TOLAI AND TOK PISIN:

THE INFLUENCE OF THE SUBSTRATUM ON THE DEVELOPMENT OF NEW GUINEA PIDGIN

by

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ACKNOWLEDGMENTS

List of Abbreviations

C	connective particle		pm	predicate marker
D	determinative particle		Rak	dialect of Rakunai
exc	exclusive		Ral	dialect of Raluana
inc	inclusive		Rav	dialect of Ravat
Kl.	Kleintitschen 1927		sm	subject marker
Liv.	dialect of Livuan		TA	tense and aspect marker
M	Meier 1909		Tam	dialect of Tamanairiki
Nav.	dialect of Navunaram		Viv	dialect of Viviren
P	dialect of Paparatava		2	dual
PART	emphatic particle		3	trial
Pl	plural marker		4	plural

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1. INTRODUCTION

In numerous works about the origin of Tok Pisin, Tolai is referred to as an influential factor. Wurm (1971a:1009) writes that Tok Pisin

> contains a considerable number of lexical elements from the local language, Tolai, and also some structural characteristics reflecting features of that language.

and Fry (1977:869):

> Whatever its remote origins, Pidgin as a language developed much of its structure through use in the Rabaul region during the early period of the German administration, and Kuanua [i.e. Tolai] has probably had more influence on Pidgin than any other single New Guinea language...The structure of Pidgin is basically Austronesian, and Pidgin would appear to be as close in structure to Kuanua as to any other Austronesian language.

Salisbury (1967:46) speaks of a 'large Tolai component of Pidgin' and assumes that an already stabilised Pidgin came to the Bismarck Archipelago via traders and whalers and underwent significant changes through the influence of Tolai since 1884, when the Bismarck Archipelago was annexed by the Germans. Mühlhäusler (1975a:3), however, contradicts this hypothesis:

> However the linguistic evidence does not support Salisbury's claim that many of the characteristics in NGP (i.e. New Guinea Pidgin) grammar were already developed by 1881 and the importance of speakers of Tolai in the formation of NGP is also debatable.

Mülhäusler is able to prove, with a comparison of Samoan Plantation Pidgin and New Guinean Pidgin and an analysis of the economic connections between Samoa and New Guinea, that New Guinean Pidgin did not originate in New Guinea itself, but in Samoa and then spread to

New Guinea. There was already a stabilised Pidgin in Samoa in 1870,
which was closely related to Bichelamar spoken in the New Hebrides.
After 1879, when workers were recruited exclusively from the Bismarck
Archipelago in order to work on the plantations in Samoa, Samoan
Plantation Pidgin underwent a series of changes 'under the impact of
the influx of large numbers of labourers from the New Britain and
New Ireland area' (Mühlhäusler 1975a:4f.). Until 1914 altogether about
6000 workers were brought from German New Guinea to Samoa, from which
700-1000 were at any one time in Samoa. More than fifty percent of
the workers came from New Ireland, approximately twenty percent from
the Gazelle Peninsula, none from mainland New Guinea and less than
one percent from the British Solomon Islands (Mühlhäusler 1975a:15).
If Tolai and the closely related languages of the Duke of York
Islands and southern New Ireland – henceforth called Patpatar-Tolai –
played a part in the development of Tok Pisin, one would have to be
able to prove their influence in Tok Pisin as well as in Samoan
Plantation Pidgin. And that is the case, as shown in some words
specified by Mühlhäusler (1975a:30f.):

> First I shall list a number of lexical items which are
> not found in Pacific pidgins other than NGP and SPP.
> The origin of these items can be traced back to the area
> around the Duke of York Islands...

	SPP	NGP	Gloss
(1)	taberan	tambaran	*ghost, spirit*
(2)	muruk	muruk	*cassowary*
(3)	pukpuk	pukpuk	*crocodile*
(4)	kakaruk	kakaruk	*chicken, rooster*
(5)	matmat	matmat	*cemetery*
(6)	lotu	lotu	*church*

> (this last item was brought to the Duke of York Islands
> and Blanche Bay area by Fijian missionaries).

The corresponding words in Tolai are:

(1) tabaran/ta^mbaran, (2) murup, (3) pukpuk, (4) kakaruk.

This does not mean, however, that these words were in every case
borrowed from Tolai. Tambaran and pukpuk could just as well have
come from another language closely related to Tolai. Muruk seems to
be a distortion of murup, which is attested in the whole area.
Matmat is shortened from Duke of York tama na matmat or Tolai pia na
matmat, both lit. *place for the dead*, which themselves were probably
an invention by the foreign missionaries. The natives did not know

cemeteries before, and, though reduplication is a device to derive nouns from verbs, it is rather unlikely that tama na matmat and pia na matmat were invented by natives, because in both languages the noun derived from mat *to die* is minat meaning *death* and *corpse*. Thus one would expect tama/pia na minat, the latter of which is indeed attested in Tolai.

Most SPP words are derived from English words and correspond phonologically and semantically to the Tok Pisin forms. Mühlhäusler (1975a:27ff.) noted the following exceptions:

(a) items of Samoan origin,

(b) a number of words whose origin is not known and which are neither Samoan nor found in NGP,

(c) some items which are found in older varieties of NGP, but since have been replaced by other items or more anglicised pronunciations,

(d) items derived from English, which are not found in NGP,

(e) surface reflexes, which are identical in SPP and NGP with differences in the semantic range of the items concerned.

(c), (d) and (e) are interesting for us, because they show that Patpatar-Tolai had a greater influence on the younger varieties of NGP than was the case with SPP and the older varieties of NGP. There are four words from Patpatar-Tolai from the seven new words cited under (c), and from the nine under (d) there are two:

(c)	SPP	present day NGP	gloss
	bilinat	buai	*betelnut*
	gokabaut	wokabaut	*to walk, stroll*
		limlimbur	
	lilebit	liklik	*a little bit*
	bresprut	kapiak	*breadfruit*

The corresponding Patpatar-Tolai words are:

buai	(Tolai, Label, Pala)
limli^mbur	(Tolai)
liklik	(Duke of York)
kapiaka	(Tolai)

(d)	SPP	present day NGP	gloss
	laim	kambang	*lime (for betelnut chewing)*
	tri	diwai	*tree*

The corresponding Patpatar-Tolai words are:

ka^{m}bang   (Tolai, Mioko, Label)

divai   (Mioko)

Under (e) the exact same words in SPP and NGP are conspicuous:

SPP	gloss	NGP	gloss
han	*arm, hand*	han	*hand, arm, forelegs of an animal*
lek	*foot, leg, fore- and hindlegs of an animal, foot-prints*	lek	*leg, foot, hindlegs of an animal, footprints*

The fact that in NGP the same terms are used to describe the limbs of
animals and the limbs of human beings (so that one automatically
differentiates between front legs and back legs) corresponds to the
Tolai usage of lima *hand, arm, front leg* and kake *leg, back leg*.
In SPP however, han and lek act like the corresponding words in
German and English: one differentiates between arm and leg only with
human beings, whereas with animals all limbs are indiscriminately
designated with the word for leg.

One can come to two conclusions from the material provided by
Mühlhäusler (1975a), namely (1) as he mentions himself, that one can
establish an influence of Patpatar-Tolai even on SPP, and beyond
that, (2) the Pidgin brought from Samoa to New Guinea was influenced
further by Patpatar-Tolai.

The percentages of recruited labourers from New Ireland (50%) and
those recruited from the Gazelle (20%) need not necessarily determine
to what extent the various New Ireland languages on the one hand and
Tolai on the other had influenced the development of Tok Pisin.
Firstly, the twenty percent of labourers recruited from the Gazelle
only spoke one single language, whereas those from the Duke of York
Islands and New Ireland came from various small speech communities.
Secondly, it is not known whether there were different ranges of
prestige among the natives brought to Samoa, but it may be assumed
that the Tolais stuck together and thus formed the most numerous and
influential group. And thirdly, Samoa was only the starting point of
development.

Further development of Tok Pisin was determined by the socio-
cultural setting on the Gazelle Peninsula, which was the political
and economical centre until 1914. The labourers on the plantations
there were mainly recruited from New Ireland and Buka, since the

Tolais did not like to work there for several reasons (for details
see Mosel 1979). The German judge Schnee (1904:370) reports that

1893	1000	labourers
1898	1500	labourers
1901	2500	labourers
1902	3323	labourers
1903	3434	labourers

were recruited and employed in the Bismarck Archipelago itself, i.e.
mainly on the Gazelle Peninsula.

The Tolais only did sophisticated jobs as interpreters, boat
drivers, craftsmen, companions on expeditions and members of the
police troop, which consisted of 70-100 natives from the Gazelle,
New Ireland and Buka (Friederici 1911:95; Hesse-Wartegg 1902:105,
154, 155, 165; Schafroth 1916:86f.; Schnee 1904:15, 114, 131). They
could make profit of their own land by selling copra and vegetables
to the Europeans, who were responsible for the subsistence of the
imported labourers. Consequently the number and size of the markets
rapidly increased, so that nearly every day markets were held in
different places (Blum 1900:30). Being the indigenous residents in
the coastal area of the Gazelle Peninsula and trade partners of the
Europeans, the Tolais played the leading role among the natives and
certainly enjoyed high prestige.

The means of communication among the different groups now living on
the Gazelle Peninsula, i.e. government officials, traders and
planters, missionaries, imported labourers and Tolais, were rather
complex (a discussion in detail is given in Mosel 1979):

1. The missionaries communicated with the Tolais in Tolai
    and made Tolai the mission lingua franca on the
    Duke of York Islands and New Ireland.

2. Consequently, labourers from the Duke of York Islands
    and at least southern New Ireland communicated with
    the Tolais in Tolai.

3. Other natives communicated with the Tolais in Pidgin.

4. The spread of Tolai as a lingua franca was first
    supported by some government officials, who themselves
    were fluent Tolai speakers (e.g. Schnee, Hahl) and
    regarded Pidgin English as a hindering factor to the
    Germanisation of the colony. But as the traders and
    planters resisted the introduction of Tolai as a
    lingua franca, Pidgin had to be accepted.

5. Planters and traders communicated both with Tolais
    and imported labourers in Pidgin.

6. Among themselves the imported labourers communicated
    in Pidgin.

++++ = Tolai

----- = Pidgin

-•—•— = Tolai and Pidgin
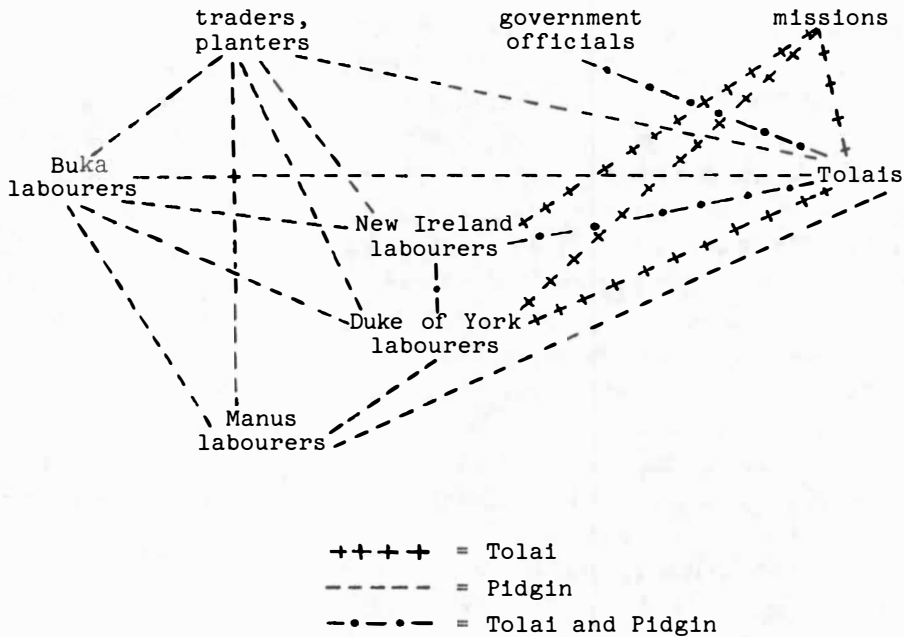
The next stage of the development of Tok Pisin began when the
activities of traders, planters and the German Government were more
and more extended to Kaiser-Wilhelms-Land (the New Guinea mainland).
Unfortunately it is not yet quite clear to what extent labourers
from Buka, New Ireland and New Britain were recruited for the
plantations in Kaiser-Wilhelms-Land.

Zöller (1891:293) reports:

> At the end of the year 1889 Mr Parkinson had recruited
> no less than 600 labourers from the Bismarck Archipelago,
> but only 100 remained at the station, whereas the others
> were sent to New Guinea.

The members of the police troop there mainly came from the
archipelago. Schafroth (1916:87) reports that she met a government
official with twenty policemen on the ship from Rabaul to
Kaiser-Wilhelms-Land:

> The police troops mainly consist of 'Miokesen'.
> Originally this name was applied to labourers
> recruited from the small island Mioko, which
> belongs to New-Lauenburg (i.e. Duke of York
> Islands). But then this name has been extended
> to all plantation workers and soliders who were
> recruited from New-Pommern (i.e. New Britain),
> Neu-Mecklenburg (i.e. New Ireland) and Buka.

(It is more probable that the name 'Miokesen' was given to people
from the Bismarck Archipelago, because the labourers recruited for
Samoa were first gathered in a transit camp on Mioko.) The relations
between Tolais, other natives and Europeans, and the fact that the
Tolais in contrast to all other natives formed a large speech
community, suggest that Tolai may have influenced the development of
Pidgin to a greater extent than the other languages involved. But
unless the New Ireland languages (especially those near the Duke of
York Islands) are better known, it is impossible to make any profound
statements about the role the various languages played as substratum
languages. It can easily be seen from the lexicon that it was not
only Tolai, but several languages.

Since I have personal experience only with Tolai and since this
language is by far the best documented one, the present investigation
is mainly based on Tolai. Most examples are taken from the texts
collected by Meier (1909) and Kleintitschen (1924), because nowadays
Tolai is changing under the influence of Tok Pisin. Thus it would be
difficult to decide which phenomenon shared by both languages is
originally Tolai and which is a loan from Tok Pisin. If not indicated
otherwise, lexical items are taken from Meyer (1961) *Wörterbuch der
Tuna-Sprache*, which was compiled in 1921.

The data of Molot (Duke of York Islands) are taken from Brown and
Danks (1882), those of Label (New Ireland) from Peekel (1929-30) and
those of Patpatar (=Pala) from Peekel (1909). The data of Mioko
(Duke of York Islands) were collected by myself during a four days'
stay in 1978.

In the following investigation I will attempt to show which
characteristics of Tok Pisin possibly reflect substratum influence.
It can only be stated that substratum influence 'may be possible', or
that the structure of the substratum language 'may have reinforced'
some phenomenon of Tok Pisin. This precaution is necessary, because
both Tolai and Tok Pisin often show features that in the case of
Tok Pisin can also be regarded as universals of pidgins, for instance
the reduction of morphological complexity, the absence of copula,
the loss of obligatory number, gender and case distinction. Other
features, e.g. the use of a predicate marker, are also shared by

ancient Bichelamar and thus are to be interpreted as common Melanesian, if they cannot be ascribed to pidgin universals. Since the few data available for ancient Bichelamar are not very reliable, I will occasionally refer to modern Bichelmar and Cape York Creole, two descendants of ancient Bichelmar.

In general, each linguistic feature of Tok Pisin can be ascribed to at least one of the following sources:

1. the superstrat language English,
2. the substratum languages,
3. the predecessors of Tok Pisin,
   i.e. Samoan Plantation Pidgin,
   ancient Bichelamar,
4. the universals of pidgins,
5. independent development.

The greatest disadvantage of the following study is that due to the lack of sufficient old material, in most cases only present day standard Tok Pisin can be compared with Tolai. Hence it cannot be excluded, that certain phenomena in Tok Pisin, which appear to have resulted from Tolai influence, have developed only recently and thus cannot be ascribed to substratum influence. And, secondly, in most instances it cannot be taken into consideration that earlier varieties of Tok Pisin might have shown more Patpatar-Tolai features, which have disappeared in present day Tok Pisin.

Nevertheless, I think the comparison between Tolai and Tok Pisin will be useful, since it will show where in today's standard Tok Pisin substratum influence is probable and where it manifestly has to be excluded.

2. PHONOLOGY

2.1. Consonants

```
    Tok Pisin                         modern Bichelamar
    p  b       t  d   k  g            p  b       t        k
    p  b (f v) s             h        p  b (f v) s             h
       m          n      ŋ               m          n    ŋ
                  r                                 r
                  l                                 l
    w             y                   w             y
```

Tolai, Molot, Mioko						Label						Pala (Patpatar)					
p	b	t	d	k	g	p	b	t	d	k	g	p	b	t	d	k	g
	ƀ							s			h			s			h
m		n		ŋ		m		n		ŋ		m		n		ŋ	
		r						r						r			
		l						l						l			

(w)

Tolai and the Duke of York languages of Molot and Mioko exhibit the same phonemic system. In contrast to New Ireland languages they have neither /s/ nor /h/. The only fricative is /ƀ/ (spelt v) which is absent in Pala and Label. Historically Tolai /ƀ/ corresponds to Pala and Label /h/. Compare:

Tolai	Label	Pala	English
vudu	hun	hudu	*banana*
vana	han	han	*to go*
ivat	ihat	ihat	*four*

Apart from some marginal dialects, /s/ is totally lost in Tolai:

Tolai	Tolai, s-dialects	Label	Pala	English
ur	sur	sur	sur	*bone*
maur	masur	masur	(hahos)	*to be satisfied*
lama	lamas	lamas	lamas	*coconut*

In some instances, as for example lama, the loss of /s/ is compensated by vowel length in Tolai.

In the north coast dialects of Tolai, Mioko, Label and some other New Ireland languages like Lamassa and King (Stephan and Graebner 1907) the voiced stops are prenasalised, but not in the Kokopo dialects of Tolai, Molot and Pala.

According to Peekel (1929-30) Label has the semivowel /w/, which rather seems to be an allophon of /u/. The wordlists collected by Stephan and Graebner show /w/ for Label as well as for King and Lamassa, but these data are not very reliable.

2.1.1. Stops

Tok Pisin and modern Bichelamar differ in that Bichelamar lacks the stops /d/ and /g/, for example:

Tok Pisin	Bichelamar	English
digim	tikim	*to dig*
redi	reti	*ready*
givim	kivim	*give*

The absence of /d/ and /g/ in Bichelamar probably resulted from substratum influence. Many languages of the New Hebrides have only one series of stops or lack the distinction of /k/ and /g/ at least (Guy 1974a:7; Schütz 1969:13ff.; Voegelin 1964:52ff.).

In Tok Pisin the whole series of /b/, /d/ and /g/ is preserved and often prenasalised by native speakers. In the orthography, however, prenasalisation is only rendered, if it is used by both Melanesians and Europeans (Mihalic 1971:7). In other words, not when it is a variety due to the speakers' origin only, but when it is a stabilised and regular feature of Tok Pisin. There are only a very few English loanwords which fulfil this condition:

sindaun	*to sit down*
pundaun	*to fall down*
krungut /ŋg/	*crooked*
indai	*to die*

These items certainly reflect substratum influence. As can easily be seen from the lexicon, it was mainly the Tolai dialects and perhaps some closely related languages with prenasalised stops that played the leading part among the substratum languages, for voiced stops in Patpatar-Tolai loanwords are almost always prenasalised, e.g. tambaran *ghost, spirit*, kundu *hand drum*, puinga (/ŋg/) *fart*. The first item is already attested in Samoan Plantation Pidgin (Mühlhäusler 1975a), but without the /b/ being prenasalised: tabaran. But as it is the only item containing a voiced stop, it does not seem justified to draw any conclusion.

Some other English loanwords in Tok Pisin look very similar to sindaun, pundaun etc., for example:

sambai	*to stand by*
baimbai	(future marker)
Tunde	*Tuesday*
Trinde	*Wednesday*
Fonde	*Thursday*

but here the nasals preceding the voiced stops are of different origin. Sambai *to stand by* goes back to *sanbai, as the comparison with sanap

to stand up suggests, so that the /m/ in sambai has to be regarded as the result of assimilation. The same holds true for baimbai, which comes from English *by and by*. Since baimbai is already attested in Chinese Pidgin English (my by'mby catchee he *I will get it* - Schuchardt 1883:9/157), we may assume that baimbai belongs to the common stock of old Pacific pidgin words. In the weekday terms Tunde, Trinde, Fonde -nd- is probably not only the result of prenasalisation. Tunde has been formed on the analogy of Sande *Sunday*, Mande *Monday*, whereby at the same time Tu- has been identified with the number two, as Tuesday is the second day of the week. This then was the starting point for the formation of Trinde lit. *three-day* and Fonde lit. *four-day*. The analogy was certainly reinforced by the presence of prenasalisation in the substratum languages.

In the early Rabaul dialect of Tok Pisin the sequences of nasals plus homorganic voiced stops, for example /mb/, /nd/ and /ŋg/, varied with /b/, /d/ and /g/, since the Tolai speakers of the Kokopo dialects interpreted these sequences as north coast pronunciation. Even today some old people from Kokopo area realise Mande as Made or Novemba as Noveba.

In Tok Pisin the contrast between voiced and voiceless stops is neutralised in final position, for example rap *rub*, hait *hide*, pik *pig*. Since in Tolai voiced stops never occur in word-final position, the neutralisation in Tok Pisin apparently reflects substratum influence. Perhaps it was reinforced by the speech habits of the Germans who also had difficulties in pronouncing voiced stops in word-final position, where in German the contrast between voiced and voiceless stops is neutralised as well. This has already been pointed out by Hall (1966:38). But Hall's remarks about prenasalisation in Melanesian languages are not applicable for Tolai. /p, t, k/ are never voiced between vowels and the prenasalised voiced stops do not only occur between vowels, as maintained by Hall (1966:37), but also in word initial position. At the beginning of an utterance, however, the prenasalisation may be weakened, so that it is hardly heard.

2.1.2. Fricatives

In comparison with the superstrat language English, the consonant system of Tok Pisin is mainly reduced in its series of fricatives. Probably some reductions had already taken place in ancient Bichelamar. But unless we obtain more reliable data about South Pacific Pidgins, we can only state that with regard to the fricatives, Tok Pisin and

modern Bichelamar are very much alike. But it cannot be decided whether this is due to the fact that their different substratum languages resemble each other phonologically.

2.1.2.1. Bilabial and labiodental fricatives

The English labiodental fricative /f/ is almost always reflected by /p/ and in many instances alternatively by the bilabial fricative /ɸ/, which is sometimes spelt as f, e.g. paul *fowl*, bipo *before*, naip *knife*, foa/poa *four* (for details see Laycock 1970:xv; Dutton 1973:18f.; Mihalic 1971:5).

The reflection of English /f/ as /p/ in Tok Pisin possibly reflects substratum influence, since /f/ is absent in the Patpatar-Tolai languages and - at least in Tolai - regularly substituted by /p/ in loanwords, for example kopi *coffee*.

The Tok Pisin reflection of the English voiced labiodental /v/ is somewhat more complicated than that of its voiceless counterpart /f/. In word-initial position it is reflected by /b/ (spelt as v) or by /ɓ/, e.g. viniga/biniga *vinegar*, vot/bot *vote*, whereas between vowels it is reflected by /b/ (spelt as v) or the semi-vowel /w/, e.g. leva/ lewa *liver*, hevi *heavy*, seven *seven* (for details see again Dutton, Laycock, Mihalic op. cit.). The various reflections of English /v/ exhibits some parallels to those of /ɓ/ in Tolai and Duke of York loanwords. /ɓ/ is not consistently reflected in Tok Pisin, for example:

	Tolai	Molot	Mioko	Tok Pisin	English
1.	/ɓaira/	/ɓaira/	/ɓaira/	waira	*foreigner*
	/kaɓaɓar/		/kamaɓar/	kawawar	*ginger root*
	/daɓai/	/diɓai/	/diɓai/	diwai	*tree*
2.	/kaɓiɓi/		/kaɓiɓi/	kavivi	*hawk*
	/kaɓiɓi/		/mila/	kawiwi	*the wild betelnut*
3.	/ɓun/		/ɓunu/	vun/vut	*the derris root*
	/ɓutun/	/utun/	/ɓutun/	utun	*a coastal tree*
	/taɓur/	/tauru/	/taɓuru/	taur	*the Triton's trumpet (Charonia tritonis)*
4.	/ɓirua/		/ɓirua/	birua/virua	*piece of human flesh, victim, enemy*

1. The change of /b/ to /w/ in waira, kawawar and diwai may have resulted from the fact that in Tolai the friction of /b/ is lessened, if /b/ is followed by /a/, so that it becomes similar to /w/, though the lips are never rounded. Possibly speakers of New Ireland languages which have /w/ identified this alternant of /b/ with /w/.

2. The different reflections of Tolai /b/ in Tok Pisin kavivi *hawk* and kawiwi *wild betelnut*, which provides a phonological contrast absent in Tolai, cannot be explained.

3. That Tolai /b/ is retained in vun, but not in utun and taur suggests that utun and taur were borrowed from Molot.

4. The Case of birua/virua is parallel to that of biniga/viniga insofar as a fricative has been changed into the corresponding stop in some varieties of Tok Pisin. If this change is regarded as the result of the New Irelanders' misinterpretation of /b/ as /b/, it remains unexplained why /b/ has been retained in vun. The realisation of Tolai virua as birua in Tok Pisin is also heard with Tolais speaking Tok Pisin.

In other South Pacific pidgins the same problems in the reproduction of English labiodentals are present. In modern Bichelamar 'f and v are often sounded with both lips touching... In many words confusion arises between p and f, or v and f:

banis	or	fanis	*fence*
pis	or	fis	*fish*
mivala	or	mifala	*we* '

(Guy 1974b:5 and 7).

In Cape York Creole the pairs of /f/ and /p/, /b/ and /v/ are confused. 'So, you should not be surprised to hear of people going to the "airfort in a behicle to ply in a flane to bisit the pamily in Vrisbane"' (Crowley and Rigsby 1979:166).

2.1.2.2. Dental fricatives

In Tok Pisin the English dental fricatives /ð/ and /θ/ are mostly reflected as /d/ and /t/ respectively, for example:

	Tok Pisin	borrowed from	English meaning
/ð/	diskain	*this kind*	*such*
	dispela	*this fellow*	*this, that*
/θ/	tenkim	*thank*	*to thank s.o.*
	nating	*nothing*	*nothing, useless*

Exceptions are

1. tasol *only, just, alone* (borrowed from *that's all*), brata *brother* and olgeta *all, altogether*, which should rather have /d/ instead of /t/.

2. Some instances where the dental fricative is rendered by a dental flap, e.g. arakain *different* (borrowed from *other kind*), param *fathom*.

3. maus *mouth* and tis *tooth*.

2.1.2.3. Dental-alveolar fricatives

All English dental-alveolar fricatives, i.e. /z/, /s/, /ʒ/ and /ʃ/, are reflected by /s/ in Tok Pisin. As mentioned above, /s/ is the only dental-alveolar fricative in Patpatar-Tolai. Examples:

	Tok Pisin	borrowed from	English meaning
/z/	resa	*razor*	*a razor*
	dasan	*dozen*	*dozen*
/s/	sik	*sick*	*sick*
	askim	*ask*	*to ask*
/ʒ/	tresari	*treasury*	*treasury*
/ʃ/	sip	*ship*	*ship*
	bus	*bush*	*bush*

Since /s/ is absent in Tolai, it was first substituted by /t/ in the Tolais' Pidgin. For the time between the wars we have evidence that Tolais speaking Pidgin freely mixed /s/ and /t/, and that they realised even original /t/ as /s/ as a result of hypercorrection. Thus /s/ was first introduced as an allophone of /t/, before it became a separate phoneme:

> ...the Blanche Bay natives invariably mix up the 't' and 's'. 'Me makem sea finish, now he no got tucker', is a common expression of the New Britain houseboy.
> (*Rabaul Times*, November 6 1925)

> And the same native [i.e. a Tolai - U.M.] who invariably mixes his 'ts' and 'eses' talks of 'Mitis belong Mata' for 'Missus belong Master', and 'sea' for 'tea' and 'titima' for 'steamer' with at times puzzling effects.
> (*Rabaul Times*, March 13 1931)

Some Patpatar-Tolai loanwords in Tok Pisin show /s/ and hence must have been borrowed from an s-dialect of Tolai or a Southern New Ireland language, for example:

Tok Pisin	s-dialect of Tolai, Southern New-Ireland	Tolai	meaning
balus	balus	balu	*pigeon*
mosong	mosong	mong	*fuzz*
susu	susu	u	*breast, milk*
talis	talisa, talise	talia	*a tree (Terminalia catappa)*

The reduction of the English dental-alveolar fricatives in Tok Pisin is the same as that in modern Bichelamar. Compare Bichelamar resa *razor*, sip *ship*, bus *bush*. Probably very common words like sip and bus already existed in this form, before Tok Pisin developed from the Samoan variety of ancient Bichelamar.

2.1.2.4. Palatal and velar fricatives

The palatal fricative /ç/ of German loanwords is reflected as /s/ or /k/ in Tok Pisin. As the following examples show, the different reflections of /ç/ as /s/ or /k/ do not seem to be phonologically conditioned:

Tok Pisin	borrowed from	English meaning
tais	*Teich*	*pool*
milis	*Milch*	*milk*
baisten/baikten	*beichten*	*to confess*
tepik	*Teppich*	*carpet, rug*
reken	*Rechen*	*rake*
kelek	*Kelch*	*chalice*

German /x/ is reflected as /k/, e.g. kuken *cake*, borrowed from *Kuchen* (the items baisten/baikten, reken, kelek and kuken have been taken from Mühlhäusler 1979:183, 184, 189).

2.1.2.5. /h/

/h/ occurs word initially in English and German loanwords, for example:

Tok Pisin	borrowed from	meaning
hambak	*humbug*	*to be boastful*
haus	*house*	*house*
haiden	*Heiden* (German)	*heathen*
hobel	*Hobel* (German)	*a carpenter's plane*

There are not any Patpatar-Tolai loanwords with /h/, though several
Southern New Ireland languages show /h/ (e.g. Laur, Label, Pala),
where Tolai and the Duke of York languages usually have /ᵬ/ (cf. p. 8).
Today the realisation of /h/ is no problem to Tolais, but formerly
/h/ was usually omitted in the Tolais' variety of Tok Pisin:

> The varied pronunciation of many of the English words
> is due to the restricted use of letters of the different
> tribes speaking 'pidgin'. Thus, with a Blanche Bay
> native, to whom the letter 'h' is unknown in his own
> dialect, 'hammer' becomes 'ammer' and 'horse' 'orse'.
> (*Rabaul Times*, March 13 1931).

Other Melanesians omit /h/, too (Hall 1943:14), whereas some insert
it at the beginning of words, where it is not found in English
(Mihalic 1971:5). Probably this is due to hypercorrection with
speakers whose native languages do not have /h/.

2.1.3. Affricatives

The affricates /ts/, /dʒ/ and /tʃ/ are reflected as /s/:

	Tok Pisin	borrowed from	meaning
/ts/	akas	*Akazie* (Germ.)	*acacia*
	swinge	*Zwinge* (Germ.)	*clamp*
/dʒ/	ensin	*engine*	*engine*
	saket	*jacket*	*jacket*
/tʃ/	tisa	*teacher*	*teacher*
	senis	*change*	*change*

In word initial position /dʒ/ is mostly retained in present day Pidgin,
e.g. jas *judge, Japan Japan, Japanese*. Older varieties of *Japan*,
recorded by myself in Rabaul, are *Tiapan, Siapan* and *Iapan*.

In modern Bichelamar /dʒ/ and /tʃ/ are both reflected as /ts/, e.g.
tsats *judge*, entsin *engine*, titsa *teacher*, tsen *chain*.

2.1.4. Nasals

The only peculiarity to be mentioned about nasals is that Patpatar-
Tolai /ŋ/ in word initial position is reflected as /n/ in the Tok
Pisin word natnat *mosquito* (Tolai ngatingat, Pala ngatngat), while
it is retained in ngong *deaf-mute, an ignorant person*, which according
to Mihalic (1971:141) originates from a New Ireland language. The
reason for these different reflections may be that natnat was
frequently used by natives as well as by Europeans. The latter, being
unable to pronounce the velar nasal in this position, were imitated

by the non-Patpatar-Tolai speakers because of their greater prestige. **Ngong**, however, is rather rare in everyday speech, so that the probably deviating European pronunciation did not prevail (you do not often talk about deaf-mutes, and for ignorant persons the word **longlong** is favoured).

2.1.5. /l/ and /r/

In Tok Pisin /l/ and /r/ are flaps (Dutton 1973:19). Though the phonological data of Samoan Plantation Pidgin and other varieties of ancient Bichelmar are very poor, the realisation of /l/ and /r/ probably already originates in ancient Bichelamar, because they are realised as flaps, or in the case of /r/ also as a trill, throughout Melanesia.

Tok Pisin /r/ does not only reflect English /r/, but also (standard !) English dental stops and fricatives, e.g. **larim** *to let*, **wara** *water*, **kirap** *get up*, **sarap** *shut up*, **paura** *gun powder*, **arakain** *different* (borrowed from *other kind*), **param** *fathom*. This must certainly be attributed to the non-standard variety spoken by Europeans in contact with Melanesians, as for instance sailors and Australian traders. Consequently the same phenomenon is found in modern Bichelamar, e.g. **nara** *another*, **sarem** *to shut*, **krap** *to get up*. There is no evidence for any substratum influence in this respect, as in Patpatar-Tolai /l/ and /r/ and the dental stops are clearly kept apart.

In some Tolai loanwords /l/ and /r/ are confused, for example:

Tok Pisin	Tolai	meaning
marila/malira	malira	*love-spell*
purpur/pulpul	purpur	*grass-skirt* (Dutton 1973:104)
karapua	kalapua	*a short banana*
tambirua	tabilua	*crab's foot yaws*

Dutton (1973;19) mentions that there is no difference between /l/ and /r/ for many Tok Pisin speakers. This is a widespread phenomenon of Melanesian languages (Codrington 1885:215) and subsequently of Oceanic Pidgin varieties, and can be observed already in ancient Bichelamar, e.g. in New Caledonia, **lice he no good** *the rice was not good* (Schuchardt 1883:7).

2.1.6. Consonant clusters

Word-initial consonant clusters are often broken up by the insertion of a vowel. Thus stap *to be* alternates with sitap, srang *locker, cupboard* (borrowed from German *Schrank*) with sarang, and skruim *to join* (borrowed from *screw*) with sukruim. In some instances the variant with the broken up cluster has become the standard form, e.g. pilai *to play*.

In word final position consonant clusters are reduced by the omission of the last consonant, for example:

	Tok Pisin	English
/st/	wes	*west*
/mp/	lam	*lamp*
/nd/	han	*hand*
/nt/	pen	*paint*
/ŋk/	beng	*bank*
/lt/	sol	*salt*

Exceptions are original /ks/ in bokis *box*, akis *axe*, sikis *six*, /ns/ in danis *dance*, /lk/ in melek *(coconut) milk*, /lç/ in milis *(coconut) milk* (borrowed from German *Milch*) and kelek *chalice* (borrowed from German *Kelch*), and /rp/ in sarip/sarep *scythe, sickle,* which because of the /r/ is rather borrowed from German *scharf* than from English *sharp*, as Mihalic (1971:170) suggests.

At syllable boundaries within the word consonant clusters are retained, e.g. askim *to ask*, antap *on top*, etc. An exception is guruken *cucumbers* (borrowed from German *Gurken*).

Tolai allows consonant clusters neither in word-initial nor in word-final position, and within the word only at morpheme boundaries, e.g. var-mari *to love each other*. Consonant clusters in English or Tok Pisin loanwords are even more consequently reduced than in (present-day) Tok Pisin, for example:

	Tolai	Tok Pisin	English
/pl/	pelet	plet	*plate*
/tr/	tarautete	trausis	*trousers* (Bl. 154)
/gl/	galat	glas	*glass*
/st/	tito	stua	*store*
	bulititon	bluston	*bluestone*
/str/	torong	strong	*strong*
/sk/	patiket	bisket	*biscuit* (M 258)

These Tok Pisin forms, however, have certainly developed from earlier forms which showed a syllable structure similar to that of Tolai. *The Sydney Morning Herald* from August 13 1949, quotes an article from the *Rabaul News* in which the following words are found:

palanti	=	planti	*plenty*
sitaret	=	stret	*straight*
turu	=	tru	*true*
karanki	=	kranki	*wrong, incorrect* (borrowed from German *krank*)

However, the fact that both in Tok Pisin and Tolai consonant clusters are reduced is not sufficient to prove direct substratum influence from Tolai, since this again is a common Melanesian feature. Some Pidgin words, e.g. bokis *box*, pelet *plate* probably belong to the common stock of South Pacific words and had already got a stabilised form, before Tok Pisin developed. Schuchardt (1883:12) mentions the same phenomenon in the ancient Bichelamar variety of New Caledonia:

Über das Phonetische lasse ich mich nicht weiter aus:

esterrong	=	*strong*
esseppoon	=	*spoon*
assausepen	=	*spoon*
pellate	=	*plate*
coverra	=	*cover*
millit	=	*milk*
bock-kiss	=	*box*

usw. erklären sich leicht aus melanesischer oder polynesischer Lautirung.

2.2. Vowels

Since I have not got any knowledge of the English variety spoken in the South Pacific towards the end of the last century, I do not feel competent to investigate the development of the Tok Pisin vowel system (this ignorance - I suppose - did not play such an important role in the investigation of the consonant system, because the consonants do not vary so much in the different varieties of English). Therefore the only thing to be done is to outline the main principles. Laycock (1970:xiiif) recognised ten vowel distinctions in coastal varieties of Tok Pisin:

```
        /i/                                    /u/
          /ɪ/                              /ʊ/
           /e/                        /o/
            /ɛ/              /ɒ/
              /a/ /aː/
```

Examples:

/a/	hat	*hot*		/a:/	hat	*hard*
/e/	wet	*wait*		/ɛ/	bet	*bench*
/i/	nil	*nail*		/ɪ/	pis	*fish*
/o/	kol	*cold*		/ɒ/	dok	*dog*
/u/	susu	*breast*		/ʊ/	pul	*paddle*

Vowel length is only distinctive in the case of /a/ and /a:/. Mihalic (1971:4) distinguishes only nine different vowels. In opposition to Laycock his system has only one /a/.

Tolai has a six vowel system. In contrast to NGP vowel length is distinctive.

$$\text{/i/, /i:/} \qquad \qquad \text{/u/, /u:/}$$
$$\text{/e/, /e:/ /ɛ/, /ɛ:/ /o/, /o:/}$$
$$\text{/a/, /a:/}$$

The existence of /ɛ, ɛ:/ is overlooked in all dictionaries and grammars except Lanyon-Orgill's *Dictionary of the Raluana language* (1960:62), though his description is rather superficial and the distinction between /a, a:/ and /ɛ, ɛ:/ is not maintained throughout the dictionary. The treatment of Tolai phonology in Franklin et al. (1974:11ff.) is hardly based on careful fieldwork. They neither recognise vowel length as distinctive nor the existence of the mid-central vowel. My own analysis is based on the Rakunai dialect belonging to the north coast dialects and the Raluana dialect belonging to the Kokopo dialects.

Examples:

/a/	ta	*in, on, about*		/a:/	ta	*sea*
/e/	vue	*to throw away*		/e:/	vue	*to throw it away*
/i/	pil	*to peel*		/i:/	pil	*to jump*
/o/	pot	*boat*		/o:/	pot	*to come*
/u/	ubu	*to kill, beat*		/u:/	ubu	*cooking hole*
/ɛ/	barbar	*to show off*		/ɛ:/	ebar	*enemy*

That /a, a:/ and /ɛ, ɛ:/ are phonologically distinctive is proved by the following pairs:

/a/	kan	*perhaps*		/ɛ/	kan	*away from*
/a:/	bar, bari	*perhaps*		/ɛ:/	ebar	*enemy*

Pil *to peel* is not an English loanword, but a variant of pila
(Meyer 1961:314).

Pot *boat* is a very old loanword and already mentioned in Bley
(1912:147, 157). The initial consonant cannot be explained, as in
other loanwords initial /b/ is retained, e.g. bok *box*. The vowel is
short as in other loanwords borrowed from Tok Pisin, e.g. bin *bean*,
bek *bag*, tut *shoot*, vil *wheel*.

If other languages of Patpatar-Tolai have a six- or five-vowel
system is unclear, Peekel (1909:1) mentioned that in Pala a often
sounds like the German ä, but this sound may also be an allophone of
/a/. Vowel length is at least in Pala and Label distinctive.
Label (Peekel 1929-30:104, 108, 110):

/a/	pas	*taro*		/a:/	pas	*to step on, kick*
	tasik	*my brother*			tasi	*sea*
/u/	ur	*you* (sg.) + affix denoting future tense		/u:/	ur	*two*

Pala (Peekel 1909:5):

/a/	tam	*for you* (sg.)		/a:/	tam	*to pile up*
/i/	hir	*to weave*		/i:/	hir	*a kind of ficus*
/u/	kut	*to cut*		/u:/	kut	*to hang*

Since in Tolai (and probably other Patpatar-Tolai languages) vowel
length as a distinctive feature is not combined with different degrees
of openness, it is impossible to explain the development of the Tok
Pisin vowel system as a result of substratum influence from Patpatar-
Tolai languages. It seems more likely that the Tok Pisin ten-vowel
developed from a five-vowel system, which itself had resulted from
impoverishment of the phonological features of the source languages.

2.2.1. Diphthongs

Tok Pisin and modern Bichelamar resemble each other in the
reflection of English diphthongs. The three English diphthongs /ai/,
/au/ and /oi/ are retained. Those phonemic sequences, which are
represented in some English varieties as vowel plus /ə/ and in others
as vowel plus /r/, are reflected as vowel plus /a/. Exceptions are
/ɔ:a/ in English *more,* which has become mo in Bichelamar, whereas it
is moa in Tok Pisin, and /ɛə/ in English *where*, which is monophthong-
ised to /e/ in Tok Pisin, but alternatively /e/ or /ea/ in modern
Bichelamar. The standard English diphthongs /ei/ and /ou/ are
reflected by /e/ or /i/ and /o/ or /u/ respectively, standard English

/ɔ:/ corresponds to /ua/ and /oa/ in Tok Pisin and to /o/ in modern Bichelamar.

	English	Tok Pisin	modern Bichelamar
/ai/	*time*	taim	taem
/au/	*mouth*	maus	maot
/oi/	*boy*	boi	boe
/iə/	*spear*	spia	spia
/ɛ:ə/	*square*	skwea	skwea
/ei/	*wait*	wet	wet
	nail	nil	nil
/ou/	*cold*	kol	kol
	nose	nus	nus

There are no monophonemic diphthongs in Tolai, but only biphonemic sequences of different vowels. The biphonemic status of such sequences is proved by reduplications, e.g. pait *to do*, papait *doing*, raut *to root out*, raraut *to root out* (intr), boina *good*, boboina *very good*. The sequences /e/ + /i/ and /o/ + /u/ do not occur within words. But as monophthongisation of English /ei/ and /ou/ is found in Samoan Plantation Pidgin (e.g. snek *snake*, go *to go*), in modern Bichelamar and Cape York Creole (Crowley and Rigsby 1979:175), it seems to be a common feature of South Pacific Pidgins, which may only have been reinforced by Tolai speakers.

2.3. Conclusion

1. The greatest difficulty in investigating substratum influence on Tok Pisin phonology lies in the fact, that we do not know which phonological reductions already had taken place in the Samoan variety of ancient Bichelamar, when Tok Pisin developed from Samoan Plantation Pidgin under the massive influence of Patpatar-Tolai speakers. The data of ancient Bichelamar are very poor and on the whole useless as far as phonology is concerned, because they are mostly written in English orthography.

2. The main features of Tok Pisin phonology, as the reduction of the English phoneme inventory, the insertion of epenthetic vowels into phoneme clusters and monophthongisation of /ei/ and /ou/, had already developed in its predecessor ancient Bichelamar. When this pidgin

became the means of communication on Samoan plantations among the labourers from the Gazelle Peninsula and adjacent areas and when it then was used on the plantations on the Gazelle Peninsula itself, its phonemic system was obviously stabilised on the basis of Patpatar-Tolai languages. Items like **sindaun** suggest that then prenasalisation was introduced, but, as present day Tok Pisin shows, it did not become a regular feature of voiced stops. The syllable structure of early Tok Pisin was similar to that of Patpatar-Tolai, but today many formerly reduced clusters have been restructured according to English phonology, e.g. **sitaret → stret**.

3. Tok Pisin phonology is not identical with Tolai phonology. Otherwise one would expect that Tolai loanwords have been retained in their original form and that English loanwords have been regularly adapted to Tolai phonology. But the Tolais' influence on the development of Tok Pisin was not as strong as to impose their phonology on Tok Pisin.

4. Furthermore, the Tok Pisin phoneme system is not so much reduced as to contain only those phonemes which are common to all substratum languages involved in its development; for the development of Tok Pisin has been and still is a constant process determined by mutual learning of its speakers from each other. Thus, for instance, the phoneme /s/, which is absent in Tolai, has been introduced as a separate phoneme in the Tolais' pidgin. Secondly, Tok Pisin exhibits the distinction between lax and tense vowels, which is absent in Patpatar-Tolai languages, whereas vowel length, which is distinctive in Patpatar-Tolai languages, is not distinctive in Tok Pisin.

3. LEXICON

According to Mihalic (1971:56) about fifteen percent of the Tok Pisin lexicon are loans from Tolai and related languages from New Ireland. The following list includes all items that according to Mihalic are found simultaneously in Tolai and some of the New Ireland languages, and additionally some items collected by Mühlhäusler. Due to the lack of sufficient data from all languages which were probably involved in the development of the Tok Pisin lexicon, we can only show the possible source language(s) and exclude others, but we cannot definitely state that any Tok Pisin word is exclusively borrowed from a specific Patpatar-Tolai language.

Several items listed by Mihalic as Tolai (Kuanua) words are not of Tolai origin. The well-known word **balus** *pigeon, aeroplane*, for

instance, has certainly not been introduced from Tolai, but from a
southern New Ireland language. For, apart from some marginal dialects
(Vunamarita, Vuatom), Tolai as well as the Duke of York languages
lack the phoneme /s/. The Tolai word for pigeon is balu. Other
words which cannot be originally Tolai because of their /s/ are susu
breast (Tolai u) and mosong (Tolai mong). But on the other hand
there are words that do not show /s/, where the /s/-dialects of Tolai
and the /s/-languages of New Ireland have one, e.g. kavivi *hawk*
(kavisivisi), muli *citrus fruit* (mulis) and waira *stranger* (vasira).

In most words of possible Tolai origin voiced stops are prenasalised.
Hence the dialects of the north coast seem to have been of greater
influence than the Blanche Bay (or Kokopo) dialects. An additional
factor which may have been responsible for the predominance of pre-
nasalised voiced stops in Tolai loanwords is that the recruited
labourers who worked in the Gazelle Peninsula, were mostly speakers
of New Ireland languages, in which to a great extent voiced stops are
prenasalised as well (e.g. Label, King, North-Eastern Laur and
Lamassa, but not Patpatar). Furthermore, the language of Mioko
(Duke of York), where the transit camp was, also exhibits prenasalised
voiced stops. Tok Pisin words with prenasalised stops are: bembe
butterfly, kambang *lime*, kindam *crayfish, shrimp*, kundar *acolyte, to
be an acolyte*, kundu *hand-drum*, limlimbur *to walk, a walk*, malambur
scad, a fish, pangal [ŋg] *the sago palm leaf stalk*, puinga [ŋg]
to fart, a fart, tambaran *the spirits of the ancestors*, tambirua
crab's foot yaws, tambu *a taboo, to be taboo*, tumbuan *a wooden mask,
a masked figure in a dance*, umben *net for fishing*. Only two words do
not show prenasalised stops: aibika *a plant with edible leaves* and
taragau *an eagle*. The a- of aibika is the Tolai determinative
particle a. Other words that are introduced into Tok Pisin including
this determinative particle are ainanga *white bait, small fish*, aupa
native spinach, atun *a saltwater fish, the tuna or bonito*.

Apart from the above mentioned items balus, mosong and susu, the
following ones are evidently not of Tolai origin: abus *a side dish*,
bombom *flare, torch made of dry fronds*, diwai *tree, wood*, liklik
little, longlong *to be stupid, drunk, crazy*, malolo *to rest, a rest*,
melisa *the barracuda*, mumut *a large bush rat*, talis *a tree*
(*Terminalia catappa*).

The origin of the following items is unclear: abus *a side-dish*,
aila *a tree with edible fruit*, arovar *to steer around*, karapa *maize*,
melisa *the barracuda*, pui *naked*.

If not indicated otherwise, the following references are used:
Meyer (1961), Neuhaus (1966), Peekel (1909), Peekel (1929-30),
Stephan and Graebner (1907), Brown and Danks (1882). The items from
Mioko were collected by myself and all Tolai items were checked during
fieldwork in 1978.

Tok Pisin	Patpatar-Tolai		English
abus	Tolai:	kirip	a side dish [of meat, etc.], s.th. much liked
aibika	Tolai:	ibika	a plant with edible leaves
	Mioko:	tuba	
aila	?		a tree with edible fruit
ainanga	Tolai:	inanga	whitebait, small fish
	Mioko:	inanga	
arovar	?		
atap			kunai grass thatch
	Tolai:	etep	to thatch a house with grass
	Mioko:	atip	
	Pala:	itah	
atun	Tolai:	tun	a saltwater fish, the tuna or bonito
	Mioko:	tun	
aupa	Tolai:	upa	native spinach
	Mioko:	upa	
	Pala:	supo	
baira			a hoe
	Tolai:	bair	a sharp stick for digging
	Mioko:	lot	
	Pala:	uase	
balus			pigeon, aeroplane
	Tolai:	balu	pigeon
	Mioko:	kuvur	
	Molot:	kuuru	
	Label:	balus	
	Laur:	balus	
	Lamassa:	balus	
	King:	balus	
	Pala:	balus	

Tok Pisin	Patpatar-Tolai		English
bembe	Tolai:	bebe	*butterfly*
	Mioko:	toto	
	Molot:	toto	
	Label:	habe	
	Kalil:	tot(o)	
	Laur:	bebe	
	King:	tanudu	
	Lamassa:	bem	
	Pala:	tota	
		tota bebe	*a big moth*
bingim	Tolai:	bing	*to squeeze, press*
	Mioko:	bing	
	Molot:	bing	
birua	Tolai:	virua	*piece of human flesh,*
	Mioko:	virua	*enemy, accident*
	Pala:	hiruo	
bombom, bumbum	Tolai:	ul	*flare, torch made of*
	Mioko:	ulu	*dry fronds*
	Label:	bombom	
	Pala:	bunulu	
buai	Tolai:	buai	*betelnut*
	Mioko:	bue	
	Molot:	bua	
	Label:	buai	
	Kalil:	buoi, bue	
	Laur:	bu	
	King:	pamos	
	Lamassa:	buai	
	Pala:	buei	
bukbuk			*a timber tree, species of dysoxyglum*
	Tolai:	bukubuk	*tree, Illipe hollrungii*
	Pala:	bukbuk	*Illipe hollrungii* (Neuhaus 1962:443)
bulit	Tolai:	bulit	*the sticky sap of certain trees*
	Mioko:	bulit	
	Molot:	bulit	

Tok Pisin	Patpatar-Tolai		English
bung			*assembly, market, to meet*
	Tolai:	bung	*day, market day, to hold market*
	Mioko:	bung	*day*
	Molot:	bung	*day*
	Pala:	bung	*night,* also: *day* (Neuhaus 1962:443)
daka	Tolai:	daka (N.C.)	*the betelpepper vine*
		ier (Kokopo)	
	Mioko:	daka	
	Molot:	daka	
	Pala:	sier	
diwai	Tolai:	dawai	*wood, log, tree*
	Mioko:	divai	
	Molot:	divai	
	Label:	rakai	
	Kalil	moma	
	Laur:	kubau	
	King:	duai	
	Lamassa:	(b)iai	
	Pala:	daha	
erima	Tolai:	irima	*a tree, Octumeles sumatrana*
	Label:	irimu	
	Pala:	irime	
	Lamekot:	ima	
galip	Tolai:	galip	*a nut (Canarium polyphyllum)*
	Mioko:	tamap	
	Molot:	tamap	
garamut	Tolai:	garamut	*native wooden signal*
	Mioko:	garamut	
	Molot:	garamut	
	Label:	hik	
	Laur:	hik	
	King:	garamut	
	Pala:	garamut	
gorgor	Tolai:	goragora	*a tall type of ginger*
	Mioko:	tagu	
	Pala:	goragora	
guma	Tolai:	guman	*hermit crab*
	Pala:	gumo	

Tok Pisin	Patpatar-Tolai		English
guria	Tolai:	guria	*earthquake*
	Mioko:	guria	
	Molot:	guria	
	Label:	mamais	
	Kalil:	kunakuner	
	Laur:	kunkun	
	King:	nguri	
	Lamassa:	kukule	
kakaruk	Tolai	kakaruk	*hen, chicken*
	Mioko:	kereke	
	Molot:	kareke	
	Label:	kok	*hen, rooster*
	Laur:	keke	
	Lamassa:	mokson	
	Pala:	kareka	(Peekel 1909)
		kariaka	
kalang			*an earring, the long tail feather of a bird, the goldlip shell*
	Tolai:	kalang	*shell, adornment made of mother-of-pearl*
	Molot:	kalang na gado	*pearl of pearl-shell*
		gado	*general name of shells*
	Pala:	kalang	*earring made of mother-of-pearl*
kalangar	Tolai:	kalangar	*parrot*
	Mioko:	kalangar	
	Molot:	kalangara	
	Label:	kalangar	
	Pala:	kalangar	
kambang	Tolai:	kabang	*lime*
	Mioko:	kabang	
	Molot:	kabang	
	Label:	kabang	
	Pala:	kabus	
kanai	Tolai:	kanai	*seagull*
	Mioko:	kanai	
	Laur:	kanai	
	King:	kanal	
	Label:	kanai	
	Lamassa:	kanai	
	Pala:	kanaia	

Tok Pisin	Patpatar-Tolai		English
kapiaka	Tolai:	kapiaka	*breadfruit tree*
	Mioko:	bare	
	Molot:	bere	
	Label:	bero	
	Pala:	baran	
		baren	(Peekel 1929-30:93)
kapul	Tolai:	kapul	*possum, tree wallaby*
	Mioko:	kapul	
	Molot:	kapul	
	others	kapul	
karapa	Tolai:	?	*a kind of wild maize*
	Tolai	tila	*maize*
		koni, koan, padi	(loanwords)
karapua	Tolai:	kalapua	*a short banana*
	Mioko:	tapal	
karava, karua	Tolai:	karua	*a fish: sea mullet*
	Mioko:	karua	
karavia			*a quarantine*
	Tolai:	Karavia	*name of a village near which a quarantine was* (Barrett 1953:43)
katu	Tolai:	katu	*a hermit crab*
	Molot:	katu	
kaur	Tolai:	kaur	*bamboo*
	Mioko:	kaur	
	Molot:	kauru	
	Label:	kaur	
	Pala:	kor	
kavivi	Tolai:	kavivi	*hawk*
	Tolai: (Vm)	kavisivisi	
	Mioko:	kavivi	
kawawar	Tolai:	kavavar	*ginger-root*
	Mioko:	kamavar	
	Pala:	kamahar	
kawiwi	Tolai:	kavivi	*the wild betelnut*
	Mioko:	mila	

Tok Pisin	Patpatar-Tolai		English
kiau	Tolai:	kiau	*egg*
	Mioko:	kiau	
	Molot:	kiau	
	Label:	kotol	
	King:	keau	
	Lamassa:	keau, kiau	(Friederici 1913:86)
		kiau	*bush-hen, egg*
	Pala:	talur	*egg*
		kiau	*bush-hen*
kibung/kivung	Tolai:	kivung	*meeting, to hold a meeting*
	Mioko:	kivung	
kilamo	Tolai:	kilamu	*a cork, originally of rolled-up leaves*
	Mioko:	kinong	
kina	Tolai:	kina	*a clam, an oyster*
	Tolai: (Vm)	kinasi	
	Mioko:	pin	
kindam	Tolai:	kidam	*crayfish, shrimp*
	Mioko:	urungut	
	Molot:	kidama	
	Pala:	kidama	
kokomo	Tolai:	kokomo	*hornbill*
	Mioko:	kokomo	
	Pala:	bangebeng	
kol			*herring*
	Tolai:	kol	*a fish (Genyroge)*
	Mioko:	?	
kotkot	Tolai:	kotkot	*raven*
	Mioko:	kotkot	
	Molot:	kotkot	
	Label:	kaiko	
	Pala:	kok	
krokkrok	see rokrok		
kuka	Tolai:	kuka	*crab*
	Mioko:	kuka	
	Molot:	kuka	

Tok Pisin	Patpatar-Tolai		English
	Label:	kuka	
	King:	kuku	
	Lamassa:	kuk	
	Pala:	kuko	
kukurai	Tolai:	kukurai	*the chief of a tribe*
	Tolai:	kukurai	*to judge, the judge*
	Pala:	kukurai	*chief*
kulau	Tolai:	kulau	*green coconut suitable for drinking*
	Mioko:	kulau	
	Molot:	kulau	
	Label:	kulau	
kumu	Tolai:	kumu	*taro leaves*
	Mioko:	tube na pa	
	Pala:	bie	('Tarogemüse')
	Tolai: (Vm)	kumusu	
kumul	Tolai:	kumul	*bird of paradise*
	Mioko:	kumul	
kumurere	Tolai:	kumurere	*the eucalyptus tree*
kunai	Tolai:	kunai	*alang-alang grass*
	Mioko:	kure	
	Molot:	kura	
kundu	Tolai:	kudu	*hand-drum*
	Mioko:	kudu	
	Molot:	kudu	
	Label:	kautliku	
	Laur, King:	kudu	
	Lamassa:	kudu	
kurita	Tolai:	urita	*octopus*
	Mioko:	urita	
	Molot:	urita	
	Label:	urita	
	King:	vurido	
	Lamassa:	vurit	
laka	Tolai:	laka	*is that not so?*

Tok Pisin	Patpatar-Tolai		English
lala	Tolai:	lala	*tailorfish*
	Mioko:	lala	
lalai	Tolai:	lalai	*trochus shell*
	Mioko:	lalai	
	Pala:	lala	
	Molot:	lalai	*name of a shell from which armlets are made*
lang	Tolai:	langa	*fly*
	Mioko:	lang	
	Molot:	lang	
	Label:	lang	
	Laur:	lang	
	King:	lang	
	Lamassa:	lang	
	Pala:	langa	
laup	Tolai:	laup	*the N.G. walnut tree, a timber tree*
	Mioko:	laup	
liklik	Tolai:	ikilik, ik	*little*
	Mioko:	liklik	
	Molot:	lik, liklik	
	Label:	lik	
	Laur:	hansik	
	Pala:	hansik	
limlimbur	Tolai:	limlibur	*to take a walk*
	Mioko:	kabur	
	Molot:	kaburu	
	Label:	lagar	
	Pala:	papaus, mamagu	
longlong	Tolai:	bong, bongbong lunga, pepel	*stupid, drunk, crazy*
	Mioko:	longlong	
	Molot:	longlong	
	Label:	longlong	
	Pala:	longlong	
luluai	Tolai:	luluai	*village tribal chief*
makau	Tolai:	makau	*the tilapia, a fish*
	Mioko:	tadaru	

Tok Pisin	Patpatar-Tolai		English
mal			*a bark loin covering or a breech-clout*
	Tolai:	mal	*loin-cloth*
	Mioko:	malu	
	Molot:	malu	
	Label:	mal	
	Pala:	mal	
malambur	Tolai:	malabur	*scad, a fish*
	Mioko:	malabur	
malari			*poor fellow, shame*
	Tolai:	malari	*to be poor, miserable*
maleo	Tolai:	maleo	*eel*
	Mioko:	maleo	
	Label:	milo	
	Pala:	maleua, malaua	
malira, marila	Tolai:	malira	*love-spell*
	Mioko:	malira	
	Molot:	malira	
	Pala:	pinir	(Peekel 1909:127)
malip	Tolai:	malip	*small parrot*
	Mioko:	malip	
malolo	Tolai:	ngo	*to rest*
	Mioko:	mana	
	Molot:	mana	
	Pala:	malolo	
malumalu, malmalum			*soft, tender, spongy, swampy*
	Tolai:	malu, malmalu	*to be tired, exhausted*
		malmal, melmel	*soft*
	Mioko:	melmel	*soft, feeble*
	Molot:	malumalum	*weak, faint*
	Laur:	malmalungana	*weak*
	Label:	mala	
	Lamassa:	mamalesa	
mami	Tolai:	mami	*(very sweet) yams*
	Mioko:	mami	

Tok Pisin	Patpatar-Tolai		English
manangunai	Tolai:	manigulai	*sea eagle*
		minigulai	
	Mioko:	manigulai	
marimari, marmari			*pity, to pity*
	Tolai:	marmari, mari	*to love, pity*
	Mioko:	marmari	
	Molot:	marimari, mari	
	Label:	marmaris	
	Pala:	marmaris	
marita	Tolai:	marita	*pandanus*
	Mioko:	marita	
	Pala:	marite	
marmar	Tolai:	marmar	*raintree, any of the*
	Mioko:	marmar	*Jacaranda type of trees*
mata kiau			*blind*
	Tolai:	mata	*1. eye 2. hole, opening*
		kiau	*egg*
		pula	*blind*
	Mioko:	pula	
	Molot:	pula	
	Label:	kut	
	Laur:	rava	
	King:	pada	
	Lamassa:	takmatuk, kut	
matmat			*cemetery*
	Tolai:	mat	*to die*
		pia na minat	*cemetery, (ground for death)*
	Mioko:	tama na matmat	*cemetery*
			(see p. 2)
mau, maupela			*ripe, soft, rotten*
	Tolai:	mao	*ripe, cooked*
	Molot:	mo	
	Label:	makos	*ripe (Stephan and Graebner)*
		miner	*ripe (Peekel 1929-30)*
	Laur:	matuk	*ripe*
	King:	setaka	*ripe*

Tok Pisin	Patpatar-Tolai		English
	Lamassa:	makos	*ripe*
	Pala:	matuko	*ripe*
		masos	*cooked*
me, meme	Tolai:	me	*goat* (new sound imitating word)
	Mioko:	me	
	Pala:	me	
melisa	?		*the barracuda*
mon	Tolai:	mon	*high-prowed canoe without outrigger*
	Mioko:	mon	
	Label:	mon	
	King:	mon	
	Lamassa:	mon	
	Pala:	mon	
mosong	Tolai:	mong	*fuzz, the nap of cloth*
	Tolai: (Vm)	mosong	
	Mioko:	mong	
muli	Tolai:	muli	*citrus fruit*
	Tolai: (Vm)	mulis	
	Pala:	mulis	
mumut	Tolai:	mang	*a large bushrat*
	Mioko:	momot	
muruk	Tolai:	murup	*cassowary*
	Mioko:	murup	
	Molot:	murup	
natnat	Tolai:	ngatingat	*mosquito*
	Mioko:	namu	
	Label:	mumus	
	Pala:	ngatngat	
nok	Tolai:	noko	*midrib of sago or coconut fronds*
	Mioko:	noko	
	Label:	noko	
	Pala:	noko	
palai	Tolai:	palai	*lizard, gecko*
	Mioko:	kalamlam	

Tok Pisin	Patpatar-Tolai		English
palpal, balbal	Tolai:	balbal	*coral tree (Erythrina indica)*
	Mioko:	balbal	
	Label:	balbal	
	Pala:	balbal	
pangal (pang-gal)	Tolai:	pagal	*the sago palm leaf stalk*
	Mioko:	pagal	
	Molot:	pagal	
	Pala:	pagal	
papait	Tolai:	papait	*sorcery*
	Mioko:	papet	
par, var	Tolai:	var	*the stingray, roach*
	Label:	war	
	King:	var	
	Lamassa:	var	
	Pala:	har	
pekpek	Tolai:	peke, pekapeke	*to excrete*
	Mioko:	peke	
	Molot:	peke	
	Label:	pekpeke	
	King:	peke	
	Lamassa:	pek	
	Pala:	peka	
pipia			*dirt, rubbish*
	Tolai:	pipia	*sandy soil, dusty soil*
		pia	*earth, soil*
		puputa	*rubbish*
	Mioko:	kurkur	
	Molot:	kurukuru	
pitpit	Tolai:	pit	*type of wild sugar cane*
pui	Tolai:	bia	*naked*
		(pui	*bush)*
puinga	Tolai:	puiga	*to fart*
	Tolai: (Vm)	pusinga	
	Mioko:	pi	

Tok Pisin	Patpatar-Tolai		English
pukpuk	Tolai:	pukpuk	*crocodile*
	Mioko:	vue	
	Duke of York:	pukpuk,	(Zöller 484)
		babai	(Zöller 484)
purpur	Tolai:	purpur	*ornamental shrubs*
			grass-skirt
	Mioko:	purpur	
rabun	?		*ridge of a house*
raring			*to pray*
	Tolai:	aring (tr)	*to ask for, beg*
		araring (intr)	
	Label:	nung	
	King:	saringui	
	Lamassa:	katari	
	Pala:	saring (tr)	
		sarsaring (intr)	
rokrok	Tolai:	rokrok	*frog*
	Mioko:	rokrok	
	Label:	rokrok	
	Laur:	rokrok	
	King:	rokrok	
	Lamassa:	rokrok	
ruru	Tolai:	ru, ruru	*to honour*
susu	Tolai:	u	*milk, breast*
	Mioko:	u	
	Label:	susu	
	Laur:	susu	
	King:	sus	
	Lamassa:	susu	
	Pala:	susu	
talai	Tolai:	talai	*a sardine*
	Mioko:	talai	
talis	Tolai:	talia	*a tree (Terminalia*
			catappa)
	Tolai (Vm):	talisa	
	Pala:	talise	

Tok Pisin	Patpatar-Tolai		English
tambaran	Tolai:	tabaran	the spirits of the ancestors
	Mioko:	tebaran	
	Pala:	tabaran	
tambirua	Tolai:	tabilua	crab's foot yaws
	Mioko:	papa	
tambu	Tolai:	tabu	forbidden, sacred
	Mioko:	tabu	
	Molot:	tabu	
	Pala:	tabu	
tanget	Tolai:	tagete	victory leaf (Cordyline terminalia)
	Mioko:	nair	
tangir			a spanish mackerel and kingfish
	Tolai:	tangir	a fish (Sphyraena)
	Mioko:	tingir	
tapiok	Tolai:	tapiok	the maniok, cassava
	Mioko:	tapiok	
tarangu	Tolai:	biavi	miserable poor
	Mioko:	pudailik	
taragau	Tolai:	taragau	hawk, eagle
	Mioko:	taragau	
	Pala:	taragau	
taur	Tolai:	tavur	the Triton's trumpet
	Mioko:	tavuru	
	Molot:	tauru	
	Pala:	tahur	
ton	Tolai:	ton	a tree with edible fruit (Pometia pinnata)
	Mioko:	tan	
	Molot:	tan	
tultul			the assistant village chief appointed by the government
	Tolai:	tultul (tul	messenger of the luluai to send)
	Pala:	tultul	

Tok Pisin	Patpatar-Tolai		English
tumbuan	Tolai:	tubuan	*a wooden mask, a masked figure in a dance*
	Mioko:	tubuan	
tumbuna			*ancestors*
	Tolai:	tubuna	*grandmother, grandfather grandchild*
	Mioko:	tubuna	
	Pala:	tubuna	
tuptup			*cover, lid, cork*
	Tolai:	tuptup	*to be plugged up, ignorant*
		tubatuba	*cover*
umben	Tolai:	ubene	*a net for fishing*
	Mioko:	bene	
	Molot:	bene	
	Label:	bene	
	Laur:	ben	
	King, Lamassa:	bene	
	Pala:	uben	
utun	Tolai:	vutun	*a coastal tree (Barringtonia speciosa)*
	Mioko:	vutun	
	Molot:	utun	
virua			*death by violence, murder, homicide*
	Tolai:	virua	*to be killed, victim*
	Mioko:	virua	
	Pala:	hiruo	
vut, vun	Tolai:	vun	*the derris root*
	Mioko:	vunu	
waira	Tolai:	vaira	*foreigner, stranger*
	Tolai: (Vm)	vasira	
	Mioko:	vaira	
	Molot:	vaira	
wokurai			*to hold a conference to hold court*
	Tolai:	varkurai	*to decide, judge*
	Mioko:	varkurai	

Tok Pisin	Patpatar-Tolai		English
yet	Tolai:	iat	*self*
	Molot:	ut	
	Pala:	at, iat	
	Label:	ot	

4. WORD CLASSES

4.1. Nouns

In contrast to English, Tok Pisin nouns do not have bound plural morphemes nor the so-called genitive 's', so that they are neutral in respect to number and case. Though this unmarkedness is found in Patpatar-Tolai as well, it cannot be regarded as the result of substratum influence, since the reduction of morphological complexity is a pidgin universal.

In some cases plurality can be expressed by reduplication (cf. p. 109), but mostly plurality is marked by additional unbound quantifiers preceding the noun, e.g. ol man *(the) men.* Therefore the expression of number will be dealt with in chapter 6.1.3 (cf. p. 115 ff.). A few nouns are 'cumulative' compounds (Mühlhäusler 1979:337f.), e.g. papamama *parents,* manmeri *people.* They express plurality, since their meaning is the sum of the meaning of their components (cf. p. 84). Sex and possession are expressed by adjuncts (cf. chap. 6.1.4, p. 118, and 6.1.2 p. 114).

Usually English loanwords are borrowed in the singular form. Exceptions are tit *tooth, teeth* (note that in modern Bichelamar it is tut), anis *ant(s)*, masis *match(es)*, bis *bead(s)* and hasis *hatch(es) of a ship.* 'These words refer to phenomena which are normally observed in quantities larger than one' (Mühlhäusler 1975c:23).

4.2. Verbs

In Tok Pisin verbs are not marked by suffixes or stem alternations for different persons, numbers, tenses and aspects. This feature is shared by Patpatar-Tolai languages, but must be ascribed rather to impoverishment of morphological complexity than to substratum influence, because it is common to all pidgins.

4.2.1. Transitivity and intransitivity in Tok Pisin

The only grammatical suffix found with Tok Pisin verbs is the so-called transitive marker -im, which is attached to transitive

verbs.   Tok Pisin verbs can be classified into:

1. verbs which are only used intransitively and hence never take
    the transitive marker -im, for example:
    go *to go*, kam *to come*, dai, indai *to die*, lap *to laugh*;

2. verbs, which always have the transitive marker -im, for example:
    askim *to ask*, bringim *to bring*, putim *to put*, salim *to send*;

3. a few transitive verbs without the suffix -im, for example:
    gat *to have*, pilai *to play*, save *to know*;

4. verbs which have a transitive form with the suffix -im and
    an intransitive form without -im, for example:

bruk	*to break*	brukim	*to break, tear*
	to be broken		
kuk	*to cook*	kukim	*to cook something*
wok	*to work, be busy*	wokim	*to make s.th., build*

5. a limited class of verbs which have a transitive form with the
    suffix -im and a reduplicated intransitive form, for example:

wasim	*to wash s.th.*	waswas	*to bathe, wash o.s.*
lukim	*to see*	lukluk	*to look*

For details see Dutton (1973:9f., 46f., 114f.), Laycock (1970:xxif.),
Mihalic (1971:24ff.) and Wurm (1971b:26-31).

The transitive marker is already found in ancient Bichelamar, so
that its origin cannot be ascribed to Patpatar-Tolai influence,
for example:

> *You make him some water he boil* *Make some water hot*
>
> *Me want him gun belong you, me* *Give me your fowling piece, I*
> *like go bush shoot him pigeon* *will go in the bush and shoot*
>   *pigeons* (Schuchardt 1889:159).

Perhaps -im originates in Chinese Pidgin English. Hall (1944:98)
says about the CP (Chinese Pidgin) suffix -əm:

> This suffix indicated transitive as opposed to intransitive
> (as in MP) in earlier CP, and even occasionally at present:
>
> > koləm wən kuli *call one coolie*
> > maj meki luzəm *I would lose them*

In ancient Bichelamar (Schuchardt 1883:155/7) and Samoan Plantation
Pidgin the transitive marker -im was used with 'considerable variety'
(Mühlhäusler 1975a:36), whereas today it has not only become regular
in Tok Pisin, but also in modern Bichelamar and Cape York Creole

(Guy 1974b:15f.; Crowley and Rigsby 1979:188ff.). As I do not know
the substratum languages of modern Bichelamar and Cape York Creole,
the following investigation will only be concerned with the question
whether the regular use of -im in Tok Pisin has been caused by sub-
stratum influence or if it is due to the fact that, in general,
pidgins show a tendency toward regularity.

The contrast between reduplicated intransitive and simple
transitive verbs is also found in Samoan Plantation Pidgin, but not
in other descendants of ancient Bichelamar such as modern Bichelamar,
Solomon Pidgin English and Cape York Creole. Mühlhäusler (1975a:36)
quotes the two items waswas *to wash o.s.* and lukluk *to gaze* as
examples for reduplicated intransitive verbs in Samoan Plantation
Pidgin. Since in Patpatar-Tolai languages intransitive verbs are
derived from simple transitive verbs by reduplication, substratum
influence seems probable.

4.2.2. Transitivity and Intransitivity in Patpatar-Tolai Languages

In Tolai transitive verbs are verbs which are obligatorily
followed by an object, whereas intransitive verbs are never followed
by an object, though the object may be understood from the context.
In other words, the objects of transitive verbs cannot be omitted.
If the object is not to be expressed, the intransitive counterpart of
the transitive verb has to be used. The Tolai system of derivation
of transitive verbs from intransitive verbs and intransitive verbs
from transitive verbs is too complicated to be extensively described
here, but the explanation of the main principles will suffice to show
the relations between Tolai and Tok Pisin.

There are three classes of simple non-derived verbs:

1. Morphologically unmarked intransitive verbs, which can be
    made transitive by the suffixes (1) -e, (2) -(a)ne or (3)
    the causative prefix va-:

    (1) -e/ is used with verbs of action indicating that
         the object following the verb refers to the goal
         of the action, for example:

alir	*to flow, float, swim*	alire	*to float, wash off s.th.*
gumu	*to dive, bathe*	gumue	*to dive for*
momo	*to drink*	mome	*to drink s.th.*
tangi	*to cry, weep*	tangie	*to mourn, deplore*

(2) -(a)ne is used with intransitive stative verbs,
especially those indicating some state of sickness
or mood, to denote that the state expressed by
the verbal base exists with regard to something
or somebody, for example:

mait	*to be sick*	maitane	*to be sick with*
ngarau	*to be afraid*	ngarauane	*to be afraid of*
kankan	*to be angry*	kankanuane	*to be angry with*

(3) The causative prefix va- is added to intransitive
verbs of action and state (and besides that to
resultative verbs, transitive verbs, adjectives,
nouns and cardinal numbers), for example:

gumu	*to dive*	vagumu	*to throw into the water*
momo	*to drink*	vamomo	*to give drink to*
mait	*to be sick*	vamait	*to make sick*
kankan	*to be angry*	vakankan	*to make angry*

In some cases va- is combined with -e, for example:

| alir | *to flow, float swim* | valire | *to let swim* |

The derived transitive verbs can be transformed into intransitive
verbs again. Thus transitive verbs ending in -e can become
intransitive by changing the suffix -e into -ai, e.g. alirai (intr.)
to float, and the causative verbs by prefixing var-, e.g. varvamomo
to give to drink, water. In some cases var- and -ai are combined,
e.g. varvalirai (intr.) *to let swim*. A number of verbs do not have
a simple form, but only transitives ending in -e and intransitives
ending in -ai, for example:

mule (tr.), mulai (intr.)   *to do again*

vue (tr.), vuai (intr.)   *to remove, throw away*

2. Morphologically unmarked transitive verbs which can become
intransitive by reduplication, for example:

kul (tr.) *to buy s.th.*   kukul   *to buy, trade*

tumu *to write, paint s.th.*   tutumu *to write, paint*

(Note that there is another type of reduplication, namely the so-called
full reduplication, which indicates imperfective aspect [cf. p. 84],
e.g. kulkul *to be buying, buy habitually s.th.* The imperfective

aspect of the intransitive form [e.g. kukul] is derived by further
reduplication, e.g. kukukul [intr.] *to be buying, trading; to buy,
trade habitually*.)

A few verbs do not undergo reduplication. Their intransitive
counterparts are derived by the reciprocal prefix var-, for example:

tovo	*to teach s.o.*	vartovo	*to teach, learn*
mari	*to love (s.o.)*	varmari	*to love*

The prefix var- usually expresses reciprocity, e.g. ubu (tr.) *to hit
s.o.*, varubu (intr.) *to hit each other, to fight*.

3. Verbs that are neutral in respect to transitivity and intransi-
tivity, i.e. that can equally be used with and without objects,
for example:

ian	*to eat (s.th.)*
long	*to steal*
ki (ra ot)	*to sit (on horseback)*
vana (Rabaul)	*to go (to Rabaul)*

The Duke of York and Southern New Ireland languages exhibit the same
pattern as Tolai, insofar as simple intransitive verbs are made
transitive by suffixes and simple transitive verbs are made intransitive
by reduplication (Brown and Danks 1882:43ff.; Peekel 1909:99ff.,
Peekel 1929-30:25). As Tolai, all other Patpatar-Tolai languages have
a causative and a reciprocal prefix.

4.2.3. Tok Pisin and Tolai verbal classes compared

The main difference between Tolai and Tok Pisin is that, apart from
a few exceptions (e.g. gat, kaikai, save), all Tok Pisin transitive
verbs are marked by the transitive marker -im and that there is a
large class of transitive verbs which do not have intransitive
counterparts. In Tolai on the other hand, the two classes of non-
derived intransitive and non-derived transitive verbs seem to be of
equal size, and each transitive verb has an intransitive counterpart.
Secondly, in Tolai many non-derived intransitive verbs have transitive
counterparts, whereas their Tok Pisin equivalents cannot be transformed
into transitives. If transitivity is to be expressed with these verbs,
they are combined with the preposition long + noun, for example:

krai long man i dai pinis   *to mourn one deceased*
(Mihalic 1971:115)

The following comparison of Tok Pisin verb classes with Tolai verb classes shows that there are not many correspondences because Tok Pisin lacks a class of non-derived transitive verbs and does not have so many transitives derived from intransitives. Generally speaking, the divergencies result from Tok Pisin's greater simplicity.

1. Verbs which are used only intransitively in Tok Pisin in comparison with their Tolai correspondences:

Tok Pisin	Tolai	meaning
dai	mat	*to die*
kam	pot	*to come*
kibung	kivung	*to hold a meeting*
ran	vilau	*to run*
spik	tata	*to speak*

but:

go	vana (intr.)	*to go*
go long	vana (tr.)	*to go to*
sindaun	ki (intr.)	*to sit down*
sindaun	ki (tr.)	*to sit on*
(antap) long		
driman	ririvon (intr.)	*to dream*
driman long	ririvone (tr.)	*to dream of*
krai	tangi (intr.)	*to cry*
krai long	tangie (tr.)	*to mourn*
lap	nongon (intr.)	*to laugh*
lap long	nongone (tr.)	*to laugh at*
les	talanguan (intr.)	*to be tired*
les long	talanguane (tr.)	*to be tired of*

2. Tok Pisin verbs which always have the transitive marker -im in comparison with their Tolai correspondences:

Tok Pisin	Tolai	meaning
bekim	valilikun (tr.)	*to return*
	lilikun (intr.)	*to return*
harim	valongore (tr.)	*to hear*
	valongor (intr.)	*to hear*
pilim	kairane (tr.)	*to feel*
	kairanai (intr.)	*to feel*
salim	tulue	*to send*
	tuluai	*to send*

but:

askim	tir	to ask
baim	kul	to buy
bihainim	mur	to follow
bringim	kap tar	to bring
givim	tar, tabar	to give
kilim	doko	to kill
kisim	kap pa	to get
kolim	oro	to call
mekim	pait, mal	to make
putim	vung	to put

The construction of givim *to give* varies; in Highlands and Lowlands Pidgin its direct object refers to the thing given to someone, while in Islands Pidgin it refers to the person who is given something (Mühlhäusler 1979:332). The latter construction is the same as in Tolai:

> mi givim buk long yu   *I gave you the book*
> mi givim yu long buk
> iau tabar u ma ra buk
> *I give you with the book*

3. According to Dutton (1973:46f.), the following transitive verbs are not marked by the transitive marker -im. Since kaikai, dring, pekpek, pispis and pilai are used intransitively as well, I would prefer to call them 'neutral' verbs in contrast to save and gat which are never used intransitively. The corresponding Tolai verbs show some divergencies:

Tok Pisin	Tolai	meaning
gat	-	to have
save	matote (tr., derived)	to know
	matoto (intr.)	
kaikai (tr.,intr.)	ian (tr.,intr.)	to eat
dring (tr.,intr.)	mome (tr.,intr.)	to drink
	momo (intr.)	
pekpek (tr.,intr.)	peka, pekapeke (intr.)	to excrete
	peke (tr.)	
pispis (tr.,intr.)	mim (intr.)	to urinate
pilai (tr.,intr.)	- (pilai as loanword)	to play

There is no equivalent to gat *have* in Tolai. The notion of 'having something' is expressed by possessive pronouns:

Tok Pisin: mi gat wanpela haus   *I have a/one house*

Tolai: kaugu tika na pal

               my   one C house

4. Verbs which have both a transitive form with -im and an intransitive form in Tok Pisin in comparison with the corresponding Tolai verbs.

The verbs listed by Mihalic (1971:27) can be classified into three semantic subclasses, which are not morphologically distinguished:

I.   Intransitive verbs of action and their transitive counterparts, whose objects refer to the goal of the action, for example:
kuk (intr.) *to cook*   kukim (tr.) *to cook s.th.*

II. Intransitive verbs of action (mainly verbs of movement) and their transitive counterparts which are causatives denoting that the object referent is caused to do the action expressed by the verbal base, for example:
ran (intr.) *to run*   ranim (tr.) *to chase* (lit. *to make s.o. run*)

III. Intransitive verbs of state and their transitive counterparts which are causatives denoting that the object referent is made to be in the state expressed by the verbal base, for example:

op (intr.) *to be opened*   opim (tr.) *to open s.th.*

In Tolai transitive verbs of action and causatives are morphologically distinguished. Transitive verbs of action are derived by suffixes, if it is not the intransitives that are derived by reduplication from their simple non-derived transitive counterparts and if they do not belong to the neutral verbs, whereas causatives are derived by the causative prefix va-. Compare:

	Tok Pisin		Tolai		meaning
	intr.	tr.	intr.	tr.	
I.	kaun	kaunim	luluk	luk	*to count*
	laik	laikim	mamaingai	mainge	*to like*
	rait	raitim	tutumu	tumu	*to write*
	stil	stilim	long	long	*to steal*
II.	hariap	hariapim	rurut	varut	*to hurry*
				(rut	*to do quickly*)
	raus	rausim	irop	vairop intr.:	*to get out*
				tr.:	*to remove, take out*
	surik	surikim	lilikun	valilikun	*to move back*
				(likun	*to bend, fold back*)
III.	bagarap	bagarapim	kaina	vakaina intr.:	*to be spoilt*
				tr.:	*to spoil*
	pret	pretim	burut	vaburut intr.:	*to be afraid*
				tr.:	*to frighten*
	pinis	pinisim	par	vapar intr.:	*to be finished*
				tr.:	*to finish*

Some linguists think that the existence of a transitive suffix in
Tolai has been responsible for the development of -im as a regular
feature in Tok Pisin. Fry (1977:870), for instance, says:

> Besides the general Austronesian and AN2 type features
> which Pidgin has developed through the influence of
> Kuanua and other related languages, there are many
> features which are not so general in which Pidgin conforms
> to Kuanua. To cite a few examples:
> 1. ... 2. The transitive-intransitive distinction in
> verb use is an important feature of Pidgin, and a
> dominant feature around which Kuanua syntax is organised -
> and with this feature each language makes use of a
> suffix which transforms intransitive to transitive.

But the preceding comparison of the first four Tok Pisin verbal
classes with their Tolai counterparts shows that the development of
-im cannot be regarded as being nothing else but a reflection of a
Tolai transitive suffix. Otherwise one would expect that the Tok
Pisin transitives were only marked by -im where the corresponding
Tolai verbs show a transitive suffix as well, and one could not
explain that -im is already occasionally found in ancient Bichelamar.
    An explanation of -im has to take three facts into acount:

1. the existence of -im in Bichelamar;

2. the similarity of Tolai and Tok Pisin concerning the distinction of transitive and intransitive verbs in general, and

3. divergencies of Tolai and Tok Pisin in marking transitive and intransitive verbs.

These three facts suggest that after the transitive marker -im had occasionally occurred with transitive verbs in ancient Bichelamar, it was two more or less simultaneously operating forces that made it a regular feature in Tok Pisin:

(1) the need felt by Patpatar-Tolai speakers to express the distinction between intransitives and transitives as in their native languages;

(2) the tendency towards simplification and regularity in order to make communication as easy as possible.

Thus the transitive-intransitive distinction expressed by various means in Tolai and related languages is maintained in Tok Pisin, but expressed in a very simplified way.

The same process of simplification took place when causatives were derived from intransitives of state or action by the transitive marker -im, i.e. when Tok Pisin speakers gave -im an additional function instead of inventing a new device of expressing causative. Such a new device could have been compounds or circumlocations with mekim, as occasionally found in ancient Bichelamar, for example:

you make him some water he boil   *Make some water hot*
(Schuchardt 1889:159)

What for lamp you make him dead?   *Why did you put out the lamp?*

The above stated rule, that transitive verbs must always be followed by an object, is less strictly applied in Tok Pisin than in Tolai. For in Tok Pisin the object may be left out, if it is the third person singular pronoun em, for example:

mi kisim (em)   *I took it.*

mi lukim (em)   *I saw him.*

But in Tolai it is expressed without exception, for example:

iau kap ia   *I took it.*

If the verb ends in a vowel, ia is fused with that vowel, for example:

iau girē   *I saw him.*

Since this Tok Pisin feature cannot be traced back to the superstrat language English, it has to be ascribed to independent development.

The last Tok Pisin verbal class to be discussed is the fifth one:

5. Verbs which have a transitive form with the transitive marker -im and a reduplicated intransitive form.

In contrast to Tolai (cf. p. 43), reduplication as a device to derive intransitives from transitives is not productive in Tok Pisin. According to Mühlhäusler (1979:268) this verbal class encloses only the following items:

wasim	*to wash s.th.*	waswas	*to bathe, wash o.s.*
tokim	*to tell s.th., speak to*	toktok	*to talk, converse*
singim	*to sing s.th.*	singsing	*to dance, sing*
lukim	*to see s.th.*	lukluk	*to look*
tingim	*to remember, think of*	tingting	*to think, ponder*
pusim	*to make love to*	puspus	*to make love*
lotuim	*to worship s.o.*	lotulotu	*to go to church*

Two facts suggest that this type of reduplication reflects substratum influence:

1. It is neither found in the superstrat language nor in other pidgins.
2. In Tolai and related languages intransitives are derived from transitives by reduplication.

However, if one looks a little bit closer, direct substratum influence seems rather improbable. For only one Tolai equivalent to these seven pairs follows a similar pattern, so that it could have served as a model. Furthermore, in Tok Pisin the entire verbal base is reduplicated, whereas in Tolai the so-called partial reduplication applied, which contrasts to the 'full' reduplication denoting imperfective aspect. The latter differs morphologically from the former one in that more phonemes are involved, for example:

Partial reduplication:

punang (tr.) pupunang (intr.)	*to bury*
kul (tr.) kukul (intr.)	*to buy*

Full reduplication:

punapunang (tr.)	*to be burying, bury habitually*
kulkul (tr.)	*to be buying, buy habitually*

Transitive verbs which were borrowed from English at the same time as Tok Pisin developed, strictly follow this pattern, e.g. sut (tr.), susut (intr.) *to shoot*.

(1) Tolai equivalents to wasim, waswas :

There is no correlation between the Tolai expressions for *to wash s.th.* and *to wash o.s., bathe*, because these two notions are expressed by totally different verbs.

Simplex		Derived verb	
puk (tr.)	*to wash, wet*	pupuk (intr.)	*to be wet*
gumu (intr.)	*to dive, bathe, wash o.s.*	gumugumu (intr.)	*to be bathing, bathe habitually*
iu (intr.)	*to bathe* (N.C.)	iuiu (intr.)	*to be bathing, bathe habitually*

Thus iu, iuiu does not correspond to wasim, waswas, as Nevermann (1929:256) thinks:

> wash is reduplicated like the native word iu *to wash*,
> so that it corresponds to iuiu *to bathe* as washwash.

Since washing with soap is a cultural innovation, two loanwords were introduced into Tolai. Both follow the Tolai pattern:

transitive		intransitive	
sop		sosop	*to wash with soap*
vuas	*to wash s.th.*	vuvuas	*to do the laundry*

That even vuas, vuvuas, which is borrowed from *wash*, does not correspond to wasim, waswas is a strong argument against direct substratum influence. The Tok Pisin equivalent to vuvuas *to do the laundry* is wasim klos.

(2) Tolai equivalents to tokim, toktok :

Some of the Tolai verbs corresponding to tokim, toktok are related to each other insofar as the intransitive verbs are derived from their transitive counterparts. However, they are not derived by reduplication, but by the suffix -ai, e.g. ve, varve (tr.), varvai, varveai (intr.) *to tell, inform*. Other verbs, e.g. tata (intr.) *to speak, talk*, biti (intr.) *say, think* and tatike (tr.) *to tell, say s.th.*, lack transitive and intransitive counterparts respectively. Pir (intr., tr.), pirpir (intr.) *to tell (a story)* cannot have served as a model either, because pirpir is both transitive and intransitive.

transitive verb		intransitive verb	
ve	*to tell, inform s.o.*		
varve	*to tell, inform s.o.*	varveai	*to tell, inform*
		varvai	
		tata	*to talk*
		tatata	*to talk, chat* (imperfective asp.)
		biti	*to say, think*
		bitbiti	(imperfective asp.)
tatike	*to tell, say s.th.*		
pir	*to tell*	pir	*to tell*
		pirpir	(imperfective asp.)

ve corresponds to tokim, insofar as its object refers to the person spoken to:

iau ve u   *I told you*

mi tokim yu *I told you*

    (3) Tolai equivalents to singim, singsing:

The notion of *to sing s.th.* is expressed by the transitive verb kaile, which, however, is mostly used in its reduplicated form denoting the imperfective aspect kakaile, as singing a song is an action which by nature is durative. In spite of -e, this form is also used intransitively besides the regular form kakailai, which is derived from kakaile by the substitution of -ai for -e (compare varve, varvai). The Tolai equivalent to singsing in the meaning of *to dance* is the intransitive verb malagene, which has no transitive counterpart.

transitive verb	intransitive verb
kaile	
kakaile	kakaile, kakailai
	malagene

kaile is derived from kail (tr., intr.) *to call out in a falsetto voice, as a native does when wounded.*

    (4) Tolai equivalents to lukim, lukluk:

In this case the Tolai verbs na (tr.) and gire (tr.) may have served as a model for Tok Pisin:

```
        transitive verb                 intransitive verb

        gire            to see, to look at  gigira
        na              to see              nana
```

but:

```
        bobe            to look at, watch   bobo
```

(5) Tolai equivalents to tingim, tingting :

The Tolai equivalent to tingim, tingting is nuk which is used transitively as well as intransitively.

(6) Tolai equivalents to pusim, puspus :

The Tolai verbs for *to make love (to)* do not correspond to Tok Pisin pusim, puspus, as they do not show reduplication in their intransitive forms:

```
transitive verb                         intransitive verb

(varia ta       to make love with       varia           to make love
                ta = preposition)

putuk           to make love with       varputuk        to make love with
                                                         one another
```

(7) Tolai equivalents to lotuim, lotulotu :

Tok Pisin lotuim, lotulotu is derived from lotu *religious service, worship* which was introduced into Tok Pisin as well as into Tolai by Fijian missionaries. According to Mihalic (1971:124) lotu is also used as an intransitive verb, so that, if he is right, the pair lotium, lotulotu cannot be compared with the preceding items, because with these intransitivity is exclusively expressed by reduplicated forms.

In Tolai lotu is a noun as well as an intransitive verb:

```
        lotu (n)        religion, christianity, worship, service
        lotu (intr.)    to go to church, worship, pray
```

The notion *to worship s.o.* is expressed by lotu tadav. Tadav is a transitive verb meaning *to go to s.o.* Following another verb in a verbal chain, it denotes whom the action referred to by the preceding verb is directed to, for example:

```
                lotu tadav ra Kalou     to worship God
```

Conclusion

Since direct substratum influence is rather unlikely, one could only argue, that it was only the existence of the pattern of simple transitive and partly reduplicated intransitive verbs that caused the development of pairs like wasim, waswas. If this argument is accepted, one must assume that these reduplicated verbs developed through a process of morphological simplification, as they exhibit the same structure as verbs that are reduplicated to express plurality, duration and intensity (cf. p. 106).

4.3. Adjectives
4.3.1. Tok Pisin adjectives

There are four classes of Tok Pisin adjectives:

I. Monosyllabic adjectives that end in the suffix -pela both in attributive and predicative position, for example:

bikpela haus	*the, a big house*
haus i bikpela	*the house is big,*

and which precede their noun in attributive position.

II. Monosyllabic adjectives that only show the suffix -pela in attributive, but not in predicative position, for example:

hatpela wara	*hot water*
wara i hat	*the water is hot*

III. Polysyllabic and monosyllabic adjectives that never end in -pela and follow the noun in attributive position, for example:

ples tambu	*forbidden place*
ples i tambu	*the place is taboo*

IV. Polysyllabic adjectives that never end in -pela and precede their noun in attributive position, for example:

liklik haus	*a small house*
haus i liklik	*the house is small*

Since the Tok Pisin adjectives of the second class behave differently in attributive and predicative position, i.e. following the predicate marker, the question arises whether adjectives in predicative position are to be treated as adjectives or whether they have rather to be classified as intransitive verbals. The latter was done by Mühlhäusler (1979:365f. = MF Program 17). He treated 'the use of

adjective bases in predicative position as an instance of lexical derivation', because 'neither the morphological nor the semantic information of adjectives shifted to predicative position is fully predictable from their base information'.

I myself prefer to treat them as belonging to one and the same word class, as apparently Dutton (1973:98f.), Laycock (1970:xxv) and Wurm (1971b:53ff.) did. Why shouldn't one accept that items of the second class have two different forms determined by their position? There is, however, a small group of items whose interpretation seems to be problematic, as they have one form in attributive position, but two forms in predicative position, and it was obviously these adjectives which caused Mühlhäusler to interpret adjectives in predicative position as derived transitive verbs, for example:

in attributive position		in predicative position	
draipela	*dry, large, fat*	draipela	*to be large, fat*
		drai	*to be dry*
strongpela	*strong, stubborn*	strongpela	*to be strong*
		strong	*to be stubborn*
stretpela	*straight, honest*	stretpela	*to be straight*
		stret	*to be honest*

According to Mühlhäusler the predicative forms, e.g. strongpela and strong, are different intransitive verbs which are both derived from the adjective strongpela. Due to this interpretation neither their form nor their meaning is fully predictable. But if one regards strongpela *strong* and strongpela *stubborn* as two different homonymous adjectives, the semantic information of the adjectives shifted to predicative position is fully predictable, and thus there won't be any reason not to regard them as adjectives.

Wurm (1971b:56) establishes a fifth subclass of adjectives 'which can be used only predicatively, though their English equivalents may be attributive adjectives', for example:

bagarap	*ruined*
hangiri	*hungry*
kros	*angry*
lait	*shiny, bright, etc.*

The same classification is found in Mihalic (1971:18, 5.1.2.2.4.). But since these items do not differ in any respect from intransitive verbs, they should be classified as such. The fact that they behave

differently from their English counterparts can perhaps be ascribed
to substratum influence (see below).

As stated above, many Tok Pisin adjectives are marked by the
suffix -pela, which is also used with the demonstrative pronoun
dispela *this*, indefinite pronouns, e.g. sampela *some*, narapela
another, personal plural pronouns, e.g. mipela *we* (exclusive) and
cardinal numbers, e.g. wanpela *one*, tupela *two*. Though it evidently
goes back to English *fellow*, its origin remains obscure. Since it is
already found in ancient Bichelamar, Tolai substratum influence can
be excluded, for example:

Capsize that bigfellow pellate   *Empty that big plate*
and give master smallfellow pellate   *and give a small plate to the*
                                   master (Schuchardt 1883:7/155)

4.3.2. Tok Pisin adjectives in comparison with Tolai adjectives

The fact that Tok Pisin adjectives constitute different classes
according to their position before or after the noun is regarded as a
reflection of substratum influence by some authors. Wurm (1977:
515f.) writes:

> The appearance of adjectives of different classes
> preceding or following the nouns which they determine
> attributively is a typical feature of the Austronesian
> Tolai which shows this phenomenon uniquely amongst
> New Guinea Austronesian languages (Capell 1969). It may
> well have entered Pidgin from this source.

But the following investigation of Tolai adjectives in comparison
with Tok Pisin adjectives will show that this is not the case.

Tolai adjectives differ from their Tok Pisin counterparts in that
they are not morphologically marked by an affix. Like Tok Pisin
adjectives they can be separated into two classes according to their
position:

I.   Adjectives which precede the modified noun and which
     are connected with it by the connective particle
     (abbr. C), for example:

          a ngala na pal   *a big house*
          D *big*   C *house*

II. Adjectives which directly follow their nouns,
     for example:

          a pal pua   *a white house*
          D *house white*

All adjectives may be used in predicative position following the
subject marker, for example:

> a pal i ngala   *the house is big*
>
> a pal i pua   *the house is white*

In this position they do not differ from intransitive verbs. However,
that adjectives and intransitive verbs do not form a single word
class is shown by those items which can only function as predicates
but not as noun modifiers, e.g. mat *to die, be dead*. you cannot say

> *a mat na tutana *a dead man*
> D   C *man*

but only

> a minat na tutana *the corpse of a man*

where minat is a noun derived from mat by the infix -in-, or

> (nina)ra tutana i tar mat   lit. *the man who has died*
> DEM D man   he TA die

If Tolai had played any role as substratum language in the construction
of Tok Pisin adjectives, one would expect that the Tolai adjectives
of the second class and the Tok Pisin of the third class would
correspond with each other. But they do not. Even some Tolai loan-
words such as mau *ripe* differ from their models, for example:

Tolai, first class:	Tok Pisin, second class:
a mo na gamata (M 78 Rak)	banana mau
D *ripe* C *apple*	*banana ripe*
a ripe Malay apple	*a ripe banana*

a kaina magit, a kaina pakana	samting nogut, ples nogut
D *bad* (C) *thing*, D *bad* (C) *place*	*something bad, place bad*
something bad, a bad place	*something bad, a bad place*

a tabubur na paip	botol bruk
D *broken* C *pipe*	*bottle broken*
a broken pipe	*a broken bottle*

(Tolai mo *ripe* is a variant of mao. The connective particle na is
left out, when the adjective as in kaina *bad* ends in -na.)

Tolai, second class:	Tok Pisin, first class:
a mal pua *white clothes*	wetpela klos
D cl. *white*	*white clothes*
a mal meme *red clothes*	retpela klos

All adjectives denoting colour belong to the second class in Tolai,
but to the first class in Tok Pisin, as they are monosyllabic. They
take the suffix -pela both in attributive and predicative position
and precede the noun when used attributively. Thus in Tolai semantic
features determine the class membership of colour adjectives, whereas
in Tok Pisin it is phonological and morphological features.

Only adjectives indicating nationality, language and religious
affiliation and the adjectives

tabu (Tolai) / tambu (Tok Pisin)	*sacred, forbidden, taboo*
tuna (Tolai) / tru (Tok Pisin)	*genuine, real*
vakuku (Tolai) / nating (Tok Pisin)	*useless, worthless*

belong to the second class in Tolai and the corresponding third class
in Tok Pisin, for example:

Tolai, second class:	Tok Pisin, third class:
a tinata Baining	tok Inglis
the Baining language	*the English language*
a gunan tabu	ples tambu
sacred place	*sacred place*
a tutana tuna	papa tru bilong mi
real man (not a ghost)	*my real father*
a tutana vakuku	kanaka nating
common, useless man	*simple ordinary native*

Since these adjectives and the colour terms are the only adjectives
in Tolai that follow the noun, the post nominal position of Tok Pisin
adjectives other than tambu, tru, nating, Inglis, Siaman *German*,
Katolik *Catholic*, etc. cannot be explained as a reflection of Tolai
phrase structure.

Unfortunately, the data available from other Patpatar-Tolai
languages are rather poor, but it seems that they also have not
influenced the development of the third class of Tok Pisin adjectives.

In Pala nearly all adjectives, colour adjectives included, may
both precede or follow the noun. If they precede, they are connected
by a connective particle to the noun, for example:

a tahut na bulu, a bulu tahut	*a good boy*
a dardaran a mal, a mal dardaran	*a red dress*

The only adjectives which never precede the noun are kasa *single*,
tun *real, genuine* (Tolai: tuna), sik *little* and tabu *sacred, forbidden*

(Peekel 1909:85ff.). Thus tun and tabu correspond to Tok Pisin tru and tambu, as Tolai tuna and tabu do.

As already mentioned above, some Tok Pisin items which have been borrowed from English adjectives can only be used in predicative position and thus have to be classified as intransitive verbs. If nouns have to be modified by these items, the modification has to be expressed by a relative clause, for example:

> man i hangre/hangiri...   *the hungry man*, lit. *the man*
> *who is hungry*

Some of these intransitive verbs correspond to Tolai intransitive verbs:

> a tutana i mulmulum...   *the hungry man*, lit. *the man*
> *who is hungry*

Other Tok Pisin verbs of this kind which correspond to Tolai verbs are:

Tok Pisin	Tolai	
doti	dur	*dirty*
pulap	buka	*full*

In these instances the different class membership of the corresponding English and Tok Pisin items may be explained as a reflection of substratum influence. But in other cases Tolai shows adjectives like English, where Tok Pisin has intransitive verbs, for example:

krum, krungut (V_{intr})	gege (Adj)	*crooked*
hevi (V_{intr})	mamat (Adj)	*heavy*

There is no Tok Pisin adjective corresponding to English *dead*. The notion of being dead is expressed by the intransitive verb dai + the aspect marker pinis, so that English 'dead' in attributive position has to be rendered by a relative clause in Tok Pisin (dai is borrowed from English 'to die'), for example

> man i dai pinis...   *a dead man*, lit. *a man who has*
> *already died*

This exactly parallels with Tolai (cf. p. 57)):

> a tutana i tar mat...
> D *man*   *he* TA *die*

Conclusion

The four classes of Tok Pisin adjectives have evidently developed independently to a great extent, as there are only a few instances where Tok Pisin adjectives whose position differs from their English

counterparts show the same construction as the corresponding Tolai items. These Tok Pisin adjectives are:

1. proper adjectives, e.g. Inglis *English*, Katolik *Catholic*;
2. tambu, tru, nating.

The use of the suffix -pela does not go back to Tolai substratum influence.

In some cases the change of originally English adjectives to Tok Pisin intransitive verbs may possibly be ascribed to substratum influence.

4.4. Personal pronouns

The personal pronoun system of Tok Pisin is evidently patterned after those of the substratum languages. In opposition to English, it distinguishes between singular, dual, trial and plural, and between first person inclusive and exclusive. Samoan Plantation Pidgin, the direct predecessor of Tok Pisin, lacks the dual and the trial, while modern Bichelamar and Cape York Creole have a dual, the development of which has been caused by their specific substratum languages. Samoan Plantation Pidgin, Tok Pisin, modern Bichelamar and Cape York Creole do not show gender and case distinction as English does (e.g. he, she, it, him, her):

		SPP	mod. Bich.	CYC	Tok Pisin
Sg	1	mi	mi	ai, mi	mi
	2	yu	yu	yu	yu
	3	em	em	i, im	em
Du	1 in	-	yumituvala	yumi, yumtu	yumitupela
	1 ex	-	mituvala	mitu	mitupela
	2	-	yutuvala	yutu(pela)	yutupela
	3	-	tuvala	tupela	tupela
Tr	1 in	-	-	-	yumitripela
	1 ex	-	-	-	mitripela
	2	-	-	-	yutripela
	3	-	-	-	tripela
Pl	1 in	yumi	yumi	mipela, wi	yumi
	1 ex	miol	mivala	mitupela, wi	mipela
	2	yuol	yuvala	yu(pela)	yupela
	3	emol	ol	ol, dempela	ol

Now compare the personal pronouns in Tolai, Duke of York languages
(Molot and Mioko), Label and Pala:

		Tolai	Molot	Mioko	Label	Pala
Sg	1	iau	iau	iau	e, ia, iau	iau, e
	2	u	u	u	u, au	u, ugu, augu
	3	ia	i	i	i	i, ie, aie
Du	1 in	dor	dar	dar	da	dar
	1 ex	amir	mir	mir	mia	mir
	2	amur	mur	mur	mu	mur
	3	dir	diar	der	dia	dir
Tr	1 in	datal	datul	datul	datol	datal
	1 ex	amital	mitul	mitul	mitol	metal
	2	amutal	mutul	mutul	mutol	mutal
	3	dital	ditul	ditul	ditol	dal
Pl	1 in	dat	dat	dat	dala	dahat
	1 ex	avet	meat	met	mila	het (mem)
	2	avat	moat	mot	mulo	uat, muat
	3	diat	diet	det	la	diet

The dual, trial and plural pronouns show some relation to the
numerals denoting 'two', 'three' and 'four', though a clear-cut
segmentation as in Tok Pisin is not possible:

	Tolai	Molot	Mioko	Label	Pala
two:	ura	ruadi	rua	ur, iur	iruo
three:	utul	tuldi	tul	tol, itol	itul
four:	ivat	vatdi	vat	hat, ihat	ihat

4.5. Numerals
4.5.1. Cardinal numerals

The composed numerals above ten show the same structure in Tok
Pisin and Patpatar-Tolai languages, whereas the numerals in
Bichelamar are patterned after the English model. Compare:

	ten	eleven	twelve
Tok Pisin	ten/tenpela	wanpela ten wan	wanpela ten tu
Tolai	a vinun	a vinun ma tikai	a vinun ma urua
	D *ten*	D *ten* *and one*	D *ten* *and two*
Mioko	a noina	a noina ma ra	a noina ma rua
	D *ten*	D *ten* *and one*	D *ten* *and two*
Label	a bonotna	a bonotna hapisir takai	a bonotna hapisir na-ur
	D *ten*	D *ten* PART$_{num}$ *one*	D *ten* PART$_{num}$ *? – two*
Pala	a sangahul	a sangahul ma tika	a sangahul ma iruo
	D *ten*	D *ten* *and one*	D *ten* *and two*

	twenty	thirty	fifty
Tok Pisin	tupela ten	tripela ten	faipela ten
Tolai	a ura vinun	a utul a vinun	a ilima na vinun
	D *two ten*	D *three* C *ten*	D *five* C *ten*
Mioko	a rua noina		a lima na noina
	D *two ten*		D *five* C *ten*
Label	na ur a bonotna	na tol a bonotna	
	D *two ? ten*	D *three ? ten*	
Pala	a iruo sangahul	a itul a sangahul	
	D *two ten*	D *three* C *ten*	

```
                        twenty-one

Tok Pisin     tupela ten wan

Tolai         a ura vinun ma  tikai
              D two ten    and one

Mioko         a rua noina ma  ra
              D two ten    and one

Pala          a iruo sangahul ma  tika
              D two  ten        and one
```

In modern Bichelamar the corresponding numerals are:

ten *ten*, eleven/leven *eleven*, twelev *twelve*, twenti *twenty*, torti
thirty, fifti *fifty*, twenti wan *twenty-one* (the numeral torti is
formed in analogy to forti *forty*).

Conclusion

Though in Tok Pisin and the Patpatar-Tolai languages the system of
the cardinal numbers is structured according to the same principle,
one should be careful not to regard this as a convincing proof for
substratum influence. For this kind of decimal system is so simple
that one need not take substratum influence into account to explain
its development.

4.5.2. Distributive numerals

In Tok Pisin distribution is expressed by reduplication of the
cardinal numerals both at word and phrase level, for example:

```
wanwan / wanpela wanpela        one by one, each one

tutu / tupela tupela            two by two, in pairs

Ol i takis long faivfaiv dola   They paid $5 tax each
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(compare Mühlhäusler 1975b:207).

In Tolai distributional numerals are derived from cardinal numerals
by reduplication as well. However, it does not seem justifiable to
establish substratum influence here, because repetition at phrase
level or reduplication at word level is the simplest way to express
the notion of *one by one, two by two* etc. The Tolai distributional
numerals are:

tikatikai	*one by one*
evevut	*two by two* (evut *two, a pair*)
ututul	*three by three*
ivaivat	*four by four* ...

4.5.3. Ordinal numerals

In Tok Pisin ordinal numerals are formed by namba plus cardinal numerals, for example:

namba wan	*first*
namba tu	*second*

In Tolai they are derived from causative verbs meaning *to do s.th. x times* by the nominalisation suffix -ina, whereas the causative verbs are derived from the cardinal numerals by the causative prefix va-:

laptikai	*six*
valaptikai	*to do s.th. six times*
valaptikaina	*the sixth*

5. DERIVATION IN TOK PISIN AND TOLAI

The following contrastive analysis of derivation in Tok Pisin and Tolai will be based in Mühlhäusler (1979) *Growth and Structure of the Lexicon of New Guinea Pidgin*, where a full account of derivation in Tok Pisin is given. Mühlhäusler distinguishes between functional shift of lexical bases, compounding and reduplication. The various types of functional shifts are subdivided in denominalisations, deadjectivalisations and deverbalisations. According to his generative transformational view of derivation Mühlhäusler calls the various types of derivation 'programs', i.e. 'multifunctionality (abbr. MF) program', 'compounding (abbr. CP) program' and 'reduplication (abbr. RD) program'. Without discussing his theoretical point of view, we will follow Mühlhäusler along the line and investigate which programs show an independent development of Tok Pisin and which can be traced back to the substratum languages.

As in many instances a word in Tolai corresponds to a phrase in Tok Pisin and vice versa, it is not possible to keep word and phrase level apart; e.g. the equivalent of *to roast* is a phrase in Tok Pisin, kukim long paia, lit. *to cook on fire*, but a single word in Tolai, tun, while the equivalent of *open sea, ocean* is a single word in Tok Pisin, biksolwara (borrowed from English *big saltwater*), but three

words in Tolai, ngala na ta, lit. *big sea*. The reason for these
discrepancies is that on the one hand Tok Pisin often has to make use
of a circumlocation in order to express an idea which can be rendered
by a single word in Tolai and that, on the other hand, compounding
is a productive type of derivation in Tok Pisin, whereas in Tolai it
is not. Other discrepancies result from the fact that Patpatar-Tolai
languages have more bound morphemes than Tok Pisin.

5.1. Multifunctionality
5.1.1. Introduction

Multifunctionality, i.e. multiple class membership, is a typical
feature of Tok Pisin. Thus **strong** can function as:

1. noun: *strength*, e.g. em i gat strong *he has got strength*;

2. attributive adjective (+ -pela) : strongpela *strong*,
    e.g. strongpela man *a strong man*;

3. adverb: *strongly*, e.g. em i wokabaut strong *he walks strongly*;

4. intransitive verb: *to be strong*, e.g. ol i ken i strong
    they will be strong;

5. transitive verb (+ -im) : *strengthen*, e.g. mi strongim em
    I strengthen him (Wurm 1971b:8).

Multifunctionality is a pidgin universal (for further examples see
Mühlhäusler 1974:103ff.), but it is also found in many other
languages.

> It is a very widespread phenomenon and is dependent on
> a number of conditions... The most important condition
> is the loss of morphological categories... A second
> condition is that surface sequence is used to indicate
> grammatical function... A third condition is the absence
> of obligatory semantic information carried by certain
> parts of speech (e.g. tense and aspect in the English
> verb). (Mühlhäusler 1974:105f.)

These three conditions are also met by Tolai to a very high degree.
Thus dekdek, for instance, is used in nearly the same way as its
Tok Pisin counterpart **strong**:

1. a dekdek i ra Kalou   *the power of God*
    D *strong of* D *God*

2. a dekdek na tutana   *a strong man*
    D *strong* C *man*

3. al dekdek   *to pull hard*

4.	pa i dekdek	*it is not hard, difficult*
	not it strong	
5.	vadekdek	*to strengthen, intensify,*
		make difficult

As already discussed above (p. 54f.), I prefer not to classify
adjectives in predicative position as intransitive verbs, but to
regard them as adjectives as well.

Since multifunctionality is typical for all pidgins, we must be
careful not to assume substratum influence wherever correspondences
are found between Tolai and Tok Pisin. They may be due to mere
accidence. But the divergencies found between these two languages
will be very important, as they show in which case Tok Pisin developed
independently from the substratum language. Therefore special
attention will be drawn to the behaviour of Tolai loanwords in
Tok Pisin.

According to Mühlhäusler (1979) the following multifunctionality
programs are found in Tok Pisin:

No.	basic item	derived item	meaning	example	
1	N+ /N = tool	V_{tr}	to use N	brosim	*to brush*
2	N/N = professional status	V_{intr}	to perform the work of	jas	*to be a judge*
3	N+im/N=professional status	V_{tr}	to perform the work of N on s.o.	jasim	*to judge*
4	N+im/N = container	V_{tr}	to put into N	bekim	*to put in bags*
5	N+im	V_{tr}	to take away N	selim	*to remove the skin of a coffee bean*
6	N+im/N = message	V_{tr}	to send N to	brotkastim	*to send a broadcast to*
7	N+im	V_{tr}	to make into N	hipim	*to pile up into a heap*
8	N/N = time	V_{intr}	to do what is usually done at	brekpas	*to have breakfast*
9	N/N = place	V_{intr}	to do what is usually done at	market	*to hold market*
10	N/N = property	V_{intr}	to have N	gris	*to be fat*
11	N+im	V_{tr}	to put N on	nemim	*to give a name*
12	N	V_{intr}	to be like N	suga	*to be like sugar - gentle*
13	N	V_{intr}	to act like N	snek	*to wind*
14	Adj	N_{abstr}	manner of being N	strong	*strength*

No.	basic item	derived item	meaning	example	
15	Adj	N_{concr}	s.o./s.th. that is Adj	yelo	*yolk of an egg*
16	Adj + im	V_{tr}	to cause to be Adj	bikim	*to make s.th. big*
17	Adj	V_{intr}	to be Adj	bikpela	*to be big*
18	Adj	Adv_{manner}		kranki	*wrongly*
19	V_{intr}	N_{abstr}		amamas	*gladness*
20	V_{intr}	N_{concr}	result of V_{intr}	pispis	*urine*
21	V_{intr} + im	V_{tr}	to make s.th./s.o. do V_{intr}	pundaunim	*to make s.th./s.o. fall down*
22	V_{intr} + im	V_{tr}		lapim	to laugh at
23	V_{tr}	N_{abstr}		helpim	*help*

5.1.2. Tok Pisin multifunctionality programs in comparison with Tolai

5.1.2.1. MF program 1

In Tok Pisin nouns referring to instruments can be transformed into transitive verbs by adding the transitive marker -im, in order to express the action the instrument is used for. As the following Tok Pisin items and their English counterparts show, this type of derivation is also found in English, for example:

ain	*iron*	ainim	*to iron*
hama	*hammer*	hamarim	*to hammer*

But due to its tendency towards regularity, in Tok Pisin this type of derivation is more productive than in English, for example:

glas	*thermometer*	glasim	*to take one's temperature*
skel	*scales*	skelim	*to weigh*
huk	*hook*	hukim	*to catch with a hook*

Mühlhäusler (1979:262) already stated that Tolai shows similar pairs of nouns referring to instruments and verbs. But as he obviously had not got reliable data, his statement that

> in both English and Tolai verbals can be derived from noun bases referring to instruments,

needs some correction.

In Tolai the process of derivation is usually the other way round. Nouns referring to instruments are derived from verbs by reduplication:

ak	(tr)	*to hammer*	akak	*hammer*
banu	(tr)	*to close*	banbanu	*door*

This type of derivation is also applied to two items quoted by Mühlhäusler, which he did not interpret correctly because of misprints.

1. barbar *drill* is derived from bar (tr) *to drill* by reduplication. The intransitive verb is babar (and not barbar). It is derived from bar (tr) by a different type of reduplication, namely the so-called partial reduplication.

$$\text{bar } (V_{tr}) \quad \text{barbar } (N_{instr})$$

$$\text{bar } (V_{tr}) \quad \text{babar } (V_{intr})$$

2. In the case of **apapur** (not **apupur**) (a) *sprayer*, (b) *to sprinkle water* (intr), both the noun and the intransitive verb are derived from the transitive verb **apur** *to sprinkle water on s.th.* They do not differ phonologically, since in this instance both types of reduplication result in the same phonological form:

$$\text{apur } (V_{tr}) \quad \text{apapur } (N_{instr})$$
$$\text{apur } (V_{tr}) \quad \text{apapur } (V_{intr})$$

Thus one cannot say that **apapur** (intr) is derived from **apapur** (N_{instr}). While the derivation of transitive verbs from nomina instrumenti is very productive in Tok Pisin, there is only a limited class of lexical items in Tolai which function as nomina instrumenti or verbs according to their position within the sentence, for example:

kip (tr)	*to carry s.th. on a pole between two persons*	kip (N)	*a pole on which anything is carried by two persons*
kono (tr)	*to knock fruit off the branches with a stick*	kono (N)	*a barbed pole used for pulling off fruit*

This class also includes **bulit** and **bair**, which have been borrowed by Tok Pisin. But both items differ from their Tok Pisin counterparts in respect to transitivity and intransitivity:

Tolai:

bulit (tr,intr)	*to glue*	bulit (N)	*glue*
bair (intr)	*to dig with a stick*	bair (N)	*digging stick, hoe*

Tok Pisin:

bulitim (tr)	*to glue*	bulit (N)	*glue*
bairaim (tr)	*to hoe s.th.*	baira (N)	*hoe*

Apart from a very few items which will be discussed below, these verbs and nomina instrumenti show the same form. In contrast to Tok Pisin they are not derived by additional suffixes and it cannot be said that the verb is derived from the noun or vice versa. The only items which structurally correspond to the Tok Pisin derivations, insofar as they are derived by adding a transitive suffix, for example:

baname	(tr)	*to cut up*	banam (N)	*knife*
lane	(tr)	*to boil or cook*	la (N)	*pot*
kabalane	(tr)	*to cook*	kabala (N)	*pot (originally half of a green coconut shell)*

do not have equivalents in Tok Pisin, because according to Mühlhäusler (1979:355), nouns denoting instruments for cutting are generally excluded from the process of derivation, and Tok Pisin sospen *pot, kettle, saucepan*, because polysyllabic lexical bases and nominal compounds cannot be transformed into transitive verbs.

There are only two verbs in Tok Pisin which can also be used intransitively 'without explicit mention of the object' (Mühlhäusler):

1. bombom (N)   *torch*
   bombomim (tr)   *to catch fish with a torch*
   bombom   (intr) *to attract fish with a torch*

2. huk   (N)   *hook*
   hukim (tr)   *to catch with a hook*
   huk   (intr)   *to catch fish with a hook*

bombom is originally a Southern New Ireland word meaning *torch or flare made of dry coconut leaves*. Whether there is a corresponding intransitive and transitive verb as in Tok Pisin, is not known. The Tolai equivalent to Tok Pisin bombom (N) is ul *torch made of dry coconut leaves*, which corresponds to a transitive verb ul *to scorch, burn (with the* ul*)* and thus is different from Tok Pisin bombom. The use of huk, however, may reflect substratum influence, since its Tolai equivalent is used as noun and intransitive and transitive verb:

il (N)   *a fish hook*
il (tr.,intr) *to fish with a hook*

5.1.2.2. MF programs 2 and 3

In MF program 2 and 3 (Mühlhäusler 1979:356f.) nouns referring to persons of a certain professional or other status serve as base from which in MF program 2 intransitive and in MF program 3 transitive verbs are derived, for example:

noun		derived intr verb		derived tr. verb	
bos	*boss*	bos	*to be in charge*	bosim	*to rule over*
jas	*judge*	jas	*to be judge*	jasim	*to judge*
kundar	*acolyte*	kundar	*to be an a.*		
tultul	*messenger*	tultul	*to be a m.*		

These types of derivation are not found in Tolai. In Tolai it is the nouns denoting a person of a certain professional or other status that are derived from the corresponding verbs. In most cases the

verbal noun of the verbs in question combines with tena *s.o. being proficient in s.th.* on phrase level, for example:

noun			verb		
tena varkurai	*judge*		kure (tr)	*to judge*	
tena vartovo	*teacher*		tovo (tr)	*to teach*	

tena is very productive and used both with English loanwords as well as in recently invented circumlocations in order to meet the necessities of the modern world, for example:

tena lukaut	*overseer (in a plantation)*
tena tutumu	*s.o. who is proficient in writing, i.e. a secretary*

The above cited Tok Pisin items kundar and tultul are loans from Tolai. kundar is borrowed from Tolai kudar (intr) *to help, assist*, whose corresponding nomen agentis is tena kunudar or tena kudar. Tultul *messenger* is a noun which is derived from the transitive verb tul *to send*. There are only a very few nouns of this kind in Tolai which are derived by reduplication like tultul, for example:

lualua	*chief, leader, boss*	lua (intr)	*to be first*
raprap	*leader*	rap (tr)	*to lead*

5.1.2.3. MF program 4

Nouns denoting containers can become transitive verbs meaning *to put s.th. into the container referred to by the noun*, for example:

bek	*bag*	bekim	*to put into bags*
kalabus	*prison*	kalabusim	*to jail*
umben	*net*	umbenim	*to put into a net*

There is no such productive process of derivation in Tolai. Most of the ideas expressed by the derived transitive verbs in Tok Pisin are rendered by independent verbs or verbal phrases in Tolai, for example:

Tok Pisin		Tolai
graun	*ground, soil*	pia
graunim	*to bury*	punang
bus	*bush*	pui
busim	*to send to the bush, chase off*	korot vaba vue ura ra pui *chase/put-into-the-bush/put-away/ to/D/bush*

In other instances the Tolai noun is derived from the verb by reduplication:

Tok Pisin		Tolai	
banis	*fence, bandage*	bait (tr)	*to weave round, make a fence round*
banisim	*to fence in*	babait	*fence, hedge*

The only item that is similar to these derived Tok Pisin verbs is vabalada *to protect by a barricade* which is derived by the causative prefix va- from balada *barricade*.

The Tolai words for *prison* and *to jail*, e.g. karabut and vakarabut, have to be interpreted differently, though they are borrowed from Tok Pisin. In Tolai karabut is a noun meaning *prison* as well as an intransitive verb meaning *to be imprisoned*. The transitive verb vakarabut is derived from this intransitive verb and literally means *to make s.o. be imprisoned*.

Though umben is a Tolai loanword, there is no equivalent to umbenim in Tolai.

5.1.2.4. MF program 5

The derivation of deprivative verbs from noun bases such as Tok Pisin selim in selim kopi *to remove the skin of a coffee bean* is not found in Tolai. The notion of *to remove s.th.* is expressed by non-derived transitive verbs, e.g. tak vue *take away*, kulit *to peel off, bark, skin*.

5.1.2.5. MF program 6

This program applies to 'noun bases referring to messages, material or specimens instrumental in conveying messages, or to spells' (Mühlhäusler 1979:357), which can become transitive verbs, for example:

brotkas	*broadcast*	brotkastim	*to send a broadcast to*
marila	*love spell*	marilaim	*to cast a love spell on*
papait	*sorcery*	papaitim	*to subject s.o. to sorcery*
tanget	*invitation*	tangetim	*to invite*

Whether the development of this program was influenced by Tolai or not is doubtful. There are no correspondences to items referring to messages, but the derivation of verbs concerning spells shows some similarity to that in Tolai. Marila is borrowed from Tolai malira and Tok Pisin papait from Tolai papait, which is a verbal noun derived

by reduplication from pait (tr) *to do; to cast a spell on*. But
besides pait (tr), there is a transitive verb derived by va-,
vapapait, which is derived from papait *incantation to cure in sickness*.
For if it were derived from the intransitive verb papait *to use
incantations* it would mean *to cause s.o. to use incantations*.

malira (N)	*love-spell*	vamalira	*to cast a love-spell on*
papait (N)	*incantation*	pait (tr)	*to cast a spell on*
		vapapait (tr)	

Tok Pisin tanget *invitation* is borrowed from Tolai tagete *sp. plant
(Cordyline terminalia)*. The leaves of this plant are sent together
with tabu (shellmoney) to a chief with the request to levy a fine,
or to the parents of a woman with a request to be allowed to purchase.
In contrast to Tok Pisin there is no verb derived from tagete. *To
invite* and *invitation* is rendered by ting (tr) and its verbal noun
varting.

5.1.2.6. MF program 7

The transitive verbs derived from nouns in this program mean
'to make into what is referred to by the noun' (Mühlhäusler 1979:357).
Among the examples presented by Mühlhäusler the most characteristic
ones are:

hap	*piece, part*	hapim	*to reduce to parts*
hip	*heap*	hipim	*to pile up into a heap*
meme	*pulp, inedible part of the betel nut*	memeim	*to pulverise, chew up*

This program evidently developed independently from substratum
influence. The Tolai equivalents to hap *piece, part*; kut, kutuna
small piece, lump; ngu, ngungu *portion, part, small piece, end* and
pakana *part, piece* cannot be transformed into verbs, whereas the
equivalents to hip are derived from the corresponding verb vung:

vung (tr)	*to put, place*	vungaina	*heap*
		vuvung	*heap*
		vuvunguna	*heap*

Tok Pisin meme is a loanword from Tolai, but in Tolai meme *chewed
pulp of betelnut* is derived by reduplication from the transitive
verb me *to chew*.

5.1.2.7. MF program 8

'Noun bases referring to a point or period of time can become
intransitive verbs expressing "to do what is normally done at such
a time"' (Mühlhäusler (1979:357), for example:

potnait	*fortnight*	potnait	*to pool wages*
sande	*Sunday*	sande	*to pool wages on Sunday* *or spend Sunday*
limlimbur	*time of rest*	limlimbur	*to stroll*

This type of multifunctionality is not found in Tolai. Limlimbur was
borrowed from Tolai limlibur *to be amusing oneself, be strolling*,
the reduplicated form of libur *to amuse o.s., to stroll*, which
indicates that the action referred to by the verbal base is durative.
The noun nilibur *amusement, recreation* is derived from the verbal
base libur by the nominalisation affix ni-.

5.1.2.8. MF program 9

'The program is similar to Program 8, the main difference being
that locality instead of time is the focus of the action in the
derived intransitive verbals' (Mühlhäusler 1976:465), for example:

opis	*office*	opis	*to work in an office*
bung	*gathering place*	bung	*to come together*
kivung	*gathering*	kivung	*to gather*
market	*market*	market	*to hold a market*

Mühlhäusler thinks that this program is found in Tolai as well
(1979:260) and compares the following items:

Tolai	Tok Pisin	English
bung (N)	bung	*market, gathering place*
bung (intr)	bung	*to gather, meet*
lotu (N)	lotu	*church*
lotu (intr)	lotu	*to go to church, be in church*
misa (N), (intr)	misa	*mass; to go to mass, be at mass*
po (N)	haus	*a nest*
po (intr)	haus	*to nest*

However, the following discussion of bung, kivung, lotu and po will
show that Mühlhäusler is wrong.

In Tolai bung means (1) *day, either a natural day of twelve hours*
or an astronomical day of twentyfour hours; a fixed day like a meeting
day or a market day; (2) *to come together, to hold market. Market*

place is rendered by tavul a bung lit. *place for market, coming together.* bung itself does not refer to the place, but to the time and the event, so that it would better fit into MF program 8, if one regards the verb as being derived from the noun. But since it is the only Tolai item which bears some similarity to the Tok Pisin items of MF program 8, it cannot serve as a proof for substratum influence in the development of that program.

Tolai kivung is an intransitive verb meaning *to sit together,* whose verbal noun shows the same form, i.e. kivung *sitting together, meeting.* Like bung it never refers to a place.

The same holds true for the Fijian loan-word lotu. It does not refer to the church as a building, but only to the church as an institution. As a noun lotu means *religion, christianity, worship, service, prayer* and as an intransitive verb *to worship, pray, go to church. Church (building)* is rendered by pal na lotu *house for service* in Tolai. Tolai po (intr) *to nest* and po (N) *nest* looks rather similar to the Tok Pisin items of this program, but as the precise meaning of po (intr) is *to build a nest*, this Tolai item could not have served as a model for the Tok Pisin items, for example:

> I ga po ma ra pakar, a gi, a ivu na malip
> *he/TA/nest/with/D/pakar/D/gi/, /D/feather/C/malip/*
> *He had built the nest with* pakar-*feathers*, gi-*feathers and the feathers of the* malip-*bird* (Kl.272 P.).

5.1.2.9. MF program 10

'Noun bases referring to a number of alienable and inalienable properties can become intransitive verbals expressing *to have a certain property* ' (Mühlhäusler 1979:359). This type of derivation is also found in Tolai:

Tok Pisin:

gris	*fat*	gris	*to be fat*
kambang	*mould*	kambang	*to be mouldy*
mosong	*fluff*	mosong	*to be fluffy*

Tolai:

bira	*fat*	bira	*to be fat, have fat*
kabang	*lime*	kabang	*to be white like lime*
limut	*moss*	limut	*to be mossy, mos-green*
tobon	*dust*	tobon	*to be dusty*

(Tok Pisin kambang is borrowed from Patpatar-Tolai kabang and means *lime* as well.)

5.1.2.10 MF program 11

Ornative verbals can be derived from nouns:

bilas	*adornment*	bilasim	*to adorn, decorate*
nem	*name*	nemin	*to give a name*

As far as I know, there is only one Tolai item that is similar to the Tok Pisin items of this program:

iang	*name*	vaiang	*to give a name*

Other items which look similar are derived from intransitive verbs:

mong (N)	*decoration*		
mong (intr)	*to be decorated*	vamong	*to decorate (make s.o. being decorated)*
mal (N)	*dress, clothes*		
mal (intr)	*to put on clothes, to wear clothes*	vamal	*to clothe s.o.*

5.1.2.11 MF programs 12 and 13

Both programs deal with the derivation of verbals involving various kinds of metaphorical shifts which cannot be found in Tolai.

5.1.2.12 MF program 14

In this program abstract nominals are derived from adjectives, for example:

strongpela	*strong*	strong	*strength*
longpela	*long*	long	*length*

Tolai has the same type of derivation:

dekdek	*strong*	dekdek	*strength*
lolovina	*long*	lolovina	*length*

Other abstract nouns are derived by the nominalisation affix /ni-, -in-, -un-/, for example:

mamat	*heavy*	minamat	*weight*

5.1.2.13 MF program 15

The deadjectivised nominals in this program denote a thing or a person having the property referred to by the adjective. Though comparable constructions are found in Tolai, substratum influence cannot be proven, because they are too common to prove anything.

In some instances the Tok Pisin item only corresponds to a Tolai expression in form but not in meaning, for example:

Tok Pisin		Tolai	
liklik bilong mi	*my younger sibling*	natugu *little-my*	*my child*
bikpela bilong mi	*my older sibling*	ngalagu *big-my*	*my father*
tambu bilong mi	*a blood relative* *of mine*	tabugu *taboo-my*	*s.th. that* *is taboo* *for me*
yelo bilong kiau	*the yolk of an egg*	lapua na kiau *yellow* C *egg*	*the yolk of* *an egg*

Note that Tolai has another very productive means of deriving nouns from adjectives; the suffix -ina/-una/-na transforms adjectives into nouns denoting a person or a thing that has the property referred to by the adjective, e.g. bilak *bad*, bilakina *a bad person*.

5.1.2.14 MF program 16

While in Tok Pisin only a restricted number of adjective bases can become causative verbs, in Tolai the derivation of such verbs is very productive, for example:

Tok Pisin		Tolai	
bikpela	*big*	ngala	*big*
bikim	*to make s.th. big*	vangala	*to make s.th. big,* *to enlarge, to rear*
draipela	*dry*	deng, ge	*dry*
draim	*to dry*	vadeng, vage	*to dry*

There are Tolai equivalents not only for all Tok Pisin examples presented by Mühlhäusler (1979:364), but also for those which according to Mühlhäusler were rejected by his informants, though they seemed to be possible:

Tok Pisin		Tolai	
*nuim	*to make new*	vakalamane	*to make new*
nupela	*new*	kalamana	*new*

No equivalent is found for Mühlhäusler's hypothetic form *lapunim *to make old*, because the corresponding Tolai word patuana *aged, mature, old* does not denote a property that may be caused by someone, i.e. a person may become patuana, but nobody or nothing can make somebody else a patuana. In my opinion the same holds true for the Tok Pisin lapun, so that it is not justifiable to consider *lapunim as a possible but non-existent form.

The correspondences between deadjectivised causatives in Tolai and Tok Pisin suggest that the development of Tok Pisin causatives was caused by substratum influence. But if this was the case, it is unclear why this type of derivation is not productive in Tok Pisin as in Tolai.

5.1.2.15 MF program 17

Both in Tolai and Tok Pisin all adjectives may be used in predicative position:

Tok Pisin		Tolai	
bikpela haus	*big house*	a ngala na pal D *big* C *house*	*big house*
haus i bikpela	*the house is big*	a pal i ngala	*the house is big*

Though Tolai exhibits the same structure as Tok Pisin, the use of adjectives in predicative position in Tok Pisin cannot be ascribed to substratum influence, since it is already found in ancient Bichelamar and has obviously resulted from the loss of the copula, for example:

Master belong me he no good   *My master is not good*
(Schuchardt 1889:159)

A full discussion of adjectives is given in 4.3.

5.1.2.16 MF program 18

This program deals with the derivation of manner adverbials from adjective bases. Here again Tolai behaves differently. There are only a very few adjectives in Tolai which are used like adverbs to modify a verb, because verbs are usually modified by verb serialisation or by non-derived adverbs. In contrast to Pidgin the modifiers cannot be separated from the modified verb. In other cases the predicate is formed by the adjective + connective particle + verbal noun. Compare:

Tok Pisin	Tolai
ol i paitim em nogut	dia ga tata kakaina ka *they* TA *speak very-bad* PART
they hit him badly	*they spoke in a wrong way* (M 216 Rak)
em i winim susap kranki	pa iau valongore mal ia *not I hear do-well it*
he played the jew's harp wrongly	*I did not understand it well* (M 28 Rak)

Tok Pisin	Tolai
ol plaua i luk moa naispela tru	dia ko na tinata
	they good C *speaking*
the flowers look very nice	*they speak well, use good*
	language (Kl 40 Viv)

5.1.2.17 MF program 19

In Tok Pisin intransitive verbs can be transformed into abstract nominals without undergoing morphological changes, whereas in Tolai some verbs behave like their Tok Pisin equivalents while others must take the nominalisation affix /ni-, -in-, -un-/:

Tok Pisin		Tolai	
amamas	*to be happy*	gugu	*to be happy*
amamas	*gladness, joy*	gugu	*gladness*
sori	*to be sorry*	ligur	*to be sorry*
sori	*sorrow*	niligur	*sorrow*
save	*to know*	matoto	*to understand*
save	*knowledge*	minatoto	*knowledge*

5.1.2.18 MF program 20

The nominals derived from intransitive verbals in this program 'describe the action itself rather than the manner in which it is carried out' (Mühlhäusler 1979:367). All the examples presented by Mühlhäusler belong to the semantic class of intransitive verbs denoting bodily actions. Though in Tolai it is just the semantic class of intransitive verbs denoting bodily actions that among a few others does not undergo any changes in the derivation of verbal nouns, this should not be over-estimated, as there are only a very few types of derivation in both languages, so that any could occur merely by chance. Compare:

Tok Pisin		Tolai	
swet	*to sweat*	mangamangon	*to sweat*
	sweat		*sweat*
puinga	*to fart*	puiga	*to fart*
	fart		*fart*
pispis	*to urinate*	mim	*to urinate*
	urine		*urine*

But:

tok(tok)	*to talk*	tata	*to talk*
	talk	tinata	*talk*

5.1.2.19 MF program 21

This program deals with the derivation of causatives from intransitive verbs, which has already been discussed in 4.2.3. In Tok Pisin causative verbs are derived by the affixation of the transitive marker -im, and in Tolai by the causative prefix va- (in Pala and Label the causative prefix is ha-; in the Duke of York languages it is va- as in Tolai), for example:

Tok Pisin		Tolai	
pundaun	*to fall*	bura	*to fall*
pundaunim	*to make s.o./s.th. fall down*	vabura	*to make s.o./s.th. fall down*

(More examples have been given on p. 48.)

It seems, however, to be more justifiable not to trace back any correspondences between Tok Pisin and Tolai to direct substratum influence for each lexical item, but to ascribe them to the fact that, in both cases, we are concerned with the derivation of causative verbals from intransitive verbs, which must naturally lead to at least similar results. It is only the fact that Tok Pisin has developed a very productive derivation of causatives (which is not found in English) which was probably influenced by the existence of causatives in the substratum languages.

There are examples of Tok Pisin derived causatives, the meanings of which differ from the corresponding Tolai items, although the meanings of the Tolai and the Tok Pisin intransitive verbal bases are the same:

Tok Pisin		Tolai	
sindaun	*to sit;* *to live, stay*	ki	*to sit;* *to live, exist*
sindaunim	*to civilise, make s.o. behave*	vaki	*to cause to sit, place;* *to create*

5.1.2.20 MF program 22

'This program refers to those instances where certain intransitive verb bases become transitive verbals which are followed by nominal objects' (Mühlhäusler 1979:372).

Since the two classes of intransitive and transitive verbs do not coincide in Tolai and Tok Pisin (cf. p. 47f.), there are only a few items among those presented by Mühlhäusler which have analogs in Tolai. And these are only incidental, because of the aforementioned differences between Tolai and Tok Pisin, for example:

		Tok Pisin		Tolai		
		lap (intr)	*to laugh*	nongon (intr)	*to laugh*	
		lapim (tr)	*to laugh at*	nongone (tr)	*to laugh at*	

But:

	Tok Pisin		Tolai	
	pait (intr)	*to fight*	ubu (tr)	*to beat, kill*
	paitim (tr)	*to beat, hit*	varubu (intr)	*to fight, beat each other*
	wok (intr)	*to work*	palum (tr)	*to touch, handle*
	wokim (tr)	*to make*	papalum (intr)	*to work*

In other instances the derived transitive verbals in Tolai and Tok Pisin have a different meaning though the intransitive verbal base has the same, a fact which leads to the conclusion that the derivation of the Tok Pisin transitive verbals has nothing to do with that of the Tolai ones, for example:

Tok Pisin		Tolai	
kros	*to be angry*	kankan	*to be angry*
krosim	*to scold*	kankanuane	*to be angry because of, to be angry with*

5.1.2.21 MF program 23

In this program transitive verbs are transformed into nouns denoting the fashion or activity referred to by the verb. Whereas Tok Pisin transitive verbs do not undergo any morphological changes, when transformed into nouns, Tolai verbal nouns are derived by the nominalisation affix /ni-, -in-, -un-/ or by reduplication in most instances, for example:

	Tok Pisin		Tolai	
	askim	*to ask*	tir (tr)	*to ask*
	askim	*question*	tinir	*question*

Tolai verbal nouns are never derived from derived transitive verbs, but from the intransitive counterparts of derived transitive verbs. If the intransitive counterpart of a derived transitive verb is derived by var- (as, for instance, the intransitive counterparts of causatives) the verbal noun shows the same form:

Tok Pisin		Tolai		
blesim	*to bless*	vadoan(e)		*to make fortunate,*
		doan		*to be fortunate*
blesim	*blessing*	varvadoan	(intr)	*to bless*
			(N)	*blessing*

5.1.2.22 Conclusion

Though multifunctionality is found both in Tok Pisin and Tolai, these two languages show correspondences only in seven MF programs (MF program 10, 11, 16, 17, 19, 20, 21), which, however, does not mean that the development of these Tok Pisin programs was influenced by Tolai in all cases. The main difference between Tok Pisin and Tolai is that in Tok Pisin mostly verbs are derived from nouns (13 programs), whereas in Tolai only in two cases (MF program 10 and 11) nouns serve as the bases for the derivation of verbs. The reason for this difference is that until recently Tok Pisin was only learnt as a second language, and that it is mainly the nouns which a second languages speaker learns first.

5.2. Compounds and Lexical Phrases
5.2.1. Introduction

Compounding and the formation of lexical phrases developed in Tok Pisin as a very productive type of derivation, because it is the easiest way to enlarge the lexicon without introducing new elements. Though compounds and lexical phrases are of different size level, they will be dealt with together in those cases, where they express the same semantic content, e.g. muliwara and wara muli *lemonade.*

5.2.2 Nominal compounds and lexical phrases

Mühlhäusler (1979:377ff.) has established fourteen types of nominal compounds (in his terminology 'CP programs'):

No.	Compound		Lexical Phrase	Meaning
1	N+N	manmeri	-	*people*
2	Adj+N	biknait		*midnight*
			bikpela san	*heat*
3	Adj+N	bikhet		*stubborn person*
			draipela bun	*adult, strong person*
4	V_{intr}+N	paitman	man bilong pait	*fighter*
5	N+N	bosboi		*bossboy*
6	V_{tr}+N	opbotol	-	*bottle opener*
7	N+N	pepamani		*paper money*
			paus pepa	*paper bag*
8	N+N	sopis		*sawfish*
			pik susu	*pig with breasts*
9	N+N	pikgris		*pork fat, lard*
			bun bilong pis	*fish bone*

No.	Compound		Lexical Phrase	Meaning
10	N+N	renkot	kot ren	*rain coat*
11	V+N	washaus		*outbuilding for washing*
			haus kuk	*kitchen*
12	N+N	melbek	bek mel	*mail bag*
13	N+N	busman		*man living in the bush*
			paul bilong bus	*bush-hen*
14	N+N	buswin		*offshore wind*
			sit paia	*ashes*

5.2.2.1 CP program 1

CP program 1 (Mühlhäusler 1979:377f.) deals with 'cumulative'
compounds, i.e. compounds whose meanings are the sum of the meanings
of their components, e.g. papamama *parents*, manmeri *people*. Some
compounds of this type consist of components borrowed from Tolai, but
the compounds themselves are not found in Tolai, e.g. buaidaka *all
that is necessary for betelnutchewing*, lit. *betelnut-pepper*,
kambangdaka *side-dishes for betelnut*, lit. *lime-pepper*, luluaitultul
the people appointed by the government to look after village affairs,
lit. *the first and the second in charge of village*. Since this type
of compounding is not found in English either, it seems to have been
developed independently in Tok Pisin.

5.2.2.2 CP programs 2 and 3

Both programs have in common that the resulting compounds consist
of adjective + noun, and that the order of the components is the same
at word and phrase level.

In CP program 2 the compound refers to a specific kind of what is
expressed by the noun. At word level the adjectives drop the suffix
-pela:

1. Word level items

Tok Pisin	meaning of the components	meaning of the compound
bikbus	*big + bush*	*the deep jungle*
gutnius	*good + news*	*gospel*

2. Phrase level items

| liklik rat | *little + rat* | *mouse* |
| bikpela hama | *big + hammer* | *sledge hammer* |

Adjectives which follow their noun do not occur in compounds, but only in lexical phrases:

> **buk tabu** *book + sacred* *bible*

The meaning of the compound is 'almost always different from that of the two component elements, being transferred or extended meaning' (Hall 1943:22).

In contrast to Tok Pisin, Tolai has only lexical phrases, e.g. **tinata tuna** *Tolai language*, lit. *real, genuine language*, and thus could not have served as a model for the Tok Pisin compounds.

The compounds accounted for by CP program 3 are so-called *bahuvrihi* compounds, i.e. exocentric compounds which consist of an adjective and a noun, and refer to objects or persons having what is described by this adjective + noun, e.g. **blakskin** *native*, lit. *s.o. having a black skin*. This program is found in English as well, e.g. *redskin, blackshirt*, but in Tok Pisin it is much more productive, which has to be ascribed to independent development. For the only *bahuvrihi* compounds found in Tolai are formed by **tabi** *large, thick*. **Tabi**, which corresponds to **bik** in Tok Pisin compounds, is a bound form and occurs only as a component in compounds, for example:

Tok Pisin	Tolai	meaning
bikhet	tabiula	*stubborn person (big+head)*
bikmaus	tabingie	*impudent person (big+mouth)*
bikbel	tabibala	*fat person (big+belly)*

5.2.2.3 CP program 6

The compounds of CP program 6 (Mühlhäusler 1979:388) consist of a transitive verb (whose transitive marker may be dropped) plus the nominal object of that verb. They are exocentric compounds denoting a person or a thing that does the action expressed by the verbal phrase, for example:

Tok Pisin	meaning of the components	meaning of the compound
tanimtok	*turn+talk*	*translator*
optin	*open+tin*	*tin opener*

According to Mühlhäusler, the program is of very low productivity. The same holds true for English, e.g. *lickspittle, pickpocket*, and Tolai, where the following items are found:

Tolai	components		meaning of compound
al-kilamu	al (tr)	*to draw, pull*	*corkscrew*
	kilamu	*cork*	
poko-virua	poko (tr)	*to cut up*	*seashell, originally*
	virua	*killed human body*	*used for dissecting*
		that is to be	*human bodies*
		eaten	

5.2.2.4 CP programs 4, 5, 7-14

In compounds of these programs the order of components is the same as in English compounds and lexical phrases, as the modifier always precedes the modified head, for example:

No.	Tok Pisin	meaning
4	sutboi	*hunter* (lit. *'shoot-boy'*, compare English *playboy*)
5	devilman	*devilman*
7	pepamani	*paper money*
8	wilkar	*wheelbarrow*
9	pikgris	*pork fat*
10	pislain	*fishline*
11	washaus	*wash-house*
12	letabokis	*letter box*
13	saitlam	*side lamp (on a boat)*

In Tok Pisin lexical phrases, however, the word order of the phrase members is the other way round, i.e. the modifier follows the modified head, and thus it is different from the order of elements in English phrases, for example:

10	kot ren	*rain coat*
12	haus pik	*pig sty*

In those cases where both compounds and lexical phrases are found in Tok Pisin, the lexical phrases seem to be older than the corresponding compounds. Thus lam wokabaut *hurricane lamp* is used before 1947, whereas in present day Tok Pisin it is wokabautlam (Mühlhäusler 1979: 287).

Tolai has not got nominal compounds corresponding to those of these programs, but only phrases in which the order of head and modifier is the same as in Tok Pisin. The only difference is that head noun and modifier are connected by the connective particle na, whereas in Tok Pisin they are juxtaposed in most instances. The fact that in many

cases the Tok Pisin lexical phrases are older than the corresponding compounds and that they show an order of elements which is different to that of English, but the same as in Tolai nominal phrases makes substratum influence at least probable. Examples:

No.	Tok Pisin	Tolai	meaning
4	man bilong pait	tena vinarubu *expert fighting*	*fighter*
5	tok pipia *talk rubbish*	tinata na piriku *talk nonsense*	*worthless talk/ nonsensical talk*
7	haus kapa *sheet metal*	pal na kapa *house C sheet metal*	*house made of corrugated iron*
8	sip sel *ship sail*	parau na mal *ship C cloth*	*sailing boat (boat having a sail)*
9	bun bilong pis	ur na en *bone C fish*	*fish bond*
10	kot ren	mal na bata *clothes C rain*	*rain coat*
11	haus kuk	pal na kuk	*kitchen*
12	haus boi	pal na tarai *house C men*	*house for males*
13	kindam bilong solwara	kidam na ta *shrimp C sea*	*prawn*
14	taro kongkong	pa Baining *taro*	*Chinese/Baining taro*
	sit paia *remnants from fire*	(kabu)	*ashes*

Commentary:

CP program 4

The compounds and lexical phrases in CP program 4 consist of a verb and a noun – in most instances man *man* or meri *woman* – and denote someone (or something) whose habitual action is referred to by the verb, e.g. paitman or man bilong pait *fighter*. The lexical phrase has the structure N bilong V. Only in one instance, which is ascribed to Tolai influence, it is N+V: man save *knowledgeable person* (Mühlhäusler 1979:385).

In all instances the corresponding Tolai expressions are phrases consisting of tena *expert, skilled person* or lup *a person strongly inclined towards to s.th.* (lup never occurs in isolation and is directly followed by a noun or a verbal noun. In tena the conjunctive

particle is dropped, because it ends in -na). Compare:

Tok Pisin	Tolai	meaning
man save	tena minatoto	*knowledgeable person*
	understanding	
man bilong kaikai	lup nian	*glutton*
	eating	
man bilong tok	tena tinata	*spokesman*
	talk	

CP program 5

In this program Mühlhäusler (1979:385) deals with 'equative' compounds and lexical phrases, for example:

haus stua	*store*, lit. *a house that is a store*
tok pipia	*worthless talk*, lit. *talk that is rubbish*

Most linguists (e.g. Mihlaic 1971:19, Wurm 1971b:55) classify giaman in phrases like tok giaman *false talk, lie* as an adjective, because its meaning corresponds to that of English *false*. But since giaman also functions as a noun and the noun tok combines with nouns as in tok pipia, there is no reason to regard it as an adjective. If one classifies it as a noun (as I would do), the phrase tok giaman exactly corresponds to Tolai tinata na vavaongo. Vavaongo is the verbal noun of vaongo *to tell s.th. that is not true*.

haus skul *school house*, which according to Mühlhäusler belongs to CP program 5 as well, can also be classified as an item belonging to CP program 11, if one regards skul as a verb meaning *to learn, to go to school* (compare: olgeta de mipela i skul [Mihalic 1971:177]). In this case it would be similar to haus kuk *kitchen* and correspond to Tolai pal na vartovo, lit. *house for learning*.

CP program 10

Here the modifying noun indicated what the head-noun referent is used for. All the examples presented by Mühlhäusler denote cultural innovations, so that there are no direct genuine Tolai correspondences. But that this type of derivation also occurs in Tolai is shown by traditional expressions, for example:

tabu na en	*tabu (shell-money) used for buying fish*
tabu na boroi	*tabu used for buying pigs*

CP program 11

The lexical phrases of this program refer to objects and localities used for particular actions, especially houses and rooms. There are only a very few traditional Tolai expressions which show

the same structure, since the huts had not many functions that needed
to be specified, for example:

> pal   na paraparau   *house where the new bridegroom lives*
> house C hiding   *until the wedding day*

But there are many items which have been introduced for European
houses:

Tok Pisin	Tolai	meaning
rum kaikai	pal na nian	*dining room*
room eat	*house C eating*	
rum slip	pal na vava/nidiop	*sleeping room*

CP program 14

In this program the modifying nouns denote where the head-noun
referents originate (Mühlhäusler 1979:396). Mühlhäusler's treatment
of items like naip meru *paring knife*, lit. *knife which comes from
Meru*, and taro kongkong *Chinese taro*, lit. *taro which comes from
Hongkong*, together with sit paia *ashes* and sit bilong binen *honey* is
problematic. Whether they should be classified under the same heading
is questionable, as meru and kongkong are proper names and should be
classified as adjectives which follow their nouns (compare tok Inglis).
Since in Tolai a pa baining *Baining taro* has to be interpreted as
N + Adj, Tok Pisin and Tolai exhibit the same phrasal structure in
this case, i.e. N + Adj. Hence taro kongkong is lit. *taro Hongkong*
and not *taro that comes from Hongkong*.

According to Mühlhäusler (1979:275), early varities of Tok Pisin
had a type of lexical phrase which did not survive, namely man + N_{loc}
such as man Inglan *Englishman*, man bus *bush dweller*, man Manus *Manus
Islander*.

> Present day NGP derives nominals referring to inhabitants
> of certain localities by means of a program involving the
> change of subcategorial status. Hence Inglan *England* or
> *an Englishman*, Siapan *Japan* or *a Japanese*, bikbus *the deep
> jungle* or *someone living in the deep jungle* (Mühlhäusler
> 1979:275).

Tolai has two devices to derive expressions like man Inglan or
Inglan *Englishman*:

1. te *person belonging to* + N_{loc}, e.g. a te Raluana
    a native of Raluana;

2. a/ra + N_{loc}, e.g. a Baining *a native from the
    Baining area, a Baining*.

In contrast to **a/ra** + N_{loc} denoting people from a certain locality, names of localities are never preceded by the determinative particle **a/ra**. **Te** + N_{loc} exactly corresponds to Tok Pisin **man** + N_{loc}, whereas the second type of derivation is similar to the type found in present day Tok Pisin. Since both types are found in old as well as in modern Tolai, substratum influence cannot be made responsible for the development of **man** + N_{loc} and its later substitution.

5.2.2.5 Conclusion

However similar the constructions in Tolai and Tok Pisin may be, the Tok Pisin word order may have another origin as well. The examples presented by Mühlhäusler (1975a:35) show that already in Samoan Plantation Pidgin the word order of such constructions is different from that in English and the same as in Tok Pisin, for example:

> **haus simen** *concrete building* **haus pepa** *office*
> **haus sik** *hospital*

Thus the Tok Pisin constructions may have their source in similar patterns of their predecessor Samoan Plantation Pidgin, and only the fact that they became a very productive means of expression was perhaps reinforced by Tolai.

5.2.3 Verbal compounds and lexical phrases

Seven CP programs deal with verbal compounds and lexical phrases which consist of a noun and a verb or of two verbs, the latter perhaps better referred to as verbal chaining, concatenation or serialisation and often considered as strongly subjected to substratum influences. Mühlhäusler (1979:398) lists the following types of verbal compounds and phrases:

No.	basic item	derived item	example	meaning
15	V_{tr}+N	V_{intr}	kikbol	*to play soccer*
16	N+V_{intr}	V_{intr}	aislip *eye-sleep*	*to be very tired*
17	V_{intr}+V_{intr}	V_{intr}	lap indai *laugh-die*	*to die of laughter*
18	V_{intr}+V_{tr}	V_{tr}	tok hamarim *talk-hammer*	*to attack with words*
19	V_{tr}+V_{tr}	V_{tr}	harim save *hear know*	*to recognise from hearing*
20	V_{tr}+V_{intr}	V_{tr}	kilim indai *kill die*	*to kill*
21	V + bek	V	marit bek	*to be remarried*

5.2.3.1. CP program 15

The compounds of this program consist of a transitive verb and a noun, for example:

Tok Pisin	literal meaning	meaning of the compound
kikbol	*kick ball*	*to play soccer*
lukbuk	*look book*	*to read*
piniswok	*finish work*	*to finish one's contract*

In Tolai there are similar compounds consisting of a transitive verbal and a noun, for example:

dia	ga doko-kakaruk	*they killed chickens*
they(pl)	*kill-chicken*	(M 252 Rak)

al-oaga	*to take s.o.'s canoe in*
pull-canoe	*order to punish him*

Whereas in the Tok Pisin compounds the obligatory transitive marker is dropped, all Tolai compounds collected so far contain only transitive verbs which originally have no transitive marker. The Tolai compounds differ from related paraphrases in that the determinative of the noun is deleted, for example:

pait-pal	*to build houses*
pait ra pal	*to build the house(s)*

While the noun in verbal phrases like pait ra pal refers to a concrete individual object or objects, it is taken in a general more abstract sense in compounds like pait-pal. If this difference is to be expressed with verbs whose transitive form cannot be directly followed by the object, their intransitive form plus the connective particle na is used:

	momo na tava	*to drink water,*
but	mome ra tava	*to drink the water*

The deletion of the determinative in Tolai parallels with that of the article in English, which in both languages leads to juxtaposition, as the loss of -im in Tok Pisin does.

5.2.3.2 CP program 16

The compounds of CP program 16 are intransitive verbs which consist of a noun usually referring to a part of the body plus an intransitive verb denoting a state of that part of the body, e.g. ainogut *to have bad eyesight*, lit. *eye bad*. Some of these Tok Pisin compounds have Tolai counterparts.

Compare:

Tok Pisin	Tolai	meaning
aislip *eye-asleep*	mata-vuavua *eye-sleep*	*to be very tired/sleepy*
belkros *belly-cross*	bala-kadik *belly-pain*	*to be angry, upset*
	bala-dadar *belly-tremble*	*to be frightened*

5.2.3.3 CP programs 17-21 (verbal chaining)

As in many other pidgins and creoles, verbal chaining is a very productive type of compounding in Tok Pisin. Since in only a few instances combinations of verb plus verb can be explained as the result of systematic loss of prepositions (Hall 1966:77), verbal chaining was considered a typical feature of pidgins and creoles reflecting substratum influences. Thus the Caribbean pidgins and creoles were regarded as being influenced by a common West African substratum (Hall 1966:77), while

> South Seas pidgin expressions may have originated independently of those that have an undoubtedly African base; or they may have been introduced into the South Seas by sailors and traders who had picked them up directly or indirectly from African contacts (Hall 1966:78).

As verbal chaining is found in Tolai as well, one need not take African languages into consideration, but one should also be careful not to regard Tok Pisin verbal chaining as a phenomenon that in every respect can be traced back to Tolai. Mühlhäusler already pointed out that

> a closer examination of the Tolai system of verbal chaining reveals that the present day NGP system is only partly reflected in this substratum language, and that many types recorded by the author are not found in Tolai at all (Mühlhäusler 1979:400-404).

> It appears that direct substratum influence has played a significant role in such constructions, though supportive evidence from the analysis of the substratum languages in question needs to be adduced (Mühlhäusler 1979:400-404).

In order to find out which part of the Tok Pisin system of verbal chaining may be ascribed to Tolai influence and which must have been developed independently, the examples presented by Mühlhäusler will be discussed in detail in the following.

5.2.3.4 Verbal chaining in Tolai

In Tolai up to four verbs may be juxtaposed, for example

tumu-ba i la ko - mur ta ra vinau ma   dir   la tar
whenever he TA *climb follow* on D *liana and they2* TA TA

poko-kutu-   vue-   mule   meme
cut- take to pieces-throw-away- do again him   with-it
1   2   3   4

Whenever he climbed the liana following them, they cut it into
pieces, so that he fell down with it again (M 182 Rak).

Verbal chains like ko-mur and **poko-kutu-vue-mule** are endocentric
constructions the first verb (V_1) being the head, the second (V_2) a
modifier of (V_1), the third (V_3) a modifier of ($[V_1]V_2$) and the
fourth a modifier of ($[(V_1)V_2]V_3$). The last verb may, as in the case
above, enter into fusion with the third person singular pronoun,
which then belongs to the preceding verbs as a whole, i.e. to
($[((V_1]V_2)V_3]V_4$) and not only to the last one.
The last verb of the composition determines whether the composition
as a whole is transitive or intransitive. Thus a composition con-
sisting of an intransitive verb plus a transitive verb is transitive.
The inverse order $V_{tr}+V_{intr}$, however, is not permitted; the last verb
may be intransitive only if the preceding verb is intransitive as well.
The only exception is **al-dekdek** *to pull tightly*, which consists of the
transitive verb **al** *to pull* and the intransitive verb **dekdek** *to be*
strong, tight (Meyer 1961:8), so that it seems to be more adequate to
classify **dekdek** as an adverb in this case.
Examples:

1. $V_{intr} + V_{intr} = VP_{intr}$

    ma i pil-irop   *and it jumped down*
    and it jump-come down   (M 96 Rak)

    ma dir   ga tar pil- gumu ta   ra mareng
    and they2 TA TA *jump-dive into* D *Mareng sea*

    and they had jumped into the Mareng sea (M 138 Rak),

2. $V_{tr} + V_{tr} = VP_{tr}$

    ma dia   ga vue-   vagumu diat   *and they threw them into*
    and they4 TA *throw-make dive them4*   *the sea* (M 278 Rak)

3. $V_{intr} + V_{tr} = VP_{tr}$

    dir   pil- mur   ia   *and they jumped following*
    they2 jump-follow him   *after him* (M 28 Rak)

5.2.3.5 CP program 17

The endocentric subordinative constructions resulting from this program consist of two intransitive verbs 'including stil *to be hidden*, tok *to speak*, wok *to be busy*, as well as those denoting location or movement which are followed by both basic and derived verbal lexical items'(Mühlhäusler 1979:400).

Mühlhäusler regards the intransitive verb bases stil, tok etc. as 'a kind of classifier of verbal actions' or correspondences to adverbials in English. He presents the following examples, which I will classify below:

stil lukluk	*to peep, look without being noticed*
stil puspus	*to have illicit sexual intercourse*
stil pait	*to attack without being seen*
lap indai	*to die of laughter*
spak indai	*to be dead drunk*
slip indai	*to sleep like a log*
tok sori	*to talk sadly, express sympathy*
tok singsing	*to recite in a singing voice*
tok kros	*to express one's anger in words*
toktok resis	*to dispute, have an argument*
wok bung	*to be cooperative*
wok raun	*to be an itinerant worker*
go popaia	*to miss the mark*
ron spit	*to run speedily*

There are five types of compositions to be distinguished:

1. stil + V_{intr} *to perform an action or to be in a state without being seen*

2. V_{intr} + indai   *to do in an extreme manner, to be extremely*

3. tok + V_{intr} *to talk in a manner referred to by V_{intr}*

4. wok + V_{intr} *to work in a manner referred to by V_{intr}*

5. go/ron + V_{intr} *to move in a manner referred to by V_{intr}*

According to Mühlhäusler's interpretation that 'stil, tok, etc. act either as a kind of classifier of verbal actions or correspond to adverbials in English', stil and indai 'correspond to English adverbials' whereas tok, wok, go and ron 'act...as a kind of classifier', in so far as all actions referred to are modes of talking,

working, going and running respectively. But a classifier in this sense is just the opposite to something that corresponds to English adverbials. Therefore I would prefer to say, that apart from the first type stil + V$_{intr}$, all types have in common that the first verb is modified by the second verb. Thus, for instance, the characteristic feature of the second subclass is that all items have the modifier indai in common, while the items of the third subclass share the head tok, but have different modifiers. The first type is irregular, as stil precedes the head as a modifier in the sense of *secretly*. But as Mühlhäusler mentions in a footnote (1979:400), the expected form lukluk stil has also been recorded.

Apart from stil+V$_{intr}$, all types of constructions have direct correspondences in Tolai. Compare the following examples which are partly enlarged by items found in Mihalic (1971):

Tok Pisin   Tolai

1. stil lukluk   *to peep*   kiki parau   *to sit in*
                                     sit be-hidden   *ambush*
                                                              (M 90 Liv)

                                     a lur na bura ivaivai
                                     D *tear/TA/fall/be-concealed/*

                                     ta ra matana
                                     from/D/eye-his

                                     a tear dropped from his eye
                                     without being noticed by the
                                     others (M 152 Rak)

2. slip india   *to sleep like*   va mat   *to sleep*
                  a log   *sleep die*   *deeply*

3. tok isi   *to speak softly* tata varmaianao   *to whisper*
                  to whisper   *speak whisper*

   tok isi isi   *to speak*   tata vovovon   *to speak*
                  slowly   *speak be-slow*   *slowly*

4. wok bung   *to be co-*   papalum maravut   *to work to-*
                  operative   *work   help*   *gether,*
                                                             cooperate

                                     papalum varurung   *to work*
                                     work   be-together   *together*

5. go popaia   *to miss the*   vana pakit   *to go past*
   go-bypass   *mark*   *go go-past*

   ron spit   *to run quickly*   vana lulut   *to go quickly*
                                     go be-quick

Tok Pisin tok kros *to express one's anger in words* and toktok resis *to dispute* correspond to Tolai tata na kankan and tata na vinarubu respectively, where kankan *anger* and vinarubu *fighting* are verbal nouns from kankan *to be angry* and varubu *to fight*, connected by the connective particle na with the preceding intransitive verb.

5.2.3.6. CP program 18

According to Mühlhäusler the only difference between CP program 17 and CP program 18 is that in CP program 18 the second verbal is transitive, for example:

tok hapim	*to abbreviate, cut a speech short*
tok hamarim	*to attack with words*
tok nogutim	*to insult verbally*
hariap givim	*to give speedily*
giaman rausim	*to pretend to make*
giaman paitim	*to pretend to hit s.o.*
stil harim	*to eavesdrop*
stil lukim	*to spy on*
pilai raunim	*to fly around*
bruk lusim	*to secede from*
wokabaut brukim bus	*to walk through the bush*

As I cannot agree in all respects with Mühlhäusler that 'the interpretation of the first verb is *doing s.th. whilst engaged in* V$_{2tr}$', the Tok Pisin examples have to be checked, before the question of possible Tolai influence can be answered.

The constructions consisting of tok plus transitive verbal suit Mühlhäusler's interpretation very well, for they can be interpreted as *talking whilst being engaged in abbreviating, attacking* and *insulting* respectively, i.e. V$_{2tr}$ modifies tok as talking by which the person spoken about abbreviates, attacks or insults s.th. or s.o. Though direct equivalents of these expressions could not be found in Tolai, structurally similar constructions like

tata mur *speak follow*	*to call after, repeat another's words*
tata vadoane *speak make-fortunate*	*to pronounce a blessing on*

suggest that Tolai may have served as a model in this case.

The next item hariap givim exhibits a different structure. Here it is not the second verbal that modifies the first one, but the first verbal hariap describes the manner of giving, as even Mühlhäusler's translation suggests. In the corresponding Tolai constructions the modified verbal comes first followed by the intransitive verbal lulut/rurut, if it is transitive, or by the transitive verbal valulut/varurut, if it is transitive, e.g. vana lulut *to go quickly*. Therefore the Tok Pisin construction cannot be traced back to the corresponding Tolai construction but must have developed independently.

giaman wokim *to pretend to make* and giaman paitim *to pretend to hit* resemble hariap givim *to give speedily* in so far as the modifier precedes the modified verb. For giaman modifies the action referred to by wokim and paitim as being done under false pretences. Giaman wokim and giaman paitim have probably developed (as may also be the case with hariap givim) through the loss of the preposition long. Compare em i giaman long mekim *he is not pretending to do it* (Mihalic 1971:87).

For stil harim *to eavesdrop* and stil lukim *to observe from a hidden position* the same holds true as for stil lukluk. I think they should be better interpreted as *hearing whilst being hidden* and *observing whilst being hidden* than as *being hidden whilst engaged in hearing* and *being hidden whilst engaged in observing*, because it is harim and lukim that are modified by stil and not the other way round. The Tolai equivalent of stil harim is valongore ive, which consists of the transitive verb valongore *to hear* and ive *to conceal, to do secretly*. As the whole composition is transitive, the transitive form ive has to be chosen instead of ivai. Compare:

> To Karvuvu i pait ive   ke na ra   garamut
> *To Karvuvu he make do-secretly only that* D garamut
>
> *To Karvuvu secretly made only a* garamut-*drum* (M 48 Rak).

In the last three examples 'the second verb is most readily translated as a preposition in English' (Mühlhäusler 1979:401). There are a lot of examples of this type in Tolai, so that substratum influence might be possible, for example:

dia ga kokor kikil ia   *they crowded round him* (M 258 Rak)
*they*4/TA/*crowd/surround/him*

dir ga kiki valivuan   na kadir tutana
*they*2/TA/*sit/cause to be in the middle/that/their*2/*man*
they sat near their husband, so that he sat in the middle (M 130 Rak)

Conclusion:

According to the reinterpretation of the examples presented by Mühlhäusler, only those items of CP program 19 may be traced back to Tolai influences, in which the modifying verbal follows the modified one, i.e. the items consisting of tok plus transitive verbal and the last three items.

5.2.3.7. CP program 19

The compositions of this program consist of two transitive verbs which (in opposition to program 20) have the same subject and object.

Mühlhäusler (1979:402) has already mentioned that 'direct substratum influence has played a significant role' in these constructions, and recognised as instances which 'certainly have direct reflections in Tolai', for example:

Tok Pisin		Tolai
kaikai traim	*to try to eat*	en kilang
		eat try
holim pasim	*to hold and obstruct, arrest*	vatur vake
digim autim	*to dig out*	kal vairop

Apart from vatur vake, which literally means *to cause to stand and hold fast*, kinim vake, lit. *to hold/catch and hold fast* and tabe vake, lit. *to take and hold fast* can be regarded as equivalents of holim pasim, for example:

ma   dia ga korokorot ia upi   diat a kinim vake
and they4 TA chase   him in-order-to they4 TA catch hold-fast-him
And they chased him in order to catch him (M 248 Rak).

ma   i ga ti tabe vake   ke   ra limana
and he TA TA take hold-fast PART D hand-his
And he took his hand (M 252 Rak).

Other correspondences between Tolai and Tok Pisin are found with compositions that contain **save** *to know* and **givim** *to give*, for example:

Tok Pisin:

harim save	*to recognise from hearing*
smelim save	*to recognise from smelling*
yu yet i mas helpim givim mani long ol katekis	*you must support the catechists with money* (M.1979:402)

Tolai:

valongore ilam	*to recognise from hearing*
angine ilam	*to recognise from smelling*
gire ilam, na ilam (Ral) ni ilam (P., Rav)	*to recognise from seeing*
bing ilam	*to recognise from pressing*

i ga ian ni ilam ia   *she ate it and recognised it*
she TA eat see know it

i valir   tar ia ura na ta   *and he let him swim in the sea*
he cause to swim give him down to sea   (M 58 Rak)

Some Tok Pisin compositions have transitive verbs as their second component which are derived from adverbs, e.g. apim *to raise, lift* and autim *to take out*. As adverbs cannot be transformed in Tolai, there are no direct counterparts of this type in the substratum language.

But there are similar compositions which contain the causatives of verbs of motion instead, for example:

ba	*to go down*	vaba	*to cause to go down, put down*
irop	*to go out,*	vairop	*to cause to go out, put out*
	to come down		*to cause to come down, put down*
ruk	*to enter*	varuk	*to cause to enter, put in*

ma i ga vue vaba   nam ra ur i nam ra tutana
And she TA throw cause to go down that D bone of that D man
And she threw down the bones of the man (M 128 Rak).

5.2.3.8 CP program 20

In verbal compositions of this program (Mühlhäusler 1979:403) the object of the first verb is identical with the subject of the second. This type is not found in Tolai, because there the subject and the object must be always the same for both verbs. Compare:

Tok Pisin:
brata bilongen i kilim indai brata bilongen *he killed his*
brother his   pm kill die brother his   brother

Tolai:
iau ter rang   vamat   kapi ra voana   *I have already*
I TA scorch cause to die E D one   scorched one to
                                           death (Kl 66 P).

5.2.3.9 CP program 21

This program only deals with compositions that contain bek as second component. According to Mühlhäusler 'the status of bek is in the process of changing from that of a verb to that of a verbal suffix, with an accompanying change of meaning from *to be back, come back* to *again*, and it frequently corresponds to the English prefix *re'* (1979:404). For example:

lukim bek   *to revisit*
marit bek   *to be remarried*

Bek in the meaning of *again* looks very much like Tolai mule (tr), mulai (intr) *to do again*. Mule is used with transitive verbs, mulai with intransitive verbs and in isolation in the meaning of *to return*, e.g. na mule *see again* in

una ga na   mule tamam   ma nam
you-TA TA see do-again father-your and mother-your
You will see your father and mother again (M 98 Rak).

In opposition to mule/mulai, bek is not sensitive to transitivity or
intransitivity of the preceding verbs. bek is used with both kinds of
verbs, whereas the transitive bekim means *to give back, repay, reward*
and does not seem to be used in such verbal chains at all. Though
their single components look alike, many similar looking chains in
Tolai and Tok Pisin differ semantically, for example:

Tolai		Tok Pisin	
vana mulai *go do-again*	*to go (away) again* (M 104 Rak)	go bek	*to go back,* *return*

but

vut mulai *come do-again*	*to come again, back,* *return* (M 236 Rak)		
biti mulai *say do-again*	*to say again, repeat*	tok bek	*to answer*

Therefore it must be assumed that this program was not influenced by
Tolai.

5.2.3.10 Conclusion

In many cases of verbal chaining substratum influence seems possible.
Those Tok Pisin verbal chains, however, in which the modifying verb
precedes the modified one, must have developed independently. Some of
these like giaman paitim *to pretend to hit* seem to have resulted from
the loss of a preposition. Other items must have developed independ-
ently for semantic reasons (CP program 21) or because they do not meet
the condition that subject and object must be the same for each member
of the verbal chain (CP program 20).

In general, compounding exhibits far more evidence for substratum
influence than multifunctionality and reduplication.

5.3. Reduplication
5.3.1. Introduction

In his paper 'Reduplication and Repetition in New Guinea Pidgin'
(1975b:210) Mühlhäusler pointed out that

> there are at least three possible answers to the question
> of where the reduplications in Pidgin originate. Firstly
> the patterns found in the native language which has
> influenced other parts of pidgin grammar and lexicon most,
> namely Kuanua, were taken over into Pidgin. This answer
> reflects the substratum theory. Secondly, reduplication
> is a universal feature of all pidgins and creoles and can
> be traced back to Portuguese Pidgin. This answer reflects
> the relexification theory. Thirdly, reduplication is a

universal of languages which is bound to appear wherever
a pidgin language originates. This answer reflects the
<u>universals of pidgin theory</u>.

According to the subject of our examination we will be concerned
with the question how the data of Tok Pisin and Tolai could possibly
fit into the substratum theory. The correspondences found between
the two languages do not necessarily result from Tolai influence upon
Tok Pisin; for very common types of reduplication, such as the
reduplication expressing duration, could have well developed independ-
ently. But unless we have more data about pidgins and creoles, we
cannot decide where to draw the borderline between those types of
reduplication that are too common to prove anything, and those that
evidently reflect substratum influence. The only thing to be done at
this stage is to state which Tok Pisin types of reduplication cannot
be traced back to Tolai (and thus must have developed independently)
and which Tolai types of reduplication are not reflected in Tok Pisin.

5.3.2. Reduplication in Tolai

As far as morphology is concerned, the Tolai system of reduplication
is more complicated than that of Tok Pisin, so that a rough survey of
the main principles must suffice here. In Tolai reduplication is
applied to verbs, nouns, adjectives, cardinal numbers and adverbs as
a productive device of derivation.

5.3.2.1. Reduplication of verbs in Tolai

In the case of verbs three types of reduplication can be distin-
guished:
I. Reduplication by which transitive verbs are made intransitive
(cf. p. 43), for example:

| punang (tr) | *to bury* | pupunang (intr) | *to bury* |
| kul (tr) | *to buy* | kukul (intr) | *to buy, trade,* *go shopping* |

Usually the first two phonemes are reduplicated.

II. Reduplication that indicates some kind of imperfective aspect
or intensity of the action or state referred to by the simplex.
Imperfective aspect means that the action has not been completed for
the subject spoken about but is still going on. By this definition
reduplicated imperfective verbs in Tolai can express not only
similtaneousness (as the corresponding English progressive form), but
also durative, habitual and repeated action.

When applied to transitive verbs this type of reduplication usually differs from the first one in that more phonemes are involved, e.g. *punapunang to be burying, to bury habitually* etc. Therefore the first type is often called partial reduplication and the second type full reduplication (Bley 1912:102ff.).

The examples found in Meier (1909) and Kleintitschen (1924) suggest that the second type of reduplication is not strictly obligatory, for example

(1) Continuous action:

i	ga	valongore	pa	ra	ura	kotkot
he	TA	*hear*	E	D	*two*	*crow*

dir	ga	tangtangi	vanavana
they2	TA	*cry*	*go*

He heard two crows crying on their way (Kl 300 P)

to-ia	u,	u	iaian	kaugu	vudu?
who	*you,*	*you*	*eat*	*my*	*banana*

Who are you who is eating my bananas? (Kl 382 P)

(2) Habitual action:

ma	nem	ra	umana	beo	dia	tangtangi
and	DEM	D	PL	*bird*	*they4*	*cry*

a	ul	a	potol	a	bungbung	parika
D	*top*	C	*potol*	D	*days*	*all*

And these birds sang (sitting) on the potol-trees all day (Kl 271 P)

tika	na	tarai	ami	mal	diat
one	C	*men*	*we2inc*	*make*	*them*

dia	vava	ra	pupui...
they4	*sleep*	D	*bush*

We two have created a tribe of men who sleep in the bush.

pa	dia	punapunang	diat,
not	*they4*	*bury*	*them4*

pa	dia	ian	ta	ko	na	magit
not	*they4*	*eat*	*some*	*good*	C	*food*

They do not bury their dead people, they do not eat good food (Kl 56 P).

(Note that in the last sentence *ian* is not reduplicated, though it refers to an habitual action.)

'a	Gugut,	ava	iaian	rava?'
a	*Gugut,*	*you4*	*eat*	*what?*

'o	nina	ka	da	iaian	ia,
DEM	DEM	PART	*we4inc*	*eat*	*it*

a	pup	uka	ma	a	rumu	ka'
D	*fern*	*only*	*and*	D	*ant*	*only*

'A Gugut, what do you usually eat?'
'That what we usually eat is only fern and ants' (Kl 134 P)

(3) Durative action:

i	ga	tup	dir	a	vinarubu,	dir	ga
it	TA	*tire*	*them2*	D	*fight,*	*they2*	TA

ngo	dir	ga	kiki	ga
stop	*they2*	TA	*sit*	PART

When the fight had tired them, they stopped (fighting), and they sat down for a while (Kl 292 P).

(4) Repeated action:

go par a bungbung na keake i ga
DEM *all* C *days*   C *sun* *he* TA

long tan   a lama,   a pa
steal from-it, D *coconut,* D *taro*

ma ra vudu
and D *banana*

ma dia   bitbiti, ba nem uka ra
*And they*4 *say,*   *that* DEM PART D

tubuan ik   i loalong
old-woman little she steal

*Every day he stole from it,
(namely) coconuts, taro and
bananas. And each time they
said that this little old
woman had stolen* (Kl 318 P).

(Note that long is not reduplicated in the first sentence.)

ma dia taktakun uka nem ra
*And they*4 *accuse* PART DEM D

tubuan   ik   ba ia nem i
old-woman little that she DEM

loalong
she steal.

*And they always accused this
little old woman that
it was she who stole all
the time* (Kl 318 P)

(5) Intensive action and state

   This type of reduplication is particularly found with stative
verbs and adjectives in predicative position.

ma i vutvut
and he come

And he hurried (M 146 Rak)

i kalakalami ka
it sweet   PART

it tastes very well, lit.
it is very sweet (Kl 220 Rav)

i ga puak pa ra rat i ga mamamat
he TA *take* E D *basket it* TA *heavy*

*he took the basket, which
was very heavy* (Kl 67 P)

i ga doka, i ga kitakita
he TA *kill-him, he* TA *hit*

*he killed him, he hit him
hard* (Kl 65 P)

The last item kitakita, which Kleintitschen translated as *hit him hard*
('schlug fest auf ihn') may perhaps be interpreted as an instance of
repeated action as well.

   Intransitive verbs which are already derived by partial reduplication
can be reduplicated for a second time, in order to express imperfective
aspect, so that eventually the original transitive verb is triplicated.
In this case only the first syllable of the derived intransitive verb
is reduplicated. Compare:

V_{tr}	$V_{tr/impf}$	V_{intr}	$V_{intr/impf}$	meaning of V_{tr}
kal	kalkal	kakal	kakakal	*to dig*
kap	kapkap	kakap	kakakap	*to take*
pakat	pakapakat	papakat	papapakat	*to beat*

tikai	i	vanavana ma	i tuk tadap
one	he	walk and	he meet go-to

A man who was walking along his way, met somebody else

na	i	ga kakakal,	a tung
DEM	he	TA dig,	D hole

who was digging, namely a hole (M 162 Rak)

...kan	o ra	en	ta	i ga	papapakat
away-from	DEM D	fish	PART	it TA	beat

away from that fish that was beating (around itself)

ma	ra balana	ta
with	D body-his	PART

with its body (M 196 Rak)

III. Reduplication of verbs by which nouns are derived:

(1) Verbal nouns:

pait (tr)	*to do*		papait	*doing*
bali (tr)	*to repay, recompense*		babali	*reward, retaliation*

(2) Concrete nouns, often denoting the result of the action referred to by the verbal bases:

tumu (tr)	*to draw*		tutumu	*drawing* (M 13 Rak)
bait (tr)	*to make a fence round, fence in*		babait	*fence* (K1 49 P)
pulu (tr)	*to wrap up*		pupulu	*parcel* (M 32 Rak)

(3) Nouns denoting instruments:

lam (tr)	*to bait*		lamlam	*bait* (K1 296 Nav)
ki (tr/intr)	*to sit*		kiki	*seat, residence* (M 118 Rak)

5.3.2.2. Reduplication of nouns

Nouns that are not derived from verbs by the nominalisation affix /ni-, -in-, -un-/ can be reduplicated in order to express the plurality of the object referred to by the simplex, for example:

barmana	*young man*	barbarmana	*young men* (K1 329 P)
gunan	*village*	gunagunan	*villages* (K1 33 P)
rat	*basket*	rarat	*baskets* (M 98 Rak)
uma	*garden*	umauma	*gardens* (K1 18 P)

5.3.2.3. Reduplication of adjectives

The majority of Tolai adjectives precede the noun in attributive position and are connected with it by the connective particle na, for example:

a ko	na gunan	*a good village* (K1 197 P)
D good	C village	

They can be reduplicated in order to express the plurality of the object spoken about, for example

a koko na gunan	*good villages* (Kl 33 P)
a ngalangala na tung	*big ravines* (Kl 32 P)

The modified noun, however, is never reduplicated in these construc- tions. Some adjectives, e.g. adjectives denoting colour, adjectives derived from proper names, tabu *forbidden, sacred*, tuna *real* and ik *small* follow the modified noun (cf. p. 56ff.). Only ik *small* can be reduplicated, e.g. ikik *very small*. Here reduplication serves as a means to express intensity.

If adjectives are reduplicated in predicative position, the reduplication indicates intensity (cf. p. 103), for example

```
i  ga maramarang ra lima i  ra  tek        The fore-foot of the
it TA      hot      D  hand of D kangaroo   kangaroo became very hot
                                            (Kl 73 P)
```

5.3.2.4. Reduplication of cardinal numbers

As with the majority of adjectives, cardinal numbers precede their nouns and are connected with them by the connective particle na (the only exceptions are ura, evu *two*, which directly precede the noun, and utul *three*, which is connected by a, a phonologically determined alternant of na), for example:

```
a laptikai na  gal      six months
D    six    C  month
```

When they are reduplicated, they become distributive numerals, e.g. tikatikai *one by one, one at a time* (cf. p. 63). Syntactically the distributional numerals are constructed as their cardinal counterparts, for example:

```
dia   ti vanavana pa  ra laplaptikai na  gai   they need six months
they4 TA    go    for D  six-by-six  C month    for each journey
```

(vanavana indicates habitual action here).

As reduplication is a means to express plurality, this derivation seems to be quite reasonable: the idea of *six by six* etc. is nothing else but the idea of a multiple of six.

5.3.2.5. Reduplication of adverbs

With adverbs reduplication indicates intensity, for example:

amana	*some time ago*	amanamana	*a very long time ago* (Kl 403 P)
vailik	*far off*	vavailik	*very far off* (M 200 Rak)
parika	*entirely, altogether*	parparika	*entirely* (Kl 27 P)

A different kind of reduplication occurs with adverbs of place that are derived by the prefix ma- *from*, for example:

maina, mamaina	*from there*
marama, mamarama	*from up there*
mati, mamati	*from here*

There seems to be no semantic difference between the simple and the reduplicated forms.

5.3.3. The influence of Tolai on reduplication in Tok Pisin
5.3.3.1. Reduplication of verbs

I.   The first type of reduplication, by which transitive verbs are transformed into intransitive ones, has already been discussed in 4.2.3.

II. As for the second type of verbal reduplication, which indicates intensive, repeated, durative, habitual and continuous action in Tolai, there seem to be more divergencies than correspondences between Tolai and Tok Pisin; for they only have in common that intensive and repeated action is expressed by reduplication.

(1) Intensive action

As in Tolai, Tok Pisin intransitive and transitive verbs can be reduplicated in order to express intensity (Mühlhäusler 1979:410f. = RP program 4 and 413f.=RD program 7), e.g. switswit *to be very pleasant*, derived from swit *(to be) sweet, attractive*, which exactly corresponds to Tolai kalami, kalakalami and paitpaitim *to beat up*, which parallels with Tolai kitakita (cf. p. 103).

(2) Repeated action

The reduplicated intransitive verbs presented by Mühlhäusler (1979:411) express 'some notion of plurality, indicating that a number of people are involved, or that such an action takes place in a number of different locations or that the action is repetitive'. The same holds true for transitive verbs, for example:

mipela olgeta i haithait nabaut	*we all hid at different places*
tok bilongen i brukbruk	*he is stammering*
dispela man i askaskim mi, i askim mi planti taim	*this man asked me many times*
ol i sutsutim dispela man nau	*they fired lots of shots at this man*

As can be seen from the Tolai examples already given (p. 102) and the following sentences, Mühlhäusler's statements prove right for Tolai as well, for example:

ma dia ga bubur pa ra davai
and they⁴ TA break off D stick

And they broke off sticks
(Kl 271 P; compare Kl 120, 292 P)

i ga purpururung vurvurbit abara
it TA   fly   everywhere there

it flew from place to place there

  ra mamauvuna
 D *atmosphere*

in the open air (Kl 281 Nav)

pa una bura.   nem iau kokoe ke
not you-will fall. DEM I climb PART

You will not fall down. I often climbed that tree   (Kl 226 P)

The only difference is that in Tolai texts no sentence can be found in which the reduplication of the verb is solely caused by plurality of the subject. Thus there are no correspondences to sentences like:

ol brata bilong mi indaiindai pinis

My brothers are dead (Mühlhäusler 1979:412)

matmat, the reduplicated form of mat *to die*, means *to die usually, to be in the process of dying, to faint*, for example:

avet ra umana iniet ave matmat
we⁴inc D PL   iniet we⁴inc die

We iniet die from pork (Kl 333 Tam)

  ta ra boroi
 from D pig

...tago ava matmat ma ra gap
  for you⁴ die   with D blood

...for you all usually die because of the blood (Kl 45 P)

...i ga matmat ika ra matana
  it TA die   PART D eye-his

...he became very sleepy
(Kl 137 P)

(3) Durative action

    While in Tolai duration can be expressed by reduplicated verbs, it is 'signalled by reduplication at phrase level', i.e. repetition of words or even whole phrases in Tok Pisin (Mühlhäusler 1979:412, 415 = RD programs 6 and 10):

em i go go go go go kamap	*he walked for a long time and finally arrived,*
em i kam i kam i kam kamap	*he arrived after a lengthy journey,*
ol i save tanim tanim hatwara	*they take a long time preparing soup.*

The repetition of the predicate marker is optional, but the transitive
marker -im is obligatorily repeated with transitive verbs (otherwise
you would have word level reduplication as in askaskim).

Phrase level repetition is a general phenomenon and probably found
in all languages, and thus in Tolai as well, where the repeated words
are often connected by ma *and*, for example:

ma i vana ma i vana ma i vana ma *and she walked for a long*
and she go and she go and she go and *time and finally stopped*
  i tur   *(M 86 Rak)*
  she stand

(4) Habitual action

In contrast to Tolai, habitual action is not expressed by
reduplication in Tok Pisin, but by the verb save *to do habitually* plus
the verb that refers to the habitual action, for example:

ol manmeri bilong Papua Niu Gini *Papua New Guineans eat sweet*
i save kaikai kaukau   *potatoes* (Dutton 1973:64)

(Since there is no kai in Tok Pisin, kaikai *to eat* is not to be
regarded as a verb derived by reduplication, but as a simplex.)

(5) Continuous action

Continuous action is indicated by i stap following the verb, for
example:

em i wok i stap yet/em i wok yet *he is/was still working*
  i stap   (Dutton 1973:148)

taim em i wetim pasinda trak i stap *while he was waiting for the*
  yet em i ritim 'Wantok'   *passenger truck, he was reading*
                           Wantok (Dutton 1973:155)

In the Tok Pisin variety spoken in Rabaul, continuous action is
expressed by wok long plus verb, for example:

taim em i wok long wetim... *While he was waiting...*

(6) Reciprocal action

In RD program 8 Mühlhäusler presents a type of reduplication at
phrase level that is not found in Tolai, namely reduplicated transitive
verbs signalling reciprocity, for example:

tupela i paitim paitim *they two were hitting each other*

In Tolai reciprocity is expressed by the prefix var-, e.g. ubu *to hit*,
varubu *to hit each other, to fight*.

III. Reduplication as a means to derive nouns from verbs

As already stated by Mühlhäusler (1975b:211), the third type of Tolai reduplication which serves as a device for deriving nouns from verbs is not found in Tok Pisin.

Conclusion

The divergencies between Tolai and Tok Pisin suggest that the general idea underlying reduplication in Tolai on the one hand and in Tok Pisin on the other is different. Apart from intensifying reduplication, in Tolai all instances of the second type of reduplication have in common that they express some kind of imperfective aspect, while in Tok Pisin the only function of word level reduplication is to signal some notion of plurality. For that very reason neither durative nor habitual nor continuous action (which cannot be understood as actions consisting of a number of similar actions) are expressed by reduplicated verbs in Tok Pisin. Both concepts are related and overlap insofar as they both include repeated action. Thus substratum influence of Tolai upon Tok Pisin can be excluded as far as verbal reduplication is concerned.

5.3.3.2. Reduplication of nouns

'Word level reduplication of noun bases, and occasionally compound nominals, is used to express the idea that a considerable number of what is referred to by N are involved' (Mühlhäusler 1979:416f.), for example:

mi laikim dispela plasta i ga hulhul   *I like this plaster which*
                                              has many holes

em i wok long kukim kaikai long   *he cooks dinner every night*
  naitnait

This is exactly the function of reduplicated Tolai nouns, too (cf. p. 104). Compare:

ma To Purgo i ga vaki go ra   *And To Purgo made all these*
and To Purgo he TA *make-exist* DEM D   *holes here* (Kl 18 P)

    lavur tungtung parika
    various hole all-together

a bungbung parika dir ga bung   *They met every day* (Kl 273 P)
D *day*   *all*   *they2* TA *meet*

In RD program 12 Mühlhäulser (1979:417) presents sentences in which the idea of distribution is expressed by reduplicated nouns, for example:

gavman i putim manmeri long   *the government locks up people*
   kalabuskalabus   *in various prisons*

The same meaning is found with reduplicated nouns in Tolai as well:

ta umana bo   dia   mono ra   *Are there still some (cripples)*
*some PL still they*4 *stay D*   *staying in your various huts?*
   kubakubaivavat   (M 126 Rak)
   *hut-your*4

The last RD program concerning nouns, however, is not attested in Tolai. There are only kinship terms involved, which in their reduplicated form denote 'some distant family relationship' (Mühlhäusler 1979:417), for example:

ol pikininipikinini bilong en   *his children's children*

5.3.3.3. Reduplication of adjectives

Attributive adjectives may be reduplicated at phrase level in order to express intensity (Mühlhäusler 1979:409 = RD program 1), for example:

ol naispela naispela meri   *gorgeous girls*

The only attested item at word level is bikbikpela snek *a hugh snake*. This type of reduplication cannot have been influenced by Tolai, because in Tolai the only attributive adjective that is reduplicated in order to signal intensity is ikik *very small*. Since ikik follows the noun in contrast to all reduplicated adjectives presented by Mühlhäusler (including liklik liklik *very little*), it could hardly have served as a model. On the other hand, those Tolai adjectives which precede their noun are only reduplicated in order to indicate the plurality of the whole noun phrase. Thus a ngalangala na vui does not mean *a hugh snake*, but *big snakes* (cf. p. 104f.).

5.3.3.4. Reduplication of cardinal numerals

Both in Tolai (cf. p. 105) and Tok Pisin (Mühlhäusler 1979:409 = RD program 2) distributional numbers are derived by reduplucation of cardinal numbers, e.g. Tok Pisin faivfaiv dola *five dollars each*, Tolai a laplaptikai na gai *six months each*.

5.3.3.5. Reduplication of adverbs

As in Tolai (cf. p. 105f.), in Tok Pisin adverbs can be reduplicated in order to express intensity (Mühlhäusler 1979:410) = RD program 3), for example:

...ol man i stap bipobipo tru   *the people who lived in days long gone*

em i stap insaitinsait long pukpuk   *he was deep inside the crocodile*

5.3.4. Conclusion

As shown in the table below, Tolai and Tok Pisin have only a very few types of reduplication in common. Since we have already found out that the types of verbal reduplication shared by both languages result from two different though related and partly overlapping concepts, there are only three other types of reduplication left which correspond to each other:

(1)   the reduplication of nouns denoting plurality;
(2)   the reduplication of cardinal numbers by which distributional numbers are derived;
(3)   the reduplication of adverbs denoting intensity.

But these types of reduplication are too common to prove substratum influence.

Grammatical category of the reduplicated item	meaning	this type of reduplication is productive in	
		Tolai	Tok Pisin
verb, tr.	intransitivity	yes	no
verb, tr., intr.	continuous action	yes	no
	habitual action	yes	no
	durative action	yes	no
	repeated action	yes	no
	intensity	yes	yes
	deverbal noun	yes	no
	reciprocal action	no	yes
noun	plurality	yes	yes
	distribution	yes	yes
	distant family relationship	no	yes
attributive adjective	plurality	yes	no
	intensity	no	yes

Grammatical category of the reduplicated item	meaning	this type of reduplication is productive in	
		Tolai	Tok Pisin
cardinal numeral	distributional numeral	yes	yes
adverb	intensity	yes	yes

6. PHRASE STRUCTURE

6.1. Noun phrase

Tok Pisin and Tolai noun phrases differ in many respects, and what they have in common is due rather to the typological similarity of Tolai and the superstrat language English than to substratum influence. In contrast to Tok Pisin, Tolai noun phrases are overtly marked off by a noun phrase marker, a kind of determinative particle which can be replaced by a possessive pronoun, ta *some* and tika na *one, a.*

Tok Pisin	Tolai	meaning
haus	a pal	*a/the house, (the) houses*
haus bilong mi	kaugu pal	*my house*
wanpela haus	tika na pla	*one/a house*
sampela hous	ta pal	*some houses*

6.1.1. The order of elements

The modifiers of the head noun can be classified into (1) modifiers following and (2) modifiers preceding the head noun. These two classes coincide in Tok Pisin and Tolai in the following cases:

(1) head noun + modifier:

    (i) noun + modifying noun / na + noun

Tok Pisin	Tolai	meaning
haus stua	a pal na kunukul D *house* C *trading*	*store*
haus kapa	a pal na kapa D *house* C *sheet metal*	*house made of corrugated iron*

    (ii) head noun + bilong / kai + noun:

haus bilong man	a pal kai ra tutana D *house of* D *man*	*the house of the man*

    (iii) head noun + bilong / na + noun

haus bilong pisin	a po na beo D *nest* C *bird*	*a bird's nest*
wara bilong waswas	a tava na gunumu D *water* C *bathing*	*water for a bath*

(iv)   head noun + bilong + noun / head noun + modifying noun

man bilong kaikai	a lup nian D *eating*	*a glutton, heavy* *eater* (for lup see p. 90)

(v)   head noun + relative clause

mi lukim dok em i ranim pik *I see dog it pm chase pig* bilong mi *of me*	*I saw a dog that* *chased my pig* (Dutton 1973:95)
pikinini yu givim mani longen *child you give money to-it* em i stap long hap *it pm is over there*	*The child to whom* *you gave the money is* *over there* (Dutton 1973:120)
To Karvuvu i gire ra en *To Karvuvu he see D fish* To Kabinana i vut meme *To Kabinana he come with-it*	*To Karvuvu saw the* *fish which To Kabinana* *brought* (M 58 Rak)
nina ra tutana kana nem ra uma DEM D *man* his DEM D *garden* a kedikpap i ga karat ra kakene D *k.-ant* it TA *bite* D *leg-his*	*The man who owns* *that garden was* *bitten into his leg* *by a kedikpap-ant* (Kl 340 P)

As you can see from the examples, both in Tok Pisin and Tolai relative
clauses are embedded into the main clause without any conjunctive
particle. The modified noun, i.e. (v, 1) dok, (v, 2) pikinini, (v, 3)
en *fish*, (v, 4) tutana *man* , is referred to by a pronoun in the
relative clause, namely em, long-en, meme *with it*, and kana *his*
respectively. In modern Bichelamar relative clauses are introduced by
the subordinating conjunction we, which 'can be omitted under no
circumstances' (Guy 1964:39), for example:

ol pis we mi kasem long net...	*the fish which I caught with* *the net...*

Cape York Creole exhibits the same construction (Crowley and Rigsby
1979:203):

dhet trokas wee ai bin fain-im ai kaikai pinis	*that trochus which I found,* *I have eaten it up*

If Tok Pisin is the only South Pacific pidgin whose relative clauses
are not introduced by a subordinating particle, Tolai substratum
influence seems probable. But unless we have more data about relative
clauses in South Pacific pidgins and pidgins in general, any statements
about substratum influence remain hypothetical.

(2) modifier + noun:

(i) numerals + noun

faipela haus   a ilima na pal   *five houses*
                    D *five* C *house*

(Like adjectives that precede the noun the cardinal numerals are connected by the connective particle na with the noun in Tolai.)

(ii) demonstrative + noun

dispela haus   nam ra pal   *this house*
                    DEM D *house*

(Note that in Tolai the determinative particle is maintained, when the noun is modified by a demonstrative pronoun.)

Tolai and Tok Pisin noun phrases differ in the positioning of adjectives and possessive pronouns. As have already been shown in 4.3, the classes of adjectives, which precede and which follow the head noun, do not coincide in Tolai and Tok Pisin, so that substratum influence is to be excluded.

6.1.2. The expression of possession

The Tok Pisin possessive construction is very simple and exhibits the same sequence of elements, whether the possessor is indicated by a noun or a pronoun, for example:

papa bilong mi   *my father*
papa bilong pikinini *the father of the child*

This construction is already found in ancient Bichelamar, for example:

house belong A.   *A's house*
place belong me   *my island* (Schuchardt 1888:159)

The Tolai possessive construction is much more complicated and depends on the class membership of the noun indicating the possessed object:

(1) alienable nouns

kaugu pal, a pal kai ra   *my house, the house of the man*
     tutana

(2) inalienable nouns (terms for body parts, kinship terms)

a lima i ra tutana   *the hand of the man*
D *hand of* D *man*

tama   i ra bul   *the father of the child*
father of D *child*

```
     a limana                      his hand
   D hand-his

     tamana                        his father
     father-his
```

(3)   nouns indicating objects that are determined for eating
        or, in some cases, for other use

```
     a nian ai ra tutana          the food of/for the man
     ana nian                     his food
```

6.1.3. The expression of number

In Tok Pisin singular and plural are usually not distinguished in
the form of the nouns (Dutton 1973:44), as they are obligatorily by
plural suffixes in most English words. The only exceptions are noun
bases that are reduplicated in order to indicate plurality (cf. p. 109).
Usually Tok Pisin nouns are neutral as to number, which can be
regarded as a pidgin universal (Mühlhäusler 1974:83). Thus, for
example, dok in Pidgin means either *dog* or *dogs* (Dutton 1973:44).
If the speech situation requires specification of the precise number
of the things or persons spoken about, the numerals wanpela *one*,
tupela *two*, sampela *some*, planti *many* etc. are used. Another means to
distinguish between singular and plural is the numeral wanpela on the
one hand and the pronoun ol *they* on the other, which is used in
attributive position as a plural marker (Dutton 1973:44), for example:

```
          dok              a dog, dogs
          wanpela dok      one, a dog
          ol dok           (the) dogs
```

According to Mühlhäusler (1975c:30), however, the plural marker ol
'is compulsory with animates, unless the nouns are collocated with
quantifiers such as sampela *some* or planti *plenty* in which case it is
optional.

```
     ol man i wok                  (the) men are working
     sampela (ol) masta i save     some European men get angry
       kros kwiktaim               very quickly '
```

Unfortunately it is not known when the plural marker ol became
compulsory for animates.

The Patpatar-Tolai languages resemble Tok Pisin in that plurality
can only be expressed by reduplication at word level or by cardinal
numerals, indefinite quantifiers or a plural marker at phrase level.
In contrast to Tok Pisin the plural marker is not identical with the
personal pronoun of the third person plural. Indefiniteness in the
singular can be expressed by the cardinal numeral *one*, for example:

```
Tolai                          Pala

tika na bul                    a tika bulu      a/one boy
one  C  boy                    D one   boy

a umana bul                    a bar bulu       (the) boys
D PL     boy                   D PL  boy

Tolai

go  ra lavur  vavaguai         all these various kinds
DEM·D  various animal          of animals (M 52 Rak)

a mangoro na bul               many boys
D many     C  boy
```

In Tolai the plural marker is only obligatory with nouns denoting
human beings which are neither pluralia tantum nor reduplicated,
for example:

a (umana) tarai, a (umana) varden	*men, women*
...ra bulabulavina	*the young girls* (Kl 147 P)
koum barbarmana	*your lads* (Kl 329 P)
...ra ngalangala	*the adults* (lit. (Kl 224 Rav)
a umana tutana, a umana vavina	*men, women*

In Tok Pisin, however, reduplicated nouns denoting animates are
compulsorily accompanied by the plural marker ol, for example:

ol kanaka kanaka nabaut long olgeta ples	*the various uncivilised people in various places* (Mühlhäusler 1975c:32)

The Tok Pisin plural marker ol is optional for inanimates.
Mühlhäusler states (1975c:30f.):

> It can be used to refer to entities which are non-discrete
> and whose extent is not well defined, i.e. the equivalents
> of English mass terms.
>
> 23) I no gat ol kopi na ol tabak long stua
> *There is no coffee and tobacco in the store*
>
> 24) ol wetskin i no save laikim ol brus
> *the white people do not like native tobacco*
>
> 25) em i go painim ol talinga long bus
> *he went mushrooming*
>
> When referring to discrete entities in the plural,
> ol is not obligatory but is generally favoured if
> there is a possibility of misunderstanding.
>
> 26) ol i wokim (ol) nupela haus long ples
> *they are building new houses in the village*
>
> 27) em i man bilong katim (ol) diwai
> *he is a man that fells trees*

In Tolai the use of the plural marker **umana** is optional for non-human objects, as the Tok Pisin plural marker **ol** is optional for inanimates. But whether **umana** is used or not, is determined by a different concept. **Umana** is not used with nouns denoting things that usually occur in a certain amount and are not regarded as discrete entities as, for instance, fruits or fish, for example:

akave ra galip? *where D peanut*	*where are the peanuts?* (Kl 119 P)
u ien ragu mao? *you eat my banana*	*did you eat my bananas?* (Kl 124 P)
...upi dir a ubu go ra *in-order-to they-2 TA* 　en me *kill DEM D fish with-it*	*in order to kill these fish* *with it* (Kl 37 Tanak)

Therefore in Tolai translations of Mühlhäusler's examples 23) - 25) do not show the plural marker, for example:

pata kopi ma pata tapeka ta *no coffee and no tobacco in* 　ra tito *D store*	*there is no coffee and* *tobacco in the store*

In other instances **umana** is used only if the speaker wants to stress that he is speaking of a number of discrete entities. But if the discreteness of the entities is not to be stressed, **umana** is omitted, for example:

dor a poko ta umana davai, *we2inc TA cut some PL stick* 　upi dor a mal ta tarai *so-that we2inc make some men*	*let's cut some sticks,* *in order to make men (out of* *these sticks)* (Kl 37 Tanak)
...i ga bubur a davai *he TA break D stick*	*he broke off sticks* (Kl 120 P)

Both in Tolai and Tok Pisin, equivalents to English mass nouns are countable. If the object referred to by the noun occurs in specific quantities, the nouns are combined with cardinal numbers or the plural marker, for example:

Tolai

i ga pait　　　ra voana kabang, *he TA cast-a-spell-on D one lime* 　i ga putinge *he TA blow-it*	*he cast a spell on (one* *portion of) the lime and* *blew it (over To Kabinana)* (Kl 53 P)
ma una bal ara, a pel tava *and you-TA stay there, D many water*	*and you will stay where there* *are so many rivers and lakes* (Kl 33 P)

Tok Pisin

em i pulimaplim wanpela graun long wanpela bilum	*she filled a specified quantity of earth into a stringbag* (Mühlhäusler 1975c:35)

Conclusion

Tolai	Tok Pisin
1. umana is obligatory with nouns denoting human beings, unless plurality is already expressed by reduplication.	ol is obligatory with nouns denoting animates, even if they are already reduplicated in order to express plurality.
2. umana is not used with nouns referring to objects which usually occur in a certain amount and are not regarded as discrete entities.	ol is optional with nouns denoting entities 'which are non-discrete and whose extent is not well defined' (Mühlhäusler)
3. umana is used with nouns denoting non-human objects, if the plurality of discrete entities is to be expressed.	ol is generally favoured with nouns referring to discrete inanimates, if there is the possibility of misunderstanding.

4. In both languages the equavalents to English mass nouns are combined with the plural marker or cardinal numerals, if a certain amount of specific quantities of the noun referent is to be expressed.

Though both Tolai and Tok Pisin lack a bound plural suffix and use a plural marker instead, which precedes the noun, substratum influence cannot be proven. For the absence of a bound plural morpheme is an all too general phenomenon and the distribution of the plural markers umana and ol is different.

6.1.4. The indication of sex

If required by speech situation, in Tok Pisin the sex of persons or animals spoken about can be indicated by man *man* and meri *woman*, which follow the noun in question, for example:

pikinini man, pikinini meri	*boy, girl*
dok man, dok meri	*male dog, bitch*
pik man, pik meri	*boar, sow*

The same device of denoting sex is used in the substratum
languages, wherever there is a lack of special words for male and
female beings, for example:

Tolai

a bul tutana, a bul vavina   *boy, girl*
D *child man*   D *child woman*

a pap tutana, a pap vavina   *male dog, bitch*

Besides tutana and vavina, tomotoina *male* and nana or tana *female*
are used in attributive or appositional position, for example:

a tomotoina pap   *male dog* (Bley 1912:15)

a minot a tomotoina   *tom cat* (Zwinge n.d.:10)

Pala works as Tolai does (cf. Peekel 1909:29); if necessary, sex
can be indicated by tunan *man*, tumatena *male* or hahin *woman*, pes
female, for example:

a pap a pes, a pap a tumatena   *bitch, male dog*

Because of its relatively small stock of lexical items, in Tok Pisin
the need for such constructions is much greater than in the substratum
languages. Thus *hen* and *cock* are rendered by paul man and paul meri,
whereas Tolai has two different words at its disposal, e.g. loko *cock*
and kakaruk *hen*.

Although Tok Pisin and the Patpatar-Tolai languages are very much
alike in their devices for denoting sex, one should be careful in
postulating substratum influence on Tok Pisin. For using the words
for *man* and *woman* is obviously the easiest way at all to express the
differences of sexes. In modern Bichelamar (Guy 1974b:19) the same
construction is found, for example:

pikinini man, pikinini woman   *little boy, little girl*
pik man, pik woman   *boar, sow*

whereas in Samoan Plantation Pidgin (Mühlhäusler 1975a:35) the word
order is the other way round, for example:

man hos, wumen hos   *stallion, mare*

According to these data the selection of man and meri as a device to
denote sex in Tok Pisin is probably not a result of substratum
influence, but due to the common prehistory of Oceanic pidgins or a
universal (i.e. wherever a pidgin arises, the difference of sexes is
expressed by the means of the words for *man* and *woman*).

The different word order in Samoan Plantation Pidgin and Tok Pisin
can be explained in two ways. The Tok Pisin word order noun + man/meri

may be a result of substratum influence or caused by a tendency to
regularity, since already in Samoan Plantation Pidgin noun phrases
show the structure head noun + modifying noun, for example:

haus simen	*concrete building*
haus pepa	*office*
haus sik	*hospital* (Mühlhäusler 1975a:35)

6.1.5. Conclusion

Features common to Tok Pisin and the Patpatar-Tolai languages, but
not shared by English are found with

1. the order of elements in the sequence head noun +
    modifying noun (e.g. haus stua);

2. the lack of a subordinating conjunction in
    relative clauses;

3. the expression of plurality by plural markers;

4. the indication of sex.

The last two items, however, cannot be regarded as proof for sub-
stratum influence, since the distribution of the plural markers is
different in both languages, and the means to indicate sex are too
general to prove anything.

Divergencies are found with

1. the position of adjectives;

2. the possessive construction;

3. the distribution of the plural marker.

Since the position of the adjectives and the possessive construction
do not reflect the structure of the superstrat language English,
independent development of Tok Pisin must be assumed.

6.2. Verbal phrase
6.2.1. The predicate marker

In Tok Pisin the verbal phrase is introduced by the predicate
marker i, unless the pronoun mi or yu functions as subject, for
example:

em i go, mi go, yu go   *he goes, I go, you* (sg) *go*

Though this predicate marker i obviously results from Melanesian
substratum influence, it is certainly not of Tolai origin, because it

is already found in ancient Bichelamar and subsequently in its
descendants modern Bichelamar and Cape York Creole (Guy 1974b:16f.,
Crowley and Rigsby 1979:185). The predicate marker is absent in
Chinese Pidgin English (Hall 1944:101).

In ancient Bichelamar the use of the predicate marker is not stable
yet:

`boat he capsize, water he kaikai him`	*the boat capsized and sank* (lit. *the water ate it*)
`...and that fellow kaikai him`	*and that (the fire) eats them* (Schuchardt 1883:6/154)

It is left out, when the verbal phrase is preceded by the personal
pronoun `him` *he*, for example:

`him fight him my finger`	*it (the needle) stuck into* *my finger* (Schuchardt 1883: 7/155)

But under the influence of native Melanesian speakers, i.e. speakers
of New Hebridean languages in the case of modern Bichelamar and
mainly Patpatar-Tolai speakers in the initial development of Tok Pisin,
it became a regular grammatical device in modern Bichelamar and
Tok Pisin. In Melanesian languages the verbal phrase is introduced
by a shortened form of the personal pronoun, which concords with the
subject, and hence is called subject marker. In Tolai the verbal
phrase may constitute a sentence, for example:

`a tarai dia vana` D *men* sm=*they*4 *go*	*the men went,*
`diat dia vana, dia vana` *they*4 sm=*they*4 *went* sm=*they*4 *go*	*they went,*

(In the interlinear translation of Tolai sentences the subject marker
is rendered by the English personal pronoun and thus not distinguished
from the Tolai independent pronoun. The numbers 2, 3 and 4 indicate
dual, trial and plural. **Vana** is translated by *went*, because the
present is expressed by the reduplicated form **vanavana**.)

Being introduced by the predicate marker **i**, the Tok Pisin verbal
phrase structurally resembles the Tolai verbal phrase, especially in
the third person singular, because the subject marker of the third
person singular is also **i**. So, using Tolai loanwords, you can con-
struct Tok Pisin sentences which only differ from the corresponding
Tolai sentences in that the Tolai noun phrase is preceded by a
determinative, for example:

Tolai	Tok Pisin	
a tabaran i limlibur	tambaran i limlimbur	*the ghost took a walk*

6.2.2. The nucleus

Both in Tolai and Tok Pisin the nucleus of the verbal phrase is not necessarily formed by verbs as in man i go, a tutana i vana *the man went*. The Tok Pisin predicate marker and the Tolai subject marker may also precede a noun or a noun phrase. In Tok Pisin, predicate marker plus noun constitutes a verbal phrase meaning 'to be what is expressed by the noun', while the structurally corresponding expression in Tolai is found only in sentences referring to the past or future and mostly means 'to become what is expressed by the noun', for example:

Tok Pisin

tispela pikinini i pikinini man	*this child is a boy*
ol i pren long mi	*they are my friends* (Laycock 1970: 25f.)

Tolai

dital ga vat iga *they*-3 TA *stone* PART	*they became stones* (Kl 442 P)
...ma i ga ngala na pa *and it* TA *big* C *taro*	*...and it (the little taro) became a big taro* (Kl 404 Nav)

In Tok Pisin *to become s.th.* is expressed by kamap, tanim long or go:

wara i tanim long wain	*the water became wine* (Mihalic 1971:192)
pikinini bilong mi i kamap dokta nau	*my child is becoming a doctor now* (Dutton 1973:250)
pikinini i go bikpela man	*the baby is getting bigger* (Mihalic 1971:33)

In Tolai equative sentences referring to the present, the predicate is formed by a noun phrase. Compare:

To Purgo i ga mata na keake *To Purgo he* TA *face* C *sun*	*To Purgo became the sun* (Kl 65 P)
iau a mata na keake *I* D *face* C *sun*	*I am the sun*

6.2.3. Negation

The position of the negative particle is different in Tok Pisin and Tolai. While in Tok Pisin the negative particle no follows the predicate marker i, the corresponding Tolai negative particle pa

precedes the subject marker, for example:

mi no go   *I do/did not go*

(iau) pa iau vana   *I did not go*
(I) not I   go

The position of the negative particle no is already found in ancient Bichelamar:

me no look him   *I have not seen him* (Schuchardt
                                        1883:8/156)

6.2.4. Tense and aspect markers

The tense and aspect marker system of Tok Pisin is related to that of modern Bichelamar and Cape York Creole, but does not show any particular similarity to that of Tolai, so that direct substratum influence can be excluded, for example:

Tok Pisin	tense, aspect	meaning
em i bin go	past tense	*he went*
bai mi go long taun	future tense	*I will go to town*
mi bai i go long taun		
em i go i stap	continuous action	*he is going (was/will be going)*
em i stap toktok		*he is talking (i.e. talking is what he is doing* Wurm 1971b:39)
em i go pinis	completed action	*he has/had/will have gone*
em i save go	habitual action	*he habitually goes*

Modern Bichelamar

olketa ol i bin storyan	past tense	*they all told stories* (Guy 1974b:17)
bambae yumi kilim	future tense	*we'll kill it* (Guy 1974b:49)
mi tes finis ritim buk ya	completed action	*I have just finished reading this book* (Guy 1974b:18)
Apel i stap lukaot sipsip	habitual action	*Abel used to tend the sheep* (Guy 1974B:18)

Cape York Creole

im bin kambek	past tense	*he has returned* (Crowley and Rigsby 1979:191, 192)
baimbai olmaan i go dai	distant future tense	*the old man will die sometime* (Crowley and Rigsby 1979:192)
i bin go pinis	completed action	*he has gone* (Crowley and Rigsby 1979:193)

While in Tok Pisin the tense and aspect markers occur in different positions, they always follow the subject marker in Tolai:

una vana *you-will go*	future tense	*you will go*
u ga vana	remote past tense	*you went (before yesterday)*
una ga vana	remote future tense	*you will go sometime*
u tar vana	resultative	*you have gone*
u ga tar vana	remote past tense + resultative	*you had gone*
una tar vana	future tense + resultative	*you will already have gone*
u la vana	habitual	*you usually go*

Past tense is expressed by ga which, however, is rather a remoteness marker. Ga indicates that the action has happened in the past before yesterday or, combined with the future tense marker, remoteness in the future. Tar is a resultative marker and can be combined with the remoteness and the future tense marker. Habitual action is expressed by the marker la in some dialects, whereas it is expressed by reduplication in others (cf. p. 102). Continuous action is always expressed by reduplication (cf. p. 102). There are numerous other markers following the subject marker as, for instance, mama indicating that the action is or was done in vain, or manga indicating intensity. As will be discussed in the next paragraph, only the expression of completed action in Tolai shows some similarity with that in Tok Pisin.

6.2.5. Tok Pisin pinis and Tolai par, vapar

In Tolai completed action is often expressed by the intransitive verb par or its transitive counterpart vapar *to do (s.th.) completely* following an intransitive or transitive verb respectively. Their use is similar to that of pinis in Tok Pisin:

ma dir   ian par ma a tutana
and they2 eat finish and D man
   i biti
   he say

They finished eating and the man said = When they had eaten, the man said (M 258 Rak)

mi kaikai pinis na mi laik i
   go slip

I have finished eating and shall go to sleep (Laycock 1970:16)

...ma i kikia, ma i kikia par ,
  and he grasp-with-tongs
    and he grasp-w.-t. do-completely
  ma i parapara
  and he roast-between-hot-stones

...and he got (it) out of the fire with tongs, and after he had got (it) out of the fire, he roasted it between hot stones (M 148 Rak)

```
ol man bilong pait i kam long          The warriors came to the post,
   stesin kam pinis, ol i              and after they had come they
   kirap pait                          started to fight (Dutton 1973:
                                       238)
```

But par, vapar differ from pinis in that they must not be separated
from the preceding verb, while pinis may be separated by an object.
Furthermore, pinis is used with both intransitive and transitive
verbs, although the verb pinis has a transitive counterpart, namely
pinisim *to finish*, for example:

```
mi sutim wanpela pik pinis             I have shot a pig (Dutton 1973:
mi sutim pinis wanpela pik             150)
```

In other words, while par, vapar are evidently verbs that constitute
a verbal chain with the preceding verb (cf. p. 93) the classificatory
status of pinis is less clear. Laycock calls it 'aspect marker'
(1970:xxiii), thus avoiding any identification with traditional parts
of speech.

   According to its basic meaning, *to do s.th. completely*, par and
vapar are also used in order to express that the action referred to
by the preceding verb affects all persons or objects spoken about,
for example:

```
dia   ga mat par                       they all died (K1 189 P)
they4 TA die finish
```

In Tok Pisin, however, this meaning is not expressed by pinis because
of its different basic meaning. Compare

```
        em i dai               he fainted
```
as opposed to
```
        em i dai pinis         he died
```

In modern Bichelamar finis is used in the same sense: em i tet *he is
unconscious*, em i tet finis *he is dead* (Guy 1974b:142). Thus we may
conclude that the similarities between Tolai par, vapar and Tok Pisin
pinis are merely accidental and cannot be explained as a result of
Tolai substratum influence on Tok Pisin.

6.2.6. Voice

   While there is no particular device in Tok Pisin to denote passive
voice, in Tolai a special subject marker, namely di, is used when the
actor of an action is not to be expressed, for example:

```
ma  di pulu ia                         and it (the fish) was wrapped up
and sm wrap-up it                      (M 142 Rak)
```
Di is similar to the German *man* or the French *on*.

6.2.7. The use of so-called auxiliaries

In Tok Pisin (1) wants, wishes and desires; (2) competence;
(3) physical ability; (4) necessity and obligation and (5) permission
are expressed by auxiliaries plus verb, for example:

(1) em i laik i wokim haus   *He wants to build a house*
                                      (Dutton 1973:23)

     mi laik go nau   *I would like to go now*
                                      (Mihalic 1971:118)

(2) mi save wasim ka   *I know how to wash a car*
                                      (Dutton 1973:75)

(3) mi inap sanapim dispela pos   *I can (am physically able to)*
                                      stand up this post
                                      (Dutton 1973:77)

(4) ol i mas lukautim papamama   *They must/should look after*
     bilong ol   *their parents* (Dutton 1973:186)

(5) yu ken sutim dispela pik   *You may shoot this pig*
                                      (Dutton 1973:110)

There are no auxiliaries in Tolai. The notions of wish, competence,
ability and obligation are expressed by full verbs plus noun or verbal
noun, plus prepositional phrase or clause, for example:

(1) iau mainge upi ina vana   *I want to go*
     I   want   that I-shall go

(2) dia   ga nunure ra nialir   *They can (know how to) swim*
     they4 TA know   D swimming   (K1 113 P)

     iau la ta ra tinata Kuanua   *I know how to/can speak Kuanua*
     I   know PR D speaking Kuanua

(3) iau ongor upi ra vinavan   *I can (am strong enough to) go*
     I   strong for D going   (Bley 1912:71)

     pa i tale iau pi ina vana   *I cannot go; it's not possible*
     not it suit me that I'll go   *for me to go*

(4) i to pa u pi una vana   *You must go*
     it be-suitable for you
      that you'll go

(5) i tale pi una vana   *You may go*
     it suit you that you'll go

     di mulaot upi una vana   *You may go*
     IND consent that you'll go

6.2.8. Conclusion

The only structural features shared by Tok Pisin and Tolai verbal
phrases are:

1. the use of an introductory particle, i.e. the use of the predicate marker in Tok Pisin and the subject marker in Tolai;

2. the possibility of verbal chaining.

These similarities are rather marginal in comparison with the divergencies between Tolai and Tok Pisin, and since the use of the predicate marker in Tok Pisin can be traced back to ancient Bichelamar, it is only verbal chaining that may have resulted from substratum influence (cf. p. 92ff.).

Divergencies between Tok Pisin and Tolai are found in

1. the meaning of verbal phrases of the structure pm/sm + NP;
2. the position of the negative particle;
3. the tense and aspect marker system;
4. the expression of the passive voice;
5. the expression of the wish, competence, ability, obligation and permission.

7. SENTENCE TYPES

7.1. Declarative sentences

The following investigation of Tolai and Tok Pisin declarative sentences is based on Tolai sentences which are then compared with the corresponding modes of expression in Tok Pisin. In Tolai simple declarative sentences can be classified into verbal and non-verbal sentences on the basis of whether the predicate is a verbal phrase or not.

7.1.1. Non-verbal declarative sentences

The main difference between Tolai and Tok Pisin is that, apart from one exception, in Tok Pisin the predicate is marked off by the predicate marker, and thus has to be classified as a verbal phrase (cf. p. 122), whereas there are three types of non-verbal sentences in Tolai:

1. existential sentences
2. equative sentences
3. locational sentences

7.1.1.1. Existential sentences

Existential sentences in Tolai consist only of a noun phrase stating the existence of what is expressed by the noun phrase, for example:

a kilala na mulmulum D *time* C *hunger*	*There was famine* (Kl 143 Gun)
ma amana a varden parika *and formally* D *women altogether*	*Formally there were only women* (M 92 Liv)
pata taina, a tava parika *no salt* D *water altogether*	*There was no salt, but only* *water (on it)* (M 106 Rak)

The corresponding Tok Pisin expressions are introduced by i gat *there is*, for example:

i no gat rais long heven	*There is no rice in heaven* (Dutton 1973:250)
i gat planti man long Niu Gini	*There are plenty of men in* *New Guinea* (Dutton 1973:250)

Modern Bichelamar exhibits the same structure, for example:

i kat wan olowala i save	*There is an oldster, who knows* (Guy 1974b:32)

7.1.1.2. Equative sentences

There are two types of equative sentences in Tolai. The first one consists of two juxtaposed noun phrases NP$_1$ + NP$_2$ expressing that 'NP$_1$ is NP$_2$':

kamava tutana ava? *your*4 *man what*	*What are your husbands?*
kamave tutana a umana pun *our*4ex *man* D PL *turtle*	*Our husbands are turtles.* (M 92 Liv)

The second type of equative sentence consists of a noun phrase plus a demonstrative pronoun expressing the identity of a person or object pointed at by the speaker, for example:

a vavina nam D *woman that*	*That is a woman* (Kl 26 Nav)
pata ra guria tuna nam *no* D *earthquake real that*	*That's not a real earthquake* (Kl 369 P)

In the Tok Pisin sentences corresponding to the first type of equative sentences in Tolai, the predicate is a verbal phrase, for example:

Dogare i man bilong Niu Gini	*Dogare is a New Guinean* (Dutton 1973:1)

The only exception is found with sentences denoting the name of a person or object:

nem bilong tupela Asa na Elu	*The names of the two were Asa* *and Elu* (Dutton 1973:262)

The Tok Pisin equivalents to the second type of equative sentences have a noun phrase as predicate as well, but they differ from the Tolai sentences in that the demonstrative pronoun em always precedes the noun phrase, for example:

em wanem? em wanpela snek	*What is that? That is a snake.*
em haus bilong husat?	*Whose house is that?*
em haus bilong dispela man	*That's this man's house* (Dutton 1973:26ff., 40)

In modern Bichelamar the same sentence type is found:

hemya wan yam	*This is a yam* (Guy 1974b:31)

7.1.1.3. Locational sentences

The predicate of Tolai locational sentences is a prepositional phrase or an adverb denoting the position or movement of the person or object spoken about, for example:

patana ta ra pal	*Nobody was in the house* (Kl 484 P)
iau mara ka Kadarok *I from-there* PART *Kadarok*	*I am coming from Kadarok* (Kl 335 P)
iau mamati Raluana *I from-here Raluana*	*I am coming from Raluana here*
iau mamati	*I am from here*

In Tok Pisin and modern Bichelamar such ideas are expressed by verbal phrases containing i stap *to be* and i kam *to come*, for example:

pikinini i stap long stua	*The child is in the store.*
em i kam long Mosbi	*He comes from Moresby.*

Bichelamar:

em i stap long bus	*He lives in the bush.*
mi i kam long karen	*I come from the garden* (Guy 1974b:34)

7.1.2. Verbal sentences

There are six types of verbal sentences in Tolai:

	sentence type	basic word order
(1)	stative sentence	$sm + V_{st} + (NP_{sub})$
(2)	intransitive sentence	$(NP_{sub}) + sm + V_{intr}$
(3)	transitive sentence	$(NP_{sub}) + sm + V_{tr} + NP_{obj}$

(4)	descriptive sentence	(NP_{sub}) + sm + Adj
(5)	equative sentence	(NP_{sub}) + sm + NP
(6)	subjectless sentence	– sm + V_{intr}

In verbal sentences the subject noun phrase is optional. All verbal sentences except the stative sentences have the basic word order S + V + (O), stative sentences have V + S. If a word or phrase is focalised, it is shifted to sentence-initial position. Focalised noun phrases, other than the subject of stative sentences, must be referred to by personal pronouns in their normal positions.

(1) Stative sentences:

i ga buka ra evu rat *Two baskets were filled*
it TA *full* D *two basket* (K1 498 P)

The basic word order of Tok Pisin sentences corresponding to Tolai stative sentences is S + V and thus does not differ from that of intransitive sentences, for example:

ples i pulap long pukpuk *the place abounds in crocodiles*
  (Mihalic 1971:161)

(2) – (4) Intransitive, transitive and descriptive sentences:

In all three sentence types Tok Pisin shows the same structure as Tolai:

Tolai	Tok Pisin	meaning
a pap i pot	dok i kam	*the dog came*
D *dog it came*		
iau gire ra pap	mi lukim dok	*I saw the dog*
a pap i ngala	dok i bikpela	*the dog is big*

(5) Equative sentences:

As already mentioned above (cf. p. 122), the non-verbal equative sentences in Tolai consist of two juxtaposed noun phrases NP_1 + NP_2 meaning 'NP_1 is NP_2', whereas the verbal equative sentence has the structure NP_1 + sm + (TA) + NP_2 meaning 'NP_1 was/will be/became/will become NP_2', for example:

dia   vat ika mua *They became stones* (M 154 Rak)
they4 stone PART PART

a kaliku i ga boroi lua *The snake was first a pig*
D *snake it* TA *pig   first* (M 218 An)

una   moar iau ina tutana *You will become a cockatoo and I*
you'll cockatoo, I I'll man *a real man* (K1 438 P)

  tuna ka
  real PART

In contrast to Tolai, the Tok Pisin equative sentences are verbal sentences in all tenses and never mean 'to become what is expressed by the NP used as nucleus of the verbal phrase'. The meaning of *to become* has to be expressed by verbs like **tanim long**, **kamap** or **go** (cf. p. 122), for example:

em i kamap kiap	*he became District Officer*
tispela kanu pastaim i wail limbun	*this canoe was a black palm tree* (Wurm 1971b:117)

Thus the only type of equative sentences shared by both Tolai and Tok Pisin is that expressing equation in the past and the future tense.

	Tolai	Tok Pisin
equation present tense	$NP_1 + NP_2$	$NP_1 + i + NP_2$
	$NP + DEM$	$DEM + NP$
equation in past and future tense	$NP_1 + sm + (TA) + NP_2$	$NP_1 + i + NP_2$
to become	$NP_1 + sm + (TA) + NP_2$	$NP_1 + i + \begin{matrix}\textbf{tanim long}\\ \textbf{kamap}\\ \textbf{go}\end{matrix} + NP_2$

The development of Tok Pisin equative sentences has probably not been influenced by Tolai; for otherwise one would expect that the predicate marker is omitted in the present tense. The occurrence of the predicate marker in equative sentences may have been caused by the tendency of Tok Pisin towards regularity and simplicity (i.e. all predicates have one and the same structure) and the presence of a copula in the superstrat language English. This assumption, however, does not explain why the predicate marker is not found in deictic equative sentences.

(6) Subjectless sentences:

Tolai subjectless sentences consist only of a verbal phrase introduced by the 3rd pers. sg. subject marker. They refer to natural events or daytime, for example:

i ga guria, i ga labur ma i ga *it TA quake, it TA storm and it TA*	*The earth quaked, it stormed and thundered* (Kl 59 P)
pipi *thunder*	
i ga bata, na keake *it TA rain it-will sun*	*It rained* (M 42 Rak), *the sun will shine*
i ga malana, nem ra tutan i *it TA morning,* DEM D *man he*	*In the morning the man went off* (Kl 67 P; lit. *it became/ was morning...*)
go vana TA *go*	

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(Compare: ...tago a bata ka iat   ...*because there was rainy weather*
          because D *rain* PART PART   (lit. *rain*) *for a long time*
                                          (K1 80 P))

While in Tolai this sentence type is productive, there are only a very
few items in Tok Pisin which do not have a subject, for example:

i tudak pinis   *It is already dark*

yu kamap bai i tudak long yu   *You will reach there after dark*
you arrive FUT pm *dark for you*   (Mihalic 1971:46, 198)

but

ren i kam daun   *The rain comes down, it rains*

san i lait   *The sun shines* (Mihalic 1971:
                                      164, 169)

The Tok Pisin verb gat, which is used without subject in the meaning
of *there is*, e.g. i gat san *to be sunny* (Mihalic 1971:169), has no
equivalent in Tolai (cf. p. 128).

7.2. Interrogative sentences

In contrast to English, Tok Pisin questions show the same sequence
of elements as declarative sentences. Yes-no questions are
distinguished from declarative sentences by intonation or by using
the tags a or o nogat *or not* (Dutton 1973:41), for example:

yu lukim em a ?   *You see him, don't you?*

yu lukim em o nagat ?   *Do you see him or not?*

In word questions the interrogative word or phrase holds the same
position as the word asked for in the corresponding answer, for
example:

yutupela i laik kisim wanem ?   *What do you want to get?*

mitupela i laik kisim kaikai   *We want to get food* (Dutton
                                      1973:17)

Only haumas tends to stand at the beginning of the sentence when
functioning as a noun object (Wurm 1971:63), for example:

haumas yu kisim pinis ?   *How much did you get?*

Tolai interrogative sentences exhibit the same structure, for
example:

u gire ? u gire, laka ?   *Did you see him? You saw him,
                                      didn't you?*

(laka is also used in Tok Pisin, e.g.

nating em i mekim olsem, laka ?   *He did it this way didn't he?*
                                      (Mihalic 1971:119))

Tolai	Tok Pisin	meaning
u pait ra ava ? *you do D what*	yu mekim wanem ?	*What did you do?*
u van' uve ? *you go where-to*	yu go we ?	*Where did you go?*
u kankan ta ra ava? *you be-angry because- of what*	yu kros long wanem samting ?	*Why are you angry?*

If the interrogative is focalised it is shifted to the beginning of the sentence, for example:

ma ava u enen ia *and what you eat it*	*What did you eat in the meantime?* (M 100 Rak)
ava nam u iaian ia ? *what DEM you eat it*	*What is it that you are eating?* (Kl 220 Rav)

The Tok Pisin interrogatives occur in sentence initial position as well and it seems to me that this positioning is also due to focalisation, for example:

wonem samting yu lukim ?	*What is it you see?*
yu lukim wonem samting ?	*What is it you see?* (Laycock 1970:xxix)

Since Tok Pisin questions are very similar to Tolai questions, substratum influence seems possible. But the word order in Tok Pisin questions (which is the same as in declarative sentences) probably did not only result from substratum influence, but also from simplification of the word order of the superstrat language, which led to the same word order in all types of sentences.

In ancient Bichelamar texts collected by Schuchardt interrogatives are placed at the beginning of the sentence, whereas in modern Bichelamar questions show the same structure as in Tok Pisin. In Cape York Creole, however, the interrogatives are placed at the beginning of the sentence as in ancient Bichelamar and English (Crowley and Rigsby 1979:197).

what kaikai me make him ?	*What shall I make for dinner?* (Schuchardt 1889:159)
what man you give him stick ?	*Whom did you give the stick?* (Schuchardt 1883:8/156)

Modern Bichelamar:

yuvala i ko ?	*Did you go?* (Guy 1974b:38)
i stap we ?	*Where is he?* (Guy 1974b:166)
yu wantem wanem ?	*What do you want?* (Guy 1974b:13)

7.3. Imperative sentences

In Tok Pisin imperative sentences usually the person to whom the command is addressed is indicated by the 2nd person pronoun, so that imperative sentences are distinguished from declarative sentences by intonation only, e.g. yu go !, and optionally go !. Tolai exhibits a similar structure; the only difference is that the future tense has to be used, which in contrast to Tok Pisin is obligatory in declarative sentences referring to the future as well, for example:

> **una vana !**   *go*!
> *you'll go*

But since in most pidgins the structure of imperative sentences is identical with that of declarative sentences, it seems that in Tok Pisin the structure of imperative sentences is rather due to simplification than due to substratum influence.

7.4. Conclusion

As shown in the table below, there are only a few types of sentences which show the same structure both in Tok Pisin and Tolai.

Sentence type:

1. Non-verbal declarative sentences
   - (1) existential sentences   –
   - (2) equative sentences   –
   - (3) locational sentences   –

   Verbal declarative sentences
   - (1) stative sentences   –
   - (2) intransitive sentences   +
   - (3) transitive sentences   +
   - (4) descriptive sentences   +
   - (5) equative sentences   –(+)
   - (6) subjectless sentences   –

2. Interrogative sentences   +

3. Imperative sentences   +

   –   = This sentence type has not the same structure in Tolai and Tok Pisin.

   +   = This sentence type has the same structure in Tolai and Tok Pisin.

   –(+) = This sentence type has the same structure in Tolai and Tok Pisin in a very few cases.

The few cases in which Tolai and Tok Pisin sentence structure coincide cannot serve as a proof of substratum influence. For the structure of interrogative and imperative sentences in Tok Pisin can also be explained as the result of simplification of English sentence structure; and the structure of intransitive, transitive and descriptive sentences is similar to that of the corresponding English sentences as well.

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