ASPECTS OF TOK PISIN GRAMMAR

by

Ellen B. Woolford

Department of Linguistics

Research School of Pacific Studies

THE AUSTRALIAN NATIONAL UNIVERSITY

TO THE PEOPLE OF
PAPUA NEW GUINEA

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TABLE OF CONTENTS

v

INTRODUCTION

Tok Pisin is the most widely spoken language in Papua New Guinea. There are five to seven hundred different languages in Papua New Guinea, and Tok Pisin is a lingua franca that makes communication possible across these many language boundaries within the newly independent nation. English and Hiri Motu (another pidgin) also serve this purpose, but to a much more limited extent.

Tok Pisin has had many other names: Neo-Melanesian, Melanesian Pidgin English, Melanesian Pidgin, New Guinea Pidgin English, New Guinea Pidgin, Talk Boy, and Tok Pisin. The name Tok Pisin is preferred by the Hiri Motu and Tok Pisin Research Unit in the Department of Language at the University of Papua New Guinea for several reasons: First, the language is not spoken throughout Melanesia, although there are a few related dialects outside Papua New Guinea. Second, the official name of the country is Papua New Guinea, and although at the present time Tok Pisin is used mostly in the New Guinean part of the island, it is hoped that eventually the language will spread throughout the Papuan side of the island as well. The use of only 'New Guinea' in the name of the language might irritate Papuans and hinder the spread of the language. Finally, the Papua New Guineans themselves call the language Tok Pidgin, Tok Pisin, or just Pidgin, but it was considered desirable to avoid the word 'pidgin' because of the great lay prejudice against pidgin languages, and because Tok Pisin may not remain a pidgin language for very much longer.

The history of Tok Pisin is still being debated. Its antecedents were not considered to be terribly noteworthy at the time and they are thus poorly recorded. The following widely accepted account is taken from Hall (1955a), Laycock (1970a) and Wurm (1971a). It is generally believed that Tok Pisin is a direct descendant of Beach-la-Mar, a

1

pidgin that developed in the South Seas out of a form of Chinese Pidgin English and local languages. In the mid-nineteenth century, Chinese Pidgin English was widely used by traders, and a modified version of this pidgin was used in the South Seas in the sandalwood and trepang trade. (Trepang is a sea cucumber which was highly prized by the Chinese as an ingredient of soup.) The language came to be known as Sandal-Wood English (Leland 1888) or Beach-la-Mar from the French word *bêche-de-mer* meaning trepang. Between 1847 and 1902, young men from the coastal regions of Melanesia were tricked, forced, or abducted into periods of service in the sugarcane fields of Queensland, Australia, under what has been called the 'blackbirding' system. In these plantation communities, the workers had come from diverse linguistic groups and thus had to depend on Beach-la-Mar as a common language. As is usually the case when a pidgin or creole develops in a colonial situation, Beach-la-Mar was far more important as a means of communication between workers than between master and worker. The pidgin undoubtedly changed during this period as the workers expanded and developed it to serve a wider range of communication needs, but the situation lacked the sort of stability necessary for creolisation to occur. (We shall discuss the conditions necessary for creolisation to take place later on in this chapter.) When the workers were released from the plantations, they took Beach-la-Mar back to their villages. Young boys in the villages at home were anxious to learn the language from their returning older brothers and cousins because to know Beach-la-Mar implied a knowledge of the outside world, giving one status, and it made one more likely to be chosen for an adventure away from the village (Mead 1931). During this same period, the Germans had begun an extensive trade in the area, and Melanesian crews were used on the ships. Just as on the plantations, such mixed crews had only Beach-la-Mar as a common language among themselves and as a trade language throughout Melanesia. This form of Beach-la-Mar blended with that of the plantations, since young men who had worked on plantations were the most likely to be chosen as ship's crewmen because they already spoke Beach-la-Mar and because they had some knowledge of the foreigner's ways.

By the mid 1880s, the Germans had established an administrative capital for New Guinea at Rabaul, New Britain. After realising that they could not replace the pidgin with German, they began to use it extensively in their rule and especially on their plantations (Salisbury 1970). During this period the language took on much new vocabulary from the New Guinean languages, especially from Kuanua, which is spoken by the Tolai people who live in the area around Rabaul. Tok Pisin

developed in New Guinea as a language separate from Beach-la-Mar, while a form of Beach-la-Mar is still used in the New Hebrides.

Although this version of the history of Tok Pisin is widely accepted, Peter Mühlhäusler has recently put forth a somewhat different theory on the basis of his research into the subject. He challenges the idea that the Queensland plantations had any great effect on the development of Tok Pisin. Mühlhäusler (1976b:122) claims that

> New Guinea Pidgin is a direct offspring of Samoan Plantation
> Pidgin English and that a significant part of New Guinea
> Pidgin's development after 1883 took place on the plantations
> of the Deutsche Handels- und Plantagen Gesellschaft in Samoa.

Thus according to Mühlhäusler, "a significant part of the stabilisation and development of New Guinea Pidgin took place outside New Guinea" in Samoa. The influence of the Tolai language is explained by the fact that a large number of labourers from New Britain and New Ireland were recruited for work in the Samoan plantations.

Salisbury (1970), however, states that labourers were brought to Samoa from New Ireland but not from New Britain. The influence of Kuanua on Tok Pisin was the result of bringing other New Guinean workers to plantations near Rabaul. (For further information on the early history of Tok Pisin see Clark (1977), Laycock (1970b) and Mühlhäusler (1977).)

World War II greatly accelerated the spread of Tok Pisin within New Guinea. New Guinean males who were pressed into service by the various foreign armies had only Tok Pisin as a common language. In addition, there were extensive movements of indigenous populations during the war and Tok Pisin spread with them. Following the war, the traditional state of warfare or hostility between indigenous groups in Papua New Guinea was almost completely eliminated as a result of the continuous efforts of missionaries and the pacification programs of various foreign governments. This has enabled people to leave their native groups without the fear of being killed. Mobility is increasing considerably as transportation improves, and many people are leaving their home villages to seek employment and excitement in urban areas. When groups mix in this way, Tok Pisin is usually the only means of communication, except where Hiri Motu or English is spoken, and thus Tok Pisin is commonly used in public urban life in New Guinea. There are an increasing number of marriages between men and women from different linguistic groups. When such couples live in towns away from the home group of either partner they generally speak only Tok Pisin in the home, and their children acquire Tok Pisin as a native language. Such young native speakers now number in the thousands.

OUTSIDE PREJUDICE AGAINST TOK PISIN

There has been much prejudice against Tok Pisin by outsiders who generally do not speak the language well, if at all, and to whom it sounds like broken or vulgar English. In the interest of the purity of the English language, missionaries, outside governments and others have tried hard to suppress Tok Pisin. Even the United Nations called for the abolition of Pidgin in 1953 on the grounds that it was a corruption of English. However, native New Guineans have a high regard for the language because it opens many doors to employment and mobility and because it enables them to communicate with people from other groups. Although many young people are learning English in schools now, and many outsiders like to believe that Tok Pisin will die out once people know English, this is not likely to be the case. People use Tok Pisin as the language of relaxation even if they do know English, and it has become a part of the emerging national pride. Papua New Guineans have often told me that Tok Pisin is the "English of Papua New Guinea", meaning that just as English is uniting the larger world, Tok Pisin is uniting Papua New Guinea.

PIDGIN AND CREOLE LANGUAGES

We have mentioned that Tok Pisin is a pidgin language. Pidgin languages have been defined by two different criteria:

1) A pidgin language is a lingua franca or trade language used for communication across linguistic boundaries, but it is not the native language of any group.

2) Pidgins are languages with highly simplified phonological, syntactic and semantic structures.

A creole language is usually defined as a fully elaborated mixed language that was formerly a pidgin, or as a pidgin that has become the first language of some community. (For further discussion of the definition of these terms see Hymes 1971:15-16, Todd 1974:1-3, Valdman 1977:4-7 and Wurm 1971b:999.)

The serious study of pidgin and creole languages is quite recent, beginning only in the latter part of the nineteenth century. One reason for this is that pidgins and creoles were considered to be nothing more than bastardised, broken corruptions of real languages. As such, pidgins and creoles were assumed to have no real order or grammatical structure and scholars did not generally waste time on them. This initial assumption about pidgins and creoles was based on three facts: (a) Pidgins and creoles had many lexical items that were

recognisable as words from English, French, or other European languages, but the total effect was either an unintelligible mishmash to Europeans or sounded like baby-talk. (b) Pidgins and creoles were generally encountered by Europeans in colonial situations where the pidgin or creole speakers had very low social, economic and political status, and were assumed by the Europeans to be too ignorant to learn the standard languages correctly. (c) Pidgin and creole languages do not fit the genetic (family tree) model of language evolution which was believed to describe all natural languages. This model does not allow mixed languages.

Pidgin and creole languages are now considered to be real languages, at least by scholars, and the serious study of these languages has become a respectable endeavour, but the problem remains that pidgins and creoles still do not obey the laws which have been formulated to account for 'ordinary' language change. Rather than abandon these notions about ordinary languages, many special theories of pidginisation and creolisation have been proposed which do not apply to ordinary language change.

The model of ordinary language referred to is the genetic model of language evolution. This model assumes that languages behave as if they were species of animals, and just as two species of animals cannot interbreed to form a viable new species, languages ought not be able to mix and form new languages.

It has long been known that mixing or borrowing occurs between languages, but the genetic model has been patched by superimposing a theory of linguistic diffusion (cf. Bloomfield 1933). Some of the earliest work on pidgins and creoles by Hugo Schuchardt had as its aim to point out that some languages were related to more than one family (Hall 1958:370). At the time, this theory was dismissed because there was not enough data to warrant a major revision of linguistic theory (Weinreich 1958). In the late 1950s another creolist, Douglas Taylor, again challenged the genetic theory by claiming that certain Caribbean creoles had two parent languages instead of just one (Taylor 1956). Yet Hall (1958) defended the basic genetic model, claiming that no matter how mixed a language appeared to be, the influence of one parent would always outweigh the others. This was putting a great deal of strain on the basic genetic theory, yet linguists were reluctant to abandon it because it has appeared to be valid for 'ordinary' language change. As Bloomfield stated in 1933, the genetic model requires the assumption that parent languages are uniform and undergo sudden and clear-cut splitting (p.311); and in the past the social situation was (or now appears to have been) usually close enough to that required by

the genetic model. Variation and dialects of languages were not often recorded in the past, and such things as variation and temporary simplification do not show up when one is comparing present languages and seeking to reconstruct ancestor languages. In addition, there has not been as much language contact in the past as there is now and probably will continue to be in the future (cf. Bickerton 1975). (Also see Weinreich, Labov and Herzog 1968; Kay and Sankoff 1974; and Bickerton 1974 for further arguments against the genetic model.)

In recent research, several scholars have advocated concentrating on the separate processes underlying instances of language change that have been categorised as pidginisation and creolisation. Hymes said that what is needed is "to recognize pidginization as a complex process comprising the occurrence of several component processes" (1971:70). Referring to the 1968 Mona Jamaica conference section entitled 'General Conceptions of Process', Hymes wrote that "the contributions treat pidginization and creolization not as unique and marginal, but as part of our general understanding of linguistic change" (1971:65). In this same volume, Samarin stated "I think that pidginization is a common phenomenon in human language and that pidgins are only special cases of it" (1971:123). However, many linguists who seek to unravel the component parts of pidginisation do so mainly as an aid to determine the diagnostic features of a true pidgin. For example, in the same article quoted above, Samarin spoke of a pidgin as a linguistic abnormality and of the need for "establishing a recognition procedure for pidgins, a pidgin diagnostic tool" (1971:122). These scholars realise that things which look like pidginisation and creolisation are being discovered more and more in the histories of 'ordinary' languages (see for example Domingue 1975 and Southworth 1971) and that there are many language situations which have not been categorised as true pidgins or creoles, but which demonstrate a high degree of mixing or simplification (see Gumperz and Wilson 1971 and Goodman 1971), but they still wish to construct tight definitions to insure the theoretical separation of pidginisation and creolisation from ordinary language change. This is a misguided and counterproductive task because we are dealing with a continuum of language change situations, and instead of arguing about whether such cases fit the definitions, we should concentrate on studying all variations from the old model of 'ordinary' language change in order to better understand the underlying processes at work.

It seems especially futile to try to define creoles, because it is generally agreed that creoles are indistinguishable from 'ordinary' languages except historically. Hall (1966:122-3) writes, "There are no structural criteria which, in themselves, will identify a creole as such

in the absence of historical evidence". Hoenigswald (1971:477) writes,
"Creoles are ordinary languages except in the sight of the antiquarian".
If we reject the life cycle theory that all languages that are categor-
ised as creoles (that is, all mixed languages) must have had a prior
pidgin stage (Hall 1962), then there may be even less difference between
the history of creoles and the history of 'ordinary' languages than
people have supposed. Alleyne (1971:138) argues,

> I can see no value whatever in calling Sranan and Papiamentu
> "creoles". They are merely languages which carry low status
> because their speakers belong to a culture which occupies a
> low status in the hierarchical arrangement of world cultures
> at the present time.

Pidgins are often considered abnormal because of their structural
simplicity and high variability, and this has been used to justify the
exclusion of pidginisation from the domain of the laws governing
ordinary language change. However, not all pidgins are highly variable
and as Labov has pointed out, variability is normal in language (see
for example Weinreich, Labov and Herzog 1968). "In considering it normal
for pidgins and creoles to be variable (even if also structured), and
normal for other languages not to be, linguists may unwittingly per-
petrate an ethnocentric, colonial heritage" (Hymes 1971:424). Pidgins
are different and special in a sense, just as an eclipse of the sun is
a different and special event. Such events represent the intersection
of several ordinary processes that produces an unusual or spectacular
result, but that can be explained in terms of general laws which also
apply to the unspectacular everyday order of things. Just as scientists
study eclipses of the sun in order to see certain things that are not
visible at ordinary times, pidgins may also reveal things about language
that are ordinarily covered over. To make another analogy, what has
been considered to be ordinary language change can be compared to a
chemical reaction which proceeds very slowly under normal circumstances,
but which will undergo a dramatic increase in rate with the addition of
a catalyst. Pidginisation and creolisation may be seen as a combination
of several ordinary linguistic processes which apply to an extreme degree
in the presence of certain social forces which act as a catalyst. Such
cases are important to study because the processes are magnified in a
sense and easier to see.

PIDGINS AND UNIVERSAL GRAMMAR

Pidginisation has been defined as a sort of stripping down process
which leaves something that is close to the universal core underlying
all languages (cf. Hymes 1971). Because much of the irregularity,

stylistic variation, and other peripheral aspects of ordinary languages are missing in pidgin languages, it is quite reasonable to expect that the grammars of pidgin languages are more closely restricted to the features of universal (core) grammar than are the grammars of ordinary languages. It was believed (Hall 1966) that pidginisation involved the creation of a kind of least common denominator from the combination of several parent languages. If this were so, we might expect pidgins to conform closely to a notion of universal grammar based on Greenberg's (1963) list of language universals which were arrived at by comparing the surface structures of a great many languages and extracting the common elements. Koefoed (1975), however, has shown that pidgins do not conform to Greenberg's set of universals. Moreover, Samarin (1971) has established that pidgin languages are not limited to the common elements of their parent languages, but contain new elements that one might assume are drawn from universal grammar. Universal grammar in Chomsky's (1965) sense is universal because it is part of the genotype of the human species. Superficial universals of the type Greenberg lists merely reveal statistical tendencies (Chomsky 1965) and might be caused by a number of factors besides the underlying core grammar. Koefoed (1975) suggests two of these: universal factors or performance and general laws of language evolution (although such laws may well be indirectly relatable to cognitive processes). Sankoff (1977) suggests another possibility. Since human languages do not exist in a vacuum, but are instead closely integrated into social systems, universal facts about human society and culture may result in certain universal traits of language. An example of this is the fact that every fully elaborated language expresses information about the speaker's and/or hearer's social status, whether by different lexical items, alternative sentence structures or pronunciations, or some other means. Social systems demand that certain information be encoded in the linguistic systems.

There is a recent controversial paper by Bickerton (1975) which argues that creoles, rather than pidgins, are close approximations to universal grammar. His argument is based on the fact that the majority of situations in which a pidgin has been used involved linguistically mixed populations of slaves or indentured workers who were separated from their native language groups and forced to rely on a pidgin as the sole means of communication. Bickerton argues that the pidgin developed in such a situation would be highly unstable and poorly developed at first, until a common norm could emerge. However, he points out, within three years children born into the group would begin learning the pidgin as a native language and would reorganise it according to their innate knowledge of language universals, thus, by

definition, creolising it. Therefore, Bickerton claims, "creolization must take place before a pidgin has had time to stabilize" (1975:4). According to this theory, pidgins are merely short-lived jumbles of pieces of diverse grammars that have been thrown together by a social situation and which have no direct relation to the nature of the human mind. Bickerton claims, on the other hand, that creoles are different in kind from ordinary languages and, whereas universal grammar is suppressed and altered in ordinary language, it is clearly visible in creole languages.

Bickerton's theories are subject to serious criticism. First, the existence of a stable pidgin language, Tok Pisin, disproves the claim that creolisation must take place before a pidgin has had time to stabilise. Second, the claim that creole languages are different in kind from ordinary languages is contradicted by years of empirical work. (See Hall 1966; Hoenigswald 1971; and Alleyne 1971 quoted above.) Despite these criticisms, Bickerton's thesis can be accepted if we assume that Bickerton's use of the terms pidgin and creole deviates considerably from common usage. Since Tok Pisin has some native speakers and is remarkably stable, it does not fit Bickerton's idea of a pidgin at all and it should be exempt from his charge that pidgins do not reflect language universals. In fact, Tok Pisin is one of the few existing languages that fits Bickerton's notion of a creole, that is, a language that has become the native language of a group of children and thus reflects their innate knowledge of language universals, but one that has not yet become fully re-elaborated to the point that it is indistinguishable from ordinary languages. There are very few examples of such creoles because it is quite unusual for a pidgin language to come into widespread use in a stable form without creolising. We can ask the following questions. Why do some pidgin languages creolise almost immediately, while other pidgin languages creolise slowly if at all? In particular, why did all of the pidgins used in the Caribbean either creolise or die out within a generation, while the pidgin used in New Guinea has remained fairly stable since its introduction in the last century until the last few years when it has slowly begun to creolise?

The answer is rooted in the differences in the social contexts surrounding the use of the pidgins. Let us examine the social context of pidgins in the Caribbean and in New Guinea and try to isolate the specific factors that determine whether or not a pidgin will creolise, and if so, at what rate.

10

The socio-historical background of pidginisation and creolisation
in the Caribbean is dealt with in several articles in the volume edited
by Dell Hymes, *Pidginization and Creolization of Languages*. Much of
the following summary is taken from the paper by Sidney Mintz (1971)
in that volume.

In the sixteenth century, the Spanish brought slaves to the Caribbean.
However, their numbers were not great compared to the number of Spanish-
speaking residents in these areas, and the slaves were allowed to merge
with these residents after only a few years of service. If a pidgin
was used at all, it was soon abandoned as the slaves were absorbed into
the Spanish-speaking society and learned Spanish. Later, a far greater
number of slaves were brought to the Caribbean by the British and the
French. These slaves far outnumbered the other residents of these
colonies and a strict separatism was maintained. Moreover, these slaves
were intentionally separated from their own language groups when they
were sent to plantations in order to undermine any unity among them.
Thus these slave societies had to rely on a pidgin language (based on
pidgins used in West African trading before this time) for a very large
proportion of their communication needs, and all children born into the
community learned the pidgin as a native language. Any new slaves or
workers brought into the community were placed into a situation of total
immersion in terms of language learning and could learn even a fully
elaborated language rather quickly. Within a generation the pidgin
was creolised into a fully developed language, probably before the
pidgin itself had a chance to stabilise.

The situation in New Guinea was quite different. Unlike the Caribbean,
the plantation communities in the South Seas were not permanent. The
workers were not slaves, but indentured workers, and there was a con-
tinual turnover of the work force on these plantations. On the
Queensland plantations, at least, the workers were largely male, and
thus no large population of children grew up speaking the pidgin as a
native language. On the Samoan plantations there were women and chil-
dren, but they were reabsorbed into indigenous communities after a few
years of service (Mühlhäusler 1976b).

Because of this lack of permanent isolation Tok Pisin was not immedi-
ately creolised. It was maintained as a pidgin in later years instead
of dying out because of the continued existence of plantations in New
Guinea and because of its usefulness to workers after they returned
home as a means of gaining access to the colonial society and opening
new avenues to status and power (see Sankoff 1976).

Although Tok Pisin is now in widespread use in Papua New Guinea,
ethnic and linguistic identity continue to be extremely important,

after countless centuries of hostility between groups. Most Tok Pisin
speakers remain in close contact with their native groups, and even if
they live in urban areas, the use of the indigenous language is pre-
ferred over Tok Pisin in most contexts. In most villages, and even in
towns where members of the same ethnic group cluster together, Tok
Pisin is seldom used unless an outsider is present or on special
political occasions (Sankoff 1976). Thus most children learn an in-
digenous language as their first language, although they may also learn
Tok Pisin at an early age. There are still many people in Papua New
Guinea who do not speak Tok Pisin, but unlike the Caribbean situation,
these people are not exposed to anything approaching total immersion
in the language. Even if they leave their home areas and move to urban
areas, they often spend much of their time talking to members of their
own language group. For the most part, only children of linguistically
mixed marriages who are raised in towns away from their parent's group
learn Tok Pisin as a native language.

Yet, these native speakers do not creolise the pidgin to any great
extent. According to Mühlhäusler (1976a), the children in some areas
of New Guinea have tried to elaborate Tok Pisin, but they have been
held back by the norms of the rest of the community and they are even-
tually forced to conform. Mühlhäusler writes:

> Even fluent second-language speakers of New Guinea Pidgin
> experience difficulties in following the speech of children
> speaking New Guinea Pidgin as their first language, though
> older children tend to return to the norms of second-language
> New Guinea Pidgin as a result of pressure for communication.

The most obvious conclusion that we can draw from the situation in
New Guinea is that, contrary to the definitions usually given for
pidgins, a pidgin may have some percentage of native speakers and still
retain its structural and lexical simplicity. Ten thousand native
speakers out of half a million second-language speakers is only 1%, but
the proportion of native speakers in urban areas is much greater because
a large majority of the native speakers are concentrated there. It
has been generally assumed that native speakers are necessary for
creolisation to occur, but this has not been proven. It is possible
that the conditions necessary for creolisation to take place are
incidentally also the conditions in which native speakers are produced.
If it were not ethically impossible to do so, we could perform an
experiment to discover whether or not native speakers are necessary
before creolisation can occur. We could isolate a group of people of
one sex (or a group of both sexes with birth control) that have only a
pidgin language in common, serving all of their communication needs.

We could then observe them to see whether, over time, this group of adults would creolise the pidgin. Because most people reproduce, it would be difficult to find such a natural experiment, but I think that the question is a very important one and we should seek other sorts of evidence that might help us to determine whether or not creolisation can only occur when children learn a pidgin as a native language and restructure it as they do so, or whether a group of adults could do it as well if they used a pidgin for all of their communication needs.

Sankoff and Laberge (1973) have compared the speech of native speakers of New Guinea Pidgin with the speech of their parents who are fluent second-language users of the pidgin. They found that the native speakers spoke more rapidly and more fluently and that they assigned primary stress to fewer elements. However, such a difference might occur between native and non-native pairs of speakers of any language. Sankoff and Laberge found evidence of ongoing creolisation in the development of a future marker, but they noted that the adults and children did not differ significantly as to the degree that this development had progressed in their speech, either in the degree to which the position of the future marker has shifted from its original sentence initial position as a sentence adverb, or to the degree to which the future marker has become obligatory and redundant. This research may be an indication that adults can also elaborate language, but it does not seem conclusive. The strongest counter-evidence that I know of is the observation of Mühlhäusler that native speakers are held back by community norms. A study of child language acquisition in first-generation native speakers of Tok Pisin would be very valuable to show what changes the very young children actually make before they conform to second-language standards.

Previous attempts at isolating the conditions necessary for creolisation have often suffered from the fact that they were based only on a few situations, and in particular, attempts to isolate the conditions necessary for creolisation in the Caribbean suffered from the fact that pidginisation and creolisation took place in rapid succession there and can hardly be separated for study at this late date. Mintz (1971) lists seven conditions present for creolisation in the Caribbean,

    1) the repeopling of empty lands;

    2) by more than two different groups;

    3) one of which was smaller and socially dominant;

    4) and the other of which was larger, socially subordinate, and included native speakers of two or more languages;

    5) under conditions in which the dominant group initiates the speaking of a pidgin that becomes common to both groups - that is,

conditions under which the dominant group, at least, is bilingual, and the subordinate group multilingual; and

6) there is no established linguistic continuum including both the pidgin and the native language of the dominant group; and

7) the subordinate group cannot maintain its original languages, either because the numbers of speakers of any one of its languages are insufficient, or because social conditions militate against such per-petuation, or for both reasons (Mintz 1971:498-9).

Mintz probably included condition (1) to exclude the earlier slaves that the Spanish brought who did not creolise the pidgin. Most of these conditions seem to apply to pidginisation more than to creolisation, unless one denies that there was prior pidginisation in the Caribbean (cf. Alleyne 1971).

From what we know of the Caribbean situations and Papua New Guinea, we can state a set of sufficient conditions (although not necessarily they only possible conditions) under which creolisation of a pidgin will occur.

CONDITIONS FOR CREOLISATION

(1) The speakers of the pidgin are isolated from any close contact with any group of people using a language other than the pidgin. This isolation is usually physical, but conceivably it could be social, initiated either by outsiders or voluntarily by the pidgin speakers themselves.

(1) results in (2).

(2) The pidgin speakers use the pidgin for almost all of their communication needs over a long period of time.

(2) results in (3).

(3) Nearly all children born are native speakers of the pidgin.

There may actually be many combinations of social factors that might lead to (1) (the isolation of a group of pidgin speakers). Condition (2) alone might lead directly to creolisation, or it might require (3), the presence of the young native speakers, that inevitably follows if condition (2) is met. This remains to be tested.

Hymes has said that a pidgin will persist as long as the need which created it persists, that is, as long as there is a need for a lingua franca that is easy to learn persists. This is a rather general state-ment, but I think that it is the key to why the lack of isolation of fluent second-language pidgin speakers and their native speaker children prevents them from completely creolising Tok Pisin. There are still

vast numbers of people in rural villages who have limited contact with outsiders and for whom an easy-to-learn lingua franca is still very necessary. If a larger degree of separation were to develop between the urban and rural areas in Papua New Guinea, I suspect that a continuum between a rural pidgin and an urban creole would arise. However, at the present time there is much movement between the rural areas and the towns. People seek out members of their own groups in the towns, and children raised as native speakers in towns are often taken back to the villages when father retires, or mother and father split up, or for extended visits. Because of this situation, even urban dwellers may not use pidgin exclusively for long periods of time.

This social context appears to require that the lingua franca continue to be easy to learn quickly as a second language, without a great deal of exposure.[1] It may well be that the young native speakers' attempts at elaborating Tok Pisin will be held in check to a large degree until a large proportion of Papua New Guineans are using Tok Pisin for a large proportion of their communication needs. Of course, these conditions would also result in a large proportion of children learning Tok Pisin as a first language. Thus, within a year or so of the formation of such a community, there would no longer be any reason for Tok Pisin to remain particularly easy to learn, and the natural pressure towards the elaboration of language in order to increase stylistic choice (Labov 1971b) and to reduce ambiguity and context dependency would predominate and rapid creolisation would take place.

We have not said that much about the rate of creolisation, but it seems that it is probably correlated with the degree to which the conditions required for creolisation are met. Conditions for creolisation in Papua New Guinea are far from ideal, and creolisation is proceeding very slowly there. Judging by what happened in the Caribbean, it would appear that the shortest time required for complete creolisation is a generation. However, if it is the children that do the creolising, and if one generation of children could totally restructure the pidgin in the five to ten years it takes for language learning (as opposed to the possibility that each new group of children could only bring the pidgin one stage closer to a full creole), the actual creolisation might take place very quickly, but it could take some time for the innovations and

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[1]It must be pointed out, however, that the social context of Tok Pisin's use is still more favourable to elaboration than that of a rudimentary pidgin and this has resulted in Tok Pisin being what Todd (1974) calls an extended pidgin. The time it takes to learn the language is correspondingly lengthened. Sankoff has pointed out that both historical and contemporary evidence indicate that real fluency in Tok Pisin does not come before about ten months of exposure.

modifications to spread throughout and stabilise in the adult population. In fact, this might not happen until most or all of the adult second-language speakers died off.

THE FUTURE OF TOK PISIN

It is difficult to predict the exact course of the future development of Tok Pisin. In theory, many possibilities are open. Pidgins generally die out or creolise (DeCamp 1971a:16). It is highly unlikely that Tok Pisin would die out. Tok Pisin may slowly creolise, but whether it will do so in the direction of English or along some independent lines remains to be seen. There is a serious possibility that eventually there will be a continuum between Tok Pisin and English. This has occurred between Jamaican Creole and English in Jamaica (DeCamp 1971b) and between Guyanese Creole and English in Guyana (Bickerton 1974), as well as in many other areas. Since the vocabulary of Tok Pisin is largely derived from English, this might seem to be the most likely alternative. It has been estimated (Laycock 1970a:xi) that Tok Pisin has a vocabulary which is 77% English, 11% Tolai (Kuanua), 6% other indigenous languages, 4% German, 3% Latin (largely ecclesiastical terms), and 1% Malay. However, although a word may be English or German in its outer form, its meaning has often been changed to various degrees to fit native categories of meaning, and its pronunciation has of course been altered in line with indigenous phonological systems. For example, there are several lexical items which are considered vulgar in English, but which have quite innocent meanings in Tok Pisin. Sit comes from the English word *shit*, but its meaning is most accurately translated as *'that which remains after combustion'*, i.e. ashes or soot. There is a separate word, pekpek, for excrement. As from English *arse/ass* means the base or root of something in Tok Pisin. Thus one may speak of the as of a tree (*'trunk'*) or the as of a problem (*'root'*) or the as p'es (*'place of origin'*) of something. There are many other examples of altered mean-ings. To give just one, posin, from English *poison*, refers to black magic, sorcery, a spell or a charm (Mihalic 1971:159), but would not be used to refer to a chemical or a plant that would be described as a poison in English. I mention these examples to show that Tok Pisin is not merely simplified English. The investigation of the semantic categories of Tok Pisin would be a fascinating study in itself, but one which will not be explored here. Studies of creole continuums have generally concentrated on grammatical structure and it would be very interesting to see how a continuum between differing sets of semantic categories would operate.

There are some important differences between the situation in the
Caribbean and in Papua New Guinea, but the effect that these differences
might have on the formation of a creole continuum in Papua New Guinea
is unknown. Creoles in the Caribbean have had a very low status com-
pared to English or whatever 'standard' language is present, whereas
there is a relatively high regard for Tok Pisin among its speakers.
This would seem to result in less pressure towards making Tok Pisin
more like English than has been the case with Caribbean creoles. On
the other hand, the Caribbean creoles creolised largely independent of
English and other standard languages, whereas the creolisation of Tok
Pisin may be heavily influenced by close contact with English. In fact,
it is true that the German vocabulary has largely dropped out of Tok
Pisin and that many English words are being borrowed, especially in
government, sports, and technical areas where there was no suitable
term in Tok Pisin. However, as the situation stands now, one must know
English to understand much of the Tok Pisin used in these areas, although
English words are filtering into general use to some degree. Mühlhäusler
(forthcoming) mentions pockets of Tok Pisin speakers that are creolising
Tok Pisin heavily in the direction of English (Dagua Village in the
West Sepik) and others that are creolising Tok Pisin in other directions
(Erima Nambis Village in the Madang District). The studies done so far
on syntactic change in Tok Pisin do not indicate that Tok Pisin is
merely turning into English.

The processes of creolisation and decreolisation have been treated
as distinct in the literature, so perhaps it is premature to speculate
on whether or not a creole continuum will come about in Papua New Guinea
when Tok Pisin has not yet even creolised.

PREVIOUS WORK ON TOK PISIN

There have been many partial grammars of Tok Pisin written in the
traditional and structural or descriptive modes. Reinecke (1975) and
McDonald (1975) list most of these. Perhaps the earliest grammar of
Tok Pisin was written by Hugo Schuchardt in 1883. The most complete
and linguistically sophisticated grammar of Tok Pisin to date was
written in 1943 by Robert A. Hall, Jr. However, this work was based
on "exclusively English-speaking informants, whose knowledge (of Tok
Pisin) was gained mostly from the Sepik River region of New Guinea"
(Hall 1943:7). It relies heavily on examples and lists of exceptions
to supplement a few rules. More recent grammars, Mihalic (1957) and
(1971), Laycock (1970a) and Wurm (1971a), are intended mainly as aids
for people learning Tok Pisin who have little or no knowledge of
linguistics.

The only published attempt at a transformational approach to Tok Pisin is Hooley's (1962), which outlines some possible transformations in Tok Pisin. Unfortunately he imposed an English structure on it, for example, in assuming that Tok Pisin has a passive transformation. With the recent upsurge in interest in pidgin and creole studies, many in-depth analyses of small portions of Tok Pisin grammar have been under-taken. Sankoff and Laberge (1973) have investigated the future marker bai and Rickford (1973) and Sankoff and Brown (1976) have written on the emergence of the relative clause marker ia. This is one example of a change which is not patterned on English. The ia marker brackets relative clauses in Tok Pisin whereas in English a relative pronoun signals a relative clause.

> Dispela man ia, lek bilong en idai ia, em i stap insait nau.
> *'This man, whose leg was injured, stayed inside.'*
> <div align="right">(from Sankoff's data)</div>

Mühlhäusler mentions an alternative strategy for marking relative clauses in Tok Pisin. We (*'where'*) is used as a relative marker much as a relative pronoun is used in English.

> Em i bin krosim pikinini we i no winim praimeri skul.
> *'He was cross with the child who did not finish primary school.'*
> <div align="right">(from Mühlhäusler forthcoming)</div>

Smeall (1975) and Woolford (1975) have written on the variable deletion of the i predicate marker. Smeall argued that the deletion of i is conditioned by both the phonological and syntactic environments, whereas I have argued that only the syntactic context is significant. Mühlhäusler (1975b) did work on lexical bases and multifunctionality and (1976a) on the structure of the lexicon. In addition, he has written on the category of number (1975a). Sankoff (1976) has explored the cliticisation of subject pronouns.

FIELDWORK AND THE DATA

The data upon which the following partial grammar is based was gathered in Papua New Guinea between November 1974 and September 1975 under the sponsorship of the Research Unit on Hiri Motu and Tok Pisin at the University of Papua New Guinea. Prior to the fieldwork I developed some facility in the language by the use of books and tape recordings, and by participating in a seminar given by Professor Sankoff at the University of Michigan in the summer of 1973. During the study, I lived with Papua New Guinean families and communicated almost exclusively in Tok Pisin. Thus I achieved a high degree of fluency in Tok Pisin.

Because there have been claims that regional dialects exist in Tok Pisin in Papua New Guinea, a broad geographic sample was desired. Data was recorded in and around six widely separated towns in New Guinea: Rabaul, Lorengau, Wewak, Madang, Finschhafen, and Goroka (including two other Eastern Highlands towns, Kainantu and Henganofi). The data was gathered primarily in towns because that is where Tok Pisin is most likely to be used in daily social intercourse. In the rural areas, an indigenous language is ordinarily used. Moreover, the towns contain residents from many diverse areas so that there are also speakers represented in the data who come from Kerema District,[1] Chimbu District, Wabag, Mt Hagen, Bogia (Madang District) and Siassi Island. Speakers of both sexes, all age groups and education backgrounds, ranging from little or no schooling to some university work, are represented in the data. The data include a wide range of speech events, both formal and informal, ranging from court cases, speeches, radio broadcasts, and church services, to story telling, casual conversation and children at play. Recording was done in natural settings appropriate to the particular speech event, and although permission was obtained before recordings were made, the speech events were usually not arranged especially for recording purposes and the microphones were made as unobtrusive as possible. In most cases there were several participants present, a situation which is supposed to control artificial speech (Labov 1971c).

The analysis of Tok Pisin that follows is by no means a complete grammar. With the strict requirements set today for what a complete and adequate transformational grammar should consist of, such an undertaking would be monumental. Instead of attempting a superficial analysis of the entire grammar, I have chosen to concentrate on only a few areas. These are the pronoun-determiner system, WH movement and question formation, the genitive marker bilong, negation, the general preposition long, serial verbs, and verbs with both transitive and intransitive forms. I shall attempt to show that the structures underlying these portions of the grammar are often unlike the structures presently proposed for the analogous areas of English grammar. However, I will also demonstrate that in many cases the proposed underlying structures for Tok Pisin could also be used to generate the English surface structures as well by the addition of certain rules. This could be taken to indicate that Tok Pisin is closer to universal grammar than is English.

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[1] Now Province.

CHAPTER II

THE PRONOUN SYSTEM OF TOK PISIN

INTRODUCTION

At first glance the pronoun system of Tok Pisin appears to be fairly simple because no case or gender distinctions are made. However, a closer examination reveals some interesting complexities. First, there is an inclusive and exclusive form of the first person plural, and some scholars argue that there are dual and trial forms as well. Second, the suffix -pela which has traditionally been analysed as a plural marker on the first and second person pronouns does not mark plurality when it occurs elsewhere in the grammar. Finally, the form ol which has been considered to be the third person plural pronoun may co-occur with other pronouns and may also occur more than once in a noun phrase.

These complexities dispel any notion that Tok Pisin is merely sim-plified English. On the other hand, there is an underlying order to these surface complexities that contradicts the idea that pidgins are merely disorganised conglomerations of elements from several languages. I will argue that the basic pronoun system of Tok Pisin is quite simple and elegant and that the complexities mentioned above are the result of relatively superficial interactions of this system with other elements of the noun phrase. In addition, I will show a striking parallel between the behaviour of ol in Tok Pisin and the behaviour of dem in Krio (spoken in Sierra Leone) and to some extent dem in Jamaican Creole. This may be one bit of evidence for some universals of pidginisation and creolisation, if not for the theory that pidgins and creoles are closer to universal grammar than most languages are.

TRADITIONAL ANALYSIS

In the past, the personal pronoun system of Tok Pisin has been analysed more or less as in the chart below (cf. Hall 1943; Forchheimer 1953; Mihalic 1971; Laycock 1970a; Wurm 1971a; and Dutton 1973):

19

NUMBER

	Singular	Plural	
I	mi	yumi { tupela / tripela }	inclusive
		mi { tu / tri } pela	exclusive
II	yu	yu { tu / tri } pela	
III	em	(em) { tupela / tripela } (em) ol	

PERSON (labeled vertically along the left side)

In the plural, the exact number involved (included here in parentheses)
is optionally included. Theoretically, any number can be included here,
but two (tupela), three (tripela), and four (fopela) are the only ones
that occur with any frequency. According to Laycock (1970a), tupela
and tripela are almost obligatorily included. In the singular, mi
wanpela, yu wanpela and em wanpela also occur, but only in emphatic
contexts(Dutton 1973:131). The third person plural form varies from
account to account. However, all of the third person plural forms
listed above are still in use, and Sankoff (1976) reports that young
informants still stumble over the choice of em or ol in this context.
The third person singular form, em, appears as en after the prepositions
long and bilong, except in emphatic context (Mihalic 1971:14 and Laycock
1970a:xix). A distinction between neuter en and masculine em may be
made by speakers in certain regions (Hall 1943:27), but this distinction
is more likely attributable to the fact that animate and especially
human objects more often appear in emphatic contexts than do inanimate
objects. There are no other forms of pronouns for the oblique cases.

SYNTAX

Traditionally pronouns have been said to replace nouns or noun
phrases, and most transformational grammars either generate pronouns
in deep structure in the place of noun phrases, or else transformation-
ally replace noun phrases with pronouns at some stage in the derivation.
However, Tok Pisin pronouns (and even to some extent English pronouns)
may co-occur with nouns as well as appearing alone.

TOK PISIN PRONOUNS WHICH APPEAR TO REPLACE NOUNS

Mi kukim kaikai bilong mi.
I   cook   food   of   me

'*I cook my food.*'

Em suga ken bilong yu.
it sugarcane of   you

'*It is your sugarcane.*'

Em suprais   nau.
he surprise now

'*He is surprised now.*'

Em mipela.
it us

'*It was us.*'

Ol   i makim mipela.
they   mark us

'*They marked us.*'

Bai   yupela katim i go daun.
Fut. you   cut   go down

'*You(pl.) will cut (it) down.*'

O inap mitupela go tasol yu karim bebi meri   pinis.
oh able we two   go but   you carry baby female complete

'*Oh, it would be possible for us to go but you just had a baby.*'

Ol   i ken wokim gadin bilong ol.
they   can work garden of   them

'*They worked their gardens.*'

TOK PISIN PRONOUNS WHICH CO-OCCUR WITH NOUNS

Mipela ol bikpela bai i go daun kuk.
we   Pl. big   Fut.   go down cook

'*We big (ones) will go down and cook.*'

Yupela meri i ken kuk.
you   woman   can cook

'*You women can cook.*'

Orait yupela ol dispela lek nogut, yupela i stap.
O.K. you   Pl. this   leg bad   you   stay

'*All right, you lame (ones) you remain.*'

Em man i no lukim dispela lip ia.[1]
he man NEG see   this   leaf

'*The man did not see this leaf.*'

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[1]In other contexts, em serves as an emphasis marker and Peter Mühlhäusler has suggested
that em is also an emphasis marker in these cases. However, in this sentence em re-
ceives very little stress and in many other cases em cannot be used at all in sentence
initial position without changing the sentence into a cleft sentence or making it un-
grammatical: *Em em i go.

> Em   sista   wantaim tambu   tupela singautim mi.
> *she sister with   in-law two   call   me*
>
> *'(My) sister with an in-law are calling me.'*
>
> Ol   sampela lain ol   i go was   long ol   samting.
> *Pl. some   line Pl.   go watch for Pl. thing*
>
> *'Some of the group went to watch over the things.'*
>
> Yumi ol   Papua New Guinea
> *we   Pl. Papua New Guinea*
>
> *'We Papua New Guineans.'*

The most economical analysis should generate these two types of pronoun usage from one underlying source. The rare instances of pronouns co-occurring with nouns in English, for example

> *You people had better shape up.*
> *We women will organise it ourselves.*

have either been ignored or else derived from appositive relative clauses (cf. Jespersen 1954). Thus the noun phrase *you men* would be derived from *you, who are men*. This analysis is initially appealing, but Postal (1966) has criticised it by pointing out that "forms like <u>we men</u>, etc., occur in a variety of contexts where appositive relatives may not" (p.191). For example,

> **None of you, who are men, are any good.*
> *None of you men are any good.*

> **Did you see us, who are clowns?*
> *Did you see us clowns?*

In addition, he argues that "the appositive derivation would assign the wrong interpretation since in fact such phrases do not have appositive meaning, at least not always" (p.193). For example,

> *You troops will embark but the other troops will remain.*
> *You, who are troops, will embark but the other troops will remain.*

Postal argues for an alternate analysis wherein "so-called pronouns have essentially the same type of derivation and status as traditionally recognized definite articles" (p.193). According to his analysis, pronouns occur in underlying structure as features on nouns, and a segmentalisation transformation separates these features and places them under a derived determiner node. Postal defined segmentalisation rules as "rules which insert segmental elements into phrase-markers on the basis of syntactic feature specifications present at earlier, more abstract stages of derivations" (p.184), but he does not specify any formal details of such a rule. Although the distinction is not crucial

for the analysis of the Tok Pisin pronoun system that follows, we shall
modify Postal's schema and adopt a set of phrase structure rules that
generates the determiner node in the underlying structure instead of
deriving it transformationally. By doing so we can dispense with seg-
mentalisation rules at this point. The diagram below is an abbreviated
version of Postal's scheme:

```
                    NP
                    |
                    N
          ┌                  ┐
          │  + noun          │
          │  + animate       │
          │  + human         │
          │  - singular      │
          │  + countable     │
          │  + Pro           │
          │  - reflexive     │
          │  - genitive      │
          │  + definite      │
          │  - demonstrative │
          │  - III           │
          │  - II            │
          │  - I             │
          │    .             │
          │    .             │
          └         ╲      ╲ ┘
                   ╱    ╲       ← segmentalisation rule
              (Det)       N
              we        (ones)
```
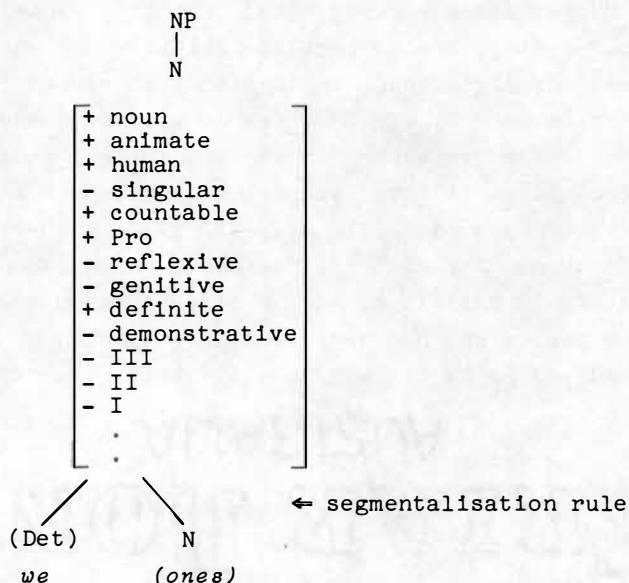
     Such an analysis captures the fact that pronouns can co-occur with
nouns but not with traditional occupants of the determiner slot. In
order to account for those pronouns which appear to take the place of
nouns in surface structure, Postal marks the noun [+Pro] in underlying
surface structure so that it will have no surface form. (In English
it can take the form *one*, but there is no equivalent form in Tok Pisin.)
In Tok Pisin, evidence for Postal's analysis over one which merely re-
places a noun phrase or a noun with a pronoun is supplied by the fact
that adjectives and quantifiers can also behave as if they replaced
nouns:

> Liklik ia tok olosem.
> *little   talk thus*
>
> '(The) little (one) spoke thus.'

> Orait tomoro   nait em bai i go slip wantaim blkpela ia.
> *O.K. tomorrow night he* Fut. *go sleep with   big*
>
> 'All right tomorrow he will go to sleep with (the) big (one).'

> Mi lapun bos bilong dispela ples ia.
> *I old   boss of   this   place*
>
> 'I am (the) old (boss) of this (place).'

Unless we hypothesise an underlying noun with no surface form, we will be forced to allow adjectives and quantifiers to behave as pronouns and to replace nouns or noun phrases as well.

Having accepted Postal's notion of generating pronouns in the determiner position, let us turn to a critical examination of the set of features that Postal has chosen to generate the pronouns (±I, ±II, ±III, and ±singular). Postal has correctly noted that the traditional notion of person does not capture the concept of inclusive and exclusive *we*. This distinction is significant in English even though it appears in surface structure in only one form *let's*, which is necessarily inclusive. Postal therefore separated the traditional feature of person which has three values (first, second and third) into three separate features with two values each (±I, ±II, and ±III). There are 2^4 or sixteen possible combinations of these features, but seven (almost half) are logically impossible because a singular term must specify one and only one person and a plural term must specify at least two people. In the paradigms below these impossible cells are marked Ø.

ENGLISH

			+singular	-singular
+III	+II	+I	Ø	we (inclusive)
		-I	Ø	you
	-II	+I	Ø	we (exclusive)
		-I	he/she/it	they
-III	+II	+I	Ø	we (inclusive)
		-I	you	you
	-II	+I	I	we (exclusive)
		-I	Ø	Ø

TOK PISIN

			+singular	-singular
+III	+II	+I	Ø	yumi
		-I	Ø	yupela
	-II	+I	Ø	mipela
		-I	em	(em) ol
-III	+II	+I	Ø	yumi
		-I	yu	yupela
	-II	+I	mi	mipela
		-I	Ø	Ø

In addition to the abundance of empty cells, these paradigms are highly redundant. There are three pairs of cells which contain the same lexical item: *we* (inclusive) or *yumi*, *you* or *yupela* or *we* (exclusive) or *mipela*. These pairs of cells differ only by the feature [±III] and this distinction is not significant for these terms (or for any other terms for that matter) in either Tok Pisin or English. This is not to say that speakers of these languages cannot make such a distinction, but only that such a distinction has not been encoded in the linguistic systems. Postal gives the example of the following sentence wherein he claims that *ourselves* is marked [+I, +II, +III, -singular]:

> *You and I and John can't perjure ourselves.*

However, the inclusion of [+III] is irrelevant as the following sentence requires the same pronoun, *ourselves*, but it would be marked [-III]:

> *You and I can't perjure ourselves.*

It is the same with Postal's second example in which he claims that the pronoun *yourselves* is marked [-I, +II, +III, -singular]:

> *You and John shouldn't bother yourselves about it.*

Again, the absence of [+III] makes no difference:

> *You shouldn't bother yourselves about it.*

Much work on the analysis of the semantic features underlying pronoun systems and other semantic domains has been done under the subject heading of componential analysis and ethnoscience (see Tyler 1969). It is generally agreed that a paradigm such as the one Postal presents that is full of unfilled cells and contains multiple feature definitions of terms that are not significant to the native speaker is a very poor analysis. The most economical and elegant analysis produces a perfect paradigm that contains one term per cell, has no unfilled cells, and has each term appearing only once in the paradigm (Kay 1966). Languages do not always conform to this ideal, but they generally come much closer than Postal's analysis would indicate. Thus we must improve upon Postal's choice of features for generating the personal pronouns of English. The set of features for English may not necessarily apply to Tok Pisin, but we would hope for some universality in the features generating pronoun systems.

It has been established (Thomas 1955; McKaughan 1959; Conklin 1962; Burling 1970) that the significant distinctions underlying the traditional use of person (as well as Postal's use of person) are two features: the inclusion of the speaker and the inclusion of the hearer or person addressed. These can be labelled [±S] and [±H]. Using these,

plus the feature [±singular], we can produce the following simplified
paradigms for English and Tok Pisin:

ENGLISH

		+singular	-singular
+S	+H	∅	*we* (inclusive)
	-H	*I*	*we* (exclusive)
-S	+H	*you*	*you*
	-H	*he/she/it*	*they*

TOK PISIN

		+singular	-singular
+S	+H	∅	yumi
	-H	mi	mipela
-S	+H	yu	yupela
	-H	em	(em) ol

This analysis still has all of the advantages that Postal claimed
for his set of features (Postal 1966:197). For example, unlike the
traditional analysis with person and number, this analysis does not
make the claim that *we* is related to *I* in the same way as *boys* is re-
lated to *boy*, that is, differing only by the feature of plurality (see
Long 1962:338). *We*, [+S, -singular], does not mean that there are
plural or multiple speakers, but rather that there is more than one
person included and that one of them happens to be the speaker.

Although this paradigm is a significant improvement over Postal's,
it is still not perfect because one hole or empty cell remains. Since
this cell represents the logical impossibility of a singular term which
includes two persons, we might be tempted to accept the paradigm as is.
In fact, it may be argued that such a pronoun system is psychologically
real for speakers of English and perhaps even for some speakers of Tok
Pisin.

Thomas (1955) and Conklin (1962) proposed that the feature [±singu-
lar] be replaced with a feature [±minimal] (or [±simple]) to get rid of
this impossible cell. [+minimal] would mean that only the person(s)
specifically mentioned would be included, or in other words, the minimal
number possible (but at least one). Using this feature, we can construct
the following paradigms which have no empty cells:

ENGLISH

		+M	−M
+S	+H	*we* (inclusive)	
	−H	*me*	*we* (exclusive)
−S	+H	*you*	
	−H	*he/she/it*	*they*

TOK PISIN

		+M	−M
+S	+H	yumi	
	−H	yu	yupela
−S	+H	mi	mipela
	−H	em	(em) ol

This is as far as we can go with the English paradigm. We have eliminated all the holes, but the system itself is imperfectly organised. We must superimpose a gender distinction to subdivide the [−S, −H, +M] cell. However, if it were not for this gender distinction and the fact that *we* appears twice, this paradigm would be entirely symmetrical. In terms of internal consistency and elegance, this analysis is superior to the previous ones.

Let us now leave the English paradigm as is and concentrate on the Tok Pisin system. Although we have used the same set of features to generate the English and the Tok Pisin systems, we can already see that they have differing internal structures. We note that if we consider only the earlier system described in Hall (1943) without ol, the paradigm is perfectly symmetrical around both the vertical and horizontal axes. The Tok Pisin system displays a much higher degree of internal ordering than does the English system. Perhaps this can be taken as evidence that Tok Pisin is closer to a universal grammar than is English.

		+M	-M
+S	+H	yumi	
	-H	mi	mipela
-S	+H	yu	yupela
	-H	em	

Nevertheless, there are non-pidgin languages whose pronoun systems may be generated by this same set of features, and the result is a perfect paradigm (i.e. all possible combinations of features are represented by separate terms). One of these is the Philippine language Maranao (McKaughan 1959). However, there is reason to believe that there is an even simpler perfect paradigm underlying the Tok Pisin pronoun system. The paradigm above involves one major inconsistency. The -pela suffix seems to carry the meaning [-minimal] in this paradigm, but it does not have this meaning elsewhere in the grammar. For example, dispela ('*this*' or '*these*') may be either minimal or non-minimal. Wanpela ('*a*' or '*one*') is always [+minimal], but it still takes the -pela suffix. In fact, all one-syllable quantifiers and adjectives that occur prenominally always take -pela regardless of whether they occur with singular or plural nouns. Thus, since -pela is not unique to pronouns and does not mark plurality in the larger system, it should not be generated as a part of the pronoun system. By removing the feature [±minimal] from the system, we remove all instances of -pela and the result is a perfect paradigm:

	+S	-S
+H	yumi	yu
-H	mi	em

[+S] appears in surface structure as the morpheme mi and [+H] appears as yu. When both [+S] and [+H] are present, these morphemes are simply combined to form yumi. Why they do not form miyu remains unexplained, but we note that in English one says *you and I* and not *I and you*. In the absence of either +[S] or [+H], the general deictic em is used. (See Forchheimer 1953 for a discussion of the frequent use of deictics as third person pronouns.) I claim that this is the basic structure of the Tok Pisin pronoun system and that all other terms appearing in the chart at the beginning of the chapter are derived.

Let us first attempt to deal with the problem of how -pela comes to be attached to mi and yu, signalling [-minimal]. Forchheimer (1953: 99-100) put forth a theory that originally there was no plural marker in Tok Pisin, and that the -pela suffix on pronouns marked the objective form. He supported this with an example from Hall (1943:20) which actually comes from a much older source, the Pijin Lexikon, an old missionary text:

> Olsem wanem yu bekim tok long mifela?
> *why   you back talk to   me*
> *'Why do you talk back to me?'*

Later, Forchheimer claims, the object form assumed a plural meaning when a general plural evolved, as was the case in Siouan. However, it seems that Forchheimer tries too hard to push the data into his universal schema on the basis of one old source and the history of an unrelated language on the other side of the world, especially since Tok Pisin is a pidgin language and would not be expected to mark oblique cases. Some people consider the en form to mark an oblique case, but it is more likely that this is merely a case of phonological conditioning governed by a rule such as the following:

> em → en / ng##
>   [-emphatic]

Moreover, as early as 1885, there are counter-examples to Forchheimer's theory that mifela signalled the oblique case.

> We fellows no savez talk.
>> (Queensland Hearing of the Royal Commission on Recruiting
>>   Polynesian labourers in New Guinea and Adjacent Islands
>>   - reported in Sankoff 1976)

More than likely this utterance was 'corrected' toward English as it was written down in English orthography, and the original sentence was probably

> Mifela no save tok.

A further problem with Forchheimer's analysis is that he does not consider the -pela suffix on adjectives or quantifiers. Would he also claim that it marks oblique cases there too?

Other than this attempt by Forchheimer, there have been no other analyses proposed to account for the distribution of -pela. However, by writing the plural forms with optional numbers embedded in them, (mi(tu)pela or yu(tri)pela), several scholars have (perhaps unintentionally) suggested the following analysis:

```
              NP                            NP
        ┌─────┼─────┐                 ┌─────┼─────┐
      DET     Q      N    ⇒         DET     Q      N

      yu    tu-pela  meri           yu     -pela   meri
```

We could propose an optional number deletion transformation that would delete the number after a person, but which would leave the -pela suffix of the number to be attached to the pronoun. There is evidence for this analysis in the fact that mipela and yupela do not generally co-occur with numbers (however, see below), but do occur with other lexical items taking the -pela suffix.

> ?mipela tupela meri
> *'we two women'*
>
> mipela sampela meri
> *'some of us women'*
>
> ?yupela tripela man
> *'you three men'*
>
> yupela bikpela man
> *'you big men'*

One objection to this solution is that it violates the recoverability condition on transformations, because a surface structure containing mipela or yupela gives no indication as to what specific number was deleted. Moreover, it violates our notions of the psychological reality of grammar in that one can utter the sentence

> Yupela ol man i stap pastaim.
> *you   Pl. man   stay first*
> *'You men remain for the time being.'*

without knowing the exact number of men in the crowd that one is addressing.

Rather than requiring the exact number to appear in the underlying structure, we can hypothesise a PRO number which has the feature [-singular]. This PRO number would have no surface form, but it would still take the -pela suffix. Being a bound form, -pela would become attached to the lexical item on its left in surface structure.

```
              NP                            NP
        ┌─────┼─────┐                 ┌──────┴──────┐
      DET     Q      N    ⇒         DET            N

      mi    PRO-pela  man           mi-pela        man
```
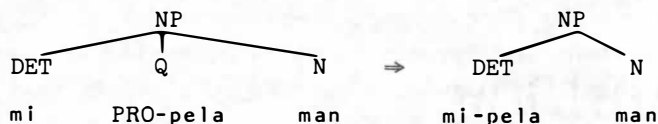
There are several problems with this analysis. We would have to pre-
vent the occurrence of *dispela-pela, *yumi-pela, *em-pela and *-pela,
but this could be done without too much trouble. More seriously, I
have one recorded occurrence of mipela tripela.[1] Such an utterance
could not be generated by this system unless we could somehow allow
both a PRO number and a real number to appear at the same time. The
use of a PRO number is a bit unusual and *ad hoc*, and we would prefer
a simpler more general solution to this problem.

I propose that the -pela suffix is attached to everything in the
noun phrase except the noun itself at some point in the derivation, or
else -pela is generated in these positions in the underlying structure.

```
                              NP
        _____/____|_____
       DET             Q             ADJ              N
      /    \          / \           /    \
   (DET)  -pela     (Q)  -pela   (ADJ)  -pela
```
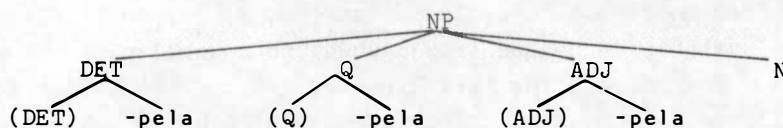
Several formal mechanisms could be worked out to put -pela into these
positions, but the details are not crucial to this discussion.[2] In the
phonological component of the grammar, a deletion rule would remove
-pela from all lexical items of two or more syllables. This is not an
entirely obligatory rule and there are a handful of interesting excep-
tions. Two-syllable lexical items which occur in well-defined semantic
domains surrounded by one-syllable lexical items seem very likely to
take -pela also. For example, all colour names except yellow are one
syllable words in Tok Pisin:

   blupela, grinpela, waitpela, blakpela, retpela, braunpela

Yelopela (*'yellow'*) frequently occurs even though yelo is two syllable.
The numerals from one to ten are also mostly one syllable words and the
two exceptions, six and seven also occur with -pela, when they occur
prenominally.

   wanpela, tupela, tripela, fopela, faivpela, sikispela, sevenpela,
   etpela, nainpela, tenpela

A smaller semantic set of size words exhibits the same behaviour.

   bikpela, liklik(pela), smolpela, traipela
   big   *little*   *small*   *huge*

---

[1] Sankoff reports that she has also recorded several instances of mipela and yupela
co-occurring with numbers.

[2] It may actually be preferable to handle these -pela derivations in the lexicon
rather than by syntactic transformations.

Nevertheless, the exceptions to this -pela rule may not be entirely or even mainly semantic. John Ross, at M.I.T. (personal communication), has proposed a phonological 'squish' of two-syllable word types ordered as to their degree of closeness to monosyllables. A 'squish' is essentially a Guttman scale. This squish was proposed to account for rules in English that apply to all monosyllabic words (of some category), some two-syllable words, and no words of three or more syllables. One example of such a rule is -er attachment to comparative adjectives. Compare *hardier* and *shallower* with *legaler* and *profounder*. Ross found that the degree of similarity of two-syllable words to mono-syllables decreased as the amount of stress on the second syllable increased from no stress to secondary stress, and as the contents of the second syllable increased from a vowel to a vowel plus one or more consonants. In general, the less stressed and consonant-like the second syllable is, the more likely a rule is to apply that applies mainly to monosyllables. There are too few examples to formulate a precise scale for Tok Pisin, but we can see that the exceptions listed below conform to Ross' general rule fairly well. Two-syllable adjec-tives with the least stress on the second syllable and the ones that take -pela most often.

always take -pela	sometimes take -pela	rarely take -pela	never take -pela
(n)árà	yélò	dótì	kránkì
	síkìs	plántì	rábìs
	sévèn	hólì	làpún
		líklìk	lòngwé
			lónglòng

The schema that we have proposed will attach -pela to all four basic pronouns in the underlying structure to create yumipela, mipela, yupela and empela, all of which would be unmarked for number. This analysis is supported by the fact that there are occasional occurrences of these -pela forms marking the singular instead of the plural,

Olsem wanem yu bekim tok long mifela?
why   you return talk to   me
'Why do you talk back to me?'
(*Pijin Lexicon* quoted in Hall 1943:20)

God big fella bilong white man, him fella he mekim altogether
God big   of   white man, he   make all
'God, leader of the white man, he made everything.'
(Churchill 1911:34)

```
Emfela samting   hia.
it      something here
```
'There is something here.'

(Hall 1955b:99)

Empela (him fella in old texts) "seems to represent a productive possibility which keeps cropping up in the language" (Sankoff 1977:66).

Although the age of these examples might indicate that Tok Pisin pronouns were originally unmarked for number, it is likely that a number distinction existed in first and second person from a very early date. Sankoff (1976) has examples from the period 1885-1935.

```
Mi no  count him.
I  NEG count it
```
'I did not count it.'

```
He say all same, "three yams go work".
```
'He said "go and work for three years".'

We are left with the problem of formulating a rule allowing the attachment of -pela only to first and second person plural pronouns. This rule will be somewhat *ad hoc* no matter how one formulates it, but this analysis has an advantage over previous ones in that -pela does not have an inherent meaning of plurality only when attached to pronouns, but not when attached to adjectives or quantifiers.

$$-\text{pela} \Rightarrow \emptyset \ / \ \text{DET} \ \underline{\hspace{2cm}} \begin{bmatrix} +\text{PRO} \\ +\text{minimal} \end{bmatrix}$$

Yumipela does not occur even when it is not minimal because yumi has two syllables and our earlier phonological rule will delete -pela on yumi.

We are left with the problem of why empela is not the surface form for the third person plural. For our synchronic analysis we can write a rather *ad hoc* rule.

$$\text{empela} \Rightarrow \text{em}$$

$$\text{em optionally} \Rightarrow \emptyset \ / \ \underline{\hspace{1cm}} \text{ol}$$

However, I will offer a theory of the diachronic development of this rule. If Hall (1943) is correct in stating that for at least a time em stood for both singular and plural, our analysis predicts that this [-S, -H] form, unmarked for number, should have been empela. The only explanation that I can offer is that when the -pela suffix became the *de facto* plural marker for first and second person pronouns, empela would have been in effect marked as plural, so the morphologically unmarked form em came to be used as the form unmarked for number.

The fact that the third person pronoun is not marked for number in the same way as the first and second persons are is not an unusual occurrence. According to Forchheimer (1953:17) there are often different pluralisations for various classes of words and these come into languages at different times:

> There is no doubt that plural starts from the first person, spreads to the second, and then to the third person and nouns designating person, then animate nouns, and last to the names of objects. (p.12)

Although ol is usually listed as the third person plural pronoun in Tok Pisin (Laycock 1970a; Wurm 1971a; Mihalic 1971; and Dutton 1973), it is not actually a pronoun at all. Mühlhäusler (1975a), who has done the most thorough investigation of number in Tok Pisin thus far, considers ol to be exclusively a plural marker, and I support this view. There is quite a bit of evidence that ol is not a pronoun. Ol never appears with -pela attached to it, whereas it would appear as olpela in underlying form if it were generated as a pronoun. Moreover, ol can occur with pronouns:

Mipela ol we   i save kaikai saksak em putim long mipela tasol.
we   Pl. *where* *know eat*   *sago* *he put* *to* *us*   *only*

'*We who eat sago, he just gave (sago) to us.*'

Mipela ol bikpela bai i go daun kuk.
we   Pl. *big*   Fut. *go down cook*

'*We big (ones) will go down and cook.*'

Ol yumi Papua New Guinea
Pl. *we* *Papua New Guinea*

'*We Papua New Guineans*'

Em ol i spak.
he Pl. *drunk*

'*They are drunk.*'

In addition, ol can occur in positions that pronouns never occur in and ol can even occur more than once in a single noun phrase:

dispela ol   raunwara ia   masalai i stap long en ia
this   Pl. *lake*   Rel. *spirit*   *live in*   *it* Rel.

'*These lakes where spirits live*'

sampela ol man
some   Pl. *man*

'*some men*'

ol bikpela ol man
Pl. *big*   Pl. *man*

'*big men*'

```
ol   planti ol   sumatin
Pl.  many   Pl.  student
```
'many students'

Ol appears to behave as the English pronoun *they* only when it appears alone in the noun phrase:

```
Ol i makim mipela.
```
'They assigned us.'

```
Givim dispela toktok long ol.
```
'Give this message to them.'

It is not unusual for what looks like a third person pronoun from an English point of view to actually be a number marker. According to Thomas (1955:207) in Ilocano na and da which appear to be third person pronouns "are not true pronouns but may be simply number indications". "The na class would be considered as primarily indicating number, but also functioning as true pronouns when there is no appropriate pronoun morpheme." However, the definition of 'true pronoun' here can only be 'something which appears to take the place of a noun or a noun phrase'; there is no other diagnostic test for a true pronoun.

The syntactic behaviour of ol is erratic and difficult to character- ise. There is an "uncertainty as to the position of the plural marker which is a reflection of the fact that the system of marking number in Pidgin has not yet reached the end of its development" (Mühlhäusler 1975a:33). According to Mühlhäusler, "number markers in Pidgin appear at the beginning of a noun phrase or directly before the noun" (p.28). My hypothesis concerning the syntax of ol is based on a preliminary study of texts gathered by myself and others and has not been checked as yet by direct questioning of informants; however, I think that it will prove to be correct. There is evidence that the uncertainty as to the position of ol which Mühlhäusler noted is the result of rule changes in progress. Many older and less linguistically sophisticated speakers invariantly generate ol following determiners, but preceding quantifiers:

```
Dispela ol  pukpuk mekim save kaikai pikinini bilong ol   nau.
this    Pl. croc.  make  know eat    child   of     Pl.  now
```
'These crocodiles really exerted themselves eating their children.'

```
Nau ol  sampela man bilong pait  tasol i stap.
now Pl. some    man of     fight just    be located
```
'Now just some fighting men remain.'

> (This speaker is a man about 45 years old from the Sepik
> area who has little education and speaks little English.)

Younger speakers, especially those with more education and a know-
ledge of English generate ol at the beginning of the noun phrase:

Ol   dispela high school boys ol i laik pilai wantaim mipela.
Pl. *this   high school boys* Pl. *like play with   us*

'*These high school boys wanted to play (rugby) with us.*'

Ol   sampela lain ol i go was   long ol.
Pl. *some   line* Pl. *go watch for   them*

'*Some of the group went to watch for them.*'

(This speaker is a young man of about 25 from
Madang who is in the army.)

Some speakers vary on their placement of ol in relation to dispela.
The following utterances are all from a young Chimbu woman about 19
years old:

Yupela kukim kaikai gut na dispela ol man bringim kaikai i kam.
you   cook food well and this   Pl. man bring   food   come

'*You cook the food well and these men bring the food.*'

Dispela ol kaikai bilong en i stap.
this   Pl. food   of   him   be located

'*This food of his is here.*'

Nau em, dispela ol ren yet i kam kamautim gras.
now it this   Pl. rain Ref. *come pull out grass*

'*Now it, these rains themselves came and pulled the grass.*'

Na ren yet wokim ol dispela wok.
And rain Ref. *work* Pl. *this   work*

'*And the rain itself did these works.*'

Ol dispela ren yet i kam rausim   mumu.
Pl. *this   rain* Ref. *come take out earth oven*

'*These rains themselves came and opened the cooking pit.*'

Tupela lapun mama   bilong ol dispela meri.
two   old   mother of   Pl. *this   woman*

'*Two old aunts of these women.*'

I shall suggest a tentative analysis of the syntax of ol. Let us
assume that the feature of number is marked on the determiner rather
than on the noun. This is consistent with the fact that pronouns are
marked for number before nouns are (Forchheimer 1953). A segmental-
isation rule operating on the determiner node inserts ol onto the tree.
For older speakers, ol is inserted immediately following the determiner.

```
        DET
      /     \
   DET      number      ← segmentalisation rule
```
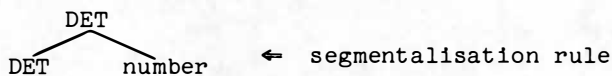
For younger speakers, a rule has been added to place ol immediately preceding the determiner. In addition, a second rule has come into Tok Pisin for more progressive speakers which copies and moves ol to a position immediately preceding the noun.

$$[ol - DET - X - N]$$
$$NP_1 \quad 2 \quad 3 \quad 4$$
$$\Rightarrow \text{opt.}$$
$$1 \quad 2 \quad 3 \quad 1+4$$

This rule accounts for the fact that ol can occur twice in the same noun phrase.

> ol planti ol sumatin
> *'many students'*

There is a striking similarity between the behaviour of ol in Tok Pisin and the behaviour of dem in Krio (spoken in Sierra Leone) and to some extent dem in Jamaican Creole. In Krio dem can stand alone, behaving as the English pronoun *they*, or it can co-occur with nouns as a plural marker. It appears to be copied and moved by a rule quite similar to the one we have proposed for Tok Pisin.

> dem big man
> *big man dem
> dem big man dem
> (*'the big man'*)
>
> ol dem big man
> *ol big man dem
> ol dem big man dem
> (*'all the big men'*)
>
> (These examples were supplied by M. Sorie Yillah at M.I.T.)

In Krio the initial position of the plural marker dem appears to be Q ___ ADJ. Dem also occurs immediately following the noun, but only if it also appears in its initial position. This would indicate that dem is copied and moved. In Jamaican Creole, Bailey (1966) generates a definite plural marker di ... dem in the determiner. Dem appears in surface structure in the determiner slot only when di is not present. When di is present, dem is moved to the right of the noun.

> Dem smadi we no ha naif kyaan iit waatamelan.
> *'Those people who have no knife can't eat watermelon.'*
>
> Di biebi-dem kyaan fiid demself.
> *'The babies can't feed themselves.'*

It may well be that a universal grammar would generate number under a determiner node. There is certainly no reason why number in English noun phrases, for example, could not be generated in this way. A copy and movement rule placing a number marker on the noun would take the place of an agreement rule for determiners and nouns.

Mühlhäusler states that a rule placing ol directly to the left of animate nouns is fast becoming obligatory in Tok Pisin. This is consistent with Forchheimer's claim that animate nouns are marked for number before inanimate ones are (p.12).

I have proposed that ol be inserted by a segmentalisation rule rather than proposing that there be a separate number node with a status equal to DET or ADJ in order to prevent the attachment of -pela to ol. Under the schema I have outlined, at some point in the derivation -pela is attached to everything in the noun phrase preceding the noun. If ol were present in the derivation at this time, we would have to resort to a rather *ad hoc* rule to prevent -pela attaching itself to ol.

Of the 'pronouns' listed in the chart at the beginning of this chapter, we have accounted for all but those involving numbers. In the analysis outlined thus far, numbers are generated under the quantifier node.

```
                         NP
         _____/___|_____
        DET          Q     ADJ          N
```
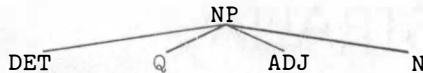
Since pronouns are generated under the determiner node, sequences of a pronoun followed by a number are base generated and pose no problems. However, the numbers tupela and tripela are often attached to pronouns: mitupela, mitripela, yutupela, yutripela, emtupela, emtripela. We noted earlier that the sequences mipela tupela or yupela tripela almost never occur. There appears to be a late rule which merges pronouns with numbers, eliminating the redundant -pela. This is not entirely obligatory, especially for third person, but its high frequency of occurrence has led some to conclude that Tok Pisin has a dual and a trial. Mühlhäusler (1976a) claims that there is at least a dual in Tok Pisin and that ol means *'more than two'*. If it is true that the concept of dual or even trial has been adopted from surrounding languages as Mühlhäusler claims, we could alter our schema by substituting a more complicated set of features for number instead of [±minimal]. For example, we could mark the determiner singular, dual or plural; then only the presence of [+plural] would allow ol to be inserted into the tree. Similarly, we could add trial to this set of features as well. At any rate, the presence of dual or trial would not require any major changes in the analysis presented here.

There are a handful of structures in which pronouns and numbers can appear that are not generated by our analysis thus far.

mitupela Judy	*'Judy and I'*
Judy tupela Jane	*'Judy and Jane'*
Jane ol	*'Jane and them'*

Perhaps these structures are transformationally derived from structures such as:

Mi na Judy, mitupela go. ⇒ Mitupela Judy go.

Judy na Jane, tupela go. ⇒ Judy tupela Jane go.

Judy na ol dispela manmeri, ol i go. ⇒ Judy ol i go.

However, these structures require further study.[1]

So far we have been discussing only the personal pronouns, but the interrogative pronouns can also be accounted for within this framework. Interrogative pronouns (husat *'who'*, and wanem *'what'*) can also occur with or without nouns in the noun phrase:

Husat bai i go?
'Who will go?'

Husat man bai i go?
'Which man will go?'

Yu painim husat?
'You seek whom?'

Yu painim husat meri?
'You seek which woman?'

Yu kisim wanem?
'What did you take?'

Yu kisim wanem samting?
'What did you take?'

Yu lukim wanem meri?
'You see what woman?'

Interrogative pronouns can be generated from features on the determiner in underlying structure just as other pronouns are. Husat is marked [+WH, +human], while wanem is marked [+WH, -human]. If wanem appears without a noun in surface structure, the [-human] interpretation is assumed, but if wanem co-occurs with a noun marked [+human], the feature on the noun overrides the feature on the pronoun:

---

[1] Sankoff has pointed out that there are exactly parallel structures in Buang.

Yu painim wanem man?
'You seek what man?'

However, there is a co-occurrence rule or a surface filter that will not allow husat to co-occur with inanimate nouns:[1]

*Yu painim husat samting?
'You seek who thing?'

This coincides with the use of *who* and *what* in English, but unlike *who* and *what*, husat and wanem cannot be used as relative pronouns.

The interrogative pronouns in Tok Pisin are unmarked for number and they may occur with both singular and plural nouns.

Husat ol man i paitim yu?
'Which men hit you?'

Since husat and wanem are two-syllable words, they do not appear with -pela attached in surface structure.

If we generate the relative pronouns as determiners as well, the set of features that is required to generate all of the Tok Pisin determiners is roughly [±WH], [±human], [±S], [±H] (plus [±minimal] to generate ol by a later segmentalisation rule). Not all of the possible combinations of these features occur because they do not form a single paradigm, but rather a sort of paradigm within a paradigm.

	+H	−H
+S	yumi	mi
−S	yu	

	+WH	−WH
+human	husat	em
−human	wanem	dis(pela)

The only real problem with this analysis is that the distinction between [+human] and [−human] is somewhat blurred. Husat is always [+human],

---

[1]This is true in general, but Mühlhäusler reports the occurrence of sentences such as the following:

Husat nem bilong yu?
who   name of   you

'Who is your name?'

but wanem can also appear with [+human] nouns. In isolation, dispela
is always interpreted as [-human], but it can also occur with [+human]
nouns.

    dispela ol meri
    'these women'

Em seems almost neutral for the feature [±human], but there are contexts
where it must be [+human].

    Lukim em!
    *'Look at him/her (*it)!'*

A traditional analysis would distinguish em and dispela by the feature
[±demonstrative], but that does not seem to add to our understanding
of this system.

SUMMARY AND DISCUSSION

    I have presented an analysis of the pronoun-determiner system of Tok
Pisin that treats yu, mi, yumi, em, husat, wanem, and dispela as basic
terms and all other so-called pronouns or determiners as derived in
some way or as generated under another node (quantifier, etc.). Numbers
are considered to be quantifiers. Ol is treated as a marker of number
and is derived from features on the determiner by means of a segmental-
isation rule. The -pela suffix which appears to mark the plural on
pronouns is shown to have a common underlying origin with the -pela
suffix on quantifiers and adjectives.

    A semantic analysis (or a componential analysis) of the set of
features which generate the items appearing under the determiner node
was done, and the features are [±WH], [±human], [±S] (speaker included),
[±H] (hearer or addressee included), and [±minimal]. The structure of
this semantic field is a paradigm nested within a paradigm.

    The question remains as to whether this synchronic analysis reflects
the historical evolution of this system. If so, we would predict that
mipela, yupela and empela (or himpela) were once used for both singular
and plural. We would also predict that when ol first entered the
system, it occurred only in the surface position DET ___ Q.

WH MOVEMENT AND QUESTION FORMATION

In the chapter on the pronoun-determiner system, we have indicated that WH words are generated under a determiner node, and we have noted that they frequently co-occur with nouns. In this chapter, we will investigate the use of WH words in question formation in Tok Pisin.

There is no subject-auxiliary inversion in Tok Pisin. Yes/no questions are marked as such by rising intonation (Wurm 1971a:19), or by the addition of certain tags such as ā (roughly equal to *eh?* in English) and o nogat (*'or not'*) (Dutton 1973:41) or simply o (*'or'*) to the end of the sentence. For example:

I orait a?
'It's going O.K., eh?'

Yu kaikai pinis o nogat?
'Have you eaten or not?'

Bai yu kam o ...?
'Will you come or ...?'

There is also no WH movement in Tok Pisin. WH questions are formed by generating a WH word in the determiner of the noun to be questioned. Virtually any noun can be questioned.

subject:

Husat i putim paia long dispela haus?
who   put   fire to   this   house
'Who set fire to this house?'

object:

Yutupela sutim husat tru?
you   shot who   really
'Who did you really shoot?'

indirect object:

> Yu   givim mani   long husat?
> *you give money to   who*
>
> *'Who did you give money to?'*

prepositional phrases:

> Yu   go wantaim husat?
> *you go with   who*
>
> *'Who did you go with?'*

> Wonem taim bai yu go?
> *what time Fut. you go*
>
> *'What time will you go?'*

> Dispela garamut   i krai long wanem hap?
> *this   slit-drum cry at   what place*
>
> *'Where is the drumming coming from?'*

> Yu   paitim em   long wanem samting?
> *you hit   him with what thing*
>
> *'What did you hit him with?'*

possessive phrases:

> Yu   kisim ka bilong husat?
> *you get   car of   who*
>
> *'Whose car did you get?'*

manner phrases:

> Yu   kisim kapul olsem wanem?
> *you get   possum like what*
>
> *'How did you get the possum?'*

reason clauses:

> Yu   baim banana bilong wanem?
> *you buy bananas for   what*
>
> *'Why did you buy bananas?'*

quantifier phrases:

> Yu   kisim haumas   muli?
> *you get   how many oranges*
>
> *'How many oranges did you get?'*

There is one construction that initially appears to be an exception to the claim that there is no subject-auxiliary inversion in Tok Pisin.

> We stap mama bilong yu?
> *'Where is your mother?'*

However, Dutton (1973:231) and Wurm (1971a:64) treat westap as a single lexical item and I think that there is convincing evidence for this. First, stap is almost always preceded by the i predicate marker

(Woolford 1975), but it is not in this construction and it would be ungrammatical to insert it.

*We i stap mama bilong yu?

Moreover, no other verb can follow a fronted we.

*We go ol dispela man.
Ol dispela man i go we?
'Where did these men go?'

Thus, although the verb stap ('be' or 'be located') has become in-corporated into the WH word westap ('where's'), this should not be considered to be a case of subject-auxiliary inversion by a transforma-tional rule, 'Westap NP?' should be considered to be an idiom.

One of the major problems involved in explicitly formulating a rule of question formation in Tok Pisin is that some WH phrases can be fronted and others cannot, but the rule governing this movement is not obvious. Wurm (1971a:64) noted that WH phrases follow the rule of adverbs such that those dealing with time and reason are generally fronted, but those dealing with place and manner are not. We would prefer a more general rule to predict the behaviour of direct and in-direct objects, instrumental phrases and 'accompanying *with*' phrases as well. Let us first investigate the behaviour of each type of WH phrase.

Subjects remain in the same position in surface structure regardless of whether or not they have been fronted. However, Chomsky (class lecture, M.I.T., 1976) has suggested that in English they are actually moved onto a presentational complementiser node. I have no evidence either to support or disprove this hypothesis for Tok Pisin.

Direct objects can be fronted, but in the fronted position there are some interesting co-occurrence rules that apply. Wanem ('what') must occur with a noun phrase if it is fronted.

*Wanem yu lukim?
('What do you see?')

Wanem samting yu lukim?
'What thing do you see?'

If wanem alone appears at the beginning of a sentence, it is interpreted as an exclamation 'What?'.

Wanem? Yupela kilim dispela tupela man?
'What? Did you kill these two men?'

The behaviour of haumas is the reverse of wanem. According to Wurm (1971a:65), haumas does not occur with a noun phrase in the fronted position.

Haumas yu kisim pinis?
'How much did you get already?'

Yu lukim haumas pik pinis?
'You saw how many pigs already?'

However, I am not sure that this restriction still holds. I recorded
the following sentence which violates it.

Haumas klos bai yu putim?
'How many garments are you going to put on?'

The sentence below is definitely ungrammatical, although the noun
phrase does not occur in fronted position with haumas.

*Haumas bai yu putim klos?
*'*How many will you put on garments?'*

Husat behaves in the same way. Since we (*'where'*) cannot co-occur
with nouns, the question of such a restriction does not arise.

It is difficult if not impossible to front indirect objects, except
by left dislocation which leaves a pronoun in place.

*Husat yu givim banana long?
?Husat (meri) yu givim banana?
Husat (meri) yu givim banana long en?
'{Who / Which woman} did you give bananas to?'*

WH phrases in equational sentences absolutely cannot be fronted.

*husat em.
Em husat?
'Who is that?'

This is not to say that WH phrases cannot appear at the front of
equational sentences when the NP that is being questioned is normally
in that position.

Dispela meri i tisa.
'This woman is a teacher.'

Husat meri i tisa?
'Which woman is a teacher?'

WH phrases in instrumental and 'accompanying *with*' phrases cannot be
fronted.

*Long wanem yu paitim em?
*Wanem yu paitim em long?
(*'What did you hit him with?'*)

?*Wantaim husat yu go long Lae?
*Husat yu go long Lae wantaim?
(*'Who did you go to Lae with?'*)

Reason clauses, when questioned, can be freely fronted, as Wurm pointed out, but this is also the case for manner clauses.

Yu baim banana bilong wanem?
Bilong wanem yu baim banana?
'Why did you buy bananas?'

Yu kam olsem wanem?
Olsem wanem yu kam?
'How did you come?'

Because of the heterogeneity of the behaviour of different types of WH phrases and because questioning an element does not seem to affect the possibility of fronting the clause in which that element is contained, it seems doubtful that this fronting movement should be included in the rule of question formation at all, especially since all such questions can occur without WH fronting. Question formation in Tok Pisin is not, then, a movement rule at all. Instead, questions are generated in the base and marked by the proper intonation contour. The fronting of WH clauses will be handled just as the fronting of such phrases without a WH word would be. Direct objects can be fronted by topicalisation. Indirect objects do not topicalise easily in Tok Pisin. Neither do 'accompanying *with*' phrases. Bilong wanem (*'because, why'*) and olsem wanem (*'how'*) behave as sentence adverbs and these are easily fronted. As Wurm noted, time locatives are often fronted, but place locatives are usually not. It is likely that as Tok Pisin continues to creolise, the fronting of more clauses will occur, if only for stylistic variation.

There are two WH words besides westap that always appear sentence-initially. These are wasamara (*'what's the matter'*) and watpo (*'what for'*). These are only used when one is angry and being rude.

Wasamara yu stilim sutlam bilong mi?
'What is the matter with you, stealing my flashlight?'
(Wurm 1971a)

Watpo yu no pinisim wok bilong yu?
'Why didn't you finish your work?'

These expressions seem to be hold-overs from the days when Tok Pisin was used by whites mainly as a means of giving orders to and disciplining New Guineans. Watpo and wasamara still carry this connotation. The two words will be entered in the lexicon as sentence adverbs that appear

only sentence-initially, as is the case with other sentence adverbs such as *baimbai* (*'soon'*).

In English, WH fronting occurs in other contexts besides questions and one would be justified in proposing a general rule of WH movement to cover relative clauses as well; but, in Tok Pisin WH movement does not occur in the formation of relative clauses either since WH words do not function as relative pronouns.

CONCLUSIONS

Question Formation is not a movement rule in Tok Pisin. WH words are only optionally fronted and then they are moved within the phrases or clauses containing them by rules such as topicalisation or the fronting of prepositional phrases. WH words are not used in relative clauses and thus a rule of WH movement is not necessary to account for relative clauses either.

CHAPTER IV

NEGATION IN TOK PISIN

Very little has been written about negation in Tok Pisin. Hall
(1943:28) treated no as a "negative adverb ... normally used in pred-
icates, being placed between agent-marker and center". However, this
was the extent of his analysis, except to give an example, and he did
not mention the abnormal cases implied by his statement. Laycock's
analysis (1970a:xx) is equally brief, "The negative is formed by placing
no immediately before the verb, and after the predicate marker". Wurm's
(1971a), Dutton's (1973) and Mihalic's (1971) treatments are similar.

The analysis to follow deals with the syntax and semantics of nega-
tion in Tok Pisin, but not with morphological or lexical negation. It
is generally agreed (e.g. Klima 1964 and Lasnik 1972) that lexical and
morphological negation (at least in English) cannot be profitably gen-
erated syntactically. In English there is a considerable amount of
irregularity as to which negative morpheme is used (e.g. *un-, im-, ir-,
il-, dis-*, etc.) and moreover, it is impossible to consistently predict
the meaning of such a negative morpheme added to a word by reference
only to the meanings of the component parts (cf. *discharge* and *dis-
appoint*). Lexical negation refers to lexical items which seem to have
a negative feature incorporated in them such as *sad* (= *unhappy*), *false*
(= *not true*) or *without* (= *with not*). Lexical negation would be even
more difficult to accomplish in the syntactic component of grammar than
would morphological negation. It is true that at present Tok Pisin
has very little morphological negation and the few such forms (nogut
'badly, bad' and nogat *'no'*) are quite regular so that it would not be
such a great task to generate these forms in the syntax. However,
because such words generally have meanings which cannot be predicted
by the sum of their parts, this sort of negation belongs in the lexical
component of languages. Besides pairs of antonyms, there are only a

49

50

handful of lexical items in Tok Pisin that appear to incorporate a
negative feature. These include abris (*'miss, avoid, apart'*), giaman
(*'false, lie'*), kranki (*'wrong'*), maski (*'no matter, never mind'*),
nating (*'merely, for nothing'*), and tambu (*'forbidden, sacred'*). If
such negation were to be carried out solely in the syntactic component
of Tok Pisin, we would not expect to find the negative particle so
completely incorporated into the lexical items as to be unrecognisable,
while instances of morphological negation were still so few and so
regular. It seems clear that such lexical items came into Tok Pisin
as single lexical items and are not to be derived in any way.

I do not claim that the facts of Tok Pisin negation argue for either
a generative or an interpretive approach, but I have chosen to present
this analysis in an interpretive framework in order to avoid postulating
structures not specifically justified by the data, and in order to be
able to compare Tok Pisin negation with English negation as outlined
in Lasnik (1972) in an interpretive framework.

I will argue that there is only one possible instance of NEG per
clause in Tok Pisin, whereas there are at least three in English,
according to Lasnik. Tok Pisin has no equivalent of the quantifier *no*
in English, nor does it have NEG generated in adverbial phrases (e.g.
not long ago) or sentence-initially before quantifiers (e.g. *not many
people*). The rules for determining the scope of negation with respect
to quantifiers in Tok Pisin are almost identical to those that Lasnik
sets out for English, with one interesting exception, *because-* clauses.
A very similar rule can be written for determining the scope of negation
with respect to modals in Tok Pisin, but such a rule fails to account
for the English data.

SYNTAX

NEG in Tok Pisin is realised as no and occurs in only one position
in well-formed surface strings, as the first element of the predicate,
following the optional i predicate marker.

(1) Yu no ken poret.
     you NEG *can be afraid*
     'Don't be afraid.'

(2) Mi no kaikai long moning.
     I NEG *eat   in   morning*
     'I did not eat this morning.'

(3) Yu katim mi pinis   na mi no inap stap bai mi indai nau.
     you cut me complete and I NEG *able live* Fut. *I die   now*
     'You cut me and I am not able to live, I will die now.'

51

(4) Tupela man   i no traim holim dispela pikinini yet.
    two   people NEG *try hold this   child   yet*

    'Those two people have not tried to hold this child yet.'

(5) No inap   sampela mo tu bai behainim lo bilong dispela
    NEG *possible some   more too* Fut. *follow law of   this*

    meri.
    woman

    'It is not possible for anyone else to follow the example of
    this woman.'

(6) I no inap   bai ol i sutim ol.
      NEG *possible* Fut. *they shoot them*

    'It is not possible for them to shoot them.'

(7) No gat supia long haus bilong ol papa   bilong yupela?
    NEG *have spear in   house of*   Pl. *father of   you*

    'Haven't you got any spears at your fathers' houses?'

(8) No gat man   i go putim paia.
    NEG *have human   go put   fire*

    'No one went and set fire to it.'

(9) Nogat, i no mipela yet   i katim.
    no   NEG *we*   Refl. *cut*

    'No, it is not we ourselves that cut them.'

(10) I no man   tru
     NEG *human real*

    'It is not a real person.'

(11) Husat i putim paia long dispela haus? I no yet!
    who   put fire on   this   house NEG *yet*

    'Who set fire to this house? It is not time yet!'

According to Lasnik (1972), NEG in English is generated in the first position of the auxiliary node (among other places), although it may subsequently be moved to the right of the modal or verbal auxiliary. NEG in Tok Pisin appears in this position in surface structure and, lacking any evidence to the contrary, we shall assume that it is generated there. The existence of an AUX node or even a VP node is not crucial to this argument, but in the tree structures that follow, I will use them and generate NEG under the AUX node as Lasnik does for English. All I am actually claiming, however, is that NEG is generated as the first element of the first node following the subject NP node.

Lasnik argues that in English, a second NEG can be generated under a Pre-S node to account for sentences with two instances of a negative such as the following:

Not many arrows didn't hit the target.

Not all the club members didn't pay.

Nevertheless, I will argue that in Tok Pisin there is a maximum of one instance of NEG generated per clause, and that this NEG is generated in the predicate, although it might appear otherwise in sentences (5) through (11) at first glance.

Let us first look at examples (5) and (6). One possible underlying structure for sentence (6) is (6').[1]

```
                         S
            ┌────────────┼────────────┐
           NP           AUX           VP
            │            │             │
            S           NEG            V
     ┌──────┴──────┐
  bai ol i sutim ol    i no          inap
```
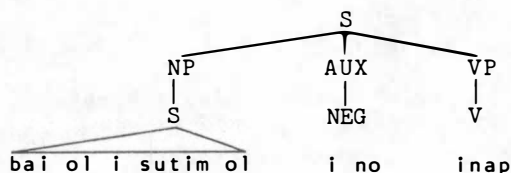
Although inap is generally considered to be a modal, it behaves like a verb in this sentence. Extraposition moves the embedded S to the end of the sentence and since there is no dummy it[2] as in English, the sentence begins with a predicate. Thus, although no occurs sentence-initially in such constructions, it is generated in the predicate.

Because both the higher and the lower clause in such constructions have an AUX node wherein a negative may be generated, sentences of this type could theoretically have two negatives without violating the hypothesis that only one instance of NEG is generated per clause. Nevertheless, Tok Pisin speakers do not generally use such double neg-ative constructions and have difficulty interpreting them. However, this cannot be taken as an indication that negatives and modals might be generated in higher clauses and then lowered into the AUX position, unless such a transformation did not preserve meaning or unless tense markers were also generated in higher clauses. The reason is that sentence (6) with the negative and modal lowered into it would have a different meaning, resulting from the scope of i no inap in relation to the future marker bai.

(6.1) Bai ol i no inap sutim ol.

   'They will not be able to shoot them, (at some time in the future, but they might be able to now).'

(6)   I no inap bai ol i sutim ol.

   'It is not possible that they will shoot them, (at any future time beginning now).'

---

[1] The S could also be base generated in extraposed position.

[2] Actually a dummy it is present in underlying structure, but it has no surface rep-resentation. Perlmutter (M.I.T., personal communication) calls these "silent dummies".

This is a very subtle distinction, however, and for most speakers in most situations these sentences would probably be synonymous, unless there is some difference because of inap meaning *'possible'* when it is a verb and *'able'* when it is a modal. In general, there is virtually no evidence that I know of in Tok Pisin bearing on the question of whether or not negatives or modals are higher verbs.

Let us now look at the type of sentence represented by examples (7) and (8). Such sentences are generally translated into English by the use of the no quantifier.

(8) No gat man   i putim paia.
     NEG *have human   put   fire*

     'No one set fire to it.'

The problem is to determine whether the underlying structure of (8) contains a quantifier or NEG + verb. In such sentences it is difficult to tell whether no gat is still two words or whether it has merged into one. Nogat, with stress on the second syllable, is already a lexical item meaning *'no'* (as opposed to *'yes'*, e.g. sentence (9)). The string no gat (NEG *have*) has stress on no, or equal stress on both words (Mihalic 1971:142). Since most two-syllable words in Tok Pisin have stress on the first syllable, we might expect nogat as a quantifier to also have stress on the first syllable, making it quite difficult to distinguish from no gat. If there is a quantifier nogat in sentence (8), then its underlying structure could consist of a single clause as in (8a) below.

(8a)
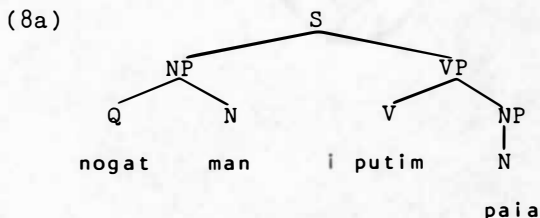
If, on the other hand, no gat is two words (NEG verb), the structure is (8b).

(8b)
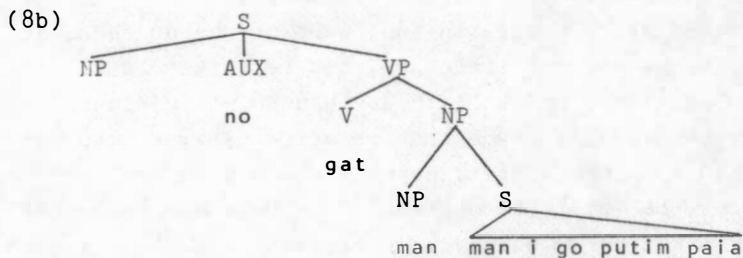
(8c) below is not a possible structure of (8) because gat is a trans-
itive verb and requires an object.

(8c)

```
                              S
            _____|_____
           |                   |                  |
           NP                 AUX                 VP
      _____|_____             |                  |
     |            |           NEG                 V
     NP           S
     |           /\           no                 gat
     N          /  \
               /____\
    man
            man i go putim paia
```
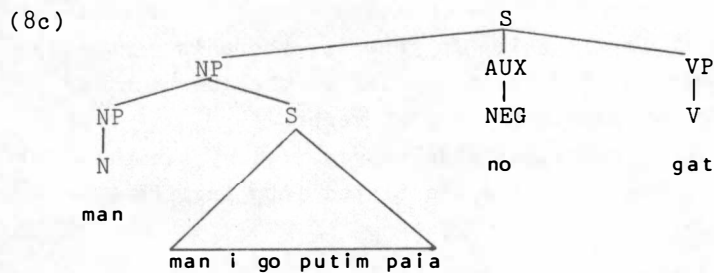
Moreover, gat does not mean *'exist'; 'to exist'* or *'to live'* is ex-
pressed by the verb stap in Tok Pisin.

(12) **Mama   bilong yu i stap?**
     mother of   you   lives
     'Is your mother alive?'

Although it is possible that the system is in transition, and a
quantifier is evolving as sentences such as (8) are being restructured
or reanalysed as (8a) instead of (8b), there is evidence that (8b) is
the correct structure. First, there are some sentences of this type
which have no embedded S and thus gat must be the main verb.

(13) **No gat mo   dua nau.**
     NEG *have more door now*
     'There were no more doors now.'

(14) **No gat papa   bilong yu?**
     NEG *have father of   you*
     'Have you no father?'

(15) **No gat sem   bilong yutupela?**
     NEG *have shame of   you two*
     'Have you two no shame?'

Nevertheless, it might be possible to argue that (13) is actually a
sentence fragment, *'no more doors now!'*, or that the main verb is
actually a copula, which has no surface form in Tok Pisin, as in the
English translation, *'There were no more doors now!'*.
     If the hypothesised relative clause in (8b) were marked as such, it
would show that (8b) is the correct structure, but relative clause
marking is far from obligatory in Tok Pisin at this point in time.
In fact, Sankoff and Brown (1976) argue that relative marking does not
occur with existentials and indefinites, so we would not expect the
relative clause in sentence (8) to be marked. I do have one recorded
example of a sentence like (8) in which the relative clause is preceded
by the relative marker ia.

(16) No gat man   ia go wokim.
     NEG *have human   go work (it)*

     'No one went and did it. (The rain did.)'

However, this Chimbu woman's speech is peppered with **ia**'s and most of
them do not mark relative clauses; instead they serve some other func-
tion such as emphasis markers.

    Further evidence that **no gat** is not a quantifier in (8), (13), (14),
(15) and (16) is the similarity of the behaviour of **no gat** in these
sentences and the ones below.

(17) Hap   graun bilong yu no gat laulau?
     piece land of   you NEG have Malay apples

     'Your land doesn't have Malay apples?'

(18) Bus   bilong yu no gat kapul?
     forest of   you NEG have possum

     'Your forests have no possums?'

It is virtually impossible to construe **no gat** in (17) and (18) as a
quantifier.

    Perhaps the strongest evidence that **no gat** does not behave like the
English quantifier **no** is that the equivalent of the following English
sentences are ungrammatical in Tok Pisin:

     I have no money.
    *Mi gat nogat money.

     I killed no pigs.
    *Mi kilim nogat pik.

    On the basis of the evidence that **no gat** is not a quantifier, we
can dismiss (8a) as a possible underlying structure of (8) and thus
this construction is consistent with the hypothesis that a maximum of
one negative per clause is generated in Tok Pisin, and that it can only
be generated as the first element of the predicate.

    Sentences (9), (10), and (11) are examples of a construction that
might be construed to have NEG generated in a Pre-S position. This
construction corresponds to a cleft sentence in English. The structure
of cleft sentences in English is still a controversial point, but one
of the most recent treatments of them, Baltin (1976), hypothesises the
following deep structure of them:

56

```
            S̄
          /   \
       Comp    S
             / | _____
           NP Aux VP           S̄
                             /    \
                          Comp     S
                                  / \
                                NP   VP
```
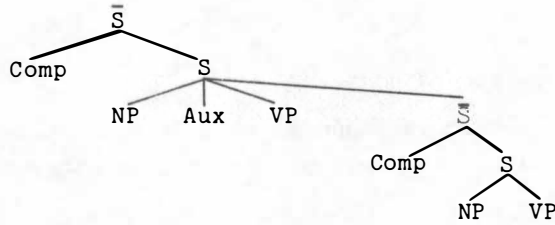
The element that is focused appears in the higher clause and a WH
appears in its place in the lower clause. I think that this is essen-
tially the structure of the Tok Pisin sentences also. If so, sentence
(9) has a structure as follows: (using Baltin's notation)

```
            S̄
          /   \
       Comp    S
             /|_____
           NP Aux   VP                   S̄
          (it) i no  / \                /   \
            is not  V   NP           COMP    S
                   mipela                   / \
                     us                   NP   VP
                                               / \
                                              V   NP
                                          i katim (them)
                                            cut
```
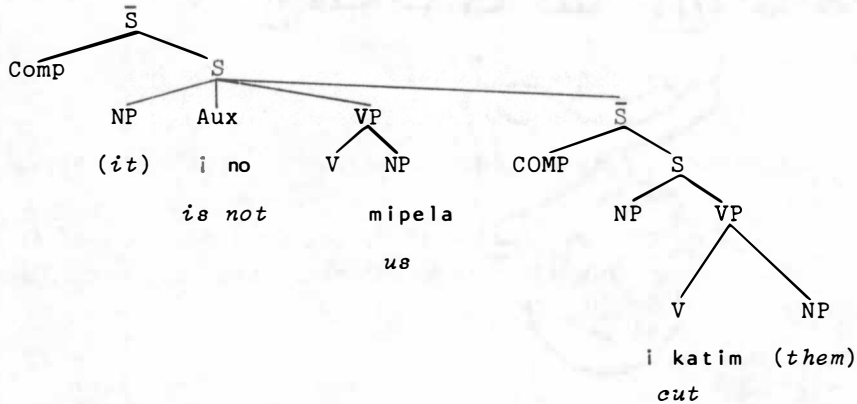
     One other possible analysis of this type of sentence must be con-
sidered. Lasnik claims that English has an instance of NEG that can
be generated in a Pre-S node that can attach itself to and negate the
element directly to its right in surface structure. This might also
be the case in Tok Pisin, and sentences such as (9) and (19) below
would have the following structure:

(19) I no mi paitim em.
     'It is not me that hit him.'

```
            S̄                                        S
          /   \                                     /  \
       Pre-S   S                                  NP    VP
        i no  / \          ⇒                    i no mi / \
        NEG  NP  VP                             not I  V   NP
             mi / \                                   paitim em
              V   NP                                   hit   him
           paitim em
            I
            hit  him
```
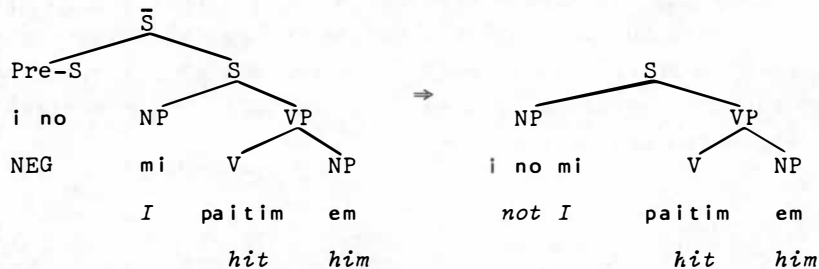
In English, such a Pre-S NEG can attach only to quantifiers, and a sentence such as *'Not me hit him.'* would be ungrammatical, but this does not necessarily mean that such a sentence could not be grammatical in Tok Pisin. Under this analysis, objects, indirect objects, locative phrases and other sentence elements could be moved into sentence initial position by a topicalisation transformation before this negative attachment transformation applied. Both this analysis and the cleft analysis account for the data presented thus far, but there is one fact that supports the cleft analysis over the Pre-S NEG analysis. In cleft sentences, the information in the lower clause is old information or presupposed information, whereas this is not the case in a topicalised sentence. In Tok Pisin sentences such as (9) and (17), it seems that the part of the sentence that is not negated is old information.

Lacking any substantial evidence to the contrary, it appears that NEG is generated in only one position in Tok Pisin, as the first element of the predicate, and that the other positions in which Lasnik claims that NEG can be generated in English have no parallel in Tok Pisin.

It is interesting to note that at the present time many or perhaps even most sentences beginning with no gat and no inap do not have the i predicate marker preceding no, in contrast to sentences such as (9), (10) and (11) that absolutely require i before no. The older data represented in Laycock (1970a) and Wurm (1971a) consistently show all of these structures beginning with i. Mihalic (1971) lists examples without i, but claims that these come from sentences with i. There is a general trend for the deletion of i in many contexts, but it is very unusual for i to be deleted before no in any other context (Woolford 1975 and Sankoff 1977). The function(s) of i has never been investigated in any depth so it is difficult to say what its presence or absence indicates in the structures we have been considering. If no inap and no gat are in the process of becoming single lexical items, we would expect the deletion of i to be a logical first step.

SEMANTICS

Lasnik (1972) proposed the following interpretive rule to account for the scope of the negative, with reference to quantifiers:

QUANT → [+negated] / *not* ____

This means that a quantifier immediately following *not* is negated. For quantifiers that follow the negative, but not immediately, Lasnik has a second rule that negates the quantifier when *not* and QUANT are in the same intonational phrase. This accounts for all cases except

those sentences beginning with *every* and *all* which have an optional
meaning in which the quantifier is negated.

    All the members didn't come.

    Every man over forty isn't bald.

Intonation distinguishes the two readings of these sentences as well
(see Jackendoff 1972 and Ladd 1976).

    Lasnik's first rule can be adapted for Tok Pisin by merely sub-
stituting no for *not*. Lasnik's second rule can be collapsed into this
first one as well for Tok Pisin because it is irrelevant whether or not
any material comes between no and the quantifier in Tok Pisin, as long
as no commands the quantifier. The following sentence has only one
reading in Tok Pisin, whereas it is supposedly ambiguous in English.

(20) Mi no lukim planti meri.
    I NEG *see*   *many*   *women*
    'I did not see many women.'

Thus the rule for assigning the scope of negation with respect to
quantifiers in Tok Pisin is as follows:

    QUANT → [+negated] / no (x) ____
                (no commands QUANT)

    Nevertheless, Lasnik's rule fails for Tok Pisin in just the cases
that it fails for English, that is, in sentences beginning with *'all'*
or *'every'*, olgeta in Tok Pisin. Just as in English, the following
sentence has two readings in Tok Pisin.

(21) Olgeta pikinini i no kisim sut.
    'All the children did not get an injection.'

I think that it is the case that intonation distinguishes these
readings, but I will not attempt to specify the exact intonation con-
tour associated with each reading.

    There is one interesting exception in Tok Pisin to this rule, and
that is *because-* clauses. In Lasnik's rule, QUANT includes quantifica-
tional adverbs of frequency (such as *often*) and motivation adverbials
such as *because-* and *in order to-* clauses in English. The following
sentence is ambiguous in English and the scope of negation is assigned
by Lasnik's second rule according to the intonation contour:

    They didn't go to the garden because it rained.

Under one reading, they did not go to the garden; under the other
reading, they did go, but the reason was not because it rained.

The equivalent sentence in Tok Pisin has only one reading, but it is the opposite one that our rule would predict.

(22) Ol i no go long gadin bilong wanem ren i pundaun.
     they NEG go to garden because   rain fell

In this sentence, the *because-* clause is not negated. There is no possible reading such that they did go to the garden. In order to get the meaning in which the *because-* clause is negated, one would have to say

(23) Ol i go long gadin, tasol i no bilong wanem ren i pundaun.
     they go to garden but   NEG because   rain fell
     'They went to the garden, but not because it rained.'

We cannot simply adjust the rule so that QUANT does not include motivation adverbs because *in order to-* clauses in Tok Pisin obey the rule perfectly. In the following sentence the *in order to-* clause is negated.

(24) Em i no go long benk bilong kisim mani.
     he NEG go to bank for   get   money
     'He didn't go to the bank (in order) to get money.'

This sentence would be ambiguous in English as Lasnik's rule predicts, but it has only one reading in Tok Pisin, as our adapted version of Lasnik's rule predicts. It must mean that *'it was not in order to get money that he went to the bank'*.

As of now, I do not have an explanation for this difference in the scope of negation with respect to *because-* and *in order to-* clauses.

Lasnik's rule does not deal with the scope of negatives with relation to other elements of the sentence, such as modals. A rule such as the following could be constructed for modals along the lines of Lasnik's rule for quantifiers

modal → [+negative] / *not* (X) ___

This would correctly predict that *must, should* and *ought* are not negated in frames such as the following:

You _____ not go.
   must
   should
   ought

It would also correctly predict that these modals are negated in the following sort of sentence:

> *It is not the case that you _____ go.*
> > *must*
> > *should*
> > *ought*

However, this rule does not work for other modals in English such as *can, could, may* (permission) and perhaps *will* and *would*. In the following sentence frame, these modals are negated unless some very special intonation is used.

> *You _____ not go.*
> > *can*
> > *could*
> > *may* (permission)

Since NEG is initially generated as the first element of Aux and thus occurs to the left of modals before it is moved, Lasnik's rule would work at this earlier stage of the derivation for *can, could*, etc., but then it would fail for *must, should*, etc. I do not know what the solution to the problem is for English, but it is interesting to note that it does not arise in Tok Pisin. NEG is never moved from the position in which it is generated. Thus we expect this rule to work for modals like *can, could*, etc., and it does. Ken, inap, save, laik are negated in the following sentence frame:

> Mi no _____ go.
> > ken (*can*)
> > inap (*can-ability*)
> > save (*do habitually*)
> > laik (*be just about to or want to do*)

However, the Tok Pisin system is consistent and the Tok Pisin equivalent of *'must'*, mas, is also negated in the above frame.

> Mi no mas go
> *'I am not obligated to go.'*
> *'I don't have to go.'*

(There are no real Tok Pisin equivalents of *should* and *ought*.) The reverse combinations are ungrammatical because NEG must occupy the first position of the predicate.

> Mi _____ no go.
> > *inap
> > *save
> > *laik
> > *mas
> > *ken

The meanings that would be expressed by these ungrammatical combinations must be expressed in some other way. *'You must not go.'* is generally expressed by Yu no ken go. and *'I can NOT go.'* would be expressed by some circumlocution such as I orait long mi no i go. (*It is all right for me not to go*).

Our proposed rule for the scope of negation with respect to modals works well for Tok Pisin, although it fails for English. Because these scope relations in Tok Pisin are completely determinable from the surface structure, there is no semantic motivation to generate NEG and modals as higher predicates.

As in English (see Lasnik 1972:84), it is the case in Tok Pisin that heavy stress can be placed on almost any element in a negated sentence to negate that element:

Meri i no givim KAIKAI long me, em i givim wara long mi.
woman NEG *give food to me she give water to me*

'*The woman did not give FOOD to me, she gave water to me.*'

Meri i no GIVIM kaikai long mi, mi yet mi baim.
woman NEG *give food to me I I bought*

'*The woman did not GIVE food to me, I myself bought it.*'

Meri i no givim kaikai long MI, em i givim long man bilong en.
woman NEG *give food to me she give to man of her*

'*The woman did no- give food to ME, she gave it to her husband.*'

SUMMARY AND DISCUSSION

The data on negation in Tok Pisin support the notion that there is only one instance of a negative generated per clause and that this negative is generated as the first element of the predicate. If Tok Pisin can be regarded as stripped down English in any way, either stripped down closer to a universal language, or merely stripped down, the facts about Tok Pisin negation may suggest that negatives generated in AUX are the most basic type in English and that perhaps the other types of syntactic negation that Lasnik claims occur in English have been derived from this basic type in some way. We have seen how such a transition could begin in Tok Pisin.

The semantics of negative scope with reference to quantifiers is handled in Tok Pisin by a rule similar to Lasnik's rule for English, with the interesting exception of *because-* clauses. A similar rule can be constructed to assign the scope of negation with respect to modals in Tok Pisin, but such a rule will not work for English. Since there is no passive transformation in Tok Pisin, and no other rules that move a negative from its original position, the semantics of

negation can be completely determined from either the deep structure or the surface structure of Tok Pisin. Thus, it is not necessary to treat negatives, modals and quantifiers as higher predicates in order to determine the meaning from deep structure.

It seems likely that Tok Pisin will develop more sources of syntactic negation as it creolises, especially if it is strongly influenced by English. However, the syntactic structures already present in Tok Pisin can express any sort of negative idea that can be expressed in English, even though it might require two clauses instead of just one. For example,

> *'Few people ate nothing.'*
> I no gat planti man i no bin kaikai wanpela samting.
> (*There aren't many people that did not eat anything.*)

> *'Nobody ate nothing.'*
> I no gat man i no bin kaikai wanpela samting.
> (*There is no one that did not eat anything.*)

THE POSSESSIVE CONSTRUCTION AND THE SYNTAX OF <u>BILONG</u>

INTRODUCTION

In addition to the possessive construction, there are at least seven other constructions in Tok Pisin that involve bilong. These are *'in order to'* constructions, *'why/because'* constructions, benefactive phrases, part-to-whole relations and modifiers indicating place of origin, attributes and function or purpose. Despite the fact that bilong appears to be a verb, a conjunction or even a complementiser in certain contexts, a unified analysis will be presented that generates bilong as a preposition in all of these constructions. In addition, it will be argued that the possessive construction in Tok Pisin does not have a relative clause in its underlying structure. Finally, some rules for the semantic interpretation of bilong constructions will be outlined.

The possessive construction in Tok Pisin consists of two noun phrases linked by bilong:

(1) Mi sindaun tasol long haus bilong me.
    I sit just in house me

    'I just sit in my house.'

(2) Em masalai bilong papa bilong mipela.
    it spirit father us

    'It is the spirit of our father.'

(3) Na man bilong en dispela rabis pipia meri ia em slip
    and man her this worthless trash woman Rel. *he sleep*

    pinis.
    complete

    'And the husband of her, this worthless trashy woman, he was sound asleep.'

There are, however, seven additional constructions in which bilong
appears. Rather than analysing the possessive construction separately
(as an underlying sentence, for example), it would be more economical
to account for all uses of bilong under a more general analysis of the
syntax and semantics of bilong in Tok Pisin. These additional bilong
constructions are as follows:

Part to whole

(4) Pasim   long dispela han   bilong laulau.
    fasten to   this   branch of   Malay apple

    'Fasten it to this branch of the Malay apple tree.'

(5) Ai   bilong sospen i lus   pinis.
    lid of   pot   lost complete

    'The lid of the pot is lost.'

Place of origin (includes time or origin)

(6) Bikpela man bilong bipo
    big   man of   the past

    'An important man of the past.'

(7) Yupela kisim bikpela bikpela pukpuk   bilong wara.
    you   catch big   big   crocodile of   river

    'You catch some big river crocodiles.'

Purpose or function

(8) Em i putim long stik bilong wasim saksak.
    she put on   stick for   wash sago

    'She put it on the stick for washing sago.'

(9) Ol   i wokim banis   bilong katim skin bilong ol   pikinini.
    they   made enclosure for   cut   skin of   Pl. children

    'They made an enclosure for the cutting of the children's skin.'
    (a puberty rite)

Attribute

(10) Em i wanpela man bilong senis tok tru, dispela man.
     he is one   man for   change talk true, this   man

     'He is really a man for changing his story, this man.'

(11) Em man bilong wokim dispela kainkain trik.
     he man of   work this   kind   trick

     'He is a man for doing these kinds of tricks.'

Benefactive

(12) Bai   yumi givim wanpela spes bilong em.
     Fut. we   give one   space for   him

     'We will leave a space for him.'

(13) Mi baim banana bilong ol   pikinini.
     me buy banana for   Pl. child

     'I bought bananas for the children.'

Why/Because

(14) Bilong dispela mi kros.
     of   this   I angry
     'Because of this I am angry.'

(15) Bilong wanem yu paitim mi?
     for   what you hit   me
     'Why did you hit me?'

(16) Na mi tok, "yu painim wanpela Corona na yu kisim, bilong wanem
     and I talk you find   one   Corona and you get   for   what

     mi bin raun   long em na i no bin, mitupela i no bin yusim
     I Pst. go around in it and   NEG Pst. we two   NEG Pst. use

     planti bensin".
     much   gasoline

     'And I said, "you find a Corona (car) and you get it because I
     have driven around in one and it didn't, we didn't use much
     gasoline".'

In order to

(17) Bai yumi givim wanpela spes bilong em bilong i kam insait
     Fut. we   give one   space for   him for   come inside

     na kisim dispela pikinini diwai.
     and get   this   child   tree

     'We will allow a space for him to come inside and get this fruit
     of the tree.'

(18) Em i go long benk bilong kisim mani.
     he   go to   bank for   get   money
     'He went to the bank to get money.'

Although bilong has generally been considered to be a preposition
(Mihalic 1971:30; Wurm 1971a:60), it could be argued that bilong is
actually a verb because it occurs in otherwise verbless sentences such
as the following:

(19) Tispela dok em i bilong mi.   (Wurm 1971a:14)
     this   dog he   of   me
     'This dog is mine.'

(20) Mi bilong Manus.
     'I am from Manus.'

This is evidence that bilong is a verb in contrast to the other prep-
osition in Tok Pisin, long, which cannot occur in such verbless environ-
ments:

(21) *Man long haus.
     ('The man is in the house.')

Long must occur with the verb stap ('exist, be located') in such
environments.

(22) Em i stap long haus.
   'He is in the house.'

Nevertheless, despite the behaviour of long, this evidence for the verbal status of bilong is weakened by the fact that there are other types of sentences in Tok Pisin which have no surface verb:

(23) Nem bilong en Ikolichimbu.
   'His name (is) Ikolichimbu.'

(24) Em i tisa.
   'He (is) a teacher.'

(25) Em tasol.
   'That (is) all.'

(26) Mi inap.
   'I (am) satisfied.'

(27) Nus bilong en i sotpela nogut tru.
   'His nose (is) extremely short.'

Although it is true that prepositions may be historically derived from verbs (Givon 1975), and one might argue that bilong is more verb-like than long, I will claim that bilong is a preposition in all of its occurrences, at this point in time.

   Let us now outline the structures underlying these various bilong constructions.

1. BENEFACTIVES

   Benefactives in Tok Pisin have an underlying structure much like that of English benefactives. However, there are two types of bene-factives in English, one which can undergo dative movement (1) and one which cannot (2).

 (1) *I bought a car for Jane.*
    I bought Jane a car.

 (2) *I did the dishes for Jane.*
    **I did Jane the dishes.*

Tok Pisin has only the benefactive comparable to the first of these, but it does not undergo dative movement.

(13')

```
                          S
         _____|_____
        NP          VP                          PP
        mi     _____|_____              _____|_____
        I     V          NP            P                 NP
              baim        N            bilong       _____|_____
              buy         N           for          DET        N
                        banana                     ol       pikinini
                                                   Pl.      child
```
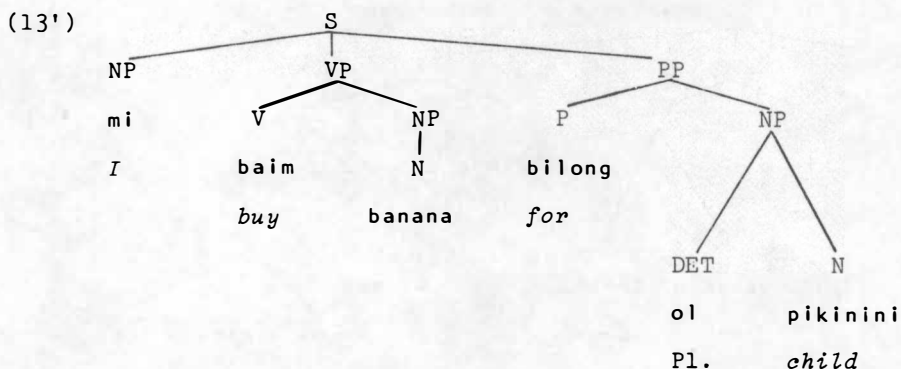
It might be argued that the PP is part of the VP in this structure, but in either case it seems fairly obvious that bilong is a preposition in its benefactive usage.

2. WHY/BECAUSE CONSTRUCTIONS

'Why' and 'because' are both expressed using bilong in Tok Pisin. I claim that although *because* is considered to be a subordinate conjunction in English, bilong is a preposition in the following structures.

(14')

```
                    S
         _____|_____
        NP      VP                PP
        mi      V           _____|_____
        I       kros       P             NP
                bilong     dispela
              (am) angry    for           this
```

The PP can be fronted.

(15')

```
                          S
         _____|_____
        NP          VP                         PP
        yu     _____|_____              _____|_____
        you   V          NP            P                 NP
              paitim      mi           bilong           [+wh]
                                                         wanem
              hit         me           for              what
```

The PP can be fronted.

(16')

```
                          S
        ┌─────────┬────────────────────┐
       NP        VP                    PP
                ┌──┴───┐            ┌────┴────┐
       yu       V     NP            P        NP
                              ┌─────┴────┐
       you    kisim   NP           bilong  NP       S
                                              
              get    ┌──┴──┐            wanem
                     Q     N
                                              mi bin raun long
             wanpela  Corona       wanem      em na ...

               a      Corona
```
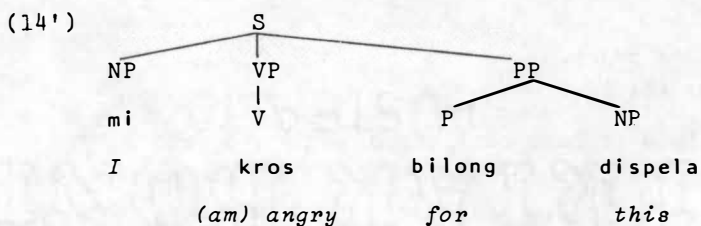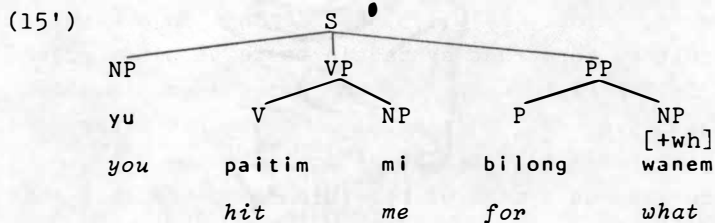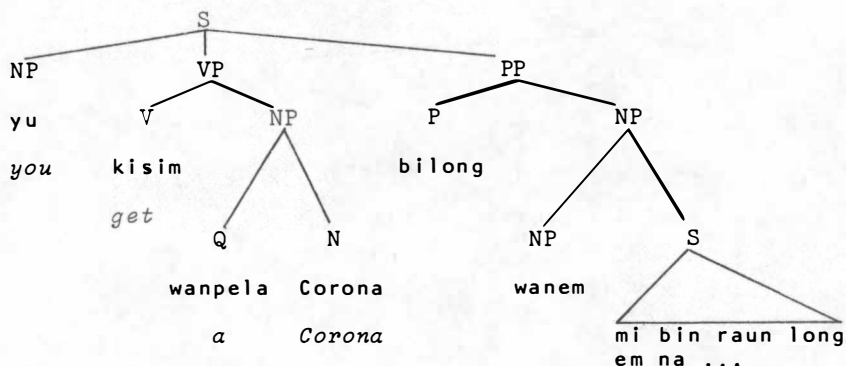
The PP cannot be fronted if it contains an S.

*Bilong wanem mi bin raun long em na i no yusim planti bensin yu kisim wanpela Corona

In structures such as (14') and (15'), the PP is optionally moved to
the front of the sentence, but this is not possible in (16') where there
is a full S node under the PP. Note that there is a parallel condition
in English:

> *What did he hit her for?*
> *For that he hit her.*
>
> *He hit her for he was angry.*
> *For he was angry he hit her.*

In the two constructions we have considered so far, benefactives
and *why/because* constructions, it is fairly clear that a noun phrase
immediately follows bilong. In *'in order to'*, purpose/function and
attribute constructions this is not so obvious. In English, it has
generally been assumed that prepositional phrases contain a preposition
and a noun phrase; however, Emonds (1976:175) has argued for a rule
PP → P S. It is difficult to construct syntactic tests to distinguish
between an NP and an S in Tok Pisin. There is no passive construction
so passive cannot be used as a test. Since the NP or S that we are
dealing with in these structures is immediately dominated by a PP,
topicalisation cannot be used as a test either because of the fact that
prepositions cannot be stranded in Tok Pisin. Any movement of an NP
out of a PP strands a preposition, so no movement rule can be used as
a test in these constructions. Moreover, there is no morphological
evidence that might distinguish a sentence from a noun phrase in these
constructions. In view of this, I will assume the shallowest underlying
structure for these constructions until evidence to the contrary is
produced. I will assume that the prepositional phrase immediately

dominates an S, rather than hypothesising and intervening NP in purpose/function, attribute, and *'in order to'* constructions in Tok Pisin.

3. PURPOSE/FUNCTION CONSTRUCTIONS

(8')

```
                      S
         NP                    VP
         em          V    NP              PP
         he        putim          P              NP
                    put    it    long      (NP)           PP
                                  on      stik        P         S
                                         stick      bilong
                                                          NP wasim saksak
                                                          someone wash sago
```
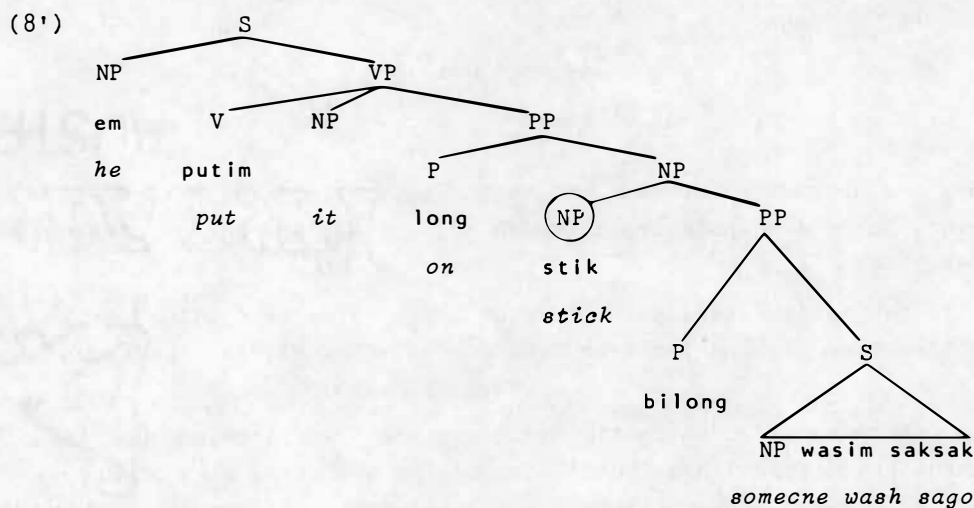
Tok Pisin differs from English in that English can have animate noun phrases in the circled position in purpose/function constructions. For example,

These men are for you to put to work.

4. ATTRIBUTE CONSTRUCTIONS

(11')

```
                      S
         NP                    VP
         em          V              NP
         he        i (copula)   (NP_i)        PP
                     (BE)        man     P          S
                                a man  bilong
                                         for
                                              NP_i wokim dispela kainkain
                                                   trik
                                              do these kinds of tricks
```
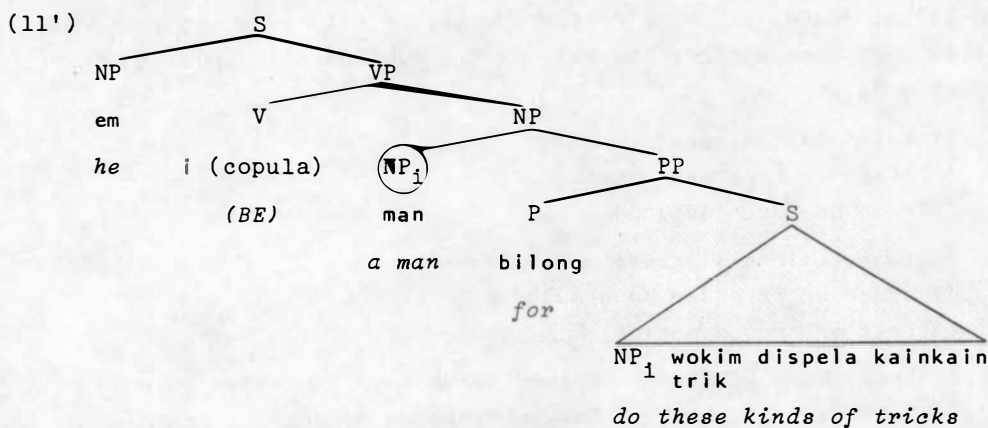
(The circled NP must be [+animate].) EQUI must delete the subject of the embedded sentence.

70

5. 'IN ORDER TO' CONSTRUCTIONS

(18')

```
                    S
        NP_i              VP
        em          V      PP              PP
        he          i go   P    NP         P        S
                    goes   long benk       bilong
                           to   bank              NP_j kisim mani
```
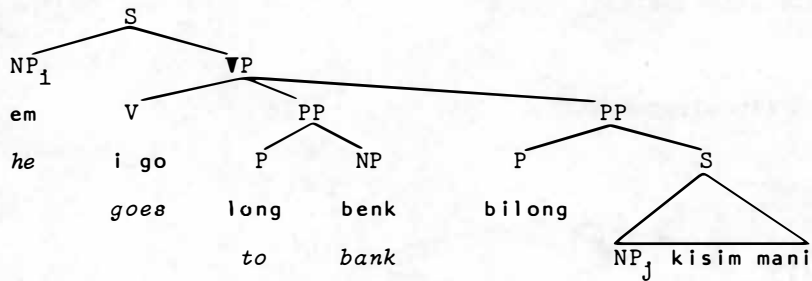
If NP_i and NP_j are coreferent, NP_j will usually be deleted by EQUI.
However, there are instances in which NP_i and NP_j are not coreferent.
For example,

> Yu mas taitim kundu gut bilong ol i ken harim krai bilong en.
> *'You must tighten the drum well so that they may hear its sound.'*
>   (Wurm 1971a:66)

In *'in order to'* constructions, it appears that long can sometimes
be substituted for bilong, but it is not known whether some speakers
use only long and others bilong, or whether some speakers are free to
use either preposition. I have not yet investigated this question. It
may be that this construction, with either long or bilong, is rather
new and not yet stable. Mihalic (1971) gives only [S olsem baimbai S]_S
as the form of *'in order to'* constructions:

> Em i stap long skul olsem baimbai em i ken kisim save.
> *'He is going to school so as to gain knowledge.'*

Wurm 1971a) claims that the choice of long or bilong is not free, but
instead indicates whether the main or the subordinate clause is being
focused upon.

> Mi sanap long singaut.
> *'I stand up in order to shout.'*
> (Stress on first action)

> Mi sanap bilong singaut.
> *'I stand up in order to shout.'*
> (Stress on second action)

Nevertheless, Wurm lists both bilong wanem and long wanem as ways to
express *'because'* (1971a:74), but he proposes no such difference in
meaning for these forms.

Laycock (1970a:xxxiv) proposes a different difference in meaning
between long and bilong in *'in order to'* constructions. According to

Laycock, the choice of long or bilong indicates a lesser or greater
'degree of purpose'. Both Wurm (1971a) and Laycock (1970a) are based
on data that was collected quite a few years earlier. Dutton (1973),
which is presumably based on more recent data, states that "in order
to (do something) is expressed simply by placing bilong before the
verb"; Dutton does not mention the possibility of using long. This
suggests the hypothesis that originally long was used in *'in order to'*
constructions, but that bilong then began to replace it. Nevertheless,
I have discovered one pair of sentences in which the use of long or
bilong makes a significant difference in the meaning:

> Em i grisim mi long kisim mani.
> *'He butters me up to get money.'* *(I will get the money.)*

> Em i grisim mi bilong kisim mani.
> *'He butters me up to get money.'* *(He will get the money.)*

It seems that when the subject of the lower clause is not obvious,
because there is both a subject and an object in the main clause, the
choice of long or bilong is not optional. If the subject of the main
clause is to be understood as the subject of the lower clause, bilong
is used. If the object of the main clause is to be the subject of the
lower clause, long is used. In this respect, Tok Pisin is less ambig-
uous and dependent on context than English is. However, in English
(and probably in Tok Pisin as well) the choice of verb generally de-
termines whether it is the subject or object of the main clause that is
the subject of the complement clause.

> *He tricked me to get money.* (subject)
> *He convinced me to get money.* (Usual reading, object)

6-8. POSSESSIVES, PART TO WHOLE RELATIONS AND PLACE OF ORIGINS CONSTRUCTIONS

   These three constructions are quite similar in that they all involve
two noun phrases linked by bilong. These constructions differ only in
the types of noun phrases that may occur in them. (This will be
specified in the semantics section to follow.) Aside from this differ-
ence, their underlying structures should be identical. It would be
quite illegitimate to derive possessives from underlying relative
clauses while deriving place of origin constructions, which are essen-
tially locatives, from prepositional phrases.

> Bilum bilong meri
> *'string bag of woman'*
versus

    man bilong Australia
    'man of Australia'

I will argue against a relative clause source for possessives and I
will argue that possessives, part to whole constructions and place of
origin constructions have the following underlying structure.

6. (2') Possessive

(2')

masalai	bilong
spirit	*of*

papa
father

bilong   mipela
of   *us*

7. Part to whole

(4')

(yu)
(*you*)

pasim   (*it*)
fasten

long
to

dispela han   bilong   laulau
this   *branch* *of*   *tree*

8. Place of Origin

(6')

```
                        NP
              _____|_____
            NP                      PP
         ___|___                 ___|___
       Adj       N             P       NP
     bikpela    man          bilong   bipo
      big       man           of     the past
```
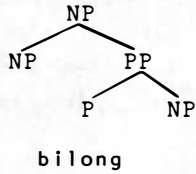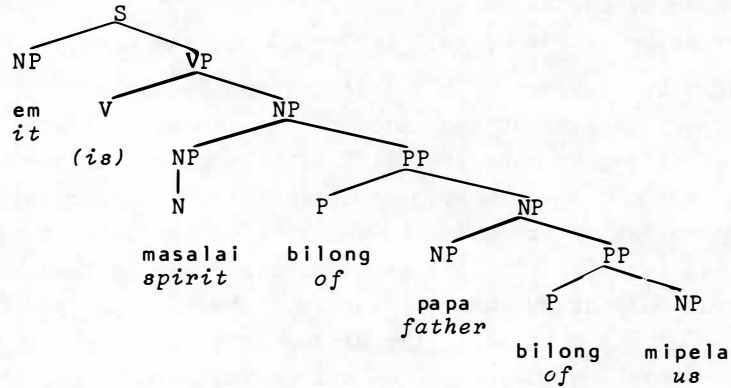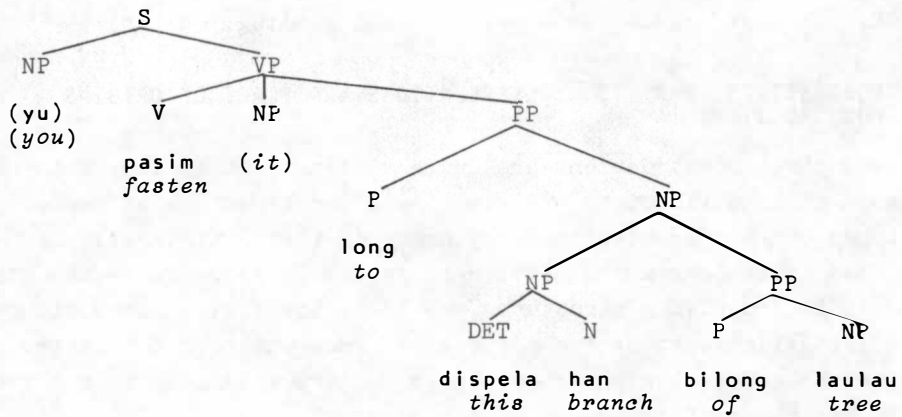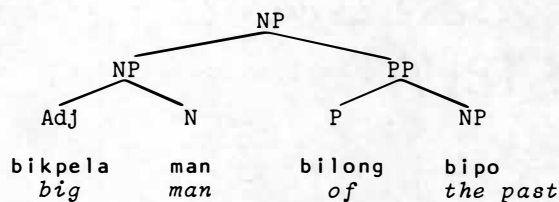
One bit of evidence against a relative clause source for possessives, in English at least, is the well known fact that children acquire possessive constructions before they acquire relative clauses (e.g. Menyuk 1969). As far as I know no similar study has been done for Tok Pisin, but more than likely this is true of Tok Pisin speaking children as well.

It appears that one of the main reasons that a relative clause source for possessives was proposed for English is to relate pairs such as the following:

> *My dog*
> *I have a dog*

However, there are such pairs in Tok Pisin which have widely divergent meanings (although this may be just a metaphorical extension).

> Meri i gat bel.
> *'The woman has a stomach (i.e. she is pregnant).'*

> Bel bilong meri.
> *'The woman's stomach.'* (no implication of pregnancy)

There are many other problems with a *have* analysis of possessives, but I will not review them here. See Lyons 1968:391. Finally, it would seem that there is no more reason to suppose a relative clause source for possessives than for locatives. These sentences seem to have parallel structures:

> Wanpela lek bilong mi i bruk.
> *'One leg of mine is broken.'*

> Wanpela lek bilong sia i bruk.
> *'One of the legs of the chair is broken.'*

> Wanpela sia long haus i bruk.
> *'One of the chairs in the house is broken.'*

Note, however, that if there were a relative clause source for possessives in Tok Pisin, its underlying structure ought to be A below rather than B.

(A)

```
              NP
        _____
      NP₁          S
              _____
            NP₁          VP
                    _____
                  V           PP
                 (BE)      _____
                          P      NP₂
                        bilong
```

(B)

```
              NP
        _____
      NP₁          S
              _____
            NP₂          VP
                    _____
                  V           NP₁
                 gat
               (have)
```
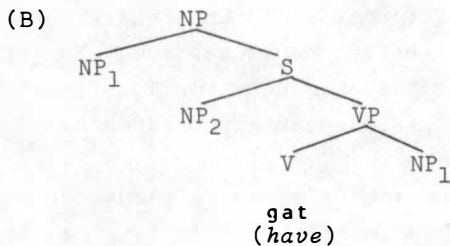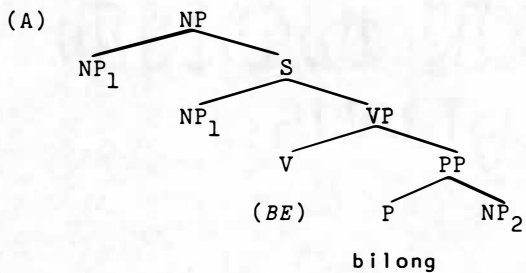
That is, the embedded sentence should be of the form

> *'The leg is to me.'*   (cf. Ross n.d.)

rather than

> *'I have a leg.'*

SEMANTIC INTERPRETATION OF bilong CONSTRUCTIONS

The meaning of bilong is fairly broad and can best be translated as *'closely connected to'*. Bilong "... denotes a relationship between two entities or objects which is close and lasting" (Wurm 1971a:60). The exact nature of this connection is determined by the nature of what is connected to what. It might be claimed that the interpretation of bilong constructions is outside the scope of the grammar and depends instead on a knowledge of the world. Tok Pisin speakers might follow a strategy of seeking the closest possible connection between the two entities connected. On the other hand, it may well be possible to write some fairly concise interpretive rules for bilong constructions. The following set of rules is a first attempt at such a task.

First we must establish which items of a sentence containing bilong are said to be linked or connected by bilong

Rule 1:

> Bilong links two elements X and Y in a sentence such that X is the NP or S dominating the PP containing bilong (excluding the PP itself), and Y is the NP or S dominated by the PP dominating bilong.

```
              X
        ┌────────────────┐
        │          PP     │
        │        ┌────┐   │
        P              Y
```
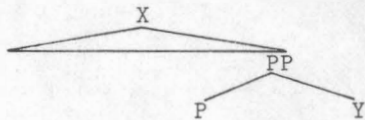
Assuming the following redundancy rules for noun features, we can write
a precise set of interpretive rules for bilong constructions.

[+animate] → [±human]
[-animate] → [±place]
[+relation] → [+animate]
[+place] → [-animate]

By relation, I mean names of kinship and social relations such as
mother, father, friend, schoolmate, co-workers, etc. By place, I mean
names of places or times, e.g. bipo ('long ago').

INTERPRETIVE RULES

1. [[X   ]] bilong [[Y   ]]
   NP N $\begin{bmatrix}-\text{human} \\ -\text{relation}\end{bmatrix}$ NP N [+animate]

   ⇒ 'Y possesses X'

2. [[X   ]] bilong [[Y   ]]
   NP N [-animate]   NP N $\begin{bmatrix}-\text{animate} \\ -\text{place}\end{bmatrix}$

   ⇒ 'X is a part of Y'

3. [[X   ]] bilong [[Y   ]]
   NP N [-relation]   NP N [+place]

   ⇒ 'X originated at Y'

4. [[X   ]] bilong [[Y   ]]
   NP N [+relation]   NP N [+animate]

   ⇒ 'Z is an X of Y'

5. [[X   ]] bilong [Y   ]
   NP N $\begin{bmatrix}+\text{animate} \\ -\text{relation}\end{bmatrix}$ VP [+animate]

   ⇒ 'X is a characteristic trait of Y'

6. [[   ]] bilong [Y]
   NP N [-animate]   S

   ⇒ 'X is for the purpose of Y'

7. [X] bilong [[Y   ]]
    S   NP N [+animate]

    ⇒ (benefactive) *'X is for the benefit of Y'*

8. [X] bilong [Y]
    S   S

    ⇒ *'X in order for Y'*

9. [X] bilong [[Y]]
    S   NP S

    ⇒ *'X because Y'*

SUMMARY

Nine different constructions involving bilong in Tok Pisin have been considered, and it has been concluded that bilong is generated as a preposition in all of these constructions. The syntactic structures of these constructions have been outlined, and semantic rules for interpreting them have also been presented. Finally, it has been argued that there is no relative clause source of possessives in Tok Pisin.

THE SYNTAX AND SEMANTICS OF THE PREPOSITION <u>LONG</u>

Long does the work of several different English prepositions - *to, from, in, on, with, at, about*, and others. Long marks nouns as locatives, instruments, direct objects, indirect objects, and objects of comparison. Long also occurs before verbs in predicate complements, paralleling English *to* in sentences such as the following.

> Mi amamas long lukim yu.
> *'I am happy to see you.'*

Despite this superficial similarity of long and English *to*, I will argue that there is no Tok Pisin equivalent of the *to* that marks infinitives in English. The analysis that I will present generates long as a preposition in all of its occurrences. However, there is also a possibility that long is generated as a complementiser in some instances and is then transformed into a preposition in surface structure. This would parallel the derivation that Emonds (1976) proposes for the *for* complementiser in English. Nevertheless, there is no evidence that Tok Pisin has more than one variety of complement, roughly corresponding to a *that* complement.

Let us first consider the traditional type of prepositional phrase in which long precedes a noun phrase. Examples are given below.

Locatives
Place:
(1) Mitupela kam painim kapul long bus.
    we two   come seek   possum in   forest

    'We came seeking possums in the forest.'

Time:

(2) Bai mi kam long sis kilok.
    Fut. *I come at   six o'clock*

    'I will come at six o'clock.'

Source:

(3) Tupela meri ia ol   i kisim long papa   bilong ol.
    two   girl   they   get from father of   them

    'The two girls, they got it from their father.'

Goal:

(4) Bai yu go antap long ples.
    Fut. *you go up   to   village*

    'You will go up to the village.'

Instruments

(5) Mi katim abus long naip.
    I cut   meat with knife

    'I cut the meat with a knife.'

(6) Em i win long strong   bilong en.
    he   won with strength of   him

    'He won with his strength.'

Indirect Objects

(7) Em i givim lam long mama   bilong en.
    she give lamp to   mother of   her

    'She gave the lamp to her mother.'

Direct Objects

(8) Mipela lap   long en.
    we   laugh at   her

    'We laughed at her.'

(9) Mi no tok long yu lapun meri.
    I NEG talk to   you old   woman

    'I am not talking to you, old woman.'

Objects of Comparison

(10) Dispela haus i moa bik long arapela.
     this   house   more big than other

     'This house is bigger than the other one.'

                                    (Mihalic 1971:20)

(11) Dispela moran i moa longpela long dispela.
     this   python   more long   than this

     'This python is longer than that one.'

                                    (Dutton 1973:204)

(Olsem is also used in place of long in such constructions, and Mihalic (1971:125) claims that native speakers prefer to use olsem.)

Determining the relation between verbs and noun phrases marked by long is not simple. Some generalisations can be made on the basis of syntactic structure alone, but the meaning of these prepositional phrases is largely dependent on the particular verb preceding long and the particular noun following long. These syntactic generalisations are as follows.

	Structure	Meaning of NP
(1)	[V-im (NP) [long NP]] VP PP	instrument, indirect object, or locative
(2)	[V [long NP]] VP PP	direct object or locative
(3)	[NP [long NP]] NP PP	locative
(4)	PP [long NP] PP	locative
(5)	moa Adj. [long NP] PP	object of comparison

Under generalisation (1), the preceding verb determines whether the NP following long will be interpreted as an instrument, indirect object or a locative. If the verb is one of the few three-place verbs such as givim (*'give'*), the indirect object interpretation is obligatory. If not, and if the verb is one that cannot take an instrument, the locative interpretation wins out by default. In many cases, however, the interpretation will be determined by the suitability of the NP following long as an instrument as opposed to a location. For example,

Instrument:

> Mi paitim em long dispela hap diwai.
> *I hit him with this piece wood*
> *'I hit him with this piece of wood.'*

Locative:

> Mi paitim em long ples.
> *I hit him in village*
> *'I hit him in the village.'*

Most transitive verbs can occur with only a limited number of instru-
ments. For example, an instrument for lukim (*'see'*) would have to be
one's eyes or else a telescope or other instrument for seeing. There
is no way to specify in general the qualities of suitable instruments
because they differ so much from verb to verb. In fact, I doubt that
this should be a part of the grammar at all, but rather something to
do with a knowledge of the world.

   In the structure in generalisation (2), the NP following long is
either a locative or a direct object. In general, if the preceding
verb permits a direct object, this will be the required interpretation.

   Mi lap long dispela haus.
   'I laugh at this house.'   Direct object
?*'I laugh in this house.'*   Locative

If, however, the following NP is a time expression, the direct object
interpretation is virtually impossible; yet, the resulting sentence
sounds peculiar and the time expression is usually fronted.

   ?Mi lap long Mande.
   Long Mande, mi lap.
   'On Monday, I laughed.'

   The meaning of verb-object sequences linked by long, in contrast
to those in which the verb is marked by the transitive marker -im, has
been discussed many times in the past, but it has been impossible to
specify the difference in meaning between V-im NP and V long NP (e.g.
between pairs such as lukim NP and lukluk long NP) in more than a
general way.

> The transitivity indicated by verbs without -im, but long
> after them is incomplete, i.e. the action is understood as
> being aimed at an object without necessarily reaching the
> point of being carried out in full and achieving a complete
> result, or making a thorough impression upon the object.
>
>   (Wurm 1971a:32)

   The reason that no more specific characterisation of the difference
in long vs -im constructions has been discovered is that the meaning
varies considerably from verb to verb. For example, there is hardly
any semantic difference between wetim (*'await'*) and wet long (*'wait
for'*), whereas there is quite a bit of difference between krosim
(*'scold'*) and kros long (*'mad at'*) or lukautim (*'take care of, search
for'*) and lukaut long (*'beware of, look after'*). Although we want to
capture the fact that verbs such as kros and krosim are related in some
way (e.g. by the use of redundancy rules), such pairs of verbs must be
entered into the lexicon as separate lexical items because there is no
way to predict the meaning of one from the meaning of the other.

Co-occurrence rules in the lexicon will specify which classes of verbs can occur with prepositional phrases following them and what the meaning relation between the prepositional phrase and the verb is (e.g. indirect object, instrument, etc.). None of the generalisations we have set out will be repeated in these co-occurrence rules. Moreover, to avoid marking each verb so that it can take a locative prepositional phrase, we will propose a general rule that a prepositional phrase with no other interpretation will be interpreted as a locative.

In the lexicon, each verb will be marked with the number of NP and PP arguments it can or must take and the relation of these arguments to the verb. It is quite likely that all of these arguments should be generated as noun phrases or else all as prepositional phrases and that a transformation would either insert or delete prepositions in the appropriate positions. For now, however, we will specify the arguments as prepositional phrases and noun phrases, just as they actually occur in surface structure.

Traditional one-place verbs and adjectives that can take objects when a preposition intervenes will be marked as follows.

_____ (PP)
          direct object

Some of the lexical items so marked are listed below.

amamas	*'glad (about)'*
driman	*'dream (of)'*
krai	*'cry (for)'*
kros	*'mad (at)'*
lap	*'laugh (at)'*
les	*'tired (of)'*
lukaut	*'beware (of)'*
lukluk	*'look (at)'*
poret	*'afraid (of)'*
sut	*'shoot (at)'*
wet	*'wait (for)'*

Two-place verbs which may take instruments are marked as follows.

_____ NP (PP)
               instrument

Three-place verbs will be marked as follows.

_____ NP PP
               indirect object

The five generalisations we have proposed, plus the condition that a prepositional phrase with no other interpretation is to be interpreted

as a locative, plus the marking of these three verb classes as to the sort of prepositional phrases they may take as arguments is all we need to interpret any prepositional phrase in Tok Pisin of the traditional type that dominates long and a noun phrase.

Long BEFORE VERBS

We have dealt with the instances of long that precede noun phrases and we now turn to the analysis of constructions in which long occurs before verbs, at least in surface structure. Examples of such constructions are given below.

(12) Ol meri skul tasol long katim siot bilong ol man.
     Pl. *woman learn only*   *cut   shirt of*   Pl. *man*

     'The women only learned to cut out men's shirts.'

(13) Ol i wok   long karim ol rifle.
     Pl. *work*   carry Pl. *rifle*

     'They worked at carrying the rifles.'

(14) Ol i les   long harim ol gutpela tok promis.
     Pl. *tired*   hear Pl. *good   talk promise*

     'They are tired of hearing great promises.'

(15) No gat stori long tokim yu.
     NEG *have story*   tell you

     'There are no stories to tell you.'

(16) Tupela i bin go long wara long kisim pis.
     two   Pst. *go to   water*   get   fish

     'The two went to the water to get fish.'

Since long is a preposition elsewhere in the grammar, the simplest and most consistent analysis of long before verbs would be one that generates long as a preposition in all of its occurrences, regardless of what follows it. This initial hypothesis should only be abandoned if there is evidence that certain occurrences of long are generated as something other than a preposition.

Long initially appears to behave like *to* in English since both appear before infinitive phrases. Like long, *to* is an ordinary preposition when it occurs before locatives and indirect objects, but when *to* occurs before infinitives, it is not considered to be a preposition. Instead, *to* has been analysed as the second piece of the *for-to* complementiser (Rosenbaum 1968), an 'infinitive marker' (Kiparsky and Kiparsky 1970) and an auxiliary (Bresnan 1976). It would be illegitimate merely to impose the grammar of English onto Tok Pisin by insisting that long be generated just as *to* is in English. Nevertheless, we should examine the evidence that has been given for the status of *to* in English and

ask whether or not similar evidence exists in Tok Pisin concerning long. By conducting such an investigation, we may determine whether long and English *to* are as similar as they initially seem to be.

Bresnan (1976) classified *to* as an auxiliary because of evidence from the facts concerning verb phrase deletion. Verb phrases can be deleted only if they follow an auxiliary or *to*.

> *Joe didn't help us, but Jack will.*
> *They want to watch television, and I do too.*
> *We are playing basketball, but Jane doesn't want to.*
> *Most people hate to wash dishes, but he asked to.*

Thus *to* was categorised as an auxiliary in order to simplify the rule of verb phrase deletion by avoiding the disjunction $\{^{AUX}_{to}\}$ in the structural description. Bresnan's (1976:16) rule of VP deletion is given below.

```
[W - AUX - VP - X]  -CONJ-  [Y - AUX - VP - Z]
 S                           S
 1    2     3    4      5     6    7     8    9   ➡
 1    2     3    4      5     6    7     Ø    9
```

This sort of evidence for the status of long as an auxiliary does not exist in Tok Pisin, and in fact, there is counter evidence grouping long with prepositions rather than auxiliaries. There is verb phrase deletion in Tok Pisin, but unlike auxiliaries, long can never be left stranded at the end of the sentence as *to* can in English.

> Em bai i go long taun tasol mi no inap (*long).
> *he* Fut. *go to   town but I NEG able tc*
>
> '*He will go to town but I am not able to.*'

> Dispela man i wok hat   tru na dispela i giaman tasol (*long).
> *this   man work hard true and this   pretend only*
>
> '*This man truly works hard and this one only pretends to.*'

The behaviour of long in this context is consistent with the behaviour of long in prepositional phrases which dominate noun phrases. Long can never be stranded in any environment. Compare the following relative clauses:

> Yu   save long dispela man ia   mi bin singautim ia?
> *you know of   this   man* Rel. *I* Pst. *call*   Rel.
>
> '*Do you know this man that I called?*'

> *Yu save long dispela man ia mi bin singaut long ia?
>
> '*Do you know the man that I called to?*'

> Yo save long dispela man ia mi bin singaut long en ia?
>
> *'Do you know the man that I called to him?'*

(ia is the relative clause marker. See Sankoff and Brown (1976))

Compare also the following cleft sentences.

> Em dispela meri mi singautim.
> *it this   woman I call*
>
> *'It was this woman that I called.'*

> *Em dispela meri mi singaut long.
> *it this   woman I call   to*
>
> *'It was this woman that I called to.'*

But the ordinary non-clefted version of this last sentence is grammatical.

> Mi singaut long dispela meri.
>
> *'I call to this woman.'*

Thus we see that evidence from verb phrase deletion does not indicate that long is an auxiliary in Tok Pisin, although *to* may be in English. The evidence supports the notion that long is a preposition in such pre-verbal environments.

There is further evidence that long differs from English *to*. Kiparsky and Kiparsky (1970) classify *to* as an 'infinitive marker' that occurs in front of verb phrases when they are not marked with the participle morphemes (*-ing* or *-en*) if they also have no subject noun phrase. In Tok Pisin, there are no such participle markers and the equivalent of verbs marked *-ing* in English appear as bare stems in Tok Pisin. However, these verb phrases can never be preceded by long in sentence initial position.

> Sindaun nating i no gutpela pasin.
> *sit   nothing   NEG good   custom*
>
> *'Sitting around doing nothing is not a good habit.'*

> *Long sindaun nating i no gutpela pasin.
>
> *'To sit around doing nothing is not a good habit.'*

Rosenbaum (1968) proposed that the *to* that occurs before infinitives is a complementiser, but one that always occurs in conjunction with the complementiser *for* as the *for-to* complementiser. According to Rosembaum, the (b) sentences below would be transformationally derived from the (a) sentences.

> (a) *I am happy for me to see you.*
> (b) *I am happy to see you.*

> (a) *He pretended for him to sleep.*
> (b) *He pretended to sleep.*

By examining Tok Pisin sentences in which a full clause is present in the complement, we see immediately that long is not the same as *to* because long appears in the position of *for* rather than *to* in the full clause.

> Mi laik long yu (*long) samapim wanpela dres bilong mi.
> *'I want for you to sew one dress for me.'*

> Mi laikim yu long yu (*long) samapim wanpela dres bilong mi.
> *'I want you for you to sew one dress for me.'*

We see from these examples that long behaves more like English *for* than like *to*. From this evidence and that presented above, we can conclude that Tok Pisin does not have an equivalent of the English *to* that occurs before infinitives.

Let us investigate the possibility that long is generated in the manner that the *for* complementiser is in English. (Scholars no longer consider the *to* before infinitives to be part of the complementiser.) Emonds (1976) proposes that in English the *for* complementiser is generated under a COMP node, but that a transformation creates a PP node in the COMP position so that in surface structure *for* is dominated by a preposition node.
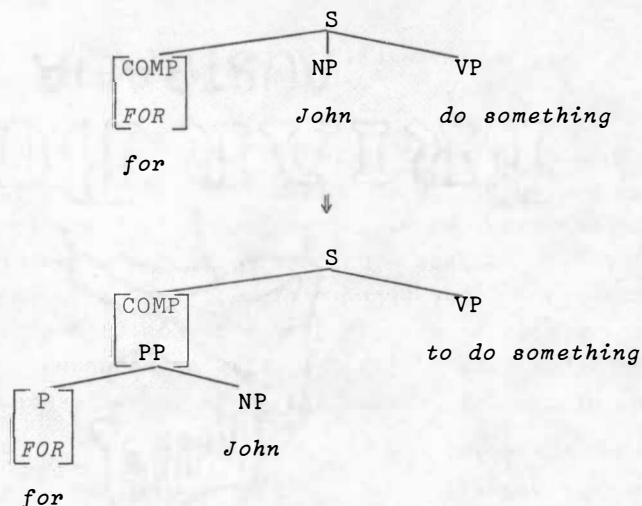
The rule is as follows (Emonds 1976:192):

```
X  -  [ COMP FOR ]  -  NP - Y
1         2            3   4    ⇒
1        2+3           Ø   4
```

To is inserted (by a separate rule) before the VP since the VP becomes headless and meets the conditions set out by Kiparsky and Kiparsky (1970) mentioned above.

According to Emonds, this rule moves the NP under the COMP node, but it does not need to specify that the COMP node becomes a PP node because this follows automatically from the fact that a prepositional phrase is the only node in the base whose head (the preposition) is not preceded by a subject NP but is followed by an object NP. This generalisation was pointed out in an unpublished manuscript by Jackendoff, Selkirk and Bowers (1974), cited in Emonds (1976).

If Emonds' analysis of *for* complementisers in English applies to long, Tok Pisin would still differ from standard English in that the *for* complementiser (long) does not have to be deleted if the NP following it is deleted. The long that appears before verbal complements in the surface structure of Tok Pisin would be parallel to an English *for* complement which was not deleted (although long initially appears to be parallel to the infinitive marker *to* since the English *for* complement is always deleted before infinitives.

> *I am able (for me) to cook food.*
>   ↓   ↓
>   Ø   Ø

> Mi inap long (mi) kukim kaikai.
>   ↓
>   Ø

Although an analysis similar to Emonds' is attractive because it analyses long as a preposition in surface structure even if it is generated as a complementiser, I will propose an alternate analysis of long that is closer to surface structure. Instead of generating long as a complementiser and later transforming it into a preposition, I propose that long simply be generated as a preposition wherever it occurs. In addition to its simplicity, this approach has the advantage of capturing the similarity between the following sentences.

> Mi kam bilong lukim yu.
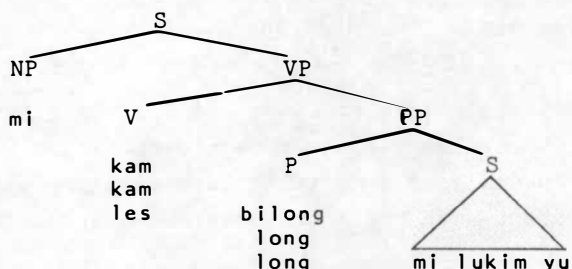> *'I came in order to see you.'*

> Mi kam long lukim yu.
> *'I came to see you.'*

> Mi les long lukim yu.
> *'I am tired of seeing you.'*

I claim that the English translations give the impression that different kinds of structures underlly these sentences, but that there is no

such evidence internal to Tok Pisin. Under the analysis I propose,
these three sentences will have the same underlying structure.

```
                     S
          ┌──────────┴──────────┐
         NP                     VP
          │            ┌────────┴────────┐
         mi           V                  PP
                   ┌──┴──┐          ┌─────┴─────┐
                  kam              P            S
                  kam                      ╱─────╲
                  les           bilong    ╱       ╲
                                long    mi lukim yu
                                long
```

    If one wishes to claim that long is a complementiser in Tok Pisin,
it may also be necessary to claim that bilong is a complementiser as
well because both long and bilong can be used in some of the same con-
structions. We discussed these briefly in the last chapter.

    Em i go long wara bilong kisim pis.
    Em i go long wara long kisim pis.
    'He goes to the water to get fish.'

Long and bilong should be analysed in the same way in such constructions,
either both as complementisers or both as prepositions, unless it can
be shown that there is a real difference between constructions with
long and those with bilong. One possible difference that might be
claimed is that bilong is used in motivational (*in-order-to*) clauses
whereas long is used in non-motivational (*for*) complements. This
difference in usage is shown in the sentence below from the radio news
in Tok Pisin.

Wanpela lain bilong Papua New Guinea Gavman   i redi   LONG go
one   part of   Papua New Guinea government   ready for go

long Europe behain long dispela yia BILONG traim na painim ol
to   Europe after   this   year for   try and find Pl.

kampani em ol i laik kirapim ol bisnis   long dispela kantri.
company 3 Pl. want begin Pl. business in   this   country

*'One faction of the Papua New Guinean government is ready to go
to Europe next year to try and find companies that want to start
businesses in this country.'*

Rosenbaum (1968:17) has suggested that *'in order to'* constructions in
English be analysed as a preposition *'in order'* followed by the *for*
complement. Similarly, we could analyse bilong clauses as follows.

```
                PP
         ┌──────┴──────┐
        P              S
     bilong      ┌─────┴─────┐
                COMP         S
                long
```
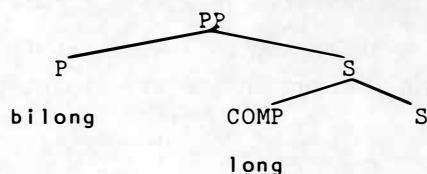
However, there is no evidence for such an analysis and the Tok Pisin equivalent of the following English clause is ungrammatical.

'in order for you to see him'
*bilong long yu lukim em

The difference in meaning between bilong and long clauses that there is (also see Chapter V) does not require bilong to be a preposition while long is a complementiser. An analysis generating long as a preposition as well is completely consistent with the facts about bilong and long clauses.

In Tok Pisin, there is no verbal morphology to distinguish types of complements. For this reason it would often be difficult to decide which sort of complement is present in many constructions if long could be generated as a complementiser.

Em i wok long kisim pis.
'He works to get fish.'
OR *'He works at getting fish.'*

Em i save long praim saksak.
'He knows how to fry sago.'
OR *'He knows about frying sago.'*

Moreover, if long is to be considered the *for* complementiser, *for* complements cannot be distinguished from *that* complements on the basis of tensed clauses because complement sentences following long can be tensed.

Em i tok long bai i lainim dispela kain, dispela kain nek ia.
'She said that she would learn this, this kind of dialect.'
                                        (from Sankoff's data)

Because of these facts, and the lack of other evidence to the contrary, I doubt seriously whether there is more than one kind of complement in Tok Pisin. This one complement type corresponds roughly to the *that* complement in English. The *that* complementiser in Tok Pisin is olsem, but its appearance in surface structure is far from mandatory.

Sentences such as the one quoted from Sankoff above in which long seems to behave as the *that* complementiser are more accurately translated by the following sort of sentence that is ungrammatical in English.

She talked about (that) she will learn this, this kind of dialect.

If we can find Tok Pisin sentences such as the following one in which both long and the *that* complementiser occur in surface structure, this would be evidence for my analysis.

?Em i giaman long olsem em i no save kaikai buai.
he   pretend at   that   he   NEG know chew   betel nut
'*He pretended that he does not chew betel nut.*'

There is one bit of evidence that might indicate that long is
actually a complementiser in some constructions. The evidence concerns
comparative constructions. Bresnan (1972) claimed that *than* or *as* used
in English comparative constructions is actually a complementiser. If
this complementiser does not appear, *that* is inserted under the COMP
node, as it is whenever a COMP node is empty of lexical content.

He is the same size as I am.
He is the same size that I am.

In Tok Pisin, long is sometimes used as English *than* or *as* in compara-
tive constructions, but olsem (the *that* complementiser) is also used.
This seems to parallel the English facts, indicating that long may be
a complementiser, at least when it behaves as English *than* or *as* in
comparative constructions. Nevertheless, there is an important differ-
ence between comparative constructions in English and Tok Pisin that
casts doubt on this conclusion. One of the main reasons that *than* can
be considered to be a complementiser in English is that a sentence
follows it. However, in Tok Pisin there is no evidence that anything
more than a noun phrase can follow long in comparative constructions.
If one were to argue that a sentence is actually present in underlying
structure, one would have to place severe restrictions on the possible
form of such a sentence. Such an underlying sentence could only be of
the form [NP is Adj] and the Adj would be required to be deleted under
identity by VP deletion. Sentences such as the following in which the
verb phrases are not identical are ungrammatical.

*Em i moa   patpela long Judy i longpela.
he   more fat   than Judy   tall
'*He is fatter than Judy is tall.*'

Moreover, even this requirement of verb phrase deletion is doubtful
when one considers the following pair of sentences. Both are probably
ungrammatical, but one is far worse than the other.

?Em i ken wokabaut hariap moa long mi.
*Em i ken wokabaut hariap moa long mi ken.

Because there is no evidence that complete sentences can occur after
long in comparative constructions, it seems doubtful that long should
be generated as a complementiser in comparative constructions in Tok
Pisin.

CONCLUSION

Although the analysis of long as a complementiser is intuitively attractive, I know of no specific evidence in Tok Pisin that supports it. Until such evidence emerges, I would prefer not to impose the grammar of English on Tok Pisin and thus I propose that long, as well as bilong, be analysed as prepositions in all of the constructions in which they occur. Nevertheless, I have not seen the work in progress on complementation in Tok Pisin by Peter Mühlhäusler and this work may well shed some more light on this problem. It may even be the case that there is more than one system of complementation presently in use by Tok Pisin speakers, since complementation is undergoing rapid development in Tok Pisin at the present time. There is also a real possibility that many speakers are being influenced by English complementation; it has been my impression that speakers who know English use far more complement constructions than those who do not.

SERIAL VERB CONSTRUCTIONS

Serial verb constructions consist of two or more verbs that refer to a single event (Lord 1973). The resultant meaning is usually expressed by a single verb in English (Stahlke 1970). Mühlhäusler (1976a) has used the term 'verb chaining' to describe this kind of construction. A stricter definition of serial verbs includes only strings of two verbs with an intermediate noun such that the noun is the object of the first verb and the subject of the second. In the following examples, (1) through (5) are strictly defined serial verbs, whereas (6) through (9) are other sorts of verb chaining.

(1) Bringim dispela trak i kam bek.
    bring   this   truck   come back

   'Bring this truck back.'

(2) Em i save salim smok i go antap long maunten.
    he   know send smoke go up   to   mountain

   'He sends smoke up to the mountain.'

(3) Subim i go insait long haus.
    shove   go inside of   house

   'Shove it in the house.'

(4) Tanim gia i go antap long fes   gia.
    turn gear   go up   to   first gear

   'Put it in first gear.'

(5) Kilim lait i dai.
    kill light   die

   'Turn off the light.'

(6) Tupela ron tasol i kam antap.
    two   run just   come up

   'The two of them came running up.'

(7) Em i kalap i go daun long si.
    he   jump   go down to   sea

    'He dived into the sea.'

(8) Meri ia giaman pasim ai   na em i lukluk.
    woman   pretend close eyes and she   look

    'The woman pretended to close her eyes and she looked.'

(9) Meri i holim pasim man bilong en.
    woman   hold fasten man to   her

    'The woman held her husband fast.'

Serial verb constructions occur in many languages besides Tok Pisin.
Li and Thompson (1973) report them in Chinese and Givon (1975) gives
examples from quite a few African languages.

Yatye (Stahlke 1970)

    Iywi awa utsi iku.
    child took door shut

    'The child shut the door.'

Gwari (Hyman 1971)

    Wó lá shnáknû bā ya
    he took pot break

    'He broke the pot.'

Krio (Williams 1971)

    A bin tek di   buk go na   skul.
    I Pst. take the book go Loc. school

    'I took the book to school.'

There has been much debate in the literature concerning the under-
lying structure of serial verb constructions. Givon (1975:66) has
characterised this controversy as involving two basic arguments, whether
serial verbs are prepositions or real verbs and, if they are verbs,
whether they are derived from co-ordinate or subordinate structures.
It appears quite unlikely that serial verb constructions in all lan-
guages have the same underlying structure. There are two reasons for
this. First, the term 'serial verb' applies to a diverse and loosely
defined collection of constructions that are grouped together mainly
because they differ from English (and other Indo-European languages)
by having more than one verb per clause. Moreover, serial verb con-
structions often represent stages of diachronic processes wherein one
of the verbs evolves into something else such as a preposition, an
adverb, a causative marker, etc. (see Li and Thompson 1973 and Givon
1975). Thus, the synchronic structure of serial verb constructions will
differ over time depending on the stage in the diachronic process.

Because there is no unitary phenomenon called a serial verb construction
in all languages, I will address my remarks only to serial verbs in Tok
Pisin.

The best account of serial verbs in Tok Pisin to date is Mühlhäusler
(1976a). He treats most instances of serial verbs as derived lexical
items, but he recognises that "verbal chaining lies on the boundary
between syntax and the lexicon" (Chapter V, p.78). He gives several
'lexical programs' or lexical redundancy rules relating verbal chaining
to co-ordinate structures.

Because of sentences such as (1) through (5) in which a noun phrase
separates the two parts of the serial verb, we cannot derive all serial
verbs in the lexicon without proposing a transformation that can reach
inside of certain lexical items and move parts of them. It is prefer-
able to restrict the power of grammars by allowing syntactic transform-
ations to operate only on structural descriptions without reference to
lexical content.

I shall propose an analysis such that at least some serial verb con-
structions in Tok Pisin are syntactically generated. However, under
this analysis serial verb constructions will be base generated as op-
posed to a more abstract analysis that derives serial verb constructions
from co-ordinate or subordinate sentences. Since this analysis will
handle the data as well or better than a more abstract one, the burden
of proof rests with those who would propose sentential sources of serial
constructions in Tok Pisin.

ANALYSIS

The phrase structure rule for expanding verb phrase nodes is as
follows (excluding adverbs, aspect markers, and prepositional phrases,
etc.)

VP → V (NP) (VP)

Such a rule would over-generate serial verb constructions, except for
the fact that co-occurrence rules in the lexicon mark those verbs that
can have a VP argument, just as they mark those verbs that can have an
NP argument in the predicate. Moreover, as such co-occurrence rules
may specify certain features that are required on the noun arguments
of particular verbs (e.g. features such as [-animate]), they can also
specify certain features on VP arguments.

One lexical co-occurrence rule of this nature that we can write for
Tok Pisin captures the generalisation that motion verbs may have go or
kam (which we will call directional verbs) following them.

```
        V      /  _____ (NP)     VP
    [+motion]                [+directional]
```

Verbs that are marked [+motion] are listed below.

wokabaut	*'walk'*
ron	*'run'*
kalap	*'jump'*
subim	*'shove'*
suruk	*'move back'*
bringim	*'bring'*
kisim	*'get'*
karim	*'carry'*
salim	*'send'*
tanim	*'turn'*
tromwe	*'throw'*

New motion verbs that are introduced into Tok Pisin are also marked [+motion] and follow the rule as well. The following sentence is from a radio broadcast of a soccer game.

Rightwinger i bin abrisim tupela fulbek bilong University na
pasim bol i go long Suma bilong kikim goal.
'The right wing went past two fullbacks from the University and
passed the ball to Suma to kick a goal.'

This phrase structure rule plus this one co-occurrence rule generates the strictly defined serial constructions in (1) through (4) as well as those in (6) and (7) which have no intervening noun phrase.

One might want to argue that go and kam in these constructions are not really verbs but directional adverbs or prepositions. As Givon (1975) noted, this sort of debate is frequent concerning serial verb constructions in many languages. Nevertheless, the fact that go and kam still take the predicate marker i in these constructions, unlike adverbs or prepositions, is evidence against such an argument.

Em i wokabaut hariap long rot.
*Em i wokabaut i hariap long rot.
'He walked quickly on the road.'

Em i go antap.
*Em i go i antap.
'He went up.'

Mekim (*'make'*), larim (*'let'*), go (*'go'*), kam (*'come'*) and the perceptual verbs lukim (*'see'*) and harim (*'hear'*) freely take any VP arguments. There is no restriction as the [+directional] restriction on the VP arguments of motion verbs.

```
Mekim em i slip.
'Make him sleep.'

Larim em i kaikai.
'Let him eat.'

Mi harim nus bilong en i pairap.
'I heard his nose fire up (i.e. I heard him snore).'

Mi lukim em i wokabaut as nating.
'I saw him walk around naked.'

Em i kam putim dispela kaukau long haus.
'He came and put these sweet potatoes in the house.'

Bai yu go kisim wanpela kokonas.
'You will go get a coconut.'
```

Although one might want to claim that there is a complement sentence following verbs like mekim in these sentences, there is no evidence that I know of to support such a claim. Even in English there is no surface morphology that would mark this as a *for* complement, a POSS ING complement or a *that* complement.

Other serial verb constructions in Tok Pisin are much less productive, thus leading Mühlhäusler to propose that they be handled as lexical items. However, even in those cases in which the two verbs occur together followed by the object NP, there is evidence that they are not generated as a single lexical item. Mühlhäusler (1976a) gives the following example.

```
Barata bilong en i KILIM INDAI barata bilong en.
'Brother killed his brother.'
```

We note however, that this sentence with pronouns substituted for the noun phrases is ungrammatical.

```
*Em i KILIM INDAI em.
'He killed him.'
```

In many cases, pronouns cannot occur following a string of two serial verbs.

```
*Kisim i go em long Lae.
'Take him to Lae.'

*Bai mi larim i kaikai yu.
'I will let eat you.'
```

This suggests that in Tok Pisin a rule like Heavy-NP-Shift can move a noun phrase from inside a serial verb construction to the right of the

last verb if this noun phrase is long enough or complex enough. Pronouns
are the 'lightest' sort of noun phrase and they cannot be shifted from
the position in which they are generated in serial verb constructions.

The handful of irregular serial verb constructions remaining in Tok
Pisin poses the same problem as certain serial-like constructions in
English that are also quite restricted as to the lexical items that can
occur in them.

> *Wipe the table clean.*
>> *dry*
>> **red*
>> **broken*
>> *?shiny*

Since we do not want to generate these pairs of verbs in Tok Pisin
or these pairs of verbs and adjectives in English as single lexical
items, we can simply list them in the lexicon more or less as idioms,
or we can assume that the grammar generates a much wider variety of
such constructions, but that a knowledge of the world rules out most
of them. Evidence for this latter theory is that we can construct a
context in which the following sentence would be grammatical in English.

> *Wipe the table red.*

Such a context would be one in which one were painting things by wiping
paint on them with a cloth.

The analysis of serial verb constructions that I have proposed makes
an empirical prediction. Since there is a recursive VP in the phrase
structure rule, there can be verb chains generated with more than two
verbs, provided that each verb in the chain (except the last one) take
a VP argument. This appears to be true.

> Yu wokim na kisim i kam givim em bek.
> *you make and get   come give her back*
> 'You make it and take and give it back to her.'

TRANSITIVE/INTRANSITIVE VERBS:
AN ARGUMENT AGAINST PASSIVE IN TOK PISIN

It has been claimed (Hooley 1962) that certain pairs of verbs in Tok Pisin are related by a passive transformation.

bagarapim	*'ruin'*	bagarap	*'ruined'*
ankarim	*'anchor'*	ankar	*'anchored'*
kalabusim	*'jail'*	kalabus	*'jailed, trapped'*
tambuim	*'forbid'*	tambu	*'forbidden, sacred'*
karamapim	*'cover'*	karamap	*'covered'*
kapsaitim	*'pour'*	kapsait	*'overflow, overturn'*
maritim	*'marry'*	marit	*'married'*
boilim	*'boil'*	boil	*'boil, swirl'*
bilasim	*'decorate'*	bilas	*'dress up'*
bungim	*'gather'*	bung	*'meet'*
haitim	*'hide, conceal'*	hait	*'hidden, secret'*
brukim	*'break'*	bruk	*'break, broken'*

Mi karamapim yam long haus yam.
'I covered up the yams in the yam house.'

Yam i karamap long haus yam.
'The yams are covered up in the yam house.'

Ol i kapsaitim bensin.
'They spilled the gasoline.'

Bensin i kapsait.
'The gasoline overflows.'

(The -im suffix on the active forms appears on almost all transitive verbs and is not unique to these forms listed here.)

97

There are three major arguments against Hooley's claim that a passive transformation operates in Tok Pisin.

(1) It is impossible to introduce an agent into these so-called passive sentences.

There are many languages whose passive constructions normally have no agent in the surface structure; however, there is no indication that any agent could exist, even in deep structure, in these Tok Pisin 'passives'. It is difficult even to construct a starred (ungrammatical) sentence to demonstrate this because there is simply no mechanism available. An attempt to put the agent at the end of the sentence, preceded by a preposition, would fail because it would be interpreted as a locative or some other prepositional phrase, if possible (see Chapter VI), and it would simply be ungrammatical otherwise.

> Pikinini i kapsaitim wara.
> *'The child spilled (or poured) the water.'*

> Wara i kapsait long pikinini.
> *'The water spilled on the child.'* (Grammatical, but not with a passive meaning.)

> Meri i karamapin kaikai.
> *'The woman covered the food.'*

> *Kaikai i karamap long meri.
> (?*'The food is covered with the body of the woman.'*)

An alternative strategy of simply removing the -im transitive suffix would also result in an ungrammatical sentence.

> *Pikinini i kapsait wara.
> (*'The child spilled the water.'*)

There are simply no morphological or syntactic means of introducing an agent into such sentences. Nevertheless, this is merely a lack of evidence for passive rather than evidence against it.

(2) It there were a passive transformation in Tok Pisin, it would have to be heavily constrained so as not to apply to the majority of transitive verbs.

There is a large group of transitive verbs in Tok Pisin which have no intransitive or 'passive' forms, but whose equivalents in English can undergo passive. Some of the common verbs of this sort are listed below.

karim	*'carry'*	*kar	
kisim	*'get, take'*	*kis	this would mean *'kiss'*
mekim	*'make, cause'*	*mek	
kilim	*'beat, kill'*	*kil	
bringim	*'bring'*	*bring	
baim	*'buy'*	bai	this is a future marker
givim	*'give'*	*giv	
planim	*'plant'*	*plan	
banisim	*'fence, surround'*	banis	this is the noun *'fence'*
abusim	*'put meat with'*	abus	the noun *'meat'*
kolim	*'call'*	kol	the adjective *'cold'*
painim	*'seek'*	*pain	
behainim	*'follow'*	behain	the adverb *'behind'*
hamarim	*'hammer'*	hama	the noun *'hammer'*
sakim	*'strike, shake'*	*sak	
bosim	*'rule, control'*	bos	the noun *'boss'*
traim	*'try'*	*tri	
komim	*'comb'*	kom	the noun *'comb'*
salim	*'send'*	*sal	
larim	*'allow'*	*lar	
nilim	*'nail'*	nil	the noun *'nail'* or *'thorn'*
helpim	*'help'*	*help	
stikim	*'beat with a stick'*	stik	the noun *'stick'*
baretim	*'make ditches across'*	baret	the noun *'ditch'* or *'wrinkle'*

> Em i planim kaukau long hap.
> *'He planted sweet potatoes over there.'*

> *Kaukau i plan long hap.
> *'Sweet potatoes ??? over there.'*

There is another large group of transitive verbs which have intransitive forms, but these intransitive forms cannot possibly be construed as passive. Some of the more common verbs of this type are listed below:

brum/brumim	*'sweep'*
kuk/kukim	*'cook'*
mumu/mumuim	*'bake in the ground'*
draiv/draivim	*'drive'*
lotu/lotuim	*'worship'*
rait/raitim	*'write'*
wet/wetim	*'wait/await'*
singaut/singautim	*'yell/call to'*

rit/ritim	*'read'*
kros/krosim	*'angry/scold'*
giaman/giamanim	*'lie/deceive'*
sit/sitim	*'cheat'*
kalap/kalapim	*'jump/jump over'*
traut/trautim	*'vomit/vomit up something'*
toktok/tokim	*'talk/tell'*
lukluk/lukim	*'look/see something'*
pispis/pispisim	*'urinate/urinate on someone, as a baby might'*
kaikai/kaikai/kaikaiim	*'eat/eat/bite'*
dring/dring/dringim	*'drink/drink/drink'*

Mi save rait.
'I know how to write.'

Mi raitim pas long yu.
'I wrote a letter to you.'

*Pas i rait.
(*'The letter was written.'*)

Em i kros long mi.
'He is angry with me.'

Em i krosim mi.
'He scolded me.'

Mi kros.
'I am angry.'
(**'I was scolded.'*)

(3) There is a third group of transitive verbs with intransitive forms which behave exactly like the verbs on Hooley's list, that is, the subject of the intransitive form is a patient, whereas the subject of the transitive form is an agent. However, the intransitive forms have an adjectival rather than a passive meaning. The common verbs of this type are listed below.

welim	*'to oil'*	wel	*'slick, oily'* (also a noun)
slekim	*'loosen'*	slek	*'loose'*
sapim	*'sharpen'*	sap	*'sharp'*
opim	*'open'*	op	*'open'*
pasim	*'close, fasten'*	pas	*'closed, fast'*
solim	*'salt'*	sol	*'salty'* (also a noun)
grisim	*'grease'*	gris	*'greasy'* (also a noun)

taitim	*'tighten'*	tait	*'tight, tired'*
hatim	*'heat'*	hat	*'hot'*
kolim	*'cool'*	kol	*'cold'*
klinim	*'to clean'*	klin	*'clean'*
redim	*'prepare'*	redi	*'ready'*
kliaim	*'to clear'*	klia	*'clear'*
lusim	*'let go of, leave'*	lus	*'lost'*
pulapim	*'fill'*	pulap	*'full'*

Redim olgeta kaikai.
'Prepare all the food.'

Kaikai i redi pinis.
'The food is completely ready.'

It is obvious that it would be difficult to draw a sharp line between adjectives and so-called 'past participles' in Tok Pisin. If pas is translated as *'closed'*, it seems more like a past participle than if it is translated as *'fast'*. Likewise, if redi is translated as *'ready'* it seems to be an adjective, but if it is translated as *'prepared'*, it appears to be a past participle. The same is true of some of the items on Hooley's list. If tambu is translated as *'forbidden'*, it seems to be a past participle, but if it is translated as *'taboo'*, it becomes an adjective.

In the absence of any morphological or syntactic evidence, the only possible means of separating adjectives from such 'past participles' in Tok Pisin is semantic. We have seen that this can only be done by imposing the class membership of English verbs on their Tok Pisin equivalents (and even then it would be difficult to make a clear distinction). Thus, I claim that these adjectives and 'past participles' must be treated as members of the same class of verbs in Tok Pisin. There is no evidence whatsoever that a passive transformation is operating in Tok Pisin, and much evidence that one is not, and so we must conclude that the 'past participles' on Hooley's list are actually adjectives, rather than vice versa.

This conclusion is not surprising if we note that there are sentences in English which are ambiguous as to whether they are passive or whether the past participle is behaving as an adjective.

(1) *The ship was anchored.*
adjective: *The ship was anchored in the harbour for years (*by John).*
        (without a repetitive meaning)
passive: *The ship was anchored by John at sundown today.*

(2) *His reputation was ruined.*

adjective: *His reputation was ruined from then on (*by that woman).*

passive: *His reputation was ruined by that woman.*

(3) *The baseball field was covered.*

adjective: *The baseball field was covered all during the rainstorm*
*(*by the groundskeepers).*

passive: *The baseball field was covered by the groundskeepers after*
the game.

Moreover, there are adjectives in English, that were formerly past participles. Webster's Dictionary states that *afraid*, an adjective, was *affraied* in Middle English, which was the past participle of *affraien*, 'to frighten'. Tok Pisin has taken past participles from English and reanalysed them as adjectives or intransitives.

Now that we have ruled out a passive transformation as a means of relating these transitive and intransitive pairs, we are left with the problem of how such pairs are actually related. I will suggest two possibilities, a causative transformation and lexical redundancy rules.

A CAUSATIVE TRANSFORMATION

Pairs such as op and opim, pas and pasim, etc. may be related by a causative transformation that might operate as follows:
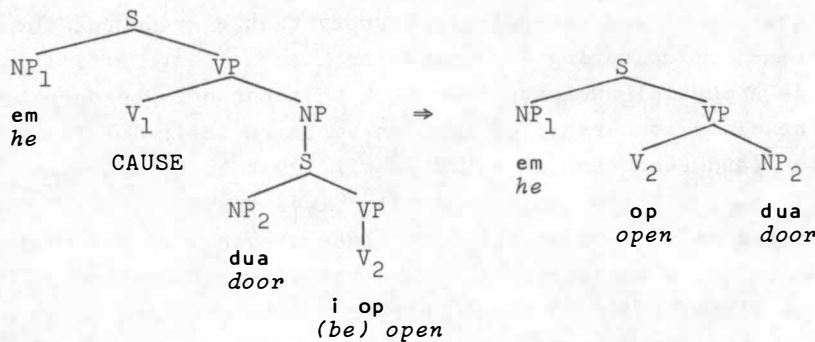
(-im would be inserted by a separate rule since it is attached to all transitive verbs, not merely to those produced by a causative transformation.)

Such an analysis would have the advantage of relating all of the adjective-transitive verb pairs discussed so far, plus pairs such as the following that Lyons calls 'pseudo-intransitives' and transitives. Actually this distinction between adjectives and intransitive verbs is difficult to make in Tok Pisin since there is no copula. Mühlhäusler (1976) considers all of these 'adjectives' to be intransitive verbs unless they "can appear in attributive position" (Ch.V, p.22).

```
Dok i ron.
'The dog runs.'

Mi ronim dok.
'I chased the dog away.'
```

hangamap	'hang'	hangamapim	'hang up'
slip	'lie, sleep'	slipim	'lay'
ron	'run, go fast'	ronim	'chase away'
pundaun	'fall'	pundaunim	'trip'
sindaun	'sit'	sindaunim	'sit (someone) down'
boil	'swirl, boil'	boilim	'boil'
bung	'gather, come together'	bungim	'gather, collect'

Nevertheless, such a causative transformation would still have to be constrained in some way to prevent it from applying to certain one-place predicates. It could be prevented from applying to the one-place predicates such as brum ('sweep'), rait ('write'), lotu ('worship'), etc. if these were entered into the lexicon as two-place predicates that can sometimes appear without objects. Such an analysis is independently motivated as well (see Lyons 1968:361). Even so, there would still be a group of one-place predicates that could not undergo a causative transformation:

```
ros        'rust, rusty'
sik        'sick'
dai        'faint, die'
hambak     'show off'
wokabaut   'walk'
nildaun    'kneel'
les        'tired, bored'
krai       'cry'
spik       'speak'
```

LEXICAL RULES

Because the meaning of the causative form cannot be fully predicted from the adjective or intransitive form, it appears that the relation between the pairs of verbs we have been discussing should be captured in the lexicon rather than in the syntactic component of the grammar (Mühlhäusler 1976a). Mühlhäusler outlines a lexical redundancy rule, or 'lexical program' to capture this generalisation. His rule is essentially a causative transformation that occurs in the lexicon.

We can capture the relation between these pairs of verbs, but the important question that remains is why pseudo-intransitives such as rait (*'write'*) cannot have a meaning of *'cause to write'* or *'written'*, and why adjectives such as klin cannot have an intransitive meaning of *'to clean'*. Mühlhäusler claims that Tok Pisin has a general rule governing lexical derivation such that nothing can be derived from a derived form. Thus if klin, an adjective, is a lexical base from which we can derive klinim, *'cause to be clean'*, we cannot then subject klinim to a further derivational rule to get klin, an intransitive form meaning *'to clean'*. Raitim is a lexical base and we can derive the intransitive rait from it, but this cannot be subjected to the rule which would derive a causative from it, rait *'cause to write'*. Adjectives with a passive sort of meaning are lexical bases and there is no 'lexical program' to derive them from transitives.

It this analysis is true, it makes certain predictions. If there ever come to be intransitive forms of verbs such as kilim, mekim, and traim, these forms would have pseudo-intransitive meanings rather than passive-like adjectival meanings. Kar would mean *'to carry'* and not *'to be carried'*. Kil would mean *'to kill'* and not *'killed'*. Secondly, if there ever come to be transitive forms of les (*'tired'*) or ros (*'rust'*), they should have causative meanings. Thus lesim would mean *'to cause to be tired, to bore'* and not a transitive verb taking an object X meaning *'tire of X'*.

There are some problems with this analysis however. There are transitive/intransitive forms in which it seems that the intransitive form is somehow more basic and should be the lexical base rather than the derived form. An example is kalap and kalapim (*'jump'* and *'jump over'*). In particular, there are many such pairs which also have a cognate noun, lotu (*'church'*), lotu/lotuim (*'to worship'*); huk (*'hook'*), huk/hukim (*'hook or fish'*). The transitive forms lotuim and hukim are quite rare. If the noun is taken to be the base form, it may be that both verb forms are derived directly from the noun. Otherwise, it seems that Mühlhäusler's generalisation that nothing can be derived from a derived form will not hold up in these cases. These cases are unusual because almost all verbs derived from instrument nouns are found only in the -im form, huk (*'fish'*), bombom (*'fish with a torch'*), and brum (*'sweep with a broom'*) being some of the few exceptions (Mühlhäusler 1976a).

CONCLUSIONS

There is no passive transformation in Tok Pisin and those adjectives that seem to have a passive meaning have been borrowed from past

participles in English, but have been reanalysed as adjectives in Tok Pisin. The interesting question that remains about the behaviour of transitive/intransitive pairs in Tok Pisin is how their membership in one of two different classes, causatives/adjectives or intransitives; and transitives/pseudo-intransitives, are to be predicted. The meanings of the pairs of verbs depends on which class they belong to. We have formulated a hypothesis based on Mühlhäusler's theory that nothing further can be derived from a derived form in the lexicon. The problem lies in determining which form is the lexical base and which is derived. We have assumed that adjectives and intransitives are bases from which pseudo-intransitives can be derived. This hypothesis makes certain empirical predictions about the sort of verb that could in the future be derived from transitives with no intransitive form or from adjectives or intransitives with no transitive or causative cognate.

CONCLUSION

Although Tok Pisin is an English-based pidgin, it has its own grammar that differs from English in many respects. Certain English transformations such as WH Movement, Subject-Auxiliary Inversion and Passive are not a part of Tok Pisin grammar. There is no evidence that Tok Pisin possessive constructions are derived from underlying relative clauses. Long and bilong are generated as simple prepositions, even though they sometimes appear to parallel the behaviour of English complementisers and subordinate conjunctions. There is only one type of complement in Tok Pisin at the present time and it roughly corresponds to the *that* complement in English. Only one negative can be generated per clause in Tok Pisin, and negatives cannot be moved from the position in which they are generated - the first position of the Auxiliary node. Scope relations of negatives with respect to quantifiers and modals can be determined on either deep or surface structure and thus there is no semantic motivation to generate negatives as higher predicates in Tok Pisin. There are serial verb constructions in Tok Pisin, some of which are base generated by a phrase structure rule which may expand a verb phrase to dominate another verb phrase. In the noun phrase, the ordering of elements is exactly the same as in English (determiner, quantifier, adjectives, noun, relative clause) except for the plural marker ol that is derived from features on the determiner and which may be copied and moved directly to the left of the noun. There is a suffix -pela that is attached to monosyllabic (and certain disyllabic) determiners, quantifiers and adjectives and that has come to be the de facto plural marker on pronouns. Pronouns are generated under the determiner node and they often co-occur with nouns; the set of semantic features underlying the personal pronoun system is [±speaker included], [±hearer included] and [±minimal].

I have dealt with variation and change in Tok Pisin in only minor ways in this transformational account. I do not wish to imply that Tok Pisin is a completely uniform and static system by any means; nevertheless, it is important to establish the basic grammar of Tok Pisin, especially since it may be important to the question of what constitutes a universal grammar. In future work, I plan to build on this grammar by investigating some of the variation and change involved in the ongoing creolisation of Tok Pisin.

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