phase/morph of *Demigretta sacra* Reef Heron (M177); *Ardea (Egretta) sacra* Eastern Reef Heron ~ Reef Heron ~ Reef Egret (B111); *Ardea sacra* Eastern Reef Egret ~ Blue Heron ~ Reef Heron ~ Blue Reef Heron ~ Sacred Heron ~ Pacific Heron (Marchant & Higgins 1990:1002). Recorded as breeding on Pentecost (B72). (See also 2.4.8.)

2.4.8 ova-maita 'WHITE ova'

The white phase/morph of *Demigretta sacra/Ardea sacra*. Gloss details are as for 2.4.7 except that "White Heron ~ White Reef Heron" replaces "Blue Heron ~ Blue Reef Heron" in the Marchant and Higgins data. Recorded as breeding on Pentecost (B72).

2.4.9 taraño

Puffinus l'herminieri gunax Dusky Shearwater (M10); *Puffinus lherminieri gunax* Audubon's Shearwater (B91; Marchant & Higgins 1990:662); ~ Dusky-backed Shearwater (B91). Not recorded as breeding on Pentecost, but note "perhaps breeding in Vanuatu" (Marchant & Higgins 1990:662), and "It is likely that Audubon's Shearwater still breeds in Vanuatu but colonies have yet to be located" (B92). Other Shearwater and/or Petrel species may possibly also be included under *taraño*.

2.5 manu-n ute vono 'BIRDS OF PLACE THICK'

These *manu* are found where there is dense vegetation cover. There are three subclasses of *manu-n ute vono*, between which there is some overlapping membership, indicated below by "Occurs also as...".

2.5.1 manu-n ut metue 'BIRDS OF PLACE DARK'

These are *manu* that live principally in the virgin forest.

2.5.1.1 biri(-)via

Myiagra caledonica marina Broad-billed Flycatcher (M192-193, B231). Recorded as breeding on Pentecost (B74).

2.5.1.2 bune

Possibly the immature *Ptilinopus greyii* Red-bellied Fruit Dove, for which species see also under *vweru* (2.5.1.22) and *roi(-)rau* (2.5.1.17). Occurs also as 2.5.2.1.

2.5.1.3 *bwat-higo ~ higo*

Halcyon chloris santoensis and/or *Halcyon chloris juliae*[10] White-collared Kingfisher (M185-186, B208-209). *Halcyon chloris* (race unspecified) is recorded as breeding on Pentecost (B72). Occurs also as 2.5.3.1.

2.5.1.4 *bwat(-)i-manu*

Myzomela cardinalis tenuis Cardinal Honey-eater (M197, B247). Recorded as breeding on Pentecost (B74).

2.5.1.5 *bwat-vwisi ~ vwisi*

Tyto alba interposita Barn Owl (M184, B199-200). Recorded as breeding on Pentecost (B72).

2.5.1.6 *bwau(-)eve*

Macropygia mackinlayi mackinlayi Rufous-brown Pheasant-Dove (M181, B183). Recorded as breeding on Pentecost (B72). Occurs also as 2.5.2.2 and 2.5.3.2.

2.5.1.7 *deña*

Vini palmarum Green Palm Lorikeet (M183); *Charmosyna palmarum* Green Palm Lorikeet ~ Vanuatu Lorikeet (B191).[11] Recorded as breeding on Pentecost (B72).

2.5.1.8 *esi(-)esi*

Turdus poliocephalus malekulae Island Thrush (M190, B222). Recorded as breeding on Pentecost (B72).

2.5.1.9 *gaba(-)gaba*

Collocalia esculenta uropygialis Glossy Swiftlet (M185, B203); ~ White-bellied Swiftlet (B203). Recorded as breeding on Pentecost (B72). This *manu* category may also include *Collocalia spodiopygius leucopygia* White-rumped Swiftlet (M185); *Aerodramus spodiopygius leucopygia* White-rumped Swiftlet ~ Grey-rumped Swiftlet ~ Grey Swiftlet (B204-205).[12]

---

[10] In terms of the distributions for *Halcyon chloris santoensis* and *Halcyon chloris juliae* given in M186 and B209 it is unclear whether Pentecost is regarded as being in northern or in central Vanuatu, therefore one has to conclude that either or both of these races may be present on Pentecost.

[11] "Formerly the 14 *Charmosyna* species were grouped together in the genus *Vini*...They have now, on reasonable grounds, been placed by most authors in the genus *Charmosyna*" (B191).

[12] M185 has the White-rumped Swiftlet as "found throughout the New Hebrides", but B205 notes that "by the 1960s it was found only on Malo and on the west coast of Santo where it was uncommon".

2.5.1.10 *laga(-)laga-n-ut-metue* '*laga(-)laga* OF (THE) PLACE DARK'

Female *Pachycephala pectoralis banksiana* Golden Whistler (M194-195, B227); ~ Common Golden Whistler ~ Thickhead (B227). Recorded as breeding on Pentecost (B74). (See also 2.5.1.21.)

2.5.1.11 *livusi-ḡala*

Eudynamis taitensis Long-tailed New Zealand Cuckoo (M184, B197). A migratory visitor which spends April - September in Vanuatu.[13]

2.5.1.12 *man-bona*

Ducula pacifica pacifica Pacific Pigeon (M181, B177-178); ~ Pacific Imperial Pigeon (B177). Recorded as breeding on Pentecost (B72). Occurs also as 2.5.2.3.

2.5.1.13 *man-malageha* 'BIRD GREEN'

Ptilinopus tannensis Tanna Fruit Dove (M180); ~ Vanuatu Fruit Dove ~ Yellow-headed Fruit Dove (B175). Recorded as breeding on Pentecost (B72). Occurs also as 2.5.2.4.

2.5.1.14 *man-wali-rau* 'BIRD (THAT) COPULATES (WITH) LEAF'

Possibly *Erythrura cyanovirens regia* Red-headed Parrot-Finch (M199-200); *Erythrura cyaneovirens regia* Royal Parrotfinch ~ Red-headed Parrotfinch (B264-265). Recorded as breeding on Pentecost (B74).[14]

2.5.1.15 *mwaragi*

Chalcophaps indica sandwichensis Green-winged Ground Pigeon (M181-182); ~ Green-winged Ground Dove ~ Green-winged Emerald Dove ~ Emerald Ground Dove (B184-185). Recorded as breeding on Pentecost (B72). Occurs also as 2.5.3.5.

2.5.1.16 *mwalau*

Occurs also as 2.3.3, where gloss details are provided.

2.5.1.17 *roi(-)rau*

Possibly *Ptilinopus greyii* Red-bellied Fruit Dove, for which species see also under *vweru* (2.5.1.22) and *bune* (2.5.1.2). Occurs also as 2.5.2.5.

---

[13]   Note M184 "Rather rare in the New Hebrides", and B198 "It is a rather rare visitor to Vanuatu".

[14]   M200 does not include Pentecost for this species, but B264 and Diamond (pers.comm., 1979) clearly do.

2.5.1.18 *siviru*

Trichoglossus haematodus massena Coconut Lory (M183, B189); ~ Rainbow Lorikeet ~ Rainbow Lory (B189). Recorded as breeding on Pentecost (B72). Occurs also as 2.5.3.6.

2.5.1.19 *tagere*

Rhipidura fuliginosa brenchleyi Collared Fantail (M192, B235); ~ Grey Fantail (B235). For this species see also under *vwet(-)vete-rerea* (2.5.1.23). Recorded as breeding on Pentecost (B74).

2.5.1.20 *tutu*

Ducula bakeri Baker's Pigeon (M181); ~ Vanuatu Mountain Pigeon ~ Baker's Imperial Pigeon (B180). Recorded as breeding on Pentecost (B72).

2.5.1.21 *vovov-ninovi* 'GARDEN RE-CUT YESTERDAY'

Male *Pachycephala pectoralis banksiana* Golden Whistler (M194-195, B227); ~ Common Golden Whistler ~ Thickhead (B227). The species is recorded as breeding on Pentecost (B74). (See also 2.5.1.10.)

2.5.1.22 *vweru*

Ptilinopus greyii Red-bellied Fruit Dove (M180, B172). See also under *bune* (2.5.1.2) and *roi(-)rau* (2.5.1.17). Recorded as breeding on Pentecost (B72). Occurs also as 2.5.2.6.

2.5.1.23 *vwet(-)vete-rerea*

Rhipidura fuliginosa brenchleyi Collared Fantail (M192, B235); ~ Grey Fantail (B235). For this species see also under *tagere* (2.5.1.19). Recorded as breeding on Pentecost (B74).

2.5.1.24 *vweu*

Coracina caledonica thilenii Melanesian Graybird (M189-190, B217-218); ~ Melanesian Cuckoo-shrike (B217). This species is not found on Pentecost today, and Jared Diamond (pers.comm., 1979) notes that it is "unlikely to have occurred there in historic times". However, Raga speakers have identified it as *vweu*, a *manu* category not now seen on Pentecost but which features in several old stories.

2.5.2 *manu-n vwai-gai* 'BIRDS OF FRUIT (OF) TREE'

These are *manu* that live on trees and eat the berries, etc.

2.5.2.1 *bune*

Occurs also as 2.5.1.2, where gloss details are provided.

2.5.2.2 *bwau(-)eve*

Occurs also as 2.5.1.6, where gloss details are provided, and as 2.5.3.2.

2.5.2.3 *man-bona*

Occurs also as 2.5.1.12, where gloss details are provided.

2.5.2.4 *man-malageha*

Occurs also as 2.5.1.13, where gloss details are provided.

2.5.2.5 *roi(-)rau*

Occurs also as 2.5.1.17, where gloss details are provided.

2.5.2.6 *vweru*

Occurs also as 2.5.1.22, where gloss details are provided.

2.5.3 *manu-n vwenue* 'BIRDS OF FALLOW GARDEN-LAND'

These are *manu* which are found on both fallow garden-land and some current garden-land.

2.5.3.1 *bwat-higo ~ higo*

Occurs also as 2.5.1.3, where gloss details are provided.

2.5.3.2 *bwau(-)eve*

Occurs also as 2.5.1.6, where gloss details are provided, and as 2.5.2.2.

2.5.3.3 *laga(-)laga-año* 'YELLOW *laga(-)laga*'

Zosterops flavifrons perplexa Yellow White-eye (M198, B250); ~ Vanuatu White-eye ~ White-eye ~ Yellow-fronted White-eye (B250). Recorded as breeding on Pentecost (B74).

2.5.3.4   *laga(-)laga-batai* 'BREADFRUIT *laga(-)laga*'

Zosterops lateralis vatensis Gray-backed White-eye (M198-199); ~ Grey-backed White-eye ~ Silvereye ~ White-eye ~ Grey-breasted White-eye (B252). Recorded as breeding on Pentecost (B74).

2.5.3.5   *mwaragi*

Occurs also as 2.5.1.15, where gloss details are provided.

2.5.3.6   *siviru*

Occurs also as 2.5.1.18, where gloss details are provided.

3. COMMENT

3.1 THE GLOSSES

In most of the glosses it has been possible to associate a given *manu* label unequivocally with a single ornithological category. The relatively high degree of correspondence that exists between the named *manu* categories and the species-level categories of the ornithological classification is parallelled for the Kalam bird taxonomy (Majnep & Bulmer 1977) and for the Tzeltal fauna taxonomy (Hunn 1977). That such a degree of correspondence is demonstrable over this range of cases gives some plausibility to the notion that the etic species category may be shaped to a significant extent by the way in which humans, possibly in part for biologically determined reasons, classify the fauna of their environment.

There are a few cases (e.g. 2.2.1 and 2.2.3) where the Raga identification is unequivocal but where the ornithologists have no record of the species in question on Pentecost. Because the ornithological record for Vanuatu is still uneven as far as thorough areal coverage is concerned, the lack of such a record for a given species on a given island does not necessarily mean that the bird in question is not in fact there. Where disparity exists between local and ornithological observations, it could well be reduced by increased cooperation between ornithologists and local observers.

Where there is not a one-to-one correspondence between *manu* category and species-level ornithological category, this results either from a genuine non-fit between the two systems, as with 2.1.1 and 2.4.2 and with 2.5.1.19 and 2.5.1.23, or from unresolved problems of identification which it may eventually be possible to reduce or eliminate by combining local knowledge with the ornithological resources available in Bregulla (1992).

3.2 THE EMIC SUBGROUPING

The primary criterion used for the subgrouping is *habitat*, which is the sole basis for 2.1, 2.3, 2.5, 2.5.1 and 2.5.3. *Habitat* plus *flight locale* define 2.2 and 2.4, and *habitat* plus *food source* define 2.5.2. The use of only three criteria to produce a two-level subgrouping for the *manu* categories is in marked contrast to the number of criteria used to produce an emic subgrouping of the Kalam bird categories (Majnep & Bulmer 1977). This difference is

ascribable in part to the much more extensive and varied avifauna of the Kalam environment, and in part to the greater prominence of hunting in the Kalam lifestyle.

Some *manu* categories have membership of more than one subgroup. At the higher level *mwalau* is in 2.3 and 2.5 (as 2.5.1.16). At the lower level all the members of 2.5.2 are also members of 2.5.1, while one of them, *bwau(-)eve*, is also a member of 2.5.3, and three more of the members of 2.5.3 are also members of 2.5.1. This overlapping subgroup membership adds precision to the classification of the categories concerned, and does so with considerable economy, using the smallest number of subgroups that is compatible with the culturally required result.

REFERENCES

Biggs, Bruce, 1965, Direct and indirect inheritance in Rotuman. *Lingua* 14:383-415.

Bregulla, H.L., 1992, *Birds of Vanuatu*. Oswestry, Shropshire, England: Anthony Nelson on behalf of the Board of Management of the Vanuatu Cultural Centre.

Hunn, E.S., 1977, *Tzeltal folk zoology: the classification of discontinuities in nature*. New York: Academic Press.

Majnep, Ian Saem and Ralph Bulmer, 1977, *Birds of my Kalam country*. Auckland: Auckland University Press/Oxford: Oxford University Press.

Marchant, S. and P.J. Higgins, 1990, *The handbook of Australian, New Zealand & Antarctic birds*, vol.1. Melbourne: Oxford University Press.

1993, *The handbook of Australian, New Zealand & Antarctic birds*, vol.2. Melbourne: Oxford University Press.

Mayr, E., 1978, *Birds of the Southwest Pacific*. Rutland, Vermont/Tokyo, Japan: Tuttle. (1st edn 1945: Macmillan, New York.)

Pawley, Andrew, 1972, On the internal relationships of Eastern Oceanic languages. In R.C. Green and M. Kelly, eds *Studies in Oceanic culture history* 3, 1-142. Pacific Anthropological Records 13. Honolulu: Bernice P. Bishop Museum.

Tryon, D.T., 1976, *New Hebrides languages: an internal classification. PL*, C-50.

Walsh, D.S., 1982, The restricted distribution of Raga /k/: starting point for a subgrouping hypothesis. In R. Carle, M. Heinschke, P.W. Pink, C. Rost and K. Stadtlander, eds *GAVA': Studies in Austronesian languages and cultures, dedicated to Hans Kähler*, 237-251. Veröffentlichungen des Seminars für Indonesische und Südseesprachen der Universität Hamburg. Berlin: Dietrich Reimer.

PACIFIC ISLAND LANGUAGE GROUPS IN THE DEVELOPMENT OF PACIFIC ISLAND LANGUAGE NESTS IN AOTEAROA

AFAMASAGA MALIA MALAKI WILLIAMS

1. INTRODUCTION

The following statements by two prominent Samoans reflect the essence and the main concerns of the Pacific Island language groups in New Zealand: '

O le gagana e faasinoesea ai tatou, o le faavae o nuu ma malo. A leai se gagana ua leai se nuu.
[Language identifies us, the basis of countries and government. Without language there is nothing.] (Tupua Tamasese Efi)

O le gagana o le faasinomaga o le tagata.
[Language is a man's point of reference.] (Aiono Fanaafi Le Tagaloa)

The Pacific Island (PI) language groups that came into existence in the early 1990s were set up to maintain, promote and support the teaching of PI languages as a means of retaining cultural identity, the concepts known in Samoan as *faasinoesea* [identification] and *faasinomaga* [point of reference]. To these groups language is the basis of nationhood, *le faavae o nuu ma malo*, and within the parameters of language the roles, values and the place of young Pacific Islanders are sustained.

This paper examines the origin of these groups, why they were formed, their membership and their roles in the development of language nests in Aotearoa. The language groups are Tongan, Samoan, Cook Islands, Tokelauan and Niuean.[1]

2. BACKGROUND

The migration of Pacific Islanders to Aotearoa is of recent origin. In 1933 there were less than a thousand, in 1951 it was 3,600, in 1986 it was 125,000, and by 1992 it was 130,158. The ethnic composition of Pacific Islanders in 1992 was as follows (Department of Statistics 1992):

---

[1] Resource people:

Tongan language group	Finau, Katelina
SAAFA + PIECA	Tagoilelagi, Iole
Tokelauan language group	Faafoi, Amosa
Matakau Vagahau Niue	Tuhipa, Tose
Cook Islands national network of teachers	Carpentier, Ta'i

Samoans	68,565	Tokelauans	2,802
Cook Islanders	26,925	Fijians	2,760
Tongans	18,264	Others	1,413
Niueans	9,429		

Pacific Islanders tend to stick together and to settle in places where they can find employment so it is not surprising that a heavy concentration of the PI population is found in the urban areas of Auckland, Wellington, Christchurch, Dunedin and Tokoroa.

The Pacific Islanders brought with them their languages, culture and traditions. They adjusted to the New Zealand way of life but never lost sight of their languages and culture. In time a number of ethnic churches emerged in the Samoan, Tongan and Cook Islands communities, all with the priority of using the indigenous language in services. Various other Pacific Island groups were set up and were attached to Anglican, Methodist, Mormon and Catholic churches.

The initial language and cultural programmes were set up in these church communities and in time Sunday schools in the ethnic languages became the venue in which second generation Samoans, Tongans, Cook Islanders and Niueans learned to read and write in the mother tongue. This trend continues nowadays with the proliferation of language nests within these communities. The most successful language nests are those supported by church members. While the grassroot support comes from church members and other PI community groups of New Zealand, professional backing and expertise is provided by the language groups and the Early Childhood Section of the Ministry of Education.

3. THE DEVELOPMENT OF THE LANGUAGE GROUPS

3.1 PACIFIC ISLAND EDUCATION CONFERENCES

The formation of the various PI language groups was the end result of a series of conferences organised by the Ministry of Education. The first PI education conference in 1974 was a fact-finding exercise sponsored by Phil Amos, the Minister of Education at the time (Department of Education 1975). It brought together a group of parents, community leaders, educators and teachers whose tasks were to review policies and to make recommendations for the education of Pacific Islanders. It seemed that the system failed to realise the full potential of PI students.

The participants generally agreed that the main problems lay in the students' grasp of the English language. It was then recommended that a Pacific Island Educational Resources Centre (PIERCE) should be set up, to produce relevant materials for the teaching of English as a second language and also bilingual reading materials in PI languages which had a sizeable number of speakers in New Zealand. These language groups were well represented by Samoan, Tongan, Cook Islands, Tokelauan and Niuean ethnic groups in New Zealand. An advisory body comprised of ethnic representatives was to be set up to monitor the Centre's activities.

The same themes were reinforced in subsequent conferences (Department of Education 1984), but by 1988 there was a tremendous shift in teachers' and parents' attitudes towards the teaching of PI languages in schools. The shift coincided with the resurgence of 'Te Reo Māori' in the Maori community. It awakened the PI community to the danger of language loss. In 1986 most conference participants felt that, while the ethnic languages are important,

teaching of languages must be confined to the family and the church. By contrast, in 1988 most PI teachers and parents felt that schools should offer PI languages if students and parents request them.

In 1988 also, a number of secondary and primary schools in Auckland and Wellington introduced Samoan, Cook Islands Maori, Tongan and Niuean into the school curriculum. Five secondary schools in Auckland were already teaching some PI languages. These were Auckland Girls' Grammar, Kelston Girls' High, Nga Tapuwae College, Hillary College in Auckland and Mana College in Wellington. PI languages also formed an integral part of bilingual units in primary schools, the most notable being Grey Lynn Primary in Auckland. A significant result of this development was the establishment of a core group of PI language teachers, who were drawn together by circumstances and a general purpose towards the teaching of languages. The core group consists of language teachers and community members who have already set up language nests in the PI community.

3.2 PACIFIC ISLAND LANGUAGE GROUPS

By 1990 the core group of PI language teachers had regrouped into their ethnic language groups. The Ministry of Education was restructuring and the link between the language teachers and the Ministry was gone. Consequently, PI language teachers decided to pool resources and share ideas in the teaching of languages. Ethnic groups were formed and these were the Matakau Vagahau Niue, the Samoan Language Committee in Auckland and Wellington, the Cook Islands National Language Network, the Tokelauan Language Group, the Samoan Childhood Association of Aotearoa (SAAFA), the Tongan Tofueiva Early Childhood Association and the Pacific Island Early Childhood Association (PIECA).

For the purpose of this paper I shall concentrate on the roles and the contribution of these groups in the development of language nests in Aotearoa (see Waite 1993).

3.3 AIMS AND OBJECTIVES OF THE GROUP

The main objectives of the groups are the retention, promotion and teaching of PI languages in Aotearoa. High on the list of priorities is the prevention of further language loss in an environment where English predominates. The risk of language loss is high amongst the Cook Islands, Niuean and Tokelauan communities as the bulk of their population already resides in Aotearoa. Beaumont (1996:2) states that:

> There are 8,469 Niueans in New Zealand and only 2,000 in Niue. In the case of Cook Islanders and Tokelauans the number of native speakers in New Zealand exceeds the number in the homelands.

In the case of Samoans and Tongans it is a matter of language maintenance and to give young Samoan and Tongan New Zealanders a sense of identity and self-worth.

The groups are self-supporting and without government backing so most of the activities are carried out on a voluntary basis. PI language teachers find that they need to redress problems of resources, lack of further in-service training and an inadequate supply of PI teachers committed to teaching languages at all levels. Without government funding the groups aim at using group sessions as a means of exchanging teaching resources and sharing ideas about teaching techniques. The most important function, however, is using the

expertise within the groups to support and train parents and community members who are inexperienced teachers. The groups also become a source of information to advise members of the community who are interested in setting up language nests. They offer advice on procedures to be followed, curriculum and methods of fund-raising.

One of the priority functions of the language groups is the promotion and publicising of PI languages. The fundamental problem lies in the fear held by PI parents that an influx of PI languages into the schools will disadvantage their children, as this will deprive them of the time and effort that could be spent in learning English, mathematics or accounting. In the words of one PI parent: "We came here to learn English, not Samoan, Tongan or Cook Islands Maori".

Another priority within the language groups is to support the members of PIECA in their proposal to the Ministry of Education regarding registration of PI language nests. PIECA has sought an amendment on criteria stipulated by the Department for language nests. The existing criteria reflect the needs of middle-class European families and are quite insensitive to the cultural, social and biological needs of young PI New Zealanders. Most language nests were set up on an ad hoc basis reflecting the needs of each ethnic group and are quite contrary to the stipulations set down by the Department. Consequently these cannot be registered.

3.4 MEMBERSHIP AND ACTIVITIES OF THE GROUPS

The membership and activities of the language groups are closely tied to their main objectives. Overall the groups share the same concerns as do other minority groups operating within a majority culture.

The language groups have adopted several ways of promoting and publicising the mother tongue in the ethnic communities. Language meetings and conferences are open to the public and prominent PI leaders are invited to address the public on the merits of the mother tongue. Matakau Vagahau Niue and the Tokelauan Language Group plan their national meetings to coincide with national celebrations and feast-days. Dignitaries, diplomats and elders are then asked to convey to parents the value of preserving the mother tongue. Likewise the Tongan, Samoan and Cook Islands language groups invite their consuls general, diplomats and prominent elders to convey the same message to parents.

Membership of the groups is open to the public. The credibility of the groups is enhanced by including within their membership experienced senior teachers, PI government administrators, church ministers and respected members of the ethnic communities. The importance of language maintenance is also reinforced by ethnic language programmes on radio access, the TV programme 'Tagata Pasifika', and the numerous speech, cultural and drama festivals held by the schools or the community. The annual Maori and PI secondary school Polynesian festival held in Auckland is renowned for attracting a crowd of about 20,000 – 40,000 people and provides one of the best kinds of publicity in illustrating the merits of language, cultural songs, dances and drama.

The impact of the very successful Maori Kohanga Reo language nests and language awareness promoted by the language groups has alerted parents and the PI communities to the danger of language loss. By 1990 most PI parents were aware of the need to pass on the mother tongue and traditional values to future PI generations.

Most language nests were initiatives taken by parents and PI community groups and, apart from the assistance given by the Ministry, the role of the language groups is significant. The language groups provided the information needed to set up language nests. Experienced teachers were asked to assist in planning course programmes, preparing resources and the training of parents and voluntary workers in the art of teaching young people. Matakau Vagahau Niue and the Tongan Toufeiva language groups have played a significant part in setting up a number of Niuean and Tongan language nests. Members of the groups have organised training workshop sessions for the parents within the premises of the language nests from time to time.

In the absence of sufficient government funding, the role of the language groups in training, retraining, planning curriculum and creating resources is crucial to the survival of the language nests. Training, planning and resource workshops 'are held during the holidays. Early childhood trained teachers and teachers experienced in the primary level are asked to help out in the programme. In the case of the Tongan Toufeiva, Samoan SAAFA, Cook Islands Language Network and Matakau Vagahau Niue, a core group of trained teachers is responsible for in-service training and for assisting parents and teachers in new language nests.

The language groups also encourage the participation of parents and the community in the language nests. All the language groups organise sports, festival and cultural days which parents are invited to attend. These are enjoyable occasions for the parents and their children and they also attract a number of PI parents to become involved in the activities of the language nests. These occasions also provide an opportunity for language nests to raise funds to pay for their daily expenses. Teachers are not on a regular salary and most of the teaching is done on a voluntary basis. Parents organise most of the fund-raising activities, such as raffles, social evenings and concerts.

The involvement of grandparents and elders should also be noted. In most language nests the elders have become invaluable resource people in the narration of simple legends, stories and rhymes for the youngsters. The language centres have also become a venue where they can sit around, talk, weave mats and baskets, watch the youngsters at play and teach the youngsters how to behave.

In terms of applying political pressure PIECA has successfully made the Ministry aware of the restrictions of setting up language nests on monocultural standards.

4. ACHIEVEMENTS

The language groups have accomplished a substantial degree of success without direct confrontation with government bodies or other decision-making bodies. One of their significant contributions was raising public awareness or consciousness within their respective ethnic communities concerning the need to preserve and maintain the ethnic language. Wide publicity attached to the Maori Kohanga Reo movement also encouraged groups to inform parents to set up language nests.

The most vital role played by the language groups was the groundwork support they provided for the setting up of language nests. Members of the group provide the information regarding procedures, resources and the manpower needed to set up language nests by interested members of the community. This is very true of the role played by Matakau Vagahau Niue, SAAFA, Toufeiva and the Cook Islands Language Network.

Drawn together by a single aim and objective, members of the language groups have organised workshops to address the teething problems faced by all new projects. One of their greatest achievements is being a source of encouragement: supporting and advising members of the PI community on the merits of preserving languages. Most staff in the language nests work on a voluntary basis. Largely inexperienced, parents involved in language nests depend on members of the language groups to advise them on some basic teaching skills. Workshop sessions are normally carried out in the vernacular and this also encourages a number of PI parents to attend.

A significant outcome of activities organised by the language groups is the participation of parents in the language nests. Many parents are drawn to share cultural-day activities with their children, to help out in organising fund-raising activities, and also in teaching songs and rhymes to the children. Many, consequently, have left the original group and formed their own language nest. There has been a tremendous increase of language nests over the years. In the late 1980s there were hardly any PI language nests. By 1992 there were 101 Samoan, 24 Tokelauan and 25 Niuean language nests.

5. CONCLUSION

The role played by the PI language groups in developing language nests is undoubtedly a significant one. The Early Childhood Section of the Ministry of Education may have provided the opportunity for language nests by establishing a monetary grant, but the intiative and the moral support came from members of the language groups themselves. Members of the PI community were made aware of the importance of teaching, retaining and maintaining the ethnic languages by the promotional and publicity activities of the group. Once this was established, PI language teachers formalised their ethnic language groups and worked on activities to redress problems faced by a new language programme, despite the lack of support from the Department of Education. Meetings of the groups were held in the holidays or after school.

The activities undertaken by the various groups described above illustrate the commitment and hard work of some of these groups. Despite the teething problems faced by new projects, the commitment shown by some of the PI language teachers has induced members of the PI community to become involved. Parent and community support is instrumental in the proliferation of language nests. Despite the limited resources and the absence of paid workers the dedication of parents is a marvel. In the words of the chairperson of the national body PIECA: "*O le matou galuega e tagi i lima*" (our work is dependent on the sweat of our hands).

Research in countries like the USA, Canada, Sweden and Finland has shown that migrant and minority groups which run programmes similar to the PI language groups, as well as bilingual programmes, have improved the academic performances of young people as well as broadening their social and cultural environment.

The concern of migrant and minority groups in Canada, the USA and Sweden over loss of the mother tongue has led to bilingual programmes in Montreal, Canada, the Navajo school at Rock Point, USA, and the Sodertalize Programme for Finnish immigrant children in Sweden. In all these language programmes the children were taught in their mother tongue in the first years of their elementary education until they reached a level of proficiency. The teaching of English in Canada and the USA and Swedish in Sweden was delayed.

When the performance levels of children in the bilingual language programmes were compared to their peers who passed through monolingual schools, it was noted that, in the later school years, academically they were good or better than their peers in all subjects. The linguistic and intellectual skills that children acquired in learning their first language were easily transferred to the learning of a second language. It was generally noted that children from these language programmes had better reading and comprehension skills than those who went through monolingual schools.

One of the priorities of PI language nests in New Zealand is the retention of the mother tongue and the prevention of language loss. This becomes a major concern for PI communities like Niue, Cook Islands and Tokelau as there are more Niueans, Cook Islanders and Tokelauans in New Zealand than in the islands themselves. Most PI parents, however, feel that the teaching of PI languages in the schools will disadvantage their children and hinder their progress in other subjects. The experiences and progress shown by language programmes in Canada, the USA and Sweden show that PI language groups have nothing to fear and that they have a vital function to perform.

REFERENCES

Beaumont, Clive H., 1986, *Pacific Island languages in New Zealand*. Auckland: Pacific Island Educational Resources Centre.
Department of Education, 1975, *Educating Pacific Islanders in New Zealand*. Wellington, New Zealand.
   1984, *Pacific Island issues*. Wellington, New Zealand.
Department of Statistics, 1992, *Census of population and dwellings*. Wellington, New Zealand.
Waite, Jeffrey, 1993, *Aotearoa: speaking for ourselves*, Part B: *The issues, a discussion paper*. Wellington: Learning Media, Ministry of Education.

KAVA ON THE MARAE IN AOTEAROA

DEANNE WILSON

1. INTRODUCTION

The tropical kava plant '*Piper methysticum*' and the New Zealand *kawakawa* '*Macropiper excelsum*' are both genera of the family Piperaceae. In the New Zealand name, reduplication modifies, indicating that to the newly arrived Māori the shrub looked like, and perhaps had other properties similar to, its tropical cousin, but was not the same, in that it did not contain the same intoxicant.

Unreduplicated *kawa* was the name given to tapu-lifting *karakia* ('incantations') for forestalling potential disaster in each of several aspects of traditional Māori life, such as canoe launchings and house openings, and also to 'protocol' on the marae. This paper explores functions of Polynesian kava ceremonies. It also examines the various *kawa* rituals of the Māori world, including 'marae protocol', and concludes that Māori *kawa* 'ritual' is a reflex of Proto Polynesian (PPn) *kawa* '*Piper methysticum*'.

In her study on kava in Hawaii, Titcomb remarks that the very presence of the kava custom is an indication of Polynesian influence, and that kava vies with the betel nut of Melanesia in being closely and tenaciously associated with culture. Newell (1947:377) considers that in Polynesia the kava plant "is always associated with a value out of proportion to its drug-like effect...".

Beaglehole names Easter Island and New Zealand as the only two places in Polynesia too cold for the kava plant to grow, and we know that even its hardier New Zealand cousin is not found in the wild south of Christchurch. However, in light of the easy availability of the *kawakawa* plant over three quarters of New Zealand, I felt it necessary to seek reasons for the non-existence, in traditional Māori society, of a *kawakawa* beverage – either for social drinking or in a politico-religious context.

Accordingly this paper briefly mentions chemical properties of *kawakawa*. It also invokes evidence, from ethnographic works named in the references, suggesting a sociologically-driven precedent elsewhere in the Pacific, for the absence of the traditional kava drinking ceremony (despite easy availability of the plant in those other places) where a culture lacks the hereditary hierarchy[1] of Western Polynesia but possesses institutionalised transmission of sacred lore.

---

[1] The hereditary hierarchical nature of all Polynesian societies is betrayed by the universal shortage of age-neutral kin terms such as those denoted in English by *brother*, *sister* and *aunt*, and the universal presence of single words encoding both sex and age of a referent relative to the speaker or to other referents. Within Polynesia there are also differing types and degrees of hierarchy between constituent cultures. Note (2) of the Appendix gives variants of a few terms representative of several status- (or

Seniority was and is important at sub-tribe level in Māori society (see note (1) of the Appendix). However, recent archaeological findings on demography (e.g. Sutton 1970:684-690) suggest strongly that Māori society before European contact was characterised by small-scale factions rather than by centralised chiefdoms. Note (2) of the Appendix illustrates the tendency for the societies which practise formalised kava-drinking ceremonies to be those societies where kinship (or title-holding) are most highly institutionalised.

To clarify the intended sense of some terms used in the paper, please note that marae carries its current most often used sense, that of a local centre comprising a dining-hall and a meeting-house fronted by a reception courtyard. For the more traditional sense of forecourt alone, a satisfactory term is 'marae proper'. Also, a 'Pākehā' is a New Zealander of purely Caucasian descent and 'Aotearoa' is the original name of New Zealand.

To most culturally-aware modern Māori *kawa* denotes a locally-recognised procedure for carrying out certain functions, such as the use of a marae, opening a new house, celebrating a wedding or the birth of a child, marae procedure being by far the application most often referred to (see Rikihana 1992). To some Māori, *kawa* means just that portion of marae procedure which deals with turn-taking in *whaikōrero* ('formal oratory') on the marae proper. To many less culturally-aware Māori, and to most interested Pākehā, 'marae protocol' is the *only* ritual sense of *kawa*.

The paper is divided into five sections: §1 looks at the possible effects on Māori tradition of growth requirements and properties of both the kava and the *kawakawa* plant, and the mechanics of processing each for drinking; in §2 excerpts are given and commented upon from accounts on the ceremonial drinking of kava elsewhere in Polynesia; §3 examines social and religious (as distinct from ceremonial drinking) uses of the kava root or beverage elsewhere in Polynesia, and finds that symbolic usages of the form *kava* or its cognates coexist in several Polynesian cultures alongside literal reference to the etymon; in §4 a sketch is drawn of various rituals in the Māori world known as *kawa*, so that similarities may be seen between aspects of these rituals and those associated with kava in the other places mentioned; and in §5 an attempt is made to identify semantic reallocations leading to the present popular Māori and Pākehā understanding of *kawa* as 'marae protocol'.

2. THE PLANTS

According to Lebot and Cabalion (1988:5) it seems unlikely that the kava plant, as it now is, can reproduce sexually. Whistler (1992:185) states explicitly that in observations on kava plants to date "female flowers and fruits are unknown, and...stands of it in native forests are relics of former cultivation". If this has always been the case, kava must have relied solely on vegetative propagation by man. Other background information on the kava and *kawakawa* plants can be found in note (3) of the Appendix.

Titcomb (1948:6) makes the point that in Hawaii, anyway, except for water and drinking coconut, no other drink was known, adding that farmer and fisherman valued its relaxing effect on mind and body, and medical *kahuna* 'experts' had many uses for it: "It was essential on occasions of hospitality and feasting, and as the drink of pleasure of the chiefs. The manner of its use indicated rank, though not to the extent displayed in Western

---

rank-) laden human terms in Tongan and Samoan which either have no cognates in Māori, or have cognates lacking the complex rank relations that they bear in Western Polynesia.

Polynesia. It was a fit and necessary offering to the gods and the gods shared with man the desire for its potent effect".

Kava drinking is, on the whole, an exclusively male preserve, and on at least one island group where social kava drinking is popular, there is some consensus among wives concerning a localised potency effect which tends to override the general sedative effect.[2]

Handy (1940:204) believes that it was the first of the native crude drugs to be chemically analysed. Twenty years ago it was believed that a single active element of the plant, a lactone known variously as Marindinine or kavahin (formula $C_{14}H_{15}O_3$), was responsible for its intoxicant and medicinal properties (e.g. Barrau 1971:61). In the vast research conducted since then, several other active compounds have been isolated and identified, and it has been found that the physiological effect of the natural extract cannot be induced by any of its constituents in isolation (Lebot & Cabalion 1988:32-38).

As earlier intimated, kava is a reputed aphrodisiac, although there is far from universal accord concerning either the validity of this claim or the ideal dose and frequency of administering to achieve the desired effect.[3] To further complicate the matter, such a claim could well owe as much to cultural expectations, based on various mythological origins of the plant, as to its actual physical and mental effects. Lebot, Merlin and Lindstrom (1992:132-137) and Brunton (1989:67) describe widely differing notions on the advisability, or even the propriety, of combining kava and sexual activity.

Kawakawa definitely has aphrodisiac properties (Stark 1979:36; Brooker, Cambie & Cooper 1987:77), but I have found no evidence of its traditional use for that purpose. Of the wide range of other remedial uses of *kawakawa* I mention only those helpful in the development of the PPn *kawa* to Māori *kawa* sequence: the leaves of *kawakawa* were chewed for toothache, or the ripe fruit together with the roots were boiled for the same purpose, and leaves reduced to a pulp in hot water were applied to any part of the body for rheumatic pain. These uses make sense given that chemically the leaves and wood of *kawakawa* contain a series of lignans and myristicin, the latter being related to eugenol – a mild antiseptic used as a dental analgesic (Brooker, Cambie & Cooper 1987:78). Compare this with written descriptions from novice kava drinkers or root chewers such as Emerson, Buck and Churchill, who each mention a numbing of the tongue as a more immediately noticeable feature than actual taste (Titcomb 1948:117-118).

In this connection it is relevant to note that Tregear (1891:139) dissociates *kawa* 'bitter; sour; unpleasant to the taste' from *kawa* referring to the plants or the ritual, on the grounds that "the taste of the kava root (when made into a beverage) is not acrid, but mild and soapy". The Williams's dictionaries (see Williams 1957) likewise gave separate entries, until the 1917 fifth edition when all senses of *kawa* appeared under a single entry, the taste sense being listed first. Buck (Titcomb 1948:117) describes the taste as "astringent rather than

---

2 Lebot and Cabalion (1988:24-28) list about thirty complaints which were treated with kava-based preparations in named parts of Polynesia.

3 I am informed by Dave Walsh that wives of men who imbibe liberally (two or more cups made from minimally-diluted freshly ground root, on four or more days per week) tend to complain of the opposite effect.

 In any case, claims for aphrodisiac properties of kava are most likely to be made openly in connection with the one context in which the presence of an intractable competing variable makes verification impossible. Modern all-male kava 'parties' (as distinct from all-male but genteel and moderate pre-church 'drinks', for example) predictably tend to abound in what might be termed 'Pacific style locker room talk' – at least as potentially powerful a stimulant as any beverage.

bitter", and Titcomb (1948:118) comments that as most Polynesian foods were suave and non-acid, and no other drink, except those taken medicinally, had any bitterness, "it may be that the exact translation of *'awa*, the adjective, is not bitter as we understand the word".[4]

Christian (1899:131) says that the Yapese names for betel nut and kava (*gavui, gabui* or *gabai*) overlap "by an undesigned coincidence". According to Mabberley (1987:42), "The kernel of the Betel nut *'Areca catechu'* was cut into slices, dusted with slaked lime, and chewed in a wad with [wrapped in a fresh leaf of] *'Piper betle'*, to promote salivation and dull the appetite". Other writers (e.g. Oliver 1989:51) also identify *'Piper betle'* (with fruit and stem also optionally used) as the companion ingredient to betel nut. So at least one variety of pepper was chewed with the betel nut, making the Yapese borrowing of the generic name *gabai* for the closely associated nut no more an "undesigned coincidence" than the Western botanist's attaching the modifier *betle* to specify à variety of *Piper* frequently seen in association with the nut.

The putative transition from chewing betel nut to drinking kava need not necessarily have been as drastic as it might initially sound (see note (4) of the Appendix).

Newell (1947:381) claims that the betel nut is a more potent drug than the kava root, and that this rules out the suggestion that early or pre-Polynesians favoured kava because it was more satisfactory as a drug.[5] He also suggests that the kava plant could have been introduced by the Māori to Aotearoa, for its part in ceremonies, but that it subsequently died out – when its "sociological use" no longer existed.

I agree that the kava-drinking ceremony probably did become sociologically redundant, possibly before Māori settlement of Aotearoa, but add the suggestion that equally well-established religious rituals, involving either libation of the beverage or non-ingestive use of the unprocessed kava or substitute plant parts, survived among at least the Māori and the Tikopia – with one reservation. The geographical position of Tikopia is a potential complication. It makes later Melanesian influence a distinct possibility, and brings to mind Mead's (1930:111-112) statement that the use of kava, by some Polynesian groups, for religious ritual alone "suggests some Melanesian likenesses". See also Brunton (1989:35-58) and Lebot, Merlin and Lindstrom (1992:27-28), on the greater variety and linguistic opacity of names for kava in Melanesia, purportedly suggesting a longer history of kava there than in Polynesia or Micronesia.

Christian (1920:131) identified the leaf used to wrap the betel nut as the *kawakawa* of New Zealand, and the latter in turn as the *kavakava-atua* or *avaava-aitu* of Polynesia. I have not found another writer who explicitly confirms either of these two identifications concerning New Zealand *kawakawa,* although there are other references to *(kava)kava-atua*.[6]

---

4   I suspect that for Māori, anyway, 'bitter' acquired popularity as a gloss for *kawa* largely in consequence of the latter's having been assigned as the equivalent for all fifty-one occurrences of (derivatives of) the former in the *Bible* when it was translated into Māori.
     As one of several English epithets subsumed under the broad category 'unpalatable', *bitter* – owing partly, perhaps, to its comparatively tractable form – tends to be used to convey the generic sense more often than does *unpalatable*, particularly in figurative expressions. I suggest that it is in this generic sense that *bitter* most closely approximates Māori *kawa* (just as the generic sense of *sweet* ('delectable') best conveys the versatility of Māori *reka*).

5   See Brunton (1989:83-92) for a discussion on the putative competition between kava, betel and possibly tobacco in the Pacific.

6   Loeb (1926:172) believes that kava drinking never became a general custom on Niue, but finds reference to the custom of *faikava-atua* ('making kava for the gods'), and to this ceremony having been conducted

According to Lebot, Merlin and Lindstrom (1992:14,16, 22-23), (i) misidentifications of *Piper* species by western botanists are common in herbaria and in the field, and some folk taxonomies (e.g. those of Balauan island and some islands of Vanuatu) classify all forms of *Piper methysticum* and *P. wichmannii* as the same species, calling all of them kava, and (ii) present indications are that *P. methysticum* is sterile (female flowers being very rare, and falling prematurely when (hand) pollinated), and therefore, like most cultivated plants, is a derived form of a wild species, probably *P. wichmannii*.

Perhaps misleadingly for my present purpose, the Reverend Taylor (1870:437) writes of a "very refreshing beer" brewed from *kawakawa* leaves. Also *kawakawa* leaves are nowadays a key ingredient of the popular Tītoki liqueur, currently exported to Japan, Australia, Fiji and the United Kingdom (Crowe 1990; Cooper & Cambie 1991). Brewing, though, involves fermentation, and although there are numerous reports concerning other modern home brews (based on e.g. kumara, *tī 'Cordyline australis'* roots, *kohekohe 'Dysoxylum spectabile'* leaves/bark, supplejack *'Ripogonum scandens'* roots, *matai 'Prumnopytis taxifolia'* sap and other native plants)[7] it seems fairly certain that the ancient Māori had had no experience in the deliberate fermentation of beverages.

In experiments conducted with gourd containers, Gluckman (Brooker, Cambie & Cooper 1988:93) found that yeast fermentation "produced a most unpalatable drink", and he suggested that, apart from any other consideration, "the old-time Māori had no fermented drinks because he lacked a suitable container in which to brew them". While the preparation of kava root into an intoxicating beverage involves merely grinding and dilution, according to Stark (1979:37) the brewing of New Zealand *kawakawa* into an intoxicant is a fairly complicated procedure.

The New Encyclopædia Britannica (McHenry, ed. 1992, 14:760-761) reveals that brewing includes a boiling stage of sixty to ninety minutes,[8] and that, while other cultures have traditionally used earthenware containers or wooden barrels for liquor storage, the active fermentation stage demands a level of hygiene impossible to maintain in a container of wood or other natural membranes (since selected yeast strains must be retained to the exclusion of wild strains). The Māori possessed several kinds of durable wooden containers but no earthenware or other vessels of sufficient chemical inertness.

Absence of both the kava plant and either the knowledge or the equipment with which to brew *kawakawa* would seem to preclude the continuation of either social or ceremonial kava drinking by early Māori – if intoxicant properties of the beverage were criterial in the perceived value of the tradition. References elsewhere in this paper indicate that intoxicant properties were important in both contexts, although Barrau (1958:61) states that potency of the ceremonial beverage tended to be lower because of the tendency to use dried roots and a more diluted mix.

Even if intoxicant properties were not required, though, the continued ceremonial drinking of a kava-like beverage presupposes the continued existence of a sociological use

---

in a sacred enclosure. Handy (1940:204) identifies *hiwa*, the darkest of all varieties, as the ritualistic *'awa* used by Hawaiian *kahuna*, and Tregear (1891:140) identifies *'avaitu* as any of three varieties: *'Piper insectifugum'*, *'P. latifolium'* and *'P. puberulum'*.

7 See Crowe (1981:35, 45, 49, 63, 65).

8 Even if the wooden containers had been able to withstand the high temperature, renewing the supply of hot stones (the only method I have found reference to for heating liquids) and removing the cooled ones, to maintain boiling point without overflowing the vessel, would have been at best tiresome.

for it in Māori society, and that cannot be assumed. It seems likely that the non-use of any kava-like beverage by the ancient Māori was an example of cultural style, as much as physical viability, determining whether or how a particular plant will be used in a given location. The already mentioned alternation/association of kava with betel nut is a case in point.

We know that both grew on Yap, but that the people there did not drink kava (Christian 1899:131). In Samoa exactly the opposite use pattern prevailed. There also, kava and the areca palm grew side by side, but the Samoans did not take up betel chewing. In yet other places in the kava-using world, such as parts of New Guinea, and earlier in Tikopia, betel nut was chewed occasionally as well, so it was not a simple matter of mutual exclusion, (nor even of one culture using both in discrete contexts) (see Brunton 1989:24-26).

In Eastern Polynesia it is from only the early phases of settlement, and then from only some islands, that there is evidence of anything like the degree of formality attaching to the kava-drinking ceremony as still practised in Tonga and Samoa. Beaglehole (1957:144) seemed certain that kava had had "no ceremonial significance" on Aitutaki in the Cook Islands, and it appears that in Tahiti, anyway, by the time of European contact *'ava* was valued largely as an intoxicant. I quote Barrau (1971:27), "The use of "ava" did not survive the competition with...spirituous beverages brought by the Europeans and...the interdicts placed on it by the Christian missionaries. "Ava" however is now used medicinally by the Europeans".

It appears that, with the exception of Hawaii and Tahiti, both of which were ruled by monarchies, Eastern Polynesian societies retained social uses of kava – which in some places included prayers and chants – but discontinued the ceremonial drinking of it by any human other than a priest. That departure from prior tradition suggests an institutionalised separation of religious and secular administrative authority in at least some Eastern Polynesian cultures. Such a separation would allow the status inseparable from kava to be transferred from a hereditary chiefly hierarchy to a new and relatively small priestly class.

3. KAVA CEREMONY IN POLYNESIA

Speaking of Hawaii, Pukui (Titcomb 1948:139-140) says that *'awa* was so important that if only one thing were offered, it must be the *'awa*, and Titcomb adds that root, beverage and leaves were all suitable offerings. Cabalion (Lebot & Cabalion 1988:19) considers that kava's medicinal reputation was originally "a corollary of its narcotic action and its role in the exchange system between men and especially between men and the gods".

Mead (1930:106) lists the chief uses of *'ava* in Samoa as (anciently) to prepare warriors for war, celebration of important marriages, births and deaths, to cure illness, to remove curses, and to expiate either accidental or intentional violations of tapu, and currently "at formal village gatherings...in connection with...validation of titles, ratification of agreements...and as a feature of a *malaga* ('ceremonial visiting expedition')". She goes on to say that kava made at the initiation of a piece of work is understood as a formal petition for a favourable outcome, and that kava ceremonies connected with illness or misfortune usually contain a confessional element and a prayer that the evil might accompany the flung-away kava.

Mead (1930:106-107,158,164) and Buck (1930:147) noted also that although most recorded pre-Christian prayers bore telltale resemblance to the liturgy in phraseology, most

of them were addressed to Tangaloa. While there are differing legends concerning the origin of kava, a Manu'an version credits Tangaloa with having ordered his two attendants to fetch the plant, the bowl, the strainer and the cup from heaven, thus introducing the drink of the gods to mortal man (Williamson 1939:101-105). It will be seen later that the Manu'ans were not the only Polynesians to link kava with Tangaroa.

With a few exceptions, in Samoa only *matai* ('head of a family') and high status guests can drink kava. A Samoan person who is given a *matai* title is no longer addressed or referred to by his former untitled name (*igoa taule'ale'a*), but thenceforth the title (*suafa* or *igoa matai*) is used both publicly and privately, although very close associates may use both names. There is no way of bestowing a *matai* title other than in a kava ceremony convened specially for that purpose. The variety of Samoan *fono* ('formal council') in which village headmen assemble plays an important role in all political and social life. This kind of *fono* always begins, and sometimes ends, with a kava ceremony. Buck (1930:64) says of the Samoan kava ceremony:

> The *tungase* ['large piece of dried root with two internodes of stem left attached'] also formed the official medium of paying respect to visitors and titles. Some of the large *tungase* were never meant to be pounded but passed from one recipient to another as each in turn paid his respects at subsequent ceremonies...If the ceremonial calling of kava were dropped, the value of titles would depreciate considerably as they would lose the most active factor that keeps them prominently before the eyes of the Samoan people.

Shore (1982) and Duranti (1981) independently conducted studies on different islands of Samoa. Both found that "the sequential organization of kava distribution in the opening kava ceremony is directly related – in a predictable and symmetrical fashion – to the sequential organization of turns for speaking in the following proceedings of the fono" (Duranti 1981:60).

The introduction to this paper stated that Māori *kawa* denotes, among other things, 'marae protocol', and in §4 we will see that, although there are only two alternative systems for turn-taking in *whaikōrero*, the people of every properly functioning marae fondly regard one of the two as the distinctive local system. The system adopted for use on a given marae is also known as the *kawa* of that marae, and it is this narrow application of *kawa* that is most widely used today by culturally-aware Māori – but only when speaking among themselves.

In describing the kava ceremony in Samoa, Smith (1920:12) stresses the importance of ensuring that the cup is first taken to the person of principal rank in the company: "It is the duty of the *tulafale* ('talking chief') to call out the names in their proper order, and woe betide him if he makes a mistake". Similarly in the Tongan kava ceremony, there is a prescribed order in which each participating dignitary will be called, or in the case of a chief, the name of his *matāpule* ('talking chief') will be called, to receive his cup.

In Tonga, according to Gifford (1929:115), "the relative rank of individuals is visualised in seating arrangements, particularly in the kava circle...". Again the order of presentation of the cup was all important, although the cup given to the presiding chief was properly the third, that order reputedly originating from the precaution said to have been taken by the tenth *tu'itonga* ('king of ancient Tonga'), reputedly the first to use kava as a drink. He made his two *matāpule* test-drink it first. Still speaking of Tonga, Gifford (p.124) mentions that kava was often given as a peace-offering, and that visitors of low rank brought a gift of kava

(root), which was handed to the chief by his *matāpule*, and that failure to bring this gift resulted in a severe reprimand.

There is also a Tongan use of the form *kava* which refers to neither the kava root nor kava drinking. Instead it denotes a feast in honour of someone on certain occasions, such as a wedding or nowadays a university graduation. The kava of a wedding includes the presentation of gifts, one of which could be a kava root, the bulk of the gifts being pigs, fine mats, *tapa* ('plain cloth made from beaten inner bark of '*Broussonetia papyrifera*') and *ngatu* 'decorated *tapa*'. Also the everyday Tongan word for 'promise' is *fa'apapau*, which can also be used to mean 'vow', but the more formal and stronger word for 'vow' is *fuakava*, which was also the term for the first kava of a wedding – presented by the bride to the groom.[9]

Symbolic use of the form *kava* is reported from Futuna also, where according to Burrows (1936:91), "Chiefly titles are metaphorically called *kava*s, from the right they confer to certain positions in the order of serving kava. Thus Tu'i Angaifo once said, "There are only two old *kava*s in Singave". *Kava* is also used to mean 'royalty' in a figure of speech equivalent to the European <u>throne</u> or <u>crown</u>." Two further symbolic usages are listed in Bataillon's dictionary (1932:146, 358): *fua kava* 'to swear an oath, to swear on kava, to take kava as witness', and also *tapu aga mo te kava* 'with respect due to the kava'. Thus "the Wallisians, even after conversion, used to swear by kava – as one swears on the Gospel, confirming its sacred character" (Rossille 1986:30).

In Tahitian, also, there are symbolic uses of *'ava* – as a modifier, as in *rau 'ava* 'the *miro* or *amae* leaves, used in the marae for sacred purposes'; and *uruuru 'ava* 'a prayer made in the marae for the sake of obtaining children'. Also, listed in Firth's Tikopia dictionary (1985:178) are the following: a verbal use, to 'perform rite with kava'; a nominal sense 'traditional ritual knowledge...'; a further distinct nominal sense 'ritual associated with use of kava in invocation and libation'; and most significantly 'analogous rites without actual kava'.

Feinberg (1981:151) gives *pai kava* 'make kava' as the "name of the ritual procedure by which the most important deities were worshipped" [on Anuta]. Despite this name, the kava plant is neither found on Anuta nor (brought in from elsewhere and) used in the ceremony. I venture to suggest that, despite its two formal problems, Samoan *āva*,[10] ('honour, respect'), is also likely to have evolved from *'ava* 'kava'.

It is impossible to eliminate elements of elitism from any practice in which kava is involved, as evidenced in Koskinen's (1968:62) comment that kava was considered effective in imparting wisdom to a person (and thereby more *mana* ['inalienable power, stature']), enabling him to perceive more and to see what he did perceive more clearly, than his less-favoured fellows. He notes here also that the Tikopian word *apo* "had the sense of waving a piece of kava under the mouth, which had the effect of impregnating with the efficacy of an *ariki* ['chief']".

---

9   I am indebted to Melenaite Taumoefolau for this proposed etymology and for other insights into Tongan kava-related terms and practices.

10   Milner (1966):   **'ava**   kava
                      āva   n. respect, honour
                                    v. respect, honour
      Pratt (1893):   **'AVA**   The name of a plant from which a narcotic drink is made (Piper methisticum).
                                    The drink itself.
                      AVA   v. 1. to show respect to.

4. SOCIAL USES OF KAVA

Some purely religious uses of kava are given in note (5) of the Appendix. There is, however, one particular claim for the inspirational properties of kava that I cannot resist mentioning here. Handy (1923:241) describes how, in the Marquesas, a general *tapu* ['ritual restriction'] was in force on the whole tribe during the seven-day period preceding the offering of human sacrifice. During this period the temple assistants kept a fire burning in the temple precincts, and while this fire was burning, no others would be lit, no-one was allowed to leave his house, and absolute silence was expected. It was believed that the inspirational priest could detect any violation of this tapu by looking into his bowl of kava.

In another publication, however, Handy (1927:163) states that it was a widespread practice throughout Polynesia for priests to meditate and seek inspiration by gazing into a(n unspecified) reflective liquid. So in light of the latter practice, and Handy's own accompanying comment on the popularity of kava drinking with Marquesan (and other) priests, we should perhaps be cautious in concluding that the Marquesans attributed this revealing power to the kava bowl specifically. The partly-full kava bowl may simply have contained the reflective liquid most likely to be gazed into by the priest at any given moment throughout the curfew.

Now for familiar sightings in an unexpected quarter. Geographically distant from New Zealand, Tikopia has kava rituals remarkably similar in purpose to Māori *kawa* rituals (and not markedly different from those Mead describes for Manu'a). Obvious cause for caution exists here, as to whether the exhaustiveness of Firth's and Mead's descriptions might lead us to assign an unwarranted greater degree of similarity between their two areas of study than existed among other Polynesian societies that have perhaps been less thoroughly studied or reported on. Nevertheless, comparison of kava ritual between these two areas and *kawa* in Aotearoa is useful and valid for the present purpose.

Firth (1967:26) identified the kava ceremony as the most typical feature of Tikopia religious ritual, and described the ritual for important occasions, wherein "a formula is recited along a plant of kava denuded of its leaves, and held up in one hand by the officiating *ariki* ['chief'] or *pure* ['married man, with idea of senior status'] who bends over it. Following this, offerings of food are set out for the gods concerned, while a bowl of kava is prepared. Cups of this are then carried to the *ariki*, who pours out libations to his deities with appropriate invocations dealing with canoes, fish, taro, seed yams, breadfruit, recovery from disease, etc. Only the chief or elder may recite the kava formula...". No substitute was entitled to perform the critical kava rites, making the chief (in Firth's words) "the mouthpiece of the community par excellence" (1970:45), since it was his duty to maintain periodic contact with appropriate gods and ancestors, making known to them the needs of the people.

On Wallis and Futuna, ceremonial drinking and to a lesser degree religious ritual uses of kava seem to have survived European contact. The following material on these two islands is taken from Rossille's (1986) account:[11] Father Bataillon, one of the first two Catholic missionaries to land on Wallis Island, reported to his superior general, eight months after his arrival, "When it is necessary to perform some external ceremony to the gods, it consists of paying them in kava". Later, in an address preceding his 1843 nomination as vicar apostolic, he again emphasised the religious significance of kava: "Kava, the favourite drink of men, and also supposed to be that of the gods..." (Rossille 1986:29). Further obvious parallels,

---

[11]   Translation courtesy of Ross Clark.

between kava on Wallis and in other Polynesian cultures, appear in a statement made by Bataillon one year later (Rossille 1986:32):

> Everyone is placed according to his rank and is called in his turn with a rigour which can never be infringed. The kava ceremony is therefore, for them, like a kind of social code, always open, where the rank, rights and powers of each one are traced. This code is complete for the entire country in the general assemblies. It is relative in the least of meetings, but it is always the infallible sign and legal sign of the attributes of each one. Thus any title, promotion, assumption of an official position is done during the kava ceremony. And it is here, too, where laws are published, ordinances, everything concerning the administration of the country. Kava is, so to speak, the expression of the entire society.

Now for some less immediately apparent parallels from the south-western outpost of Polynesia.

5. KAWA IN AOTEAROA

In ancient Māori society, *kawa* denoted tapu-lifting rituals or *karakia* 'incantations', which could be effectively intoned only by a priestly tohunga ('adept'), who could obtain the necessary knowledge of sacred lore only in a *whare wananga* 'school of higher learning'. The term *kawa* is currently used most often to designate 'marae protocol'. I suspect that this usage is a relatively recent development, although I am aware that many knowledgeable Māori would disagree. Discussion of this usage will be reserved until the conclusion of this paper.

The non-controversial but now little known 'ritual' sense of Māori *kawa* was mentioned in the introduction. I shall now briefly elaborate on that sense to further highlight points of convergence already mentioned in kava ritual as practised in other Polynesian societies. Each of the incantations known as *kawa* involved the striking (*tā*) of the recipient person or object with a twig of *kawakawa* or a substitute shrub. Hence the ceremony was also called *tā i te kawa* (literally 'strike with a sprig') – the sprig, also, being referred to as a *kawa* regardless of its genus.

Māori were not alone in using more prolific greenery as a substitute for *kawakawa* in their *kawa* rituals. According to Oliver (1975), the Tahitians used leaves of Tahitian Rosewood ('*Thespesia populnea*': *miro*, *amae*) in offerings to the gods as a substitute for kava. Often these kava substitutes were sacred in their own right, through their incorporation in myths.[12]

Now for the rituals themselves. Williams (1986:152-154) and Cowan (1930b:132-135; 1930a:262-271) give detailed descriptions of *kawangawhare* – the housewarming ceremony which the chief carvers and priestly tohunga carry out to remove the tapu which attaches to all buildings in which the children of Tāne-Mahuta, god of forests, have been carved into figures representing tribal gods and ancestors. The following is a summary of elements mentioned in the three accounts.

---

[12]   The most widely used *kawakawa* substitute, *karamu* '*Coprosma lucida*' or '*C. robusta*', is a prime example, as in the legends of at least the Tūwharetoa tribe, a leaf of the (literally) 'small leaved' coprosma *karamu rauriki* is credited with having been the medium (*waka*) on which death first crossed the ocean from the homeland Hawaiiki (Buck 1910).

Firstly, a *kawa* is recited from the rooftop over the axes and other tools of the carvers to free them also from the tapu that is on them while they are being used. The officiating tohunga then strikes in turn the carved front pillar, the fireplace and the central house pillar with a sprig of *kawakawa*, and forms some of the earth of the house floor into two small mounds, sticking a small twig of *kawakawa* into each, to symbolise the paths of war and peace, at each stop reciting part of the incantation, which is also called a *kawa*. Finally, he recites a short *karakia* over the two mounds, to the effect that the symbol of Tū, the war god (*tira mate* 'wand of death'), will be overcome, and the power of Rongo, the god of peace (symbolised by the *tira ora* 'wand of life'), will prevail. Along with the ceremonial stepping over the threshold by a senior female rangatira, and the consumption of cooked kumara inside the house these rituals *whakanoa* the house (i.e. make it common or free from tapu). Significantly, the opening *kawa* in Cowan's account pays tribute to Tangaroa (god of the sea and patron of carvers) and that in Williams's account addresses him. His connection with canoe building seems to be less explicit in Māori tradition than in Samoan tradition, for example, (see note (6) of the Appendix), although as late as 1900 the *karakia* intoned over the carvers' tools (at the opening of the carved house 'Rauru', at Whakarewarewa) was said to have been the *karakia* originally pronounced over the principal axe used in making the Arawa (Rotorua ancestral) canoe in Tahiti (Cowan 1930a:262-271).

In his PhD thesis on Māori medicine, Buck (1910:55) describes the *tohi* – a rite which was performed about eight days after childbirth. The incantation used was called the *kawa ora*: "It protected the sacred life principle and endowed the child with a clear mind and with physical health".

Space allows mention of only one other variety of *kawa* – the *kawa taua* – a long formula recited over the members of a war party before setting forth. The tohunga positioned himself in a stream beside which the men squatted in a row (Best 1924:288). In this case the *kawa* imposed, rather than lifted, the rigid tapu of Tū upon the warriors. Each man was tapped on the shoulder with a branchlet of *karamu* previously dipped in the water of the stream. A repeat performance was enacted on the return of the party, for the purpose of lifting the tapu, after which the *kawa* branchlet was tossed into the stream.

Now §1 - §4 can be summarised. Having described both the ceremonial drinking and purely religious ritual associated with kava in Polynesia, we are in a position to draw some threads together.

The real potency of kava resides in its status as a symbol of esteem or recognition, variously in either direction, between mortal man and either the gods, departed ancestors or mortal dignitaries. In almost every known Polynesian language there is a reflex of Proto Polynesian **tufunga* 'expert, priest', with meanings ranging from 'priest' and 'master craftsman' to 'carpenter' – in each case an esteemed category of person. See note (7) of the Appendix for a brief discussion on the Tongan, Samoan and Māori reflexes.

At the end of §1, mention was made of a hypothetical transfer of status from the chiefly class to a priestly class in Polynesian societies where kava was used for purely religious rituals rather than as a ceremonial beverage. Material covered in subsequent sections allows me now to invoke note (8) of the Appendix in support of that suggested transfer.

My closing suggestions are that (i) the basic meaning of Māori *kawa* is 'propitiatory ritual', which is shared or has at some stage been shared with several other Polynesian societies; (ii) the *whaikōrero* 'turn-taking' application is a retention from the kava-drinking ceremony; and (iii) the 'marae protocol' gloss is of relatively recent origin.

6. *kawa* MEANING 'MARAE PROTOCOL'

Early in the preparation of this paper, much time was spent attempting to reconcile with 'ritual' the current 'marae protocol' interpretation that is overwhelmingly the most widely used, especially by less culturally-aware Māori, but even by the most culturally-aware, in speaking to Māori or to Pākehā who are less culturally-aware than the speaker. My guess is that there is a well-justified set of assumptions on the part of the latter, that: (i) almost all Māori, and some Pākehā, are aware of the 'marae protocol' gloss, or at least will be able to make sense of it; (ii) a considerably smaller set of Māori, along with a few culturally-aware Pākehā, understand the '*whaikōrero* turn-taking' option; and (iii) very few Māori and virtually no Pākehā are aware of even the existence of the original *kawa* rituals. This is hardly surprising, given that virtually all traditional Māori rituals, except parts of the funeral rites, have been gradually replaced by Christian ones over the last century.

In an attempt to find examples of a 'protocol' or 'procedural' sense of *kawa*, I searched the three early works most easily accessible to me – *The Holy Bible*, *Nga Moteatea* (Ngata 1928: a collection of traditional Māori songs) and White's *Ancient history of the Maori* (1887-90). The senses of *kawa* that occur most frequently in these works are: 'a class of *karakia*, or ceremonies in connection with a new house or canoe, the birth of a child...' which is used as the translation equivalent for the English form *dedication*, and thereby accounts for all 15 out of 66 occurrences in the Bible that do not translate English *bitter*. This 'incantation' sense, along with 'remove the tapu from a house, canoe, etc. by a ceremony involving the use of a sprig' accounts for most occurrences in White – covering baptisms and canoe launchings. The few non-'bitter' occurrences in *Nga Moteatea* involve the verbal sense 'charmed, protected by the ceremonies of *kawa*' or the nominal 'charm'.

Failure to find any sense of *kawa* vaguely suggestive of 'protocol' or even 'procedure' in the literature led me to conclude that the onset of this interpretation[13] of *kawa* probably occurred, at the earliest, after the 1827 translation into Māori of *The Holy Bible*, with its countless enjoinders (the latter having been largely satisfied by that accommodating term *tikanga* 'correct procedure', which makes an unsurprising 720 biblical appearances).

Also relevant here is a buzz word of modern bureaucracy whose current most popular sense often overlaps with the modern ('protocol/procedural') sense of *kawa*. The word *kaupapa* shares with *kawa* the peculiarity of not having appeared in published works, until fairly recently,[14] with its currently best known interpretations 'policy/agenda/medium', although the latter would seem natural enough extensions of two basic senses 'foundation' and 'canoe (fleet)'.

I suspect that rapid expansion of the mass media over the past fifty years has had much to do with an accelerated rate of worldwide liberty-taking with the meanings of words. *Ritual*

---

13   The absence of a particular interpretation of a term, in three pieces of literature published in the nineteenth and twentieth centuries, is not strong evidence for the non-existence of that interpretation in the preceding six hundred year history of a non-literate society. One might, however, expect some visible trace to remain in the volumes of traditional songs.

14   Given their current popularity, the low frequency of both *kawa* and *kaupapa* in the Bible was a slight shock to me. *Kaupapa* appears just four times – as the translation of 'a good *foundation*', '*higher place* of the altar', 'a *chosen vessel* unto me' and '...desireth *conditions* of peace'.
    Kawa makes no appearance to date, in any dictionary that I know of, with the sense 'marae protocol' or even 'procedure', and the first dictionary appearance made by *kaupapa*, with anything like its current popular interpretation, was in Williams's 1957 sixth edition – as sense 12 ('plan, scheme, proposal'), added to the otherwise identical entry, comprising 11 senses, in the 1917 fifth edition.

can now mean little more than 'routine', and *protocol* little more than 'procedure', but when the general Māori populace first encountered the word *protocol* its then more consistently invoked bureaucratic sense, involving 'terms of treaty agreed to in conference' and 'official formulas at beginning and end of charter' (Fowler & Fowler 1964) would have had a reassuring ring at a culturally precarious time, and might understandably have been (wishfully) construed as imparting permanence and immutability to any institution that adopted it.

If the 'marae protocol' interpretation was indeed a late development, the early post-contact period seems a likely time for its inception. Many Māori must have realised quite soon after European contact that the material benefits to be gained bore a potentially heavy cultural cost, and as Māori social structure came under threat from Pākehā values, we might expect that marae-based activities would intensify, and the marae become the centre of retrenchment. It is not unlikely that at a time of such uncertainty, smarting under the outcome of legal trickery, the Māori would welcome association of the marae with the (then even more) legalistic term *protocol*. The trick then would have been to imbue the mixed union, *marae protocol*, with respectability in traditional Māori terms. What better or more auspicious way than to endow it with the mantle of *kawa* – that time-honoured insurance policy against otherwise imminent disaster?

APPENDIX

(1) Primogeniture and sex were important indicators (rather than determinants) of rank in traditional Māori society, as suggested by *ariki* 'Firstborn male or female in a family of note; hence [supreme] chief, priest, leader' and *rangatira* 'well-born, noble, chief (male or female)'. A relic of seniority rights that springs immediately to my mind is the impropriety of a man's engaging in *whaikōrero* ('formal oratory') on the marae without special dispensation from his father or an elder brother. if either of the latter is present.

The feminine counterpart is that it is bad form for a woman to consider performing the *karanga* ('official welcoming call to visiting parties on the marae proper') in the presence of a resident senior female relative, unless the latter is incapable. These privileges (and attendant responsibilities) are the rightful preserve of the *kaumatua* ('senior survivor of a given descent line').

(2) Terms illustrating complex kinship hierarchy:

Tongan *mehekitanga* 'paternal aunt or father's female cousin, treated with special respect, and in many matters having the right of final decision';

Samoan *ilāmutu* 'cousins, the relationship sustained by the children of a sister to the children of her brother, after the brother and sister are dead; a father's sister';

Tongan *ilamutu* 'child of *mehekitanga* (from her brother's viewpoint), such child having privileges over his uncle, e.g. taking uncle's *fono* ('food which accompanies kava'), regardless of the uncle's age or rank' (i.e. familial rank may transcend public rank);

Māori *irāmutu* 'nephew, niece, especially of a woman' (although nowadays the word is known by few and the latter distinction by even fewer).

(3) Christian (1920:131) reports:

> Chewing betel-nut is not the custom in Ponape. The custom seems confined to the Western Carolines, the Pelews, and the Mariannes. Betel-nut chewing is therefore probably an Indonesian custom, supplanted in the eastern islands by *kava* drinking. The names curiously overlap in Yap, by an undesigned coincidence. The leaf used to wrap up the betel-nut and lime, is that of a species of *ava* – the *kawakawa* of New Zealand, the *kavakava-atua* or *avaava-aitu* of Polynesia. The Yap folk are not *kava* drinkers, but the plant is called *gavui*, or *gabui*, or *gabai*.

> The custom of wrapping the betel-nut and lime in a wrapper of kava-leaf, probably paved the way to kava-drinking from the warm aromatic flavour of the leaf.

(4) From chewing the stem (Oliver 1989:51) to chewing the root of the same plant is not a large leap, and because the narcotic properties of kava are present without fermentation, the only further step necessary for large scale consumption is dilution. In a hierarchical society, inducing others to perform the arduous task of chewing the hard root without swallowing the juice would not be impossible for a high-ranking person.

Titcomb (1948:114) notes that "in the various dialects of the Polynesian language, there are two words for the verb to chew, *mama* and *nau*, *nau* meaning to chew with the intent of swallowing, and *mama* meaning to chew so as to mince finely". A quick check of Tregear (1891:201, 281) yields probable cognates for both forms in Tongan, Samoan, Tahitian, Marquesan and Mangarevan.

(5) Handy (1927:163) writes "In the Marquesas, as in Western Polynesia, the prophets drank much kava, and it is probable that the narcotic effect...aided in the practice of their prophetic art".

Titcomb (1948) remarks that although the Hawaiian gods accepted offerings of other food, kava was regarded as being food and drink. She cites formulas quoted by Handy (1940:205) "Here is food for the gods", and Beckwith (1940:186) "Here is the awa o Kane, the Heavenly food".

(6) Buck (1930:82, 414) notes that Samoan tradition regards the building of houses and plank [not dugout] canoes as crafts that came directly from the god Tagaloa-matua, their construction therefore being entrusted exclusively to members of the *Sa Tagaloa* 'the builder's guild'. His mention (p.84) of the "*angai o Tupu* 'the companions of kings', smaller societies claiming origin from individual members of the original *Sa Tangaloa*", brings to mind a threesome which would undoubtedly reward closer examination. It was Koskinen's work which first drew my attention to links between (reflexes of) the Proto Polynesian forms, **kawa* 'kava plant', **mana* 'supernatural power'(1960:122, 1968:62) and **tupu* 'grow'(1960:105, 1967:24). Unfortunately space does not allow further comment here.

(7) In Tongan mythology, Tangaroa is known as Tangaloa tufunga, *tufunga* being 'carpenter' or 'carver'. He is credited with having created the oldest Tongan islands, *'eua* and *'atataa*, by dropping ashes from his woodwork into the ocean. Martin (1817:60) noted that carpentry was the most highly-esteemed profession (and cooking the lowest) amongst the Tongans he encountered.

Concerning Manu'a (an island of Samoa) Mead (1930:108) describes kava ceremonies that occur at each stage of housebuilding and boatbuilding: The *taufale* ('man for whom the house is built'), as host, provides a piece of kava, saying the Samoan equivalent of, "This is the day of the completion of our work. It is consecrated to thee, the lord carpenter, and the household of Tangaloa". The *tufuga* who has built the house is the guest of honour, and is addressed and served as a chief regardless of his actual rank.

In Māori mythology, Tāne (as the origin of trees) and Tangaroa (Patron of carving, and Lord of the ocean) possess the same status, that of supreme *atua* ('gods'), but Tangaroa is potentially destructive as well as creative, as (together with Whiro, god of the underworld) he also introduced magic into this world. While the Māori reflex (*tohunga*) of PPn *tufunga* does function generically (with appropriate modifiers it may denote priest, master-canoe builder/-tatooist/-weaver/-carver, wizard) the least marked meaning is 'priest'.

(8) Compare two systems:

(i) Mead's (1930:113-116) classification of seven differently privileged status groups on Manu'a, where priests were apparently accorded "no privileged observances except those due to them as holders of titles" – but on occasion an untitled carpenter (*tufuga*) had honorary chiefly status bestowed upon him (in the *'ava* ceremony, i.e. the order of *'ava* presentation, in itself, conferred the status, but it was the implicit mythical associations of the *tufuga*'s occupation which predetermined the potential for such conferment); and

(ii) the two-tier chiefly system of Māori society (*ariki* 'supreme chief' and *rangatira* 'person of noble birth'), where the *tohunga ahurewa* ('highest class of priest') was universally respected because of his knowledge of sacred lore. His respectability was understandably assured, given his exclusive access to all of the *kawa* incantations and their accompanying ritual actions, without which few major undertakings would be initiated with confidence in a successful outcome.

REFERENCES

BB (N): Bernice P. Bishop Museum (Bulletin number). Honolulu: University of Hawaii Press

Barrau, Jacques, 1958, *Subsistence agriculture in Melanesia.* BB 219.

1971, *Useful plants of Tahiti.* Paris: Société des Océanistes.

Bataillon, Pierre, 1932, *Langue d'Uvea (Wallis): grammaire-dictionnaire Uvea-français, suivi du dictionnaire français-Uvea-anglais.* Paris: Paul Geuthner.

Beaglehole, E., 1957, *Social change in the South Pacific: Rarotonga and Aitutaki.* London: Allen and Unwin.

Beckwith, Martha Warren, 1940, *Hawaiian mythology.* New Haven: Yale University Press.

Best, Elsdon, 1924, *The Maori*, vol.2. Wellington: The Polynesian Society.

[Bible], 1952, *Ko Te Paipera Tapu: ara, ko te Kawenata Tawhito me te Kawenata Hou.* London: The British and Foreign Bible society.

Brooker, S.G., R.C. Cambie and R.C. Cooper, 1987, *New Zealand medicinal plants* (rev. edn). Auckland: Heinemann.

1988, *Economic native plants of New Zealand.* Christchurch: Botany Division, D.S.I.R.

Brunton, Ron, 1989, *The abandoned narcotic: kava and cultural instability in Melanesia.* Cambridge: Cambridge University Press.

Buck, Peter H., 1910, Medicine amongst the Maoris, in ancient and modern times. PhD thesis, University of New Zealand.

1930, *Samoan material culture.* BB 75.

Burrows, Edwin G., 1936, *Ethnology of Futuna.* BB 138.

Christian, F.W., 1899, *The Caroline Islands: travel in the Sea of the Little Lands*. London: Methuen.

1920, On the distribution and origin of some plant-and-tree-names in Polynesia and Micronesia. *Journal of the Polynesian Society* 29:123-140.

Cooper, R.C. and R.C. Cambie, 1991, *New Zealand's economic native plants*. Auckland: Oxford University Press.

Cowan, J., 1930a, *Legends of the Maori*, vol.1. Wellington: Tombs.

1930b, *The Maori yesterday and today*. Auckland: Whitcombe and Tombs.

Crowe, Andrew, 1981, *A field guide to the native edible plants of New Zealand*. Auckland: Collins.

1990, *Native edible plants of New Zealand*. Auckland: Hodder and Stoughton.

Duranti, Alessandro, 1981, *The Samoan fono: a sociolinguistic study. PL*, B-80.

Feinberg, Richard, 1981, *Anuta, social structure of a Polynesian island*. Provo: Institute for Polynesian Studies, Brigham Young University.

Firth, Raymond William, 1967, *Tikopia ritual and belief*. London: Allen and Unwin.

1970, *Rank and religion in Tikopia*. London: Allen and Unwin.

1985, *Tikopia-English dictionary*. Auckland: Auckland University Press/Oxford University Press.

Fowler, H.W. and F.G. Fowler, eds, 1964, *The concise Oxford dictionary of current English*. Oxford: Oxford University Press.

Gifford, Edward Winslow, 1929, *Tongan society*. BB 61.

Handy, E.S. Craighill, 1923, *The native culture in the Marquesas*. BB 9.

1927, *Polynesian religion*. BB 34.

1940, *The Hawaiian planter*, vol.1: *His plants, methods and areas of cultivation*. BB 161.

Koskinen, A., 1960, *Ariki the first-born: an analysis of a Polynesian chieftain title*. Helsinki: Suomalailen Tiedakatemia.

1967, *Linking of symbols: Polynesian patterns*, vol.2. Helsinki: The Finnish Society for Missionary Research.

1968, **kite: Polynesian insights into knowledge*. Helsinki: The Finnish Society for Missiology and Ecumenics.

Lebot, Vincent and Pierre Cabalion, 1988, *Kavas of Vanuatu: cultivars of Piper methysticum Forst*. Trans. R.M. Beynon, R. Wane and G. Kaboha. Noumea, New Caledonia: South Pacific Commission.

Lebot, Vincent, Mark David Merlin and Lamont Lindstrom, 1992, *Kava: the Pacific drug*. New Haven: Yale University Press.

Loeb, Edwin M., 1926, *History and traditions of Niue*. BB 32.

Mabberley, D.J., 1987, *The plant book: a portable dictionary of the higher plants*. Cambridge: Cambridge University Press.

Martin, John, 1817, *An account of the natives of the Tongan Islands, in the South Pacific Ocean*. London: John Murray.

McHenry, Robert, ed., 1992, *The New Encyclopædia Britannica*, vol.14. (15th edn) Chicago: Encyclopædia Britannica.

Mead, Margaret, 1930, *Social organization of Manua*. BB 76.

Milner, G.B., 1966, *Samoan dictionary*. London: Oxford University Press.

Newell, W.H., 1947, The kava ceremony in Tonga. *Journal of the Polynesian Society* 56:364-417.

Ngata, Apirana, compiler, 1928, *Nga Moteatea (The songs)*. Wellington: A.H. and A.W. Reed.

Oliver, Douglas L., 1975, *Ancient Tahitian society*. Canberra: Australian National University Press.

1989, *Native cultures of the Pacific Islands*. Honolulu: University of Hawaii Press.

Pratt, George, 1893, *A grammar and dictionary of the Samoan language* (rev. edn 1984). Papakura, N.Z.: R. McMillan.

Rikihana, H.T., ed., 1992, *He Purongo Tohutohu Mo Te Kaiwhakangungu o Te Reo Maori Me Ona Ritenga (a trainers' guide to Maori language and customs)*. Auckland: Kohia Teachers Centre.

Rossille, Richard, 1986, *Le Kava a Wallis et Futuna: Survivance d'un breuvage océanien traditionnel*. Talence, France: Centre de Recherches sur les Espaces Tropicaux de l'Universite de Bordeaux III, Institut de Geographie.

Shore, Bradd, 1982, *Sala'ilua, a Samoan mystery*. New York: Columbia University Press.

Smith, S. Percy, 1920, Kava drinking ceremonies among the Samoans. *Journal of the Polynesian Society* 29 (supplement): 1-21.

Stark, Raymond S., 1979, *Maori herbal remedies*. New York: Viking Seven Seas.

Sutton, Douglas G., 1970, Organisation and ontology: the origins of the northern Maori chiefdom, New Zealand. *Man* (n.s.) 25:667-692.

Taylor, Richard, 1870, *Te Ika a Maui* 437. London: William Macintosh.

Titcomb, Margaret, 1948, Kava in Hawaii. *Journal of the Polynesian Society* 57:105-171.

Tregear, Edward, 1891, *The Maori-Polynesian comparative dictionary*. Wellington: Lyon and Blair.

Whistler, W. Arthur, 1992, *Polynesian herbal medicine*. Hawaii: National Tropical Botanical Garden.

White, John, 1887-90, *The ancient history of the Maori, his mythology and traditions*. Wellington: Government Printer.

Williams, H.W., 1957, *A dictionary of the Maori language* (6th rev. edn). Wellington: Government Printer. (1st edn 1844, *A dictionary of the New Zealand language*, by William Williams.)

   1986, The Maori whare: notes on the contsruction of a Maori house. *Journal of the Polynesian Society* 5:151-154.

Williamson, Robert Wood, 1939, *Essays in Polynesian ethnology*. Cambridge: Cambridge University Press.