MULTILINGUALISM AND LANGUAGE MIXTURE AMONG THE NUMBAMI[1]

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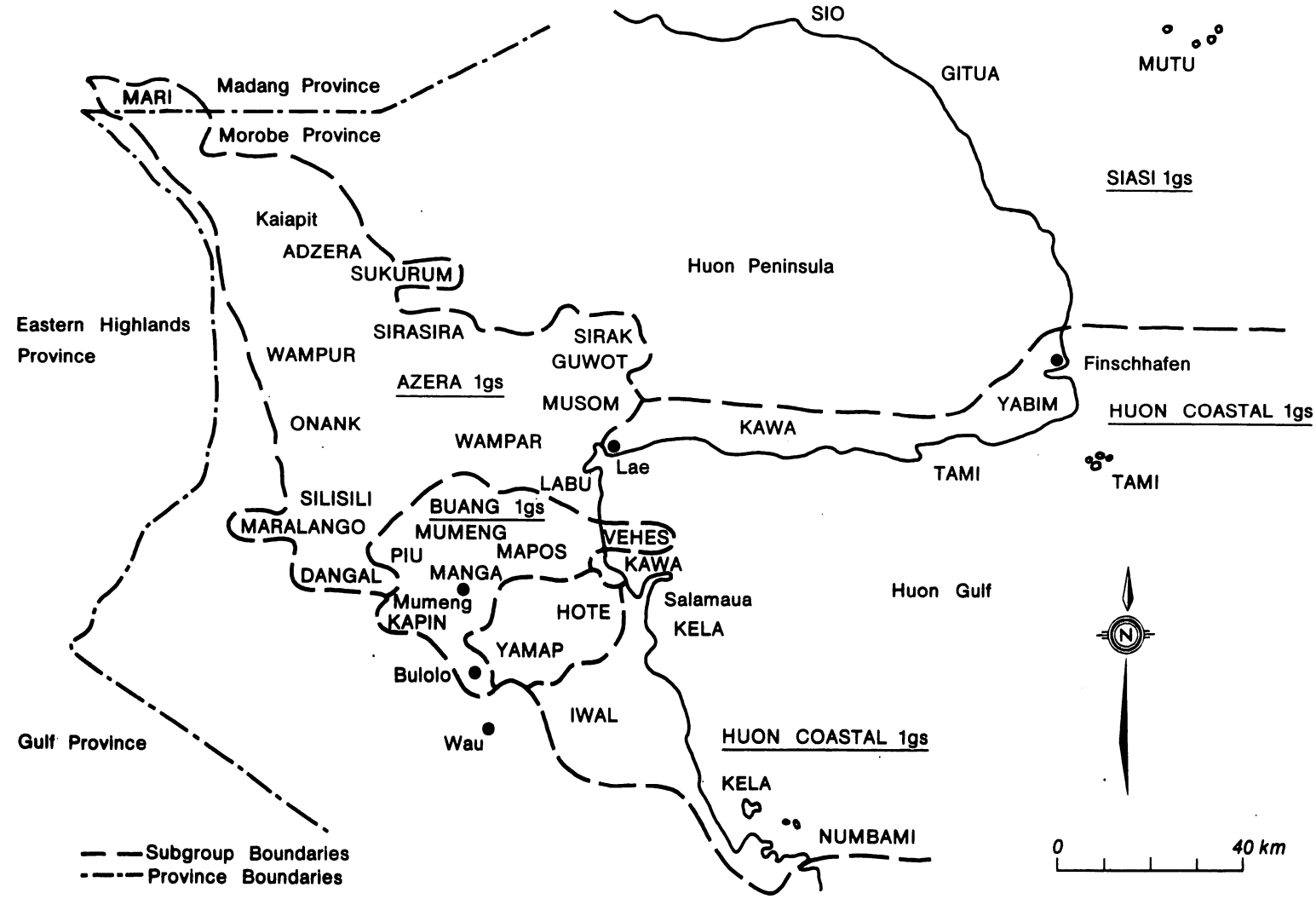
1. Introduction

Numbami is an Austronesian language of Morobe Province, Papua New Guinea. It is spoken by no more than 300 people, whose single village lies on the coast of the Huon Gulf about 95 km south of Lae and about 45 km north of Morobe Patrol Post. There are no monolingual speakers of Numbami. All members of the community speak Tok Pisin, the lingua franca of New Guinea, and most also speak Yabem, an important lingua franca used by Lutheran church members in Austronesian-speaking areas of Morobe Province. English is also an important language for those Numbami who live in town and who work in occupations which require knowledge of English. However, this paper will concern itself with multilingualism and language mixture among the village-dwelling Numbami, few of whom speak much English.

First, a general picture of the Numbami speech community will be presented. This section will deal briefly with much the same sort of information that Sankoff (1968) provided for the Buang speech community (which is in the same vicinity of Morobe Province). Against this background, specific examples of the integration of elements of Yabem and Tok Pisin into Numbami will be discussed. The discussion will include both the degree to which the two superimposed languages have been integrated and the manner in which they have affected Numbami.

2. The Languages of the Numbami

The major languages available for use in the Numbami speech community will be discussed in terms of how widely and well they are spoken, how they are acquired, what functions they serve, and what attitudes the members of the community have toward these languages. Though the total number of languages spoken by any of the people in



HUON GULF AUSTRONESIAN LANGUAGES (after Healey 1971)

the community is considerable, the influence of all but Tok Pisin, Yabem, and Numbami is negligible and will not be discussed here.

2.1 Tok Pisin

The language known by the greatest number of speakers in the Numbami community is not Numbami; it is Tok Pisin. In fact, it is safe to say that anyone who can speak at all can speak Tok Pisin. Many outsiders, especially men, who have married into the community rely exclusively on Tok Pisin. (The women tend to be more willing to learn and use Numbami for everyday communication. Sankoff (1968: 122) found the same to be true among the Buang.) In addition, many children of Numbami-speaking parents speak only Tok Pisin, generally as a result of having first learned to speak in areas where Numbami was not spoken outside the home to any great extent (as in the timber company compound a few coves away or in town). Even Numbami-speaking children learn Tok Pisin along with their Numbami (and in the same manner) and frequently use both languages macaronically. Thus, by the time they are ready to go to school, they need not make a special effort to learn an adequate amount of Tok Pisin first, as children in many more recently contacted communities must do. From the time they leave the village to go to school in neighbouring, Kela-speaking Kui, Tok Pisin assumes an even greater importance, not only because it (along with some English) is the language of instruction but because they share the school with (Papuan) Paiewa-speaking and (Austronesian) Kela-speaking classmates.

The varieties of Tok Pisin spoken by the Numbami are enough to make Pidgin purists wince. Though Bush Pidgin (following Mühlhäusler's (1975) distinctions) is not to be found, one can readily hear in the village everything ranging from archaic Rural Pidgin, with German-based words like sege 'saw' and hobel 'plane', to heavily anglicized Urban Pidgin, with presim 'to praise', distebim 'to disturb', and the like. Length of contact and a fair degree of accessibility explain the absence of Bush Pidgin and the universal knowledge of Rural Pidgin in the village. The coast between Salamaua

Peninsula and the Papuan border on which the Numbami village lies was first evangelized by German Lutheran missionaries between 1907 and 1914 (Sack 1976). Though Yabem, the mission lingua franca, was no doubt more widely known and used as a contact language before the Pacific War, extensive wartime contact with the army and administration, whose lingua franca was Tok Pisin, and the postwar establishment of government schools assured wider use and knowledge of Tok Pisin after the War.

Wider knowledge of Tok Pisin has undermined the prestige it once had as a link to the world of European goods and lifestyle. It is still most commonly referred to as bina bumewe 'tok waitman' or 'the language of the whites', even though people are aware that most whites speak it very poorly.[2] But English has now replaced it as the language of access to the urban economy and lifestyle. Thus the degree of anglicization of the Tok Pisin spoken in the village directly reflects the villagers' frequent and intimate contact with town life (mostly in Lae) and the relatively high number of English-educated Numbami who live in town and work in nontraditional occupations. No more than half of those who speak Numbami live in the village most of the year. The rest live in Lae or other towns working at jobs ranging from teacher to bank clerk to repairman to policeman to army NCO. Others hold positions in the Malaria Service, Development Bank, and the Departments of Primary Industry and Forestry. Even the village dwellers are tied to the urban economy. They regularly sell fish, sago, and other village products in town, which they can reach by the village-owned, diesel-powered boat that makes the trip to Lae and back about every week or ten days. Moreover, since most families have at least one member working in town, people in the village usually know whether each Thursday is 'government fortnight' or 'company fortnight'. (The government and private businesses generally pay at two-week intervals falling on alternate Thursdays.)

Not only is village Tok Pisin then becoming increasingly Urban Pidgin, but English itself is increasingly one of the important languages of the Numbami community. Thanks to help from those Numbami already working in the urban economy and to the judicious use of royalties from timber cut on their land, more Numbami are now obtaining an English education beyond the primary, secondary (grades 7-10), and even senior high school (grades 11-12) level. At this stage, however, English influence is hard to separate from that of Urban Pidgin. Although I have participated in Numbami conversations in which English was directly introduced (without conversion to Tok Pisin phonology), most English that finds its way to the village arrives in the guise of Urban Pidgin.

2.2 Numbami

The second most widely known language is Numbami itself. Even outsiders who do not speak it generally understand it to some degree and will participate in primarily Numbami conversations while holding up their end of things in Tok Pisin. Several people from the neighbouring villages of Paiewa and Kui who are old enough to have attended the four-year Yabem school when it was located in the Numbami village also speak Numbami rather fluently. In contrast, Numbami who live their elementary school years in Kui rarely learn to speak more than the most rudimentary Kela (although they may understand a fair bit of it), and Paiewa, a Papuan language, is almost totally unknown.[3]

As to how well they speak their own language, most Numbami will acknowledge somewhat self-deprecatingly that i maŋgo biŋa miks 'we speak our language "mixed"', the form of the statement itself evincing the truth of its claim. The main contributors to this biŋa miks 'mixed language' are Yabem, Tok Pisin, and, increasingly, English. This is not a phenomenon confined to the younger speakers. Even some of the oldest people in the village frequently stumbled trying to find a Numbami word to replace a more commonly used Yabem one. The difference between older (Yabem-educated) and younger (Tok Pisin-and-

English-educated) speakers in this regard is that the younger ones do not know Yabem very well and thus frequently do not know which words are Yabem or, if they do know, they may not know what the Numbami equivalents are. Even with words from Tok Pisin, which all but some preschoolers recognize as Tok Pisin, the difficulty lies as often in finding a Numbami replacement as in remembering to use an already established Numbami equivalent. (For example, there are no Numbami words that adequately denote the switching on and off of electrical appliances: Tok Pisin opim and pasim are hard to replace.)

There is a definite feeling among Numbami speakers then that their language is an endangered species. My arrival to study Numbami thus set off determined and much discussed efforts to purge the language of borrowings, to reconstitute "pure" Numbami. As a consequence, I was taught some archaic vocabulary which was sometimes unintelligible to younger schoolchildren or town dwellers who had always used well-entrenched loans from Yabem.

Since Numbami is of little use in communicating with people from outside the community, its major sociolinguistic function is that of setting the speech community off from other similar ones and thus of fostering village cohesiveness. It is thus not surprising that many Numbami are more careful to use pure Numbami, often using circumlocutions, when outside the community (for reasons of privacy) than when talking in the village. When I was trying to make the initial switch from conversing primarily in Tok Pisin to relying more on Numbami, I had some difficulty getting my host and principal teacher to go along. But when we were talking around outsiders it took no instigation from me at all for him to speak only in Numbami.

As more Numbami stay away from the village for long periods of schooling and/or work, there is an increasing likelihood that Numbami will become a language of preschool and postretirement. For many it already is that. This lengthy absenteeism changes the subject matter of very many more conversations from traditional village activities, for which Numbami is very well adapted, to the sharing of experiences

of town, school, or travel, for which Tok Pisin, especially Urban Pidgin, is more suited. There are many Numbami equivalents for Tok Pisin words introduced earlier on but now change is so rapid that Numbami can hardly expand at the same rate and still remain 'pure'.

2.3 Yabem

Originally spoken by some 900 people living on the coast near present-day Finschhafen (Zahn 1940), Yabem was adopted by the precursor of the Evangelical Lutheran Church of New Guinea (ELCONG) for use as a lingua franca among speakers of Austronesian languages.[4] If, as Hogbin (1947a: 247) claims, Kawa (also known as Bukawa) was the precontact lingua franca of coastal trade around the Huon Gulf, then the mission made a fortunate choice, since Yabem and the various dialects of Kawa seem to form a dialect continuum stretching along much of the coast from Finschhafen to Salamaua. Hogbin suggests that Kawa was even learned by the Tami Islanders, who undertook the long distance trading in the Gulf and linked that trade network with the Siassi network in the Vitiaz Strait. In any case, Yabem, Kawa, Tami, and the other coastal Austronesian languages in the Gulf seem to be grammatically very similar and thus easily learned by most of the coastal dwellers.[5]

Johann Flierl, the first missionary, arrived at Finschhafen on 12 July 1886. In 1907, a station was founded at Malaclo near Salamaua. Its domain stretched from the Labu at the mouth of the mouth of the Markham River to the Siboma (=Numbami) in the south (ultimately taking in the non-Austronesian Paiewa as well). Schools were established in each village under the supervision of a teacher from outside the village. For many years the school and church for the parish comprising Paiewa, Siboma, Kui, and Buso was located at Siboma. Everyone, male and female, received four years of schooling in Yabem, each group going through the full four-year cycle before the next group began. One Numbami man told me that, of all the older people in the village when I was there, only his mother had failed to go to Yabem school.

The school curriculum was far from narrowly religious. Literacy and simple arithmetic were stressed but things like hygiene and geography (of New Guinea, not just Europe or Palestine) were also taught, and available reading matter included subjects like folktales, local customs, and anatomy (Hogbin 1947b: 5). The better male students were eligible for two years boarding school under missionary supervision (at Malaclo for the Numbami). A two-year 'area school' at Wasutieŋ near Finschhafen prepared the best scholars from all over the district for the two-year teacher training course at Hocpoi near Bukawa village. At Hocpoi they received religious, academic, and pedagogical preparation to become teachers in the village schools. Several Numbami men, including my host, had been trained at Hocpoi and had taught in Yabem schools in various areas.

Thus, not only was everyone literate in Yabem but many of the men were quite expert in it and had lived many years in areas where they relied on Yabem for most of their daily communication needs. Hogbin, encountering the Kawa-speaking village of Busama immediately after the War, said "every child of 14 is completely at home in three [languages], his own, Yabim and pidgin" (1947b: 21). The same was undoubtedly true for the Numbami at that time.

Since the establishment of government schools in the postwar period and the disestablishment of the Yabem schools, the influence of Yabem has declined. Nowadays, after completing six years of English-based primary school at Kui, Numbami students who go on to high school in Lae have the choice of either the government or the Lutheran high school, both of which are conducted in English.

Evangelism undertaken by ELCONG in more recently contacted areas like Menyamya and Aseki has been done in Tok Pisin rather than either of the old lingua francas. In addition, Tok Pisin is usually the de jure if not de facto lingua franca of church meetings (since people whose knowledge of Yabem is insufficient are often included). However, it is very common for meetings that begin in Tok Pisin to end in Yabem as older delegates (who usually dominate them) switch

into the language in which they feel most comfortable for discussion of church-related matters. (Sankoff (1968) also observed this.) Likewise, at the annual meeting (the Sam) of the Yabem division of ELCONG that I attended at Malaclo in 1976, Tok Pisin was the official language but almost all the unofficial communication that I heard there between older people of different language groups took place in Yabem. The setting demanded it. Yabem thus retains considerable prestige and a loyal following in spite of its waning influence, especially among people who are leaders in or identify strongly with the church community.

2.4 Language-shift and Style-shift

After examination of the language behavior of two fluently bilingual men of prominence among the Buang, Sankoff (1968: 193-194) concluded that

> "their shifts of verbal strategy, realised as code-switching, are analogous to the choice of style of speech or levels of vocabulary on the part of monolingual orators. The shifts themselves are an expression of the position of these men vis-á-vis traditional and modern society."

The languages available to each Numbami roughly correspond to the various communities in which he or she plays a part. The use of Numbami suggests ties to the village community; Yabem, to the church community; Tok Pisin, to the secular, national community; English, to the urban, elite community, with international ties. Each language is also adapted primarily to the concerns of each community. English is as inadequate for discussion of village life as Numbami is for discussion of urban activities. None of the languages, at least to the extent any single individual knows them, covers all possibilities with equal facility. To the extent that the languages do not overlap in their capabilities, switching is in some measure beyond the control of the speaker. To the extent that they do overlap, the speaker has the option of evoking or responding to the context of the community and its concerns associated with each language.

3. Language Mixture

Because people in the Numbami community more or less universally share extensive knowledge of three different languages, they can switch at any time from one to the other. Many elements of Tok Pisin and Yabem are thus to be found in utterances that are basically Numbami. First we will discuss how well integrated into Numbami these foreign elements are. Then we will examine two areas in which language convergence is taking place. Lexical borrowing is causing the vocabulary of Numbami to approach that of Tok Pisin or Yabem, in many cases through relexification of Numbami words already in existence. We will look at what types of words are being borrowed in this type of multilingual situation. Another area in which convergence is taking place is in the "content-form" (Grace 1975: 6) -- the kinds of semantic categories used and the ways they are arranged in utterances. Possible past convergence makes this a difficult area to deal with but several instances will be presented of content-form convergence through calquing that is now underway.

3.1 Stages of Integration

Haugen (1956: 39-68) outlines three stages in the process of integrating elements of one language into another. At the switching stage, the language boundaries are clear and speakers switch from one language to another at the utterance, phrase, or even lexical level. At the next stage, there is overlap so that some phonetic or semantic elements are assignable to both languages and there is often much vacillation in the degree of assimilation of the borrowed items. Finally, the borrowed elements are totally integrated into the receiving language, usually by speakers not bilingual in the donor language.

With reference to this model, Sankoff (1968: 114-117) considers the degree to which Yabem and Tok Pisin have been integrated into Buang. She feels that Yabem is involved in code-switching, "mainly at the level of whole utterances and of even longer segments of connected speech" (114), but that it is not integrated into Buang the way Tok Pisin is.

In contrast, Numbami has much from Yabem so well integrated that nothing but knowledge of the source language would lead one to suspect borrowed elements. This total integration is abetted by the already striking grammatical similarity between the two languages and is made all the more insidious by the decreasing familiarity with Yabem on the part of the new generation of Numbami speakers. Tok Pisin is also well integrated. But, since it is universally known, most borrowings can readily be recognized. In addition, Tok Pisin verbs used in Numbami do not take the Numbami subject prefixes the way Yabem verbs do, so the grammatical integration of Tok Pisin is less complete.[6]

3.2 Borrowing

Tok Pisin loanwords in Numbami fall into two phonological categories: assimilated and unassimilated. The former set contains words denoting new cultural items or concepts which probably came into general use before Tok Pisin itself was widely known--hence the phonological distortion to fit the patterns of Numbami.

Phonologically assimilated loans from Tok Pisin

Numbami	Tok Pisin	Gloss
balala	blara	'umbrella, parachute, sail of sailfish'
batete	poteto	'potato'
bele	p(i)let	'plate'
bosi	bot (?)	'dinghy, small boat'
kali	ka(r)	'car'
kilipi	krifel (archaic)	'pencil'
ko(ŋ)ko(ŋ)	kongkong	'Chinese, Chinatown'
kia	kiap	'patrol officer'
laisi	rais	'rice'
lulua	luluai	'village official'
masisi	masis	'matches'
pake	blanket/planget	'blanket'
pinasi	pinas	'pinnace, motorboat'
sipu	s(i)pun	'spoon'
sopu	sop	'soap'
tauli	taul	'towel'
tu(l)tu(l)	tultul	'interpreter, asst. village official'

Of course, many words are unassignable to either category since they would not have had to be altered to conform to Numbami syllable patterns. Words like kopi 'coffee', suga 'sugar', or sege 'saw' already fit the Numbami preference for open syllables.

More recent Tok Pisin loans are not phonologically distorted, presumably because everyone now speaks the source language fluently. Nor are the loans limited to the expected words denoting new cultural items. In fact, it is hard to determine what constitutes a genuine loanword. People resort to Tok Pisin not only when they find Numbami inadequate or clumsy. They often use it where perfectly fitting Numbami equivalents are available. Tok Pisin simply supplies an extra set of synonyms. It appears that, in conditions of such complete bilingualism, borrowing is as much a well-indulged-in luxury as a reluctantly undertaken necessity. Following is a list of some of the more frequently occurring 'unnecessary' borrowings from Tok Pisin.

Well-used 'unnecessary' loans from Tok Pisin

Tok Pisin	Numbami equivalent	Gloss
kamap	balalaya	'to appear, arrive'
pestaim	bembenama	'at first, the first time'
les	boya, bodadawa	'not to like'
makmak	geyegeya	'patterned, coloured, spotted'
tambu	iwa	'cross-sibling of spouse'
tambu	kolamundu	'spouse of cross-sibling'
makim	-kelele gi	'to mark off, reserve'
pasin	motawi	'behaviour, manner, custom'
winim	-neneli/-nenela	'to surpass' (forms comparatives)
senisim	-wilia	'to change, exchange'
redi	woyama	'ready'
traim	-sai (from Yabem)	'to try'
miks	silisoloŋa	'mixed together'
save	-yala (from Yabem)	'to know'

If we examine Yabem words frequently used in Numbami we find the same assortment of necessities and luxuries. Alongside the next group, which have no exact equivalents in Numbami, we find a number of other loans which can easily be rendered in Numbami. Phonological assimilation is sporadic in both groups. This may be due to the fact

that Yabem did not trickle into the linguistic repertory of the village; it entered along with a full-fledged effort to educate the entire village in the language.

Yabem loans without Numbami equivalents

Numbami form	Yabem source	Gloss
biŋsu	biŋsù[7]	'white missionary'
biŋguli	biŋ gôliŋ	'parable, riddle'
gibiau dabu(ŋ)	gêbêauc dabuŋ	'Christmas (Eve)'
gulua	gôlôàc (c = IPA [ʔ])	'congregation'
kele(ŋ)kele(ŋ)	keleŋkeleŋ	'bell'
kiduwaga	kêdôŋwàga	'teacher'
-lisu	-lê(n)sôŋ	'to confuse'
moasi(ŋ) dabu(ŋ)	moasiŋ dabuŋ	'holy communion'
ŋalau dabu(ŋ)	ŋalau dabuŋ	'Holy Spirit'
sakiŋwaga	sakiŋwàga	'minister, servant'
yaŋgo	jaŋgom (j = IPA [j])	'maize'
-yala	-jala	'to know'
yaiŋwaga	jaeŋwàga	'catechist, black missionary'

Well-used 'unnecessary' loans from Yabem

Numbami form	Yabem source	Numbami equivalent	Gloss
biŋgalum	biŋgalôm	biŋaula	'conversation'
-ndu	-(n)dôŋ	-tuwaŋi (arch)	'to teach, learn'
kau	kauc	lalo (arch)	'sense, mind, intelligence'
keso	keso (3rd sg.)	sapu	'wrongly, poorly'
kilili	kêlêlèc (3rd sg.)	galiki	'many'
melo	meloc	walawala	'crazy'
ŋale	ŋacleŋ	yawayana (arch)	'visitor, visiting'
ŋaom	ŋaàm	dabola	'origin, basis'
tokaiŋtokaiŋ	tokaiŋtokaiŋ	minamaina	'of all kinds'
yao	jao	aga	'tabu'
-uli	(-jam/-nam) ôli	-baga (arch)	'to buy, sell'

Two Numbami words, -baga 'to buy, sell' and -tuwaŋi 'to teach, learn' have been so totally supplanted by their Yabem synonyms that they were not recognized by several young Numbami speakers when I used them. Two others, lalo and dabola, have been largely

restricted to their more literal meanings, 'inside' and 'head, trunk (of tree)' respectively, with Yabem kauc 'sense, intelligence' and ŋaṁ 'origin, basis, descent' taking over their respective figurative senses.

Not only are words likely to be borrowed irrespective of need; they may even be borrowed in some cases if they are function words, that is, if they convey as much or more grammatical as "real world" information. (I know of no cases, however, in which a Yabem or Tok Pisin function word that is equivalent to a Numbami function word has been borrowed.) Tok Pisin taim 'time, when' used as a subordinating conjunction before time clauses has been thoroughly incorporated into Numbami as tem(i). Tok Pisin mas 'must' is also indispensable to people speaking Numbami. Sentence (1) is a normal Numbami utterance:

(1) Tem nuweke teteu na,
when future-you(sg)-leave village the

aiya mas nuso pepa de woya.
you(sg) must future-you(sg)-strike paper to me

'When you leave the village, you must write to me.'

Tok Pisin igat 'to have' and stret 'straight (used as an intensifier)' are also very common, as in (2) and (3):

(2) Ai igat goleyawa bamo. 'They have a lot of money.'
them have money big

(3) Wamomola wamande stret. 'I nearly died laughing.'
I-laugh I-die straight

The Yabem loan ŋaṁ 'origin, basis' has also been pressed into service to form the half-loan, half-calque Numbami grammatical construction ŋaom iŋgo 'because', which corresponds to Yabem ŋaṁ gebe 'because'. (Both versions translate literally as 'basis it-say'.) More will be said of calquing in the next section.

Examination of Tok Pisin and Yabem loans in Numbami seems to suggest the following hypothesis about which types of things are likely to be borrowed under what circumstances:

Hypothesis: There is a direct correlation between degree of bilingualism and extent of borrowing. At one end of the scale,

where bilingualism is restricted (to certain contexts or certain speakers), only those items for which no adequate equivalents exist in the target language are likely to be borrowed. Where bilingualism in both the source language and receiving language is universal, almost anything goes--even grammatical words.

A comparison of Tagalog, a Philippine language, and Chamorro, a Philippine-type language spoken on Guam and in the Marianas, seems to support this hypothesis. Both languages were heavily influenced by Spanish over a period of almost four hundred years. But the speakers of Tagalog are much more numerous and knowledge of Spanish probably did not pervade the entire community. The Chamorros, on the other hand, underwent forced relocation from Saipan (the largest of the Marianas) to Guam as well as severe population reduction to fewer than 4000 speakers (there are over 50,000 today) (Topping 1973: 1-4). Presumably few could avoid becoming bilingual in Spanish. Both languages contain a predictably great number of Spanish noun and verb loans. But Chamorro also has the prepositions para, desde, asta, sin, pot (Spanish por), and kontra (Topping 1973: 122-129); the articles un and, in time-telling, la and las (136-137); and a wealth of subordinating conjunctions and sentential adverbs (151-155). The Chamorro numerals have also long since been entirely replaced by Spanish (166). Tagalog seems to lie a half-step or so more toward the restricted bilingualism/restricted borrowing end of the scale. Its number system survives alongside the Spanish system; it has la and las in time expressions but no un; and it has incorporated fewer prepositions (para, for instance, but not desde and (h)asta) and fewer subordinating conjunctions and sentential adverbs. Both languages have accepted a variety of Spanish grammatical words but they differ in how many they have accepted.

3.3 Calquing

Grace (1975 and 1978) makes a major distinction between two components of language: its content-form and its lexification. "The

first consists of everything concerned in the conceptualization of the message, while the second consists just in the pronunciation of the words" (1978: 20). The former includes the semantic content of the lexicon and the way it is organized, while the latter is restricted to the phonetic content.

In this section we will note the effect of calquing, by means of which the content-form of Numbami converges with that of other languages in which Numbami speakers are bilingual. Since Tok Pisin, one of the donor languages, is itself widely considered to possess very Melanesian content-form while having primarily English lexification and since Yabem and Numbami have such surprisingly similar content-form (in the face of dissimilar lexification) that they must have undergone some kind of convergence in the past, it may be instructive to consider some examples of this process at work in the present.

I was witness to many a calque-in-the making since my presence almost invariably caused people to try to purge commonly used non-Numbami words from their speech. Many times, for instance, speakers would catch themselves using stret 'straight' as an intensifier in a Numbami sentence (as in example 3 above) and immediately translate it into "pure" Numbami with tonowa-ma 'straight-ly' (with the adverbial suffix -ma). There was some uneasiness with this facile solution, however, since tonowa-ma is not used as an intensifier in Numbami the way stret is in Tok Pisin.[8] Nevertheless, people were generally satisfied that they had purified their speech by providing Numbami lexification.

With Yabem the problem is doubly difficult. There are so many expressions that can be translated word-for-word into Numbami that it is hard to determine how many result from direct contact between the two languages since missionization, how many result from calquing involving intermediaries such as Kawa, Kela, or Tami before mission contact, and, lastly, how many result from shared ancestry. I will discuss only a few cases in which I am fairly certain the resemblance is of recent origin.

Yabem and Numbami (and Tami as well) have very many verbal compounds consisting of a verb with a very general meaning, such as 'to do, make', 'to hold, take', 'to hit', 'to put, give', and 'to say', along with a noun that more fully specifies its meaning. They are quite reminiscent of English expressions like 'to take care (of)/ take effect/take heart/take stock (of)/take the helm (of)'. The meaning 'to steer, guide, lead' is rendered in such a way in Yabem, Tami, and Numbami.

'to steer, guide, lead'

Yabem :	-jam/-nam gôliŋ	'to do rudder'
Tami :	-ŋka gul	'to take rudder'
Numbami:	-ambi luŋana	'to take rudder'

These verbal compounds seem to have provided a rich calquing ground in the past and they continue to do so in the present. A common pattern is for Numbami to borrow the second element from Yabem and append it to one of the Numbami verbs of generalized meaning. For instance, ôli was borrowed from the Yabem compound -jam/-nam ôli 'to buy, sell' and added to Numbami -ambi to take, hold, get' to form the half-calque, half-loan verbal compound -amb(i)uli 'to buy, sell'. The resulting expression had entirely displaced the Numbami word -baga (with identical meaning and apparently cognate with Iwal -vgo 'to buy, sell') until my presence in the village engendered the latter's revival (though perhaps only for the duration of my stay).

The absence of an adequate Numbami equivalent for ôli has kept -ambuli in the status of semi-calque. Yabem elements in other such semi-calques are more easily replaceable so that a full calque results.

The following two verbal compounds exhibit some variability in their second elements.

'to preach'

Yabem :	-jam/-nam mêtê		'to do gospel'
half-Numbami :	-lapa	miti	'to beat gospel'
"pure" Numbami:	-lapa	motawi	'to beat manner/behaviour'

'to torture, persecute'

Yabem	:	-ŋandaŋ	'to heat' (cf. ŋandaŋ 'heat, hot')
half-Numbami	:	-ki ŋanda	'to apply heat'
"pure" Numbami	:	-ki wawana	'to apply heat'

From the meaning of -lapa motawi 'to preach' one would suspect it to be of recent origin. (It has no other meaning.) The usage of the second example leads me to suspect the same of it. I never heard -ki wawana except as a back translation from -ki ŋanda 'to torture, persecute'; the semi-calque seemed to be better established than the full calque.

In another case the influence of Yabem seems to be acting in favour of one of two variants that may have already been in the language. In Numbami, 'to kneel' can be rendered in two ways: (literally) 'to bend the leg-joint' or 'to plant the leg-joint'. The literal rendering in Yabem is 'to bend the leg-joint'. That version seems to be winning out in Numbami to the exclusion of its alternant.

'to kneel'

Yabem	:	-pôŋ à-duc	'to bend the leg-joint'
Numbami 1:		-poŋa ae-duga	'to bend the leg-joint'
Numbami 2:		-so ae-duga	'to plant the leg-joint'

The next example supports the hypothesis that "if a native word is similar in sound to a desired foreign word, it is often given the meaning of the foreign word; if not, it is more common to borrow the foreign word" (Haugen 1956: 54). Compare the following alternative ways of expressing the same thing:

'Did he say something wrong?'

Numbami 1:	e iŋgo biŋa sapu, mo?	
Yabem	: eŋ kêsôm biŋ keso, me?	
Numbami 2:	e iŋgo biŋa keso, mo?	
Numbami 3:	e iŋgo biŋa iso, mo?	
	him he-say talk wrong or	

All three Numbami versions can be heard, but when speakers catch themselves using keso, they generally exorcise it with iso, not with sapu. This solution makes the content-form of Yabem and Numbami,

already very close, absolutely convergent. The morpheme-by-morpheme translation is the same as the idiomatic translation *in each* language. Both Numbami and Yabem have verbs -so with very general meanings. The meanings in each language overlap in the area of 'to strike, stab' and, after calquing, the area of 'to go awry, go wrong'. Both iso and keso are inflected for third person singular realis in each language.[9] The Numbami word sapu appears to be akin to sapupu 'rotten'. Because it is not an inflected verb it is a poorer match for keso and we can expect the influence of keso to favor the use of its calque iso in Numbami, possibly to the gradual exclusion of sapu.

4. Conclusion

We have presented a picture of one type of multilingual community--one in which virtually everyone is multilingual in the same languages--and have examined some of the language mixture that goes on there. The kind of multilingualism in a community may be closely related to the kind of mixture, or lack of it, to be found there, as Grace (1978: 101-102) suggests:

> "I would propose that the [multilingual] individual experiences two linguistic "needs", a need to be able to select from the linguistic material in his head in such a way as to communicate successfully with his fellows (the "selective need") and a need to get what is in his head together into some semblance of a unified whole (the "integrative need")...
>
> I would suppose that performance in satisfaction of the selective need would be enhanced by a necessity for speaking in each of the languages in isolation to the exclusion of all others [in shifting, for instance, between separate monolingual communities]...
>
> On the other hand I would suppose that satisfaction of the integrative need would come easiest and most naturally to a multilingual who lived in a multilingual community where everyone spoke all of his languages, and where it was always possible to shift at will, or convenience, from one language to another."

The Numbami community clearly fits the latter description and, as we have seen, the prevailing tendency seems to be in the direction of integration rather than separation of the languages in the repertory of the speech community, so that the languages are moving toward being calques of one another.

It is tempting to extrapolate from the present situation and conclude that similar multilingualism and similar convergence also characterized the precontact language communities in the same area. Such extrapolation may have a certain degree of validity but it must be tempered with recognition of some important differences between pre- and postcontact multilingualism.

For one thing, most communities before contact were probably not universally multilingual in the same languages. Except when whole villages merged, multilingual skills were most likely distributed throughout the community in a more fragmentary manner. The skills of groups of households with the same external kin and/or trade alliances may have completely overlapped, but it is unlikely that the whole village--except perhaps when decimated by disease, starvation, or warfare--would cast all of its eggs into a single basket. The dispersal of a decimated village to its various allied communities was no doubt as common, or as rare, as the total merger of two villages after the decimation of one or both.

The major reason that precontact multilingualism was most likely fragmentary concerns the size of linguistic communities. There are no indications of any precontact linguistic community in Morobe that approached the size and coherence of the postcontact Yabem-speaking church community, let alone that of the present Tok Pisin-speaking secular community. If Kawa did serve as a precontact lingua franca in the Huon Gulf, as Hogbin (1947a: 247) reports, access to it was probably restricted to certain prominent traders. (It should be noted, however, that Hogbin's information about the precontact importance of Kawa almost certainly came from Kawa sources. Those

sources may have overestimated the extent to which other groups felt it necessary to learn Kawa.) It is hard to imagine that every man, woman, and child living on or near the coast knew Kawa to the extent they later knew Yabem and now know Tok Pisin.

The postcontact relationships among the languages in which the Numbami are near-universally multilingual may be visualized as a number of concentric circles, since all (older) Numbami speakers also speak Yabem, and all Yabem speakers also speak Tok Pisin. The precontact situation, on the other hand, may more accurately be visualized as a number of overlapping circles -- rather like the symbol of the International Olympics. It is not likely that any precontact language community was so extensive as totally to encompass any other.

This sketch of differences between precontact and postcontact multilingualism in the Huon Gulf is admittedly speculative, but it should serve as a caveat against reconstructing precontact multilingualism by extrapolating from the postcontact situation.

NOTES

1. This research was supported in part by National Science Foundation grant no. BNS 75-19451 to the University of Hawaii Oceanic Comparative Linguistics Project. This paper was originally written during Dr. George Grace's Ethnolinguistics seminar in the spring of 1977. I am grateful for the insights and encouragement of Dr. Grace and the members of the seminar. I also wish to thank Rev. and Mrs. Karl Holzknecht and Paul Geraghty for commenting on an earlier version of this paper and Pete Lincoln, my officemate, for countless inspirations and continual encouragement during our discussions. Fuller acknowledgement of all who helped make the fieldwork as pleasant and successful as it was will have to accompany a fuller account of the data collected, but I would like to express particular gratitude to the Sawanga family, my hosts in the village, and to Jeff Siegel, my host in town.

2. Sankoff (1968) reports that in Buang it is called bubum ayez, which translates in exactly the same way.

3. One Numbami, in explaining this to me, compared Paiewa and Kela with Numbami by saying that, whereas Paiewa was totally different, Kela, which is Austronesian, was more "accessible" (lit. iye dadaŋa 'it lies outside').

4. Many Austronesian groups, especially those to the north of Finschhafen, were not included but received schooling instead in Kâte, the mission's non-Austronesian lingua franca.

5. Given the considerable population movements that any investigation of oral history in the area turns up, it appears that a good deal of language learning must have gone on (see Sack 1976). In addition to cases of whole villages moving together, there are many stories of complete dispersals of villages due to famine or disease, with families or groups of families going to stay with relatives or trade friends in other villages.

6. One would expect Yabem to be further integrated into Numbami than into Buang. Yabem schools were first established among the latter in the late 1930s, more than 20 years later than among the Numbami, and conversion was not completed until the 1950s. Buang people who are now middle-aged were the first to learn Tok Pisin, and men now aged about 50 were the first to be educated in Yabem (Sankoff 1968). Thus Yabem did not have a chance to become well established before Tok Pisin was widely known. This may account for the greater integration of Tok Pisin than of Yabem into Buang while the reverse is true in Numbami. (The greater grammatical similarity between Yabem and Numbami than between Yabem and Buang may also be significant.)

7. Yabem grave accent indicates unpredictable low tone.

8. Another common Tok Pisin intensifier, nogut tru, perfectly matches Numbami maya ano-ma 'bad true-ly' but in this case Tok Pisin is most likely the calquer upon some "common Melanesian" pattern.

9. Verbs in both Yabem and Numbami are inflected by means of prefixes that denote person, number, and either realis or irrealis mode. Realis mode generally renders pasts, presents, and perfects while the irrealis usually translates futures and conditionals.

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