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ASPECTS OF TOK PISIN GRAMMAR

by

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Date: _27 May 1977_

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Dissertation submitted in partial fulfillment of
the requirements for the degree of Doctor
of Philosophy in the Department of
Anthropology in the Graduate School
of Duke University

1977

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ABSTRACT

(Anthropology-Linguistics)

ASPECTS OF TOK PISIN GRAMMAR

by

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ABSTRACT

ASPECTS OF TOK PISIN GRAMMAR

by

Ellen B. Woolford

Tok Pisin (New Guinea Pidgin) is a pidgin or an
incipient creole language that serves as a major lingua
franca in Papua New Guinea. Because pidgin languages have
fewer complexities than other languages (e.g., much less
redundancy and stylistic variation), they may be important
in the determination of what constitutes a universal grammar.
The aim of this study is to provide an analysis of certain
aspects of Tok Pisin grammar in a transformational framework
and to compare these Tok Pisin structures to analogous
constructions in English in order to determine the extent
to which this English-based pidgin is simpler than and/or
different from English.

Chapter I is a general introduction outlining the
history of Tok Pisin, the theory of pidgin and creole
languages, previous work on Tok Pisin and the fieldwork upon
which this analysis is based.

Chapter II deals with the generation of pronouns under a determiner node and the semantic features that underlie the pronoun-determiner system. In addition, a possible derivation of the -pela suffix on adjectives, quantifiers and determiners is presented.

In Chapter III, question formation is analyzed and it is concluded that there is no rule of WH Movement or Subject-Auxiliary Inversion in Tok Pisin.

Chapter IV is an analysis of negation in Tok Pisin. Unlike English, wherein a negative can be generated in several different positions in deep structure, negatives in Tok Pisin are generated only in the first or left-most position in the predicate and they cannot be moved from that position. Moreover, only one negative can be generated per clause. The scope of negatives with respect to quantifiers and modals can be completely determined on the basis of either deep or surface structure so that there is no motivation to generate negatives as higher predicates on these grounds.

Chapters V and VI deal with the possessive construction and the syntax and semantics of prepositional phrases headed by bilong and long. It is argued that in all constructions in which they occur, bilong and long are generated as prepositions and that there is no sentential source for possessives.

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Serial verb constructions are examined in Chapter VII, and a phrase structure rule is proposed such that a verb phrase can dominate another verb phrase in order to base generate certain serial constructions.

In the last chapter, arguments are presented against a passive transformation in Tok Pisin and alternative means of relating verbs with both transitive and intransitive forms are suggested.

To the People of Papua New Guinea

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ASPECTS OF TOK PISIN GRAMMAR

Chapter I

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 pur-
pose, 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 Pidgin.
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"

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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 (1955), Laycock (1970) and Wurm (1971). It is generally believed that Tok Pisin is a direct descendent of Beach-la-Mar, a 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 beche-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 sugar cane 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 creolization to occur. (We shall discuss the conditions necessary for creolization 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 1880's, the Germans had established an administrative capital for New Guinea at Rabaul, New Britain. After realizing that they could not replace the pidgin with German, they began to use it extensively in their rule. 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 (1975:2). Mühlhäusler 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 and
> Plantagen Gesellschaft in Samoa.

Thus according to Mühlhäusler, "a significant part of the stabilization 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 laborers from New Britain and New Ireland
were recruited for work in the Samoan plantations.

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 in-
digenous groups in Papua New Guinea was almost completely
eliminated as a result of the continuous efforts of mission-
aries 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 in-
creasing 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.

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 bastardized, 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 recognizable 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 situa-
tions 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 have now been granted
the status of real languages, and the serious study of
these languages has become a respectable endeavor, 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 have been
proposed which apply only to pidgins and creoles, but not
to ordinary langauge change. This sort of strong resis-
tance to change is common in science; according to Kuhn
(1970), loose ends are ignored and exceptions are explained
away and the basic theory is patched and mended as long as
possible until finally the strain is too much for the old
theory and it is replaced.

This is what has happened with 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. The fact that there have been some cases of interbreeding of animals of different species has led Whinnom (1971) to attempt to preserve the biologically based model of language change by comparing all mixed languages to hybrids. However, since animal hybrids are almost always sterile or less viable in some way, Whinnom is forced to the conclusion that linguistic hybrids (creoles) are inferior to ordinary languages. This position would be extremely difficult to defend.

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 1950's, 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 is putting a great deal of strain on the basic genetic theory, yet linguists have been 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.)

The genetic model now has little or no explanatory value; it merely describes the behavior of some languages, some of the time. The time has come for a major paradigm change in Kuhn's sense, a major restructuring of the theory of language change. Pidgins and creoles have put too much

strain on the old theory, and we cannot continue to explain away pidgins and creoles or pidginization and creolization as if they were some unnatural aberration somehow exempt from the laws of 'ordinary' language change. We must construct linguistic models on the basis of real data about real languages, and these models must account for all language change without resorting to special explanations for data that do not fit. Weinreich, Labov and Herzog (1968) and others have presented very effective arguments for abandoning idealized models and building a new theory of language change, but they do not usually go on to argue that a general theory of language change should account for all instances of language change, including pidginization and creolization.

Several scholars have advocated concentrating on the separate processes underlying instances of language change that have been categorized as pidginization and creolization. Hymes said that what is needed is "to recognize pidginization as a complex process comprising the occurrence of several component processes" (1971:70); and speaking of 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" (171:123). However, many linguists who seek to unravel the component parts of pidginization 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 realize that things which look like pidginization and creolization are being discovered more and more in the histories of 'ordinary' languages (see for example Dominique 1975 and Southworth 1971) and that there are many language situations which have not been categorized 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 pidginization and creolization 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 categorized 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 pidginization 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 perpetrate an ethno-
centric, 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. Pidgin-
ization and creolization 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

Pidginization has been defined as a sort of stripping down process which leaves something that is close to the natural universal form underlying all languages (Hymes 1971). Hall (1966) claimed that pidginization involves the creation of a kind of least common denominator from the combination of several parent languages. However, Samarin (1971) has established that pidgins are not limited to the common elements of their parent languages. There is also evidence that the universal underlying form or base of language is not merely a least common denominator of the languages of the world. In an attempt to characterize this universal base, Greenberg (1963) deduced a set of language universals by comparing the surface structures of a great number of languages and extracting the common elements. Pidgin languages, however, do not conform to this set of universals (Koefoed 1975). Thus either pidgins do not directly reflect the universal base of language and may actually violate some of the universal constraints on human languages, or else Greenberg's set of universals does not accurately characterize this universal underlying form of language. Evidence from child language acquisition and natural phonology supports the latter explanation. Children construct trial grammars of the languages to which they are exposed

on the basis of innate knowledge of the logical possibilities
for the structure of human languages. These logical possi-
bilities are determined by the nature of human cognitive
structure and processes. Children's trial grammars are
believed to closely reflect the universal base of language,
and it has been shown that pidgin languages have much in
common with these trial grammars (Kalmar 1975). Secondly,
Stampe (1969 and 1972) has established that natural phono-
logical laws are suppressed by surface elaborations and
thus are not readily reflected in the surface structures
of ordinary languages. In this same way, natural grammatical
laws characterizing the universal base of language could
also be suppressed by the stylistic elaborations of ordinary
languages (Bickerton 1975). If this is so, Greenberg's
method of determining language universals would not reveal
reliable information concerning the universal base of
languages because it is based only on a comparison of surface
structures. Finally, there are several factors besides
the nature of universal grammar that could cause the sort
of surface universals noted by Greenberg. Koefoed (1975)
suggests two of these: universal factors of performance
and general laws of language evolution (although such laws
may well be indirectly relatable to cognitive processes).
Anthropologist Sankoff (1976) 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, alternate 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 reorganize it according to their innate knowledge of language universals, thus, by definition, creolizing 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 creolization must take place before a pidgin has had time to stabilize. 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 fit

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 uni-
versals, 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 creolizing.
We can ask the following questions. Why do some pidgin
languages creolize almost immediately, while other pidgin
languages creolize slowly if at all? In particular, why
did all of the pidgins used in the Caribbean either creolize
or die out within a generation, while the pidgin used in
New Guinea has remained fairly stable since it introduction
in the last century until the last few years when it has
slowly begun to creolize?

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 creolize, and if
so, at what rate.

The socio-historical background of pidginization and
creolization 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 creolized into a fully developed language, probably before the pidgin itself had a chance to stabilize.

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 continual 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 Solomon Islands plantations there were women and children, but they were reabsorbed into indigenous communities after a few years of service (Mühlhäusler 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 preferred 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. Thus most children learn an indigenous 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 immer-
sion 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 either parent's
group learn Tok Pisin as a native language.

Yet, these native speakers do not creolize the pidgin
to any great extent. According to Mühlhäusler (1976),
the children in some areas of New Guinea have tried to
creolize Tok Pisin, but they have been held back by the
norms of the rest of the community and they are eventually
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 creolization to
occur, but this has not been proven. It is possible that
the conditions necessary for creolization to take place
are incidentally also the conditions in which native
speakers are produced. If it were not ethically imposs-
ible to do so, we could perform an experiment to discover
whether or not native speakers are necessary before
creolization 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
creolize 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 creolization 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 creolization 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 creolize language, but it does not seem conclusive. The strongest evidence that I know of is the observation of Mühlhäusler that native speakers are held back by community norms. A study of child langauge 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 creolization 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 creolization

in the Caribbean suffered from the fact that pidginization

and creolization took place in rapid succession there and

can hardly be separated for study at this late date. Mintz

(1971) lists seven conditions present for creolization 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 perpetuation, or for
both reasons (Mintz 1971:498-99).

Mintz probably included condition (1) to exclude the
earlier slaves that the Spanish brought who did not
creolize the pidgin. Most of these conditions seem to
apply to pidginization more than to creolization, unless
one denies that there was prior pidginization 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 the only possible conditions)
under which creolization of a pidgin will occur.

Conditions for Creolization

(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 includes groups who are
pidgin speakers as well. 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 (2) (the isolation of a group of pidgin speakers). Condition (2) alone might lead directly to creolization, 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 statement, 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 creolizing 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 exclu-
sively for long periods of time.

This social context appears to require that the lingua
franca continue to be very easy to learn quickly as a
second language, without a great deal of exposure. 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 1971a) and to
reduce ambiguity and context dependency would predominate
and rapid creolization would take place.

We have not said that much about the rate of creolization,
but it seems that it is probably correlated with the degree
to which the conditions required for creolization are met.
Conditions for creolization in Papua New Guinea are far from

ideal, and creolization is proceeding very slowly there.
Judging by what happened in the Caribbean, it would appear
that the shortest time required for complete creolization
is a generation. However, if it is the children that
do the creolizing, 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 creolization might take place very quickly, but it
could take some time for the innovations and modifications
to spread throughout and stabilize in the adult population.
In fact, this might not happen until most or all of the
adult second-language speakers died off.

It seems clear that factors in the social context
determine whether or not a pidgin will creolize and at
what rate, but I do not think that social factors can be
said to cause creolization. It seems to be a reasonable
hypothesis that languages have a certain level of complexity
inherent to themselves, and that they will seek this level
unless prevented by other factors. This level of complexity
may be required by the nature of the human mind or perhaps
by the nature of human social systems.

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 creolize. It is highly unlikely that Tok Pisin would die out. Tok Pisin may slowly creolize, 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 1971) 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 1970: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 words, pekpek, for excrement.
As from English 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 ples
(place or origin) of something. There are many other
examples of altered meanings. 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 compared
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 creolized largely independent
of English and other standard languages, whereas the
creolization 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
(MS) mentions pockets of Tok Pisin speakers that are
creolizing Tok Pisin heavily in the direction of English
(Dangua Village in the West Sepik) and others that are
creolizing 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 creolization and decreolization 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 creolized.

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). Moreover,
this grammar is incomplete and superficial in many respects.
It relies heavily on examples and lists of exceptions to
supplement a few rules. It does not generate (in a mathe-
matical sense) all and only the grammatical sentences of
the language by any means. More recent grammars, Mihalic
(1957) and (1971), Laycock (1970) and Wurm (1971), 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

Hooley assumed that Tok Pisin is merely simplified English and 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 undertaken. Sankoff and Laberge (1973), 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 insati nau.
>
> This man, whose leg was injured, stayed inside.
>
> (from Sankoff 1976:9)

Mühlhäusler mentions an alternate 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.
>
> (from Mühlhäusler MS)

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 (1975) did work on lexical bases and multi-
functionality and (1976) on the structure of the lexicon.
In addition, he has written on the category of number (1976a).
Sankoff (1976) has explored the cliticization 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 field work I developed some
facility in the language by the use of books and tape
recordings, and by participating in a seminar given by
Prof. 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, Finschafen, and Goroka (including two other Easter 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, 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 1972).

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. Although I will not propose any substantive claims about the nature of universal grammer, I hope that the analysis presented here will serve at least as negative evidence indicating what is not a part of universal grammer.

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
analyzed 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 con-
sidered 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 simplified English. On the other hand, there
is an underlying order to these surface complexities that
contradicts the idea that pidgins are merely disorganized
conglomerations of elements from several languages. I will

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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 behavior of ol in
Tok Pisin and the behavior 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 pidginization and
creolization, 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 analyzed more or less as in the chart below (c.f.
Hall 1943; Forchheimer 1953; Mihalic 1971; Laycock 1970;
Wurm 1971; and Dutton 1973):

<center>NUMBER</center>

	Singular	Plural	
I	mi	yumi $\begin{pmatrix} \text{tupela} \\ \text{tripela} \end{pmatrix}$	inclusive
		mi $\begin{pmatrix} \text{tu} \\ \text{tri} \end{pmatrix}$ pela	exclusive
II	yu	yu $\begin{pmatrix} \text{tu} \\ \text{tri} \end{pmatrix}$ pela	
III	em	(em) tupela tripela (em) ol	

(PERSON labels the left side; I, II, III.)

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 (1970), tupela
and tripela are almost obligatorily included. In the
singular, mi wanpela, yu wanpela and em wanpela also occur,
but only in emphatic context (Dutton 1973:131). The third
person plural form varies from account to account, em being
the older form and ol the more recent (judging by the fact
that Hall (1943) does not include ol). 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 1970:xix). A distinction
between neuter en and masculine em may be made by speakers
in certain regions (Hall 1943:27), but this distribution 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 transformationally 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 prounouns which appear to replace nouns:

Mi kukim kaikai bilong mi.

I cook food of me

I cook my food.

Em suga cane bilong yu.

it sugar cane of you

It is your sugar cane.

Em suprise 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) 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.

OK you Pl. this leg bad you stay.

Alright, you lame (ones) you remain.

Em man i no lukim dispela lip ia.

he man NEG see this leaf

The man did not see this leaf.

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 lineage 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 organize 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

criticized it by pointing out that "forms like we men,

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 segmentalization transformation separates these features and places them under a derived determiner node. Postal defined segmentalization 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 segmentalization rules at this point. The diagram below is an abbreviated version of Postal's scheme:

```
              NP
              |
              N
```

$$
\begin{bmatrix}
+ \ \text{noun} \\
+ \ \text{animate} \\
+ \ \text{human} \\
- \ \text{singular} \\
+ \ \text{countable} \\
+ \ \text{Pro} \\
- \ \text{reflexive} \\
- \ \text{genitive} \\
+ \ \text{definite} \\
- \ \text{demonstrative} \\
- \ \text{III} \\
- \ \text{II} \\
- \ \text{I} \\
. \\
.
\end{bmatrix}
\impliedby \quad \text{segmentalization rule}
$$

```
      /        \
   (Det)        N

    we        (ones)
```
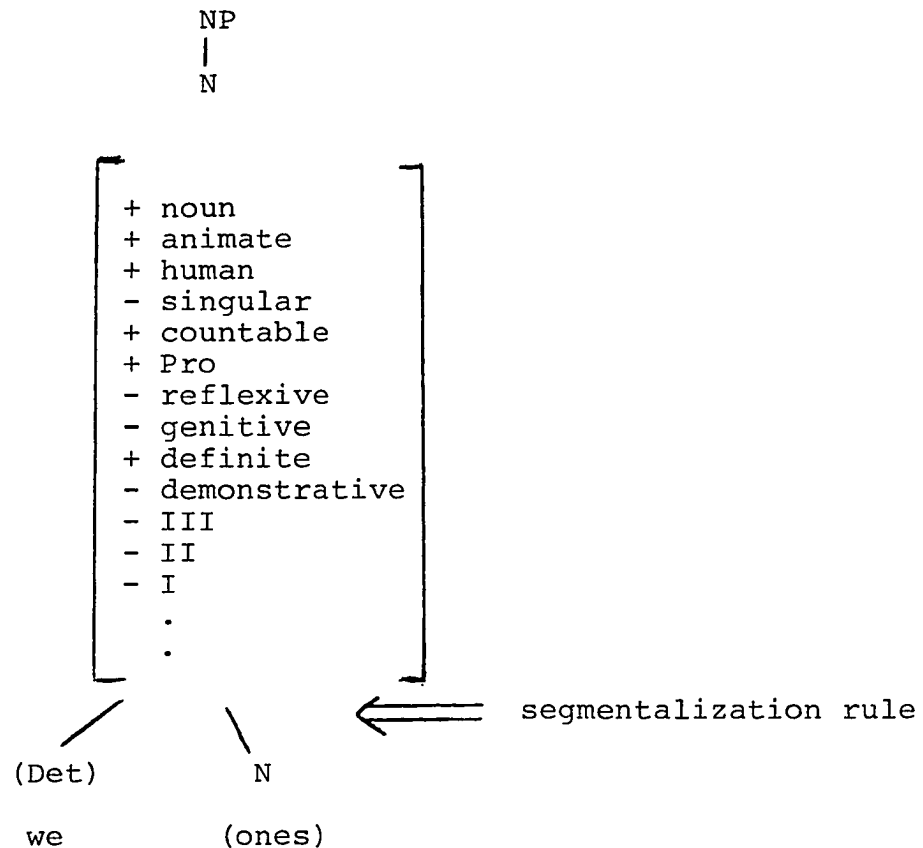
Such an analysis captures the fact that pronouns can

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 replaces 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 tok same

(The) little (one) spoke thusly.

Orait tomoro nait em bai igo slip wantaim bikpela ia.

OK tomorrow night he fut. go sleep with   big

Alright tomorrow he will go 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 hypothesize 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 ($\pm$ I, $\pm$ II, $\pm$ III, and $\pm$ singular).
Postal has correctly noted that the traditional notion of
person does not capture the concept of inclusive and exclu-
sive 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 ($\pm$ I, $\pm$ II, and $\pm$ 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 $\emptyset$.

ENGLISH

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

<div align="center">TOK PISIN</div>

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

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 $\begin{bmatrix} \pm\ III \end{bmatrix}$ 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 $\begin{bmatrix} +I,\ +II,\ +III,\ -singular \end{bmatrix}$:

You and I and John can't perjure ourselves.

However, the inclusion of $\begin{bmatrix}+III\end{bmatrix}$ is irrelevant as the following sentence requires the same pronoun, <u>ourselves</u>, but it would be marked $\begin{bmatrix}-III\end{bmatrix}$:

You and I can't perjure ourselves.

It is the same with Postal's second example in which he claims that the pronoun <u>yourselves</u> is marked $\begin{bmatrix}-I, +II, +III, -singular\end{bmatrix}$:

You and John shouldn't bother yourselves
about it.

Again, the absence of $\begin{bmatrix}+III\end{bmatrix}$ 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 $\begin{bmatrix} \pm S \end{bmatrix}$ and $\begin{bmatrix} \pm H \end{bmatrix}$. Using these, plus the feature $\begin{bmatrix} \pm \text{ singular} \end{bmatrix}$, we can produce the following simplified paradigms for English and Tok Pisin:

ENGLISH

+ singular   - singular

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

TOK PISIN

+ singular   - singular

		+ 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 related to boy, that is, differing only by the feature of plurality (see Long 1961:338). 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 $[\pm \text{ singular}]$ be replaced with a feature $[\pm \text{ minimal}]$ (or $[\pm \text{ simple}]$) to get rid of this impossible cell. $[+ \text{ minimal}]$ 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 organized. We must superimpose a gender
distinction to subdivide the $\begin{bmatrix} -S, & -H, & +M \end{bmatrix}$ 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 $[\pm \text{ minimal}]$ 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 syntactically
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 $\longrightarrow$ en / ng## _____

[- emphatic]

Moreover, as early as 1885, there are counterexamples to Forchheimer's theory that <u>mifela</u> signaled the oblique case.

> We fellows no savez talk.
>> (Queensland Hearings 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 -<u>pela</u> 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 -<u>pela</u>. However, by writing the plural forms with optional numbers embedded in them, (<u>mi(tu)pela</u> or <u>yu(tri)pela</u>), several scholars have (perhaps unintentionally) suggested the following analysis:
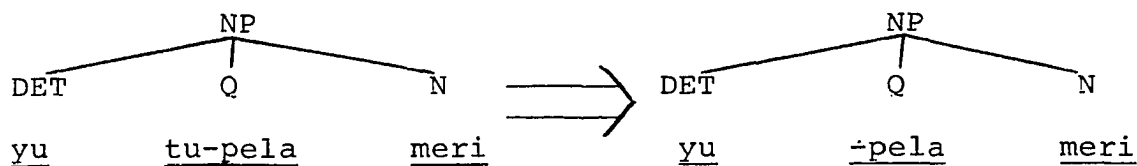
We could propose an optional number deletion transformation that would delete the number after a pronoun, but which would leave the -pela suffix of the number to be attached to the pronoun. There is evidence for this analysis in the fact that mipela and yupela do not generally co-occur with numbers, 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. More-
over, 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 hypothesize 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.
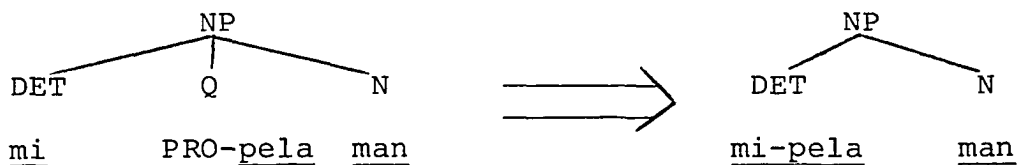
There are several problems with this analysis. We would
have to prevent the occurrence of *dispela-pela, *yumi-pela,

*em-pela and *-pela, but this could be done without too
much trouble. More seriously, I have one recorded occurrence
of mipela tripela. 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 every-
thing 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
```
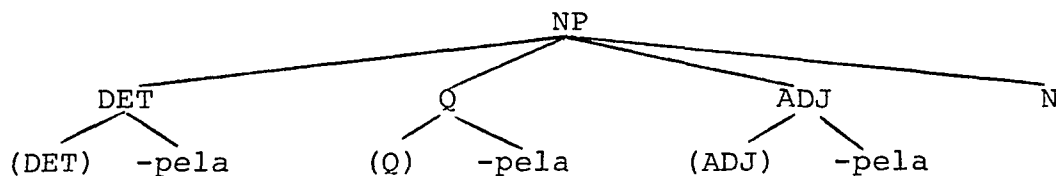
Several formal mechanisms could be worked out to put -pela
into these positions, but the details are not crucial to
this discussion. In the phonological component of the
grammar, a deletion rule would remove -pela from all lexical
items of two or more syllables. This is not an entirely
obligatory rule and there are a handful of interesting
exceptions. 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 color 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
behavior.

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

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 Gutman 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 monosyllables 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 adjectives 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)ára	yélò	dòtì	kránkì
	sikìs	plánti	rábis
	sévèn	hóli	làpún
		liklìk	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 1955a:99)

Empela (him fella in old texts) "seems to represent a
productive possibility which keeps cropping up in the

language" (Sankoff 1976:15).

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.

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

Yumipela does not occur even when it is not minimal because
yumi has two equally stressed 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.

empela ⟶ em

em   optionally   ∅ / ___ 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 $\begin{bmatrix} -S, & -H \end{bmatrix}$ 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 did not become
marked for number when the first and second persons did,
and that when it was later marked for number (by the use of

ol), it was not marked in the same way, is not an unusual
occurrence. According to Forchheimer (1953:17) there are
often different pluralizations for various classes of
words and that 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 1970; Wurm 1971;
Mihalic 1971; and Dutton 1973), it is not actually a
pronoun at all. Mühlhäusler (1976a), 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.

Ol is a relatively new feature of Tok Pisin and its
syntactic behavior is erratic and difficult to characterize.
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 1976a: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 them now
        These crocodiles really exerted themselves
                eating their children.

Nau ol sampela man bilong pait tasol i stap.

Now Pl. some man of fight but be located

Now just some fighting men remain.

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

Younger speakers, especially those with more education
and a knowledge 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 they 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 twenty 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 nineteen 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 lapum 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 segmentalization rule
operating on the determiner node inserts ol onto the
tree. For older speakers, ol is inserted immediately
following the determiner.

$$
\begin{array}{c}
\text{DET} \\
\diagup\diagdown \\
\text{DET} \quad \text{number}
\end{array}
\quad \longleftarrow \text{segmentalization rule}
$$
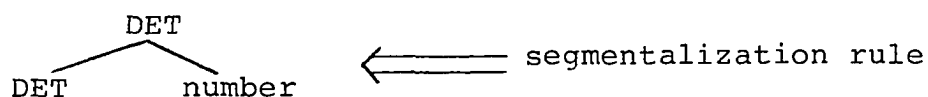
For younger speakers, a rule has been added to place ol
immediately preceding the determiner. In addition, a second
rule has come into Tok Pisin for more progressive speakers
which copies and moves ol to a position immediately preceding
the noun.

$$
_{NP}[\ \underline{ol} - \text{DET} - X - N]
$$

1	2	3	4
1	2	3	1+4

$\Longrightarrow$ opt.
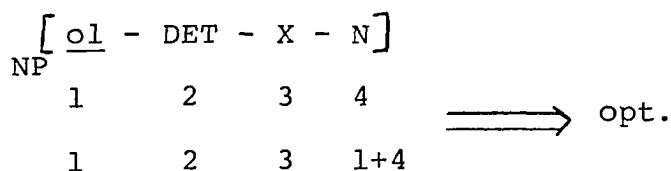
This rule accounts for the fact that <u>ol</u> can occur twice
in the same noun phrase.

ol planti ol sumatin

many students

There is a striking similarity between the behavior of
<u>ol</u> in Tok Pisin and the behavior of <u>dem</u> in Krio (spoken
in Sierra Leone) and to some extent <u>dem</u> in Jamaican Creole.
In Krio <u>dem</u> can stand alone, behaving as the English pronoun
<u>they</u>, 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 <u>dem</u>
appears to be Q ___ ADJ. <u>Dem</u> also occurs immediately
following the noun, but only if it also appears in its
initial position. This would indicate that <u>dem</u> is copied
and moved. In Jamaican Creole, Bailey(1966)generates a
definite plural marker <u>di ... dem</u> in the determiner.
<u>Dem</u> appears in surface structure in the determiner slot
only when <u>di</u> is not present. When <u>di</u> is present, <u>dem</u>
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 <u>ol</u> 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 segmentalization
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 (1976) 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 $\left[\underline{\pm} \text{ minimal}\right]$. For example,
we could mark the determiner singular, dual or plural; then
only the presence of $\left[\text{+ plural}\right]$ 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. $\longrightarrow$ Mitupela Judy go.

Judy na Jane, tupela go. $\longrightarrow$ Judy tupela Jane go.

Judy na ol dispela manmeri, ol i go.

$\longrightarrow$ Judy ol i go.

However, these structures require further study.

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:

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:

      *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 $\begin{bmatrix}\pm WH\end{bmatrix}$, $\begin{bmatrix}\pm\text{ human}\end{bmatrix}$,

$\begin{bmatrix}\pm S\end{bmatrix}$, $\begin{bmatrix}\pm H\end{bmatrix}$ (plus $\begin{bmatrix}\pm\text{ minimal}\end{bmatrix}$ to generate ol by a later segmen-

talization 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] , 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 $\begin{bmatrix} \pm \text{ demonstrative} \end{bmatrix}$, 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 segmentalization 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 $\begin{bmatrix} \pm \text{WH} \end{bmatrix}$, $\begin{bmatrix} \pm \text{human} \end{bmatrix}$, $\begin{bmatrix} \pm \text{S} \end{bmatrix}$ (speaker included), $\begin{bmatrix} \pm \text{H} \end{bmatrix}$ (hearer or addressee included), and $\begin{bmatrix} \pm \text{minimal} \end{bmatrix}$. 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 <u>mipela</u>, <u>yupela</u> and <u>empela</u>
(or <u>himpela</u>) were once used for both singular and plural.
We would also predict that when <u>ol</u> first entered the
system, it occurred only in the surface position DET _____ Q.

The similarity of the behavior of the plural marker
in Tok Pisin, Krio and Jamaican Creole suggests that
the possibility should be investigated that number is
universally generated in the determiner rather than on
the noun in underlying structure.

Chapter III

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 1971:19), or by the addition of certain tags such
as ã (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 ok, eh?

Yu kaikai pinis o nogat?

Have you eaten or not?

Bai yu kam o ...?

Will you come or ...?

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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 disela haus?

who put fire to this hous

Who set fire to this house?

object: Yutupela sutim husat tru?

you shot who really

Who did you really shoot?

indirect   Yu givim mini long husat?

object: you give money to who

Who did you give money to?

prepositional   Yu go wantaim husat?

phrases: you go with who

Who did you go with?

Wonem taim bai yu go?

what time Fut. you go

What time will you go?

Disela garamut i krai long wonem hap?

this slit drum cry at what place

Where is the drumming coming from?

Yu paitim em long wonem 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 wonem?

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-
auxillary inversion in Tok Pisin.

       We stap mama bilong yu?

       Where is your mother?

However, Dutton (1973:231) and Wurm (1971:64) 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
incorporated into the WH word westap (where's), this should
not be considered to be a case of subject-object inversion

by a transformational 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
(1971:64) has claimed 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. Nevertheless, we would prefer a more general rule
to predict the behavior of direct and indirect objects,
instrumental phrases and 'accompanying with' phrases as
well. Let us first investigate the behavior of each type
of WH phrase.

Subjects remain in the same position in surface structure
regardless of whether or not they have been fronted. How-
ever, Chomsky (class lecture, M.I.T., 1976) has suggested
that they are actually moved onto a presentational comple-
mentizer 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. Wonem (what) must occur with a noun phrase
if it is fronted.

*Wonem yu lukim?

(What do you see)

Wonem samting yu lukim?

What thing do you see?

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

Wonem? Yupela kilim dispela tupela man?

What? Did you kill these two men?

The behavior of haumas is the reverse of wonem. According
to Wurm (1971:65), 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.
It seems that the following sentence is grammatical.

Haumas meri bai yu maritim?

How many women are you going to marry?

Moreover, the following sentence is definitely ungrammatical.

*Haumas bai yu maritim meri?

*How many will you marry women?

There seem to be no similar restrictions on <u>husat</u>.
Since <u>we</u> (where) cannot co-occur with nouns, this question
does not arise. It is difficult if not impossible to front
indirect objects.

*Husat yu givim banana long?

?Husat (meri) yu givim banana?

?Husat (meri) yu givim banana long en?

$\begin{Bmatrix} \text{Who} \\ \text{Which woman} \end{Bmatrix}$ 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 can not 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 wonem yu paitim em?
*Wonem yu paitim em long?
(What did you hit him with?)

?*Wantiam husat yu go long Lae?
*Husat yu go long Lae wantiam?
(Who did you go to Lae with?)

Manner and reason clauses when questioned can be freely fronted.

Yu baim banana bilong wonem?

Bilong wonem 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 behavior 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 topicali-
zation. Indirect objects do not topicalize easily in Tok
Pisin. Neither do "accompanying with" phrases. Bilong
wonem (because, why) and olsem wonem (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 creolize, 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 1971)

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 discipling 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 topicalization 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 predicates, 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 (1970:xx) is equally brief, "The negative is
formed by placing no immediately before the verb, and
after the predicate marker". Wurm's (1971), Dutton's (1973)
and Mihalic's (1971) treatments are similar.

The analysis to follow deals with the syntax and
semantics of negation 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 generated
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

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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. <u>discharge</u> and <u>disappoint</u>).
Lexical negation refers to lexical items which seem to have
a negative feature incorporated in them such as <u>sad</u>
(= unhappy), <u>false</u> (= not true) or <u>without</u> (= 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 (<u>nogut</u>
"badly, bad" and <u>nogat</u> "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 can not 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
handful of lexical items in Tok Pisin that appear to incor-
porate a negative feature. These include <u>abris</u> (miss,
avoid, apart), <u>giaman</u> (false, lie), <u>kranki</u> (wrong), <u>maski</u>
(no matter, never mind), <u>nating</u> (merely, for nothing), and
<u>tambu</u> (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 unrecognizable,
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 <u>no</u> in English, nor does it
have NEG generated in adverbial phrases (e.g., <u>not long ago</u>)
or sentence-initially before quantifiers (e.g., <u>not many</u>
<u>people</u>). 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 inter-
esting exception, <u>because-</u> 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.

<u>Syntax</u>

NEG in Tok Pisin is realized as <u>no</u> and occurs in only one position in well-formed surface strings, as the first element of the predicate, following the optional <u>i</u> 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.

(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 meri.

NEG possible some more too Fut. follow law of

this 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). The most reasonable underlying structure for sentence (6) is (6').

```
                        S
          _____/ | _____
        NP            AUX             VP
         |             |               |
         S            NEG              V

  bai ol i sutim ol   i no           inap
```
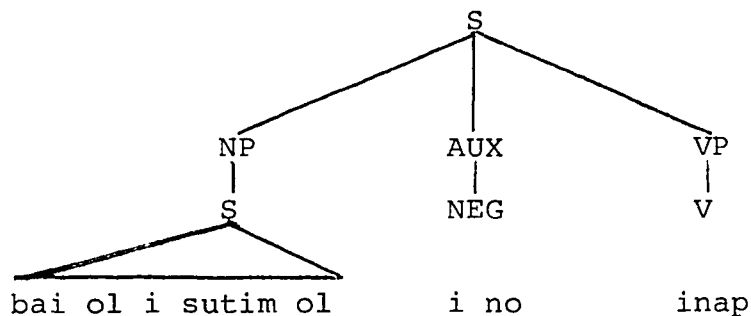
Although inap is generally considered to be a modal, it behaves like a verb in this sentence. Extraposition moves the embedded S to the end of the sentence and since there is no dummy it[1] as in English, the sentence begins with a

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

predicate. Thus,although <u>no</u> 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 negative constructions and have difficulty interpreting them. They prefer to substitute a positive sentence. However, this can not 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 pre-serve 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 <u>i no inap</u> in relation to the future marker <u>bai</u>.

> (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).

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)

```
                        S
              NP                 VP
          Q        N         V       NP
                                       |
        nogat     man     i putim      N

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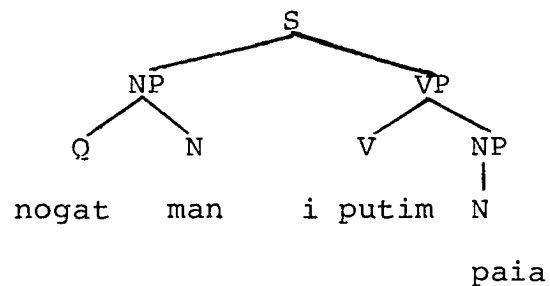
If, on the other hand, no gat is two words (NEG verb), the
structure is (8b).

(8b)

```
                     S
         NP         AUX        VP
                     no      V    NP
                           gat   /  \
                               NP    S
                              man   man i go putim paia
```
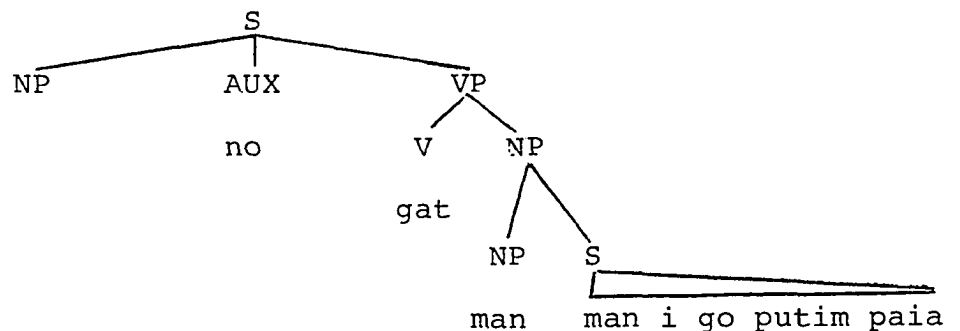
(8c) below is not a possible structure of (8) because <u>gat</u>

is a transitive verb and requires an object.

(8c)

```
                                          S
                                          |
              NP                         AUX           VP
        NP          S                     |             |
        |                                NEG            V
        N
      man                                 no           gat
            man i go putim paia
```
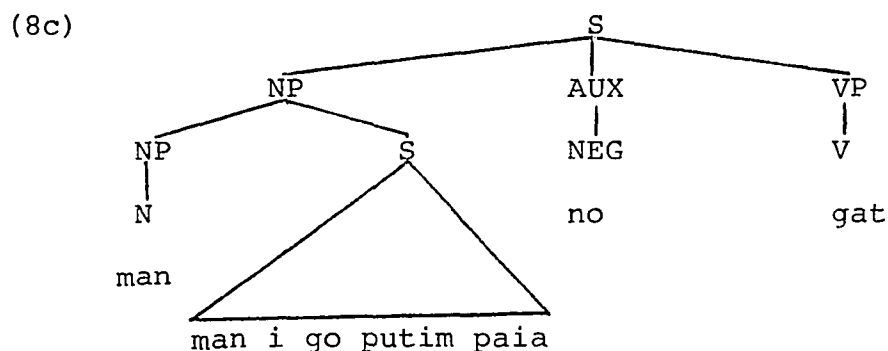
Moreover, <u>gat</u> does not mean "exist"; "to exist" or "to live"

is expressed by the verb <u>stap</u> in Tok Pisin.

(18)   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 reanalyzed 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 <u>gat</u> must be the main verb.

(12) No gat mo dua nau.

      NEG have more door now

      There were no more doors now.

(13) No gat papa bilong yu?

      NEG have father of you

      Have you no father?

(14) No gat sem bilong yutupela?

      NEG have shame of you two

      Have you two no shame?

Nevertheless, it might be possible to argue that (12) 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 hypothesized relative clause in (8b) was 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

Perhaps the strongest evidence that <u>no gat</u> does not behave like the English quantifier <u>no</u> 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 <u>no gat</u> 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), hypothesizes the following deep structure for them:

one recorded example of a sentence like (8) in which the relative clause is preceded by the relative marker _ia_.

     (15)   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 function such as emphasis markers.

     Further evidence that _no gat_ is not a quantifier in (8), (12), (13), (14) and (15) is the similarity of the behavior of _no gat_ in these sentences and the ones below.

     (16)   Hap graun bilong yu no gat laualu?

             piece land of you NEG have Malay apples

             Your land doesn't have Malay apples?

     (17)   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 (16) and (17) as a quantifier.
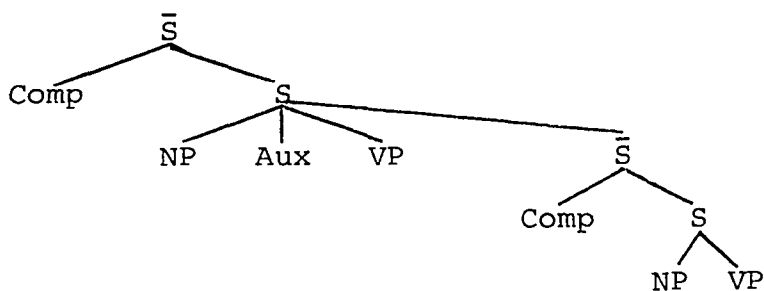
The element that is focused appears in the higher clause
and a WH appears in its place in the lower clause. I think
that this is essentially the structure of the Tok Pisin
sentences also. If so, sentence (9) has a structure as
follows: (using Baltin's notation)
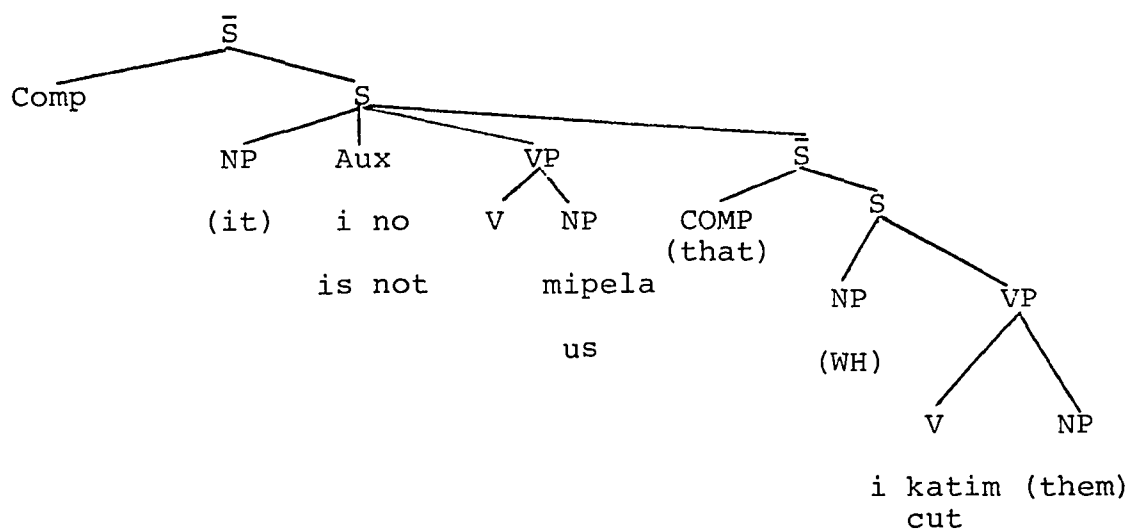
One other possible analysis of this type of sentence
must be considered. Lasnik claims that English has an

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 (18) below would have the following structure:

(18) I no mi paitim em.

It is not me that hit him.
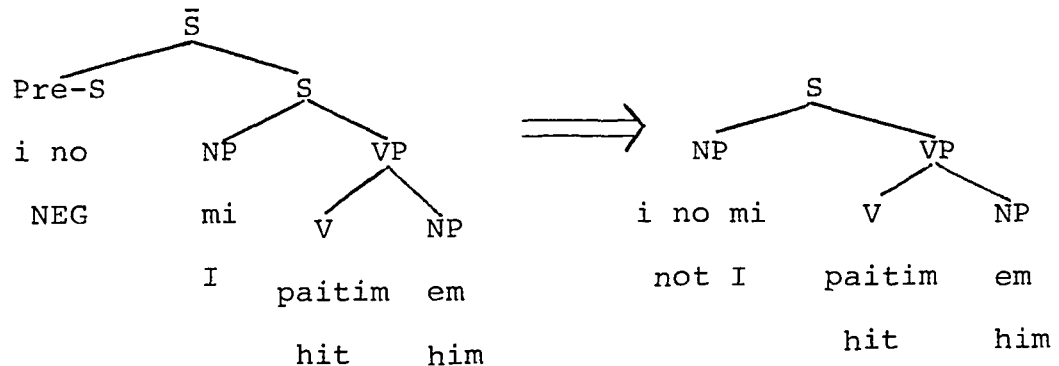
In English, such a Pre-S NEG can attach only to quantifiers, and a sentence such as "Not me hit him." would be ungrammatical, but this does not necessarily mean that such a sentence could not be grammatical in Tok Pisin. Under this analysis, objects, indirect objects, locative phrases and other sentence elements could be moved into sentence initial position by a topicalization transformation before this negative attachment transformation applied. Both this

analysis and the cleft analysis account for the data pre-
sented 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 topicalized sentence. In Tok Pisin
sentences such as (9) and (16), 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 repre-
sented in Laycock (1970) and (Wurm 1971) 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). 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:

$$QUANT \longrightarrow [+ \text{negated}] \quad /not\_\_\_\_$$

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 substituting 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.

(19) Mi no lukim planti meri.

I NEG see many women

I did not see many woman.

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

$$\text{QUANT} \longrightarrow [+ \text{ negated}] \ / \ \underline{no} \ (x) \ \underline{\qquad}$$
(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.

> (20)   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 contour associated with each reading.

There is one interesting exception in Tok Pisin to this rule, and that is because- clauses. In Lasniks' rule, QUANT includes quantificational 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.

(21) Ol i no go long gadin bilong wonem 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

(22) Ol i go long gadin, tasol i no bilong wonem
          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.

(23) 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 $\longrightarrow$ [+ 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 <u>can</u>, <u>could</u>, etc., and
it does. <u>Ken</u>, <u>inap</u>, <u>save</u>, <u>laik</u> 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", <u>mas</u>, 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 <u>should</u> and <u>ought</u>.)
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 "Suppose mi no go, bai i orait." (If I do not go, it will be alright.).

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 <u>kaikai</u> long me, em i givim wara long mi.

woman NEG give food to me she give water to me

The woman did not give <u>food</u> to me, she gave water to me.

Meri i no <u>givim</u> kaikai long mi, mi yet mi baim.

woman NEG give food to me I I bought

The woman did not <u>give</u> food to me, I myself bought it.

Meri i no givim kaikai long <u>mi</u>, em i givim long man

   bilong en.

woman NEG give food to me she give to man of her

The woman did not give food to <u>me</u>, she gave it to her

   husband.

<u>Summary and Discussion</u>

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 in Tok Pisin. 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 creolizes, 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 got man i no bin kaikai wanpela samting.

(There is no one that did not eat anything.)

Chapter V

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

<u>Introduction</u>

In addition to the possessive construction, there
are at least seven other constructions in Tok Pisin that
involve <u>bilong</u>. 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
<u>bilong</u> appears to be a verb, a conjunction or even a comple-
mentizer in certain contexts, a unified analysis will be
presented that generates <u>bilong</u> 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 <u>bilong</u>
constructions will be outlined.

The possessive construction in Tok Pisin consists of
two noun phrases linked by <u>bilong</u>:

123

(1) Mi sindaun tasol long haus bilong mi.

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 pipis meri ia

em slip pinis.

and man her this worthless trash woman Rel.

he sleep 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 analyzing 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 disela han bilong laulau.

fasten to this branch of Malay apple

Fasten it to this branch of the Malay apple tree.

(5) Ai bilong sauspen i lus pinis.

lid of pot lost complete

The lid of the pot is lost.

PLACE OF ORIGIN (includes time of origin)

(6) Bikpela man bilong bifo

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 water

You catch some big crocodiles of the water.

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, disela 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 disela 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,

        and I talk yu find   one   Corona and you get

        And I said, "you find a Corona (car) and you get it

        bilong wanem mi bin raun long em na i no bin,

        for   what   I Pst. go around in it and NEG Pst.

        because I have driven around in one and it didn't,

        mitupela i no bin usim planti benzin.

        we   two   NEG Pst. use much   gas

        we didn't use much gasoline.

IN ORDER TO

(17) Bai yumi givim wanpela spes bilong em bilong

      i kam insait na kisim disela pikinini diwai.

   Fut. we give one space for him for   come inside

      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 1971:60), 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 1971:14)

   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 preposition in Tok Pisin, <u>long</u>, which cannot
occur in such verbless environments:

    (21)   *Man long haus.

           (The man is in the house.)

<u>Long</u> must occur with the verb <u>stap</u> (exist, be located) in
such environments.

    (22)   Em i stap long haus.

           He is in the house.

Nevertheless, despite the behavior of <u>long</u>, this evidence
for the verbal status of <u>bilong</u> 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.

I. Benefactives

Benefactives in Tok Pisin have an underlying structure much like that of English benefactives. However, there are two types of benefactives 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             banana    for       DET       N
                                                            ol        pikinini
                                                            Pl.       child
```
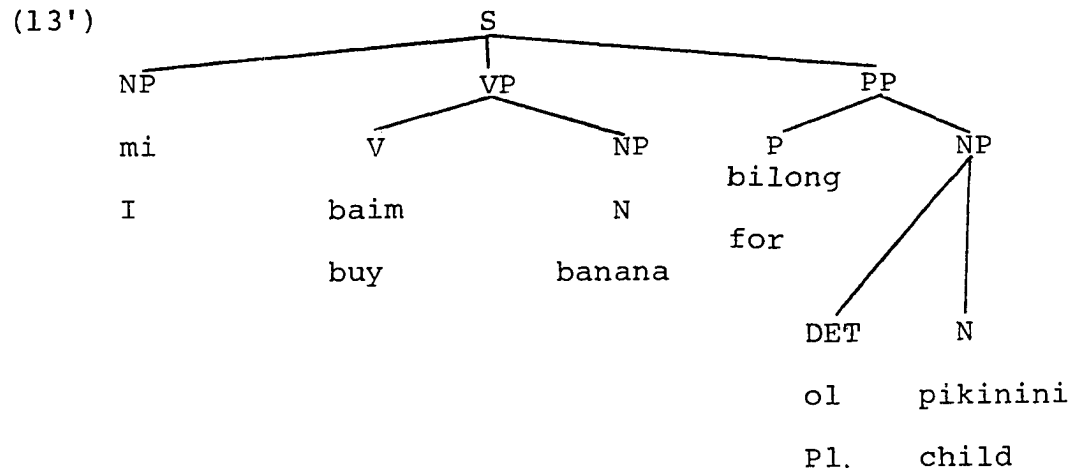
It might be argued that the PP is part of the VP in this
structure, but in either case it seems fairly obvious that
bilong is a preposition in its benefactive usage.

II. 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 conjuction in English, bilong is a
preposition in the following structures.

(14')

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

(The PP can later be fronted.)

(15')

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

(The PP can later be fronted.)

(16')

```
                            S
        _____|_____
       NP                  VP                    PP
        |              _____|_____          _____|_____
       yu            V          NP         P            NP
                                                   _____|_____
       you         kisim      __|__      bilong   NP           S
                             /     \                          /\
                            Q       N               wanem    /  \
                                                            /____\
                         wanpela  Corona
                            a     Corona
```
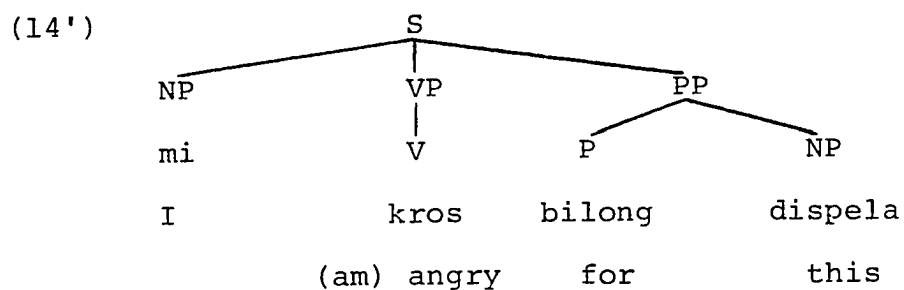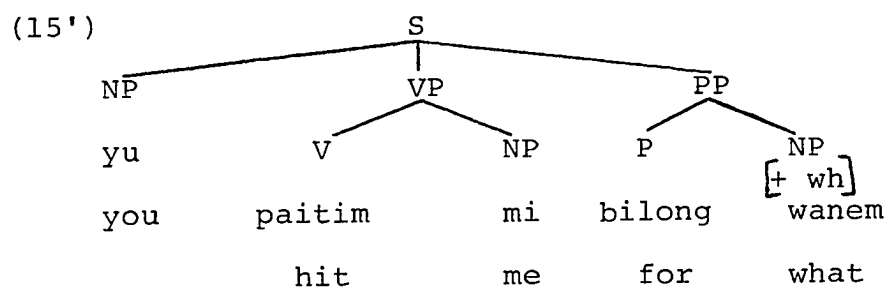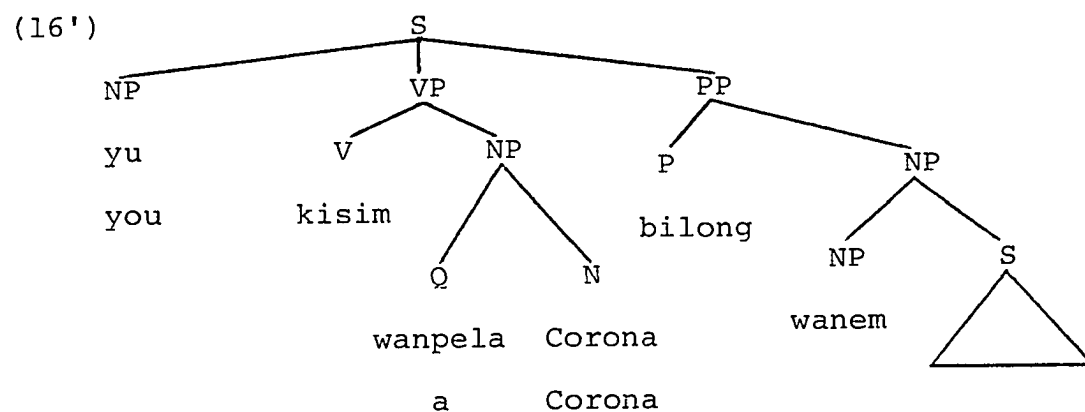
(The PP can not be fronted.)

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'). The reason for this difference is unknown, but 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 can not be used as a test. Since the NP or S that we are dealing with in these structures is immediately dominated by a PP, topicalization can not 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 hypothesizing and intervening
NP in purpose/function, attribute, and "in order to"
constructions in Tok Pisin.

III. Purpose/Function Constructions

(8')

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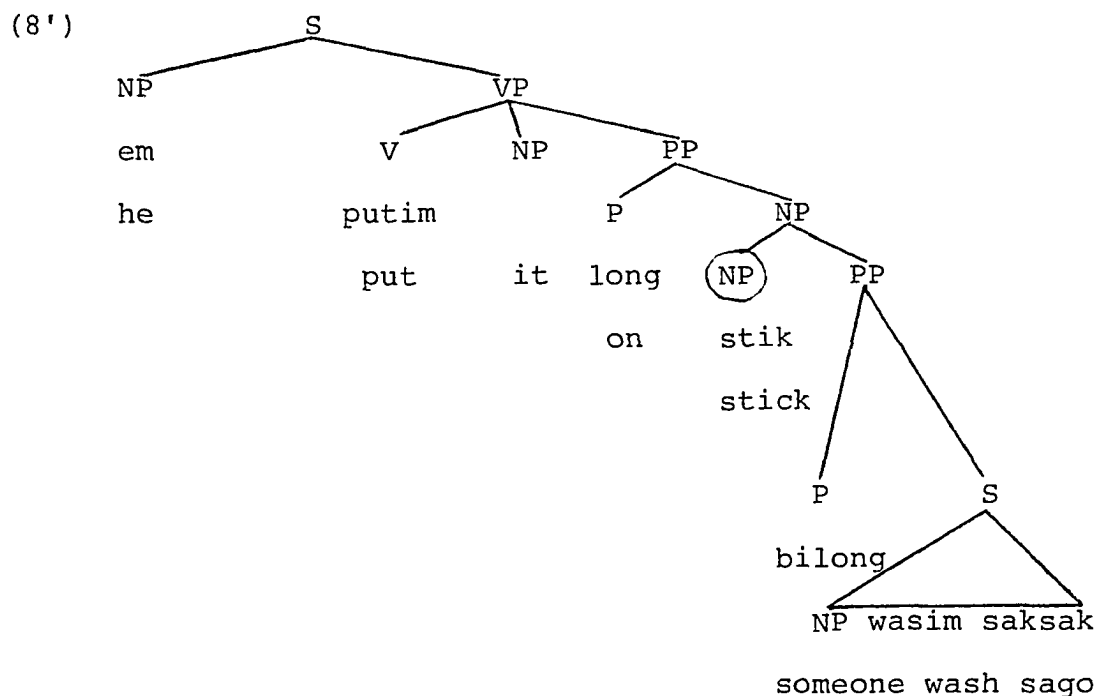
Tok Pisin differs from English in that English can have animate noun phrases in the circled position in purpose/function constructions. For example,

These men are for you to put to work.

IV. 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 disela
                                           kainkain trik
                                        do these kinds of
                                           tricks
```
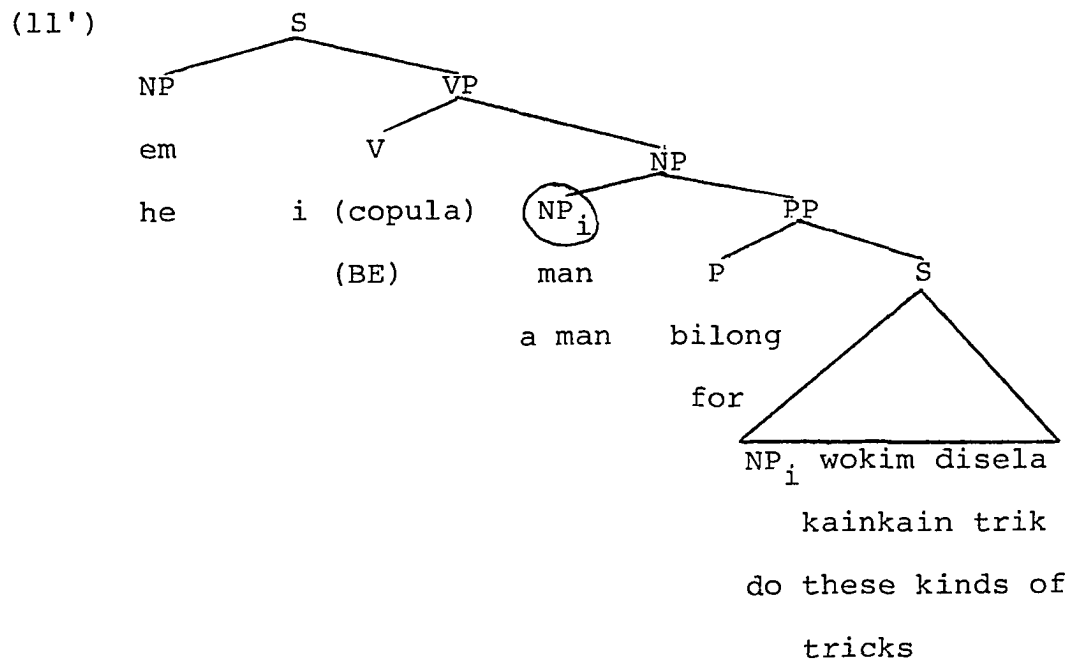
(The circled NP must be [+ animate] .)
EQUI must delete the subject of the
embedded sentence.

V. "In order to" Constructions

(18')

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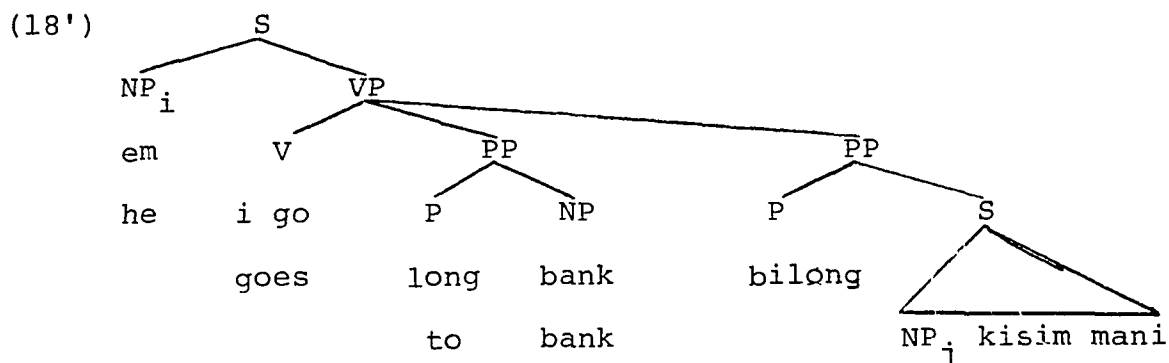
If NP$_i$ and NP$_j$ are coreferent, NP$_j$ will usually be deleted by EQUI. However, there are instances in which NP$_i$ and NP$_j$ are not coreferent. For example,

> 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.

<div align="right">(Wurm 1971:66)</div>

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 $_S[$ S olsem
baimbai 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 (1970) claims that the choice of long or bilong is not
free, but instead indicates whether the main or the subor-
dinate clause is being focused upon.

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

> Mi sanap bilong singuat.
>
> 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" (1971:74), but he proposes no such
difference in meaning for these forms.

Laycock (1971:xxxiv) proposes a different difference
in meaning between long and bilong in "in order to"
constructions. According to Laycock, the choice of long

or <u>bilong</u> indicates a lesser or greater "degree of purpose".
Both Wurm (1971) and Laycock (1970) 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 <u>bilong</u> before the verb", Dutton does not mention
the possibility of using <u>long</u>. This suggests the hypothesis
that originally <u>long</u> was used in "in order to" constructions,
but that <u>bilong</u> then began to replace it. Nevertheless,
I have discovered one pair of sentences in which the use
of <u>long</u> or <u>bilong</u> 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 <u>long</u> or <u>bilong</u> is not
optional. If the subject of the main clause is to be
understood as the subject of the lower clause, <u>bilong</u> is

used. If the object of the main clause is to be the subject of the lower clause, <u>long</u> is used. In this respect, Tok Pisin is less ambiguous and dependent on context than English is. However, in English (and probably in Tok Pisin as well) the choice of verb generally determines 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)

VI - VIII. <u>Possessives, Part to Whole Relations and Place of Origins Constructions</u>

These three constructions are quite similar in that they all involve two noun phrases linked by <u>bilong</u>. 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 difference, 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 essentially locatives, from prepositional phrases.

> Bilum bilong meri
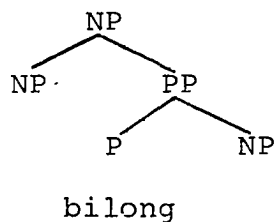>
> String bag of woman
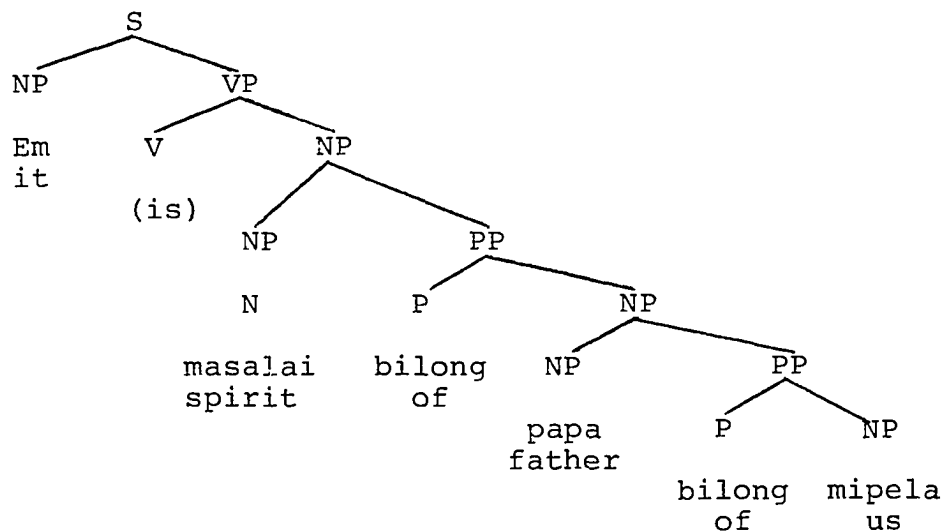
versus

       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 under-lying structure.
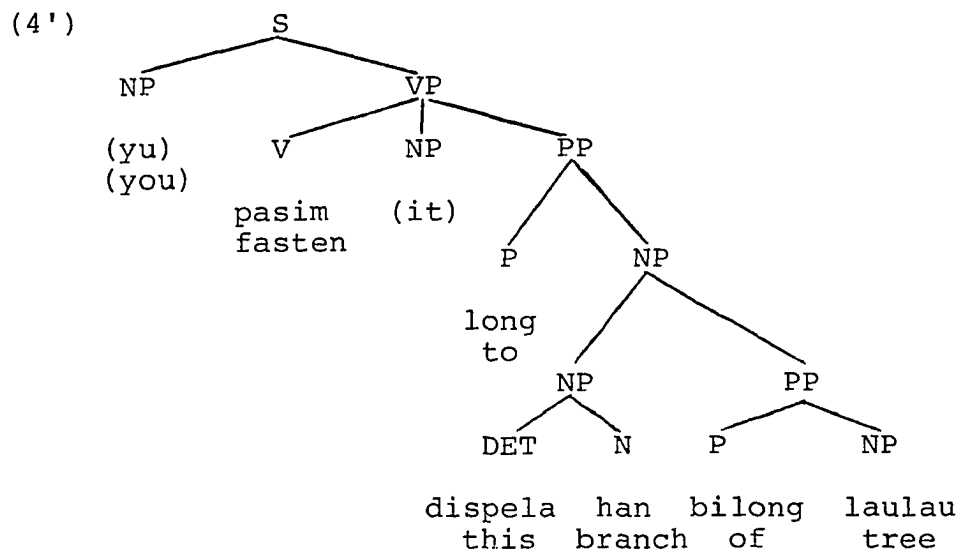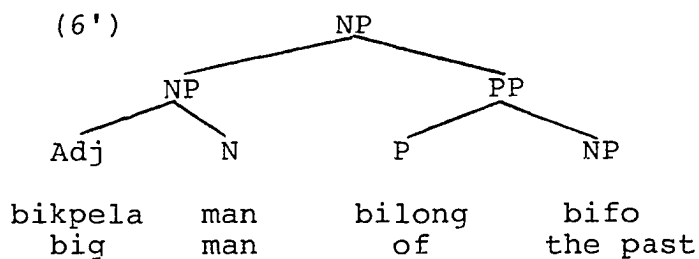

bilong

VI. (2') Possessive

(2')

VII   Part to Whole

(4')

```
                         S
            NP                    VP
           (yu)          V     NP      PP
           (you)
                       pasim   (it)
                       fasten          P        NP
                                      long
                                      to      NP          PP
                                            DET   N     P      NP

                                          dispela han bilong laulau
                                          this    branch of    tree
```

VIII.   Place of Origin

(6')

```
                             NP
                   NP                  PP
               Adj    N            P        NP
             bikpela  man        bilong    bifo
             big      man        of        the past
```

One bit of evidence against a relative clause source
for possessives, in English at least, is the fact that
children acquire possessive constructions before they
acquire relative clauses (Ruth Hamilton, personal communication).
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.

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.
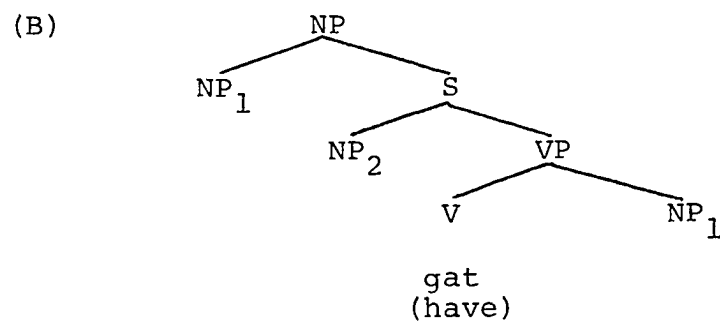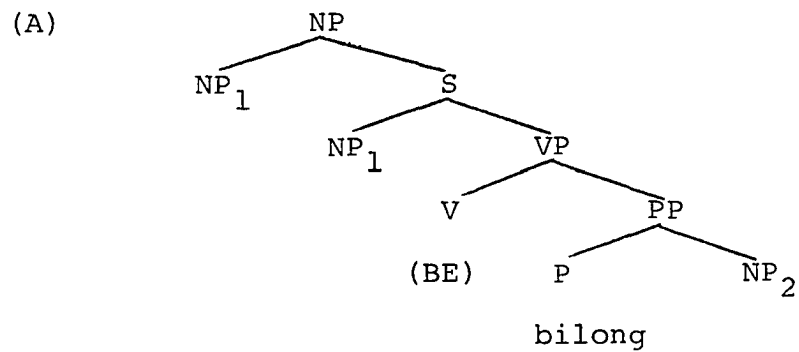
One leg of mine is broken.

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 MS)

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 1971:60)

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.

<u>Rule 1</u>:

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

$$
\begin{array}{c}
X \\
\diagup\diagdown \\
\text{PP} \\
\diagup\diagdown \\
\text{P} \qquad \text{Y}
\end{array}
$$
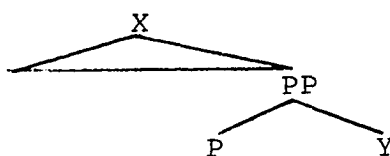
Assuming the following redundancy rules for noun features,
we can write a precise set of interpretive rules for <u>bilong</u>
constructions.

$$[+\ \text{animate}] \longrightarrow [\pm\ \text{animate}]$$
$$[-\ \text{animate}] \longrightarrow [\pm\ \text{place}]$$
$$[+\ \text{relation}] \longrightarrow [+\ \text{animate}]$$
$$[+\ \text{place}] \longrightarrow [-\ \text{animate}]$$

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., <u>bifo</u>
(long ago).

INTERPRETIVE RULES

1. $\begin{bmatrix} \begin{bmatrix} X \\ \begin{bmatrix} - \text{ human} \\ - \text{ relation} \end{bmatrix} \end{bmatrix}_N \end{bmatrix}_{NP}$ <u>bilong</u> $\begin{bmatrix} \begin{bmatrix} Y \end{bmatrix}_N \\ [+ \text{ animate}] \end{bmatrix}_{NP}$

$\implies$ "Y possesses X"

2. $\begin{bmatrix} \begin{bmatrix} X \\ [- \text{ animate}] \end{bmatrix}_N \end{bmatrix}_{NP}$ <u>bilong</u> $\begin{bmatrix} \begin{bmatrix} Y \\ \begin{bmatrix} -\text{animate} \\ -\text{place} \end{bmatrix} \end{bmatrix}_N \end{bmatrix}_{NP}$

$\implies$ "X is a part of Y"

3. $\begin{bmatrix} \begin{bmatrix} X \\ [- \text{ relation}] \end{bmatrix}_N \end{bmatrix}_{NP}$ <u>bilong</u> $\begin{bmatrix} \begin{bmatrix} Y \\ [+ \text{ place}] \end{bmatrix}_N \end{bmatrix}_{NP}$

$\implies$ "X originated at Y"

4. $\begin{bmatrix} \begin{bmatrix} X \\ [+ \text{ relation}] \end{bmatrix}_N \end{bmatrix}_{NP}$ <u>bilong</u> $\begin{bmatrix} \begin{bmatrix} Y \\ [+ \text{ animate}] \end{bmatrix}_N \end{bmatrix}_{NP}$

$\implies$ "Z is an X of Y"

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

$\Longrightarrow$ "X is a characteristic trait of Y"

6. $\begin{bmatrix} \begin{bmatrix} & X & \end{bmatrix} \\ NP & N & [- \text{ animate}] \end{bmatrix}$ $\underline{\text{bilong}}$ $\begin{bmatrix} & Y & \\ S & \end{bmatrix}$

$\Longrightarrow$ "X is for the purpose of Y"

7. $\begin{bmatrix} X \\ S \end{bmatrix}$ $\underline{\text{bilong}}$ $\begin{bmatrix} \begin{bmatrix} & Y & \end{bmatrix} \\ NP & N & [+ \text{ animate}] \end{bmatrix}$

$\Longrightarrow$ (benefactive)   "X is for the benefit of Y"

8. $\begin{bmatrix} X \\ S \end{bmatrix}$ $\underline{\text{bilong}}$ $\begin{bmatrix} Y \\ S \end{bmatrix}$

$\Longrightarrow$ "X in order for Y"

9. $\begin{bmatrix} X \\ S \end{bmatrix}$ $\underline{\text{bilong}}$ $\begin{bmatrix} \begin{bmatrix} & Y & \end{bmatrix} \\ NP & S \end{bmatrix}$

$\Longrightarrow$ "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 constuc-
tions 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.

Chapter VI

THE SYNTAX AND SEMANTICS OF THE PREPOSITION LONG

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 complementizer 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 complementizer in English.

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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.

<div align="center">(Mihalic 1971:20)</div>

(11) Dispela moran i moa longpela long dispela.

this python more long than this

This python is longer than that one.

<div align="center">(Dutton 1973:204)</div>

(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 generalizations 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 generalizations are

as follows.

	Structure				Meaning of NP

(1)　　$\begin{bmatrix} \text{V-}\underline{\text{im}} & \text{(NP)} & \begin{bmatrix} \underline{\text{long}} & \text{NP} \end{bmatrix} \end{bmatrix}$　　instrument, indirect
　　　　　VP　　　　　　　　PP　　　　　　　object, or locative

(2)　　$\begin{bmatrix} \text{V} & \begin{bmatrix} \underline{\text{long}} & \text{NP} \end{bmatrix} \end{bmatrix}$　　direct object or
　　　　　VP　　PP　　　　　　　　　　locative

(3)　　$\begin{bmatrix} \text{NP} & \begin{bmatrix} \underline{\text{long}} & \text{NP} \end{bmatrix} \end{bmatrix}$　　locative
　　　　　NP　　PP

(4)　　PP　　$\begin{bmatrix} \underline{\text{long}} & \text{NP} \end{bmatrix}$　　locative
　　　　　　　PP

(5)　　$\underline{\text{moa}}$ Adj.　　$\begin{bmatrix} \underline{\text{long}} & \text{NP} \end{bmatrix}$　　object of comparison
　　　　　　　　　　　PP

Under generalization (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 can not 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 <u>long</u> 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 instruments. For example, an instrument for <u>lukim</u> (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 generalization (2), the NP following <u>long</u> 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 1971:32)

The reason that no more specific characterization of the difference in <u>long</u> vs -<u>im</u> constructions has been discovered is that the meaning varies considerably from verb to verb. For example, there is hardly any semantic difference between <u>wetim</u> (await) and <u>wet long</u> (wait for), whereas there is quite a bit of difference between <u>krosim</u> (scold) and <u>kros long</u> (mad at) or <u>lukautim</u> (take care of, search for) and <u>lukaut long</u> (beware or, look after). Although we want to capture the fact that verbs such as <u>kros</u> and <u>krosim</u> 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 generalizations 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 pre-
positions 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.

$$\underline{\qquad\qquad}\ \begin{array}{l}(PP)\\ \text{direct object}\end{array}$$

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 generalizations we have proposed, plus the
condition that a prepositional phrase with no other interpre-
tation 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 inter-
pret 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 <u>long</u> that precede noun phrases and we now turn to the analysis of constructions in which <u>long</u> occurs before verbs, at least in surface structure. Examples of such constructions are given below.

(12) Ol meri skul tasol long katim shirt 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 promis

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 fis.

two Pst. go to water get fish

The two went to the water to get fish.

Since <u>long</u> is a preposition elsewhere in the grammar, the simplest and most consistent analysis of <u>long</u> before verbs would be one that generates <u>long</u> 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 <u>long</u> are generated as something other than a preposition.

<u>Long</u> initially appears to behave like <u>to</u> in English since both appear before infinitive phrases. Like <u>long</u>, <u>to</u> is an ordinary preposition when it occurs before locatives and indirect objects, but when <u>to</u> occurs before infinitives, it is not considered to be a preposition. Instead, <u>to</u> has been analyzed as the second piece of the <u>for-to</u> complementizer (Rosenbaum 1967), 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 <u>long</u> be generated just as <u>to</u> is in English. Nevertheless, we should examine the evidence that has been given for the status of <u>to</u> in English and ask whether or not similar evidence exists in Tok Pisin concerning <u>long</u>. By conducting such an investigation, we may determine whether <u>long</u> and English <u>to</u> are as similar as they initially seem to be.

Bresnan (1976) classified <u>to</u> 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 categorized as an auxiliary in order to simplify the rule of verb phrase deletion by avoiding the disjuction $\begin{Bmatrix} AUX \\ \underline{to} \end{Bmatrix}$ in the structural description. Bresnan's (1976:16) rule of VP deletion is given below.

$$\left[\begin{matrix} W - AUX - VP - X \end{matrix} \right] -CONJ- \left[\begin{matrix} Y - AUX - VP - Z \end{matrix} \right]$$

1	2	3	4	5	6	7	8	9	$\Rightarrow$
1	2	3	4	5	6	7	∅	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 to

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 behavior of <u>long</u> in this context is consistent with
the behavior of <u>long</u> in prepositional phrases which dominate
noun phrases. <u>Long</u> 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 singuat long ia?

Do you know the man that I called to?

Yu save long dispela man ia mi bin singuat long en ia?

*Do you know the man that I called to him?

(<u>ia</u> 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 singuat 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 (1967) proposed that the to that occurs before infinitives is a complementizer, but one that always occurs in conjunction with the complementizer for as the for-to complementizer. According to Rosenbaum, 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 complementizer is in
English. (Scholars no longer consider the to before infinitives
to be part of the complementizer.) Emonds (1976) proposes
that in English the for complementizer 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.

$$
\begin{array}{c}
\text{S} \\
\begin{bmatrix} \text{COMP} \\ \text{FOR} \end{bmatrix} \quad \text{NP} \quad \text{VP} \\
\quad\quad\quad \text{John} \quad \text{do something} \\
\text{for}
\end{array}
$$

$$\Downarrow$$

$$
\begin{array}{c}
\text{S} \\
\begin{bmatrix} \text{COMP} \\ \text{PP} \end{bmatrix} \quad\quad \text{VP} \\
\begin{bmatrix} \text{P} \\ \text{FOR} \end{bmatrix} \quad \text{NP} \quad\quad \text{to do something} \\
\text{for} \quad \text{John}
\end{array}
$$
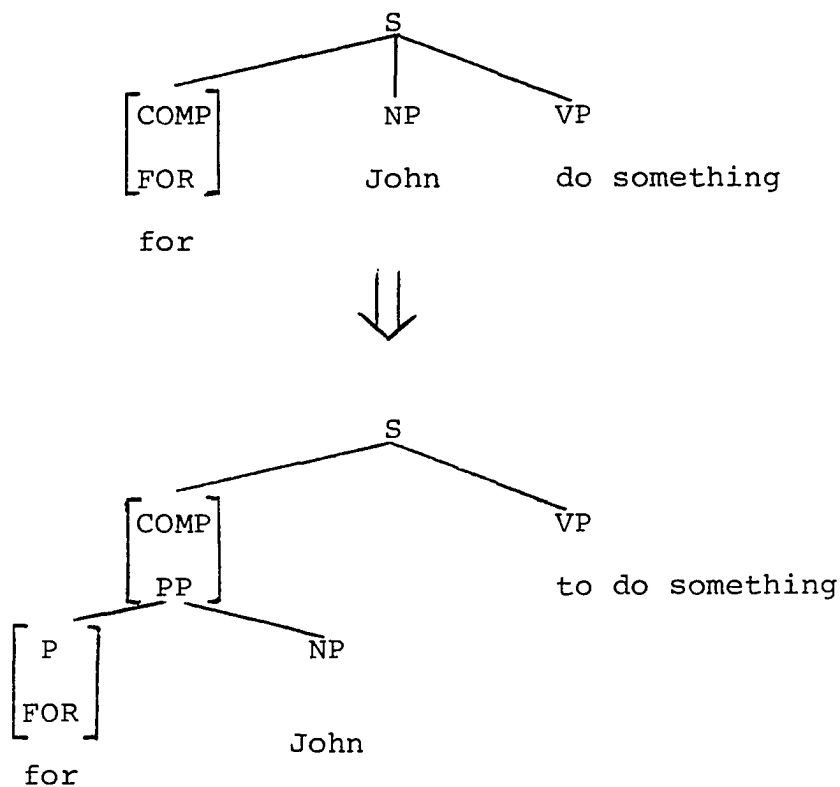
The rule is as follows (Emonds 1976:192).

$$
\begin{array}{ccccc}
X - & \begin{bmatrix} \text{COMP FOR} \end{bmatrix} & - \text{NP} - & Y \\
1 & 2 & 3 & 4 & \Rightarrow \\
1 & 2+3 & \emptyset & 4
\end{array}
$$

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 generalization was pointed out in an unpublished manuscript by Jackendoff, Selkirk and Bowers (1974), cited in Emonds (1976).

If Emonds' analysis of _for_ complementizers in English applies to _long_, Tok Pisin would still differ from standard English in that the _for_ complementizer (_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
               ⇊   ⇊
               ∅   ∅

    Mi inap long(mi) kukim kaikai.
                  ⇊
                  ∅

Although an analysis similar to Emonds' is attractive because it analyzes long as a preposition in surface structure even if it is generated as a complementizer, I will propose an alternate analysis of long that is closer to surface structure. Instead of generating long as a complementizer 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.
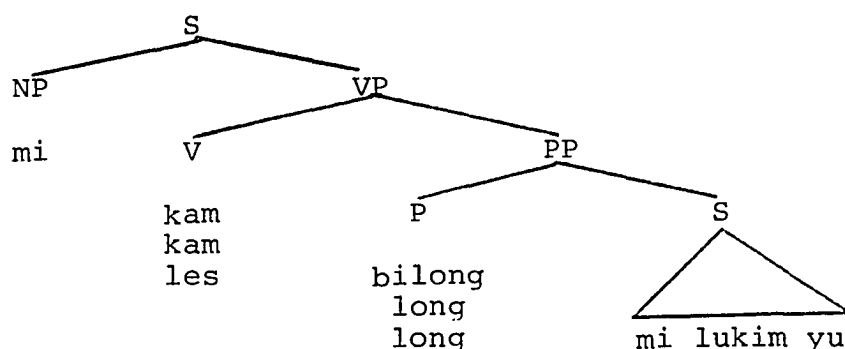
I came in order to see you.

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 underly 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        /____\
                          long     mi lukim yu
```

If one wishes to claim that <u>long</u> is a complementizer
in Tok Pisin, it may also be necessary to claim that <u>bilong</u>
is a complementizer as well because both <u>long</u> and <u>bilong</u>
can be used in some of the same constructions. We discussed
these briefly in the last chapter.

> Em i go long wara bilong kisim fis.
>
> Em i go long wara long kisim fis.
>
> He goes to the water to get fish.

<u>Long</u> and <u>bilong</u> should be analyzed in the same way in such
constructions, either both as complementizers or both as
prepositions, unless it can be shown that there is a real
difference between constructions with <u>long</u> and those with
<u>bilong</u>. One possible difference that might be claimed is
that <u>bilong</u> is used in motivational (<u>in-order-to</u>) clauses
whereas <u>long</u> is used in non-motivational (<u>for</u>) 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
> one   part of   "   "   " government ready
> One faction of the Papua New Guinean government is ready
>
> <u>long</u> go long Europe behain long dispela yia <u>bilong</u>
> for go to   " after   this   year for
> to go to Europe next year to
>
> traim na painim ol kampani em ol i laik kirapim
> try   and find Pl. company 3 Pl. want begin
> try and find companies that want to start
>
> ol bisnis long dispela kantri.
> Pl. business in   this   country
> businesses in this country.

Rosenbaum (1967:17) has suggested that <u>in-order-to</u> constructions
in English be analyzed as a preposition "in order" followed
by the <u>for</u> complement. Similarly, we could analyze <u>bilong</u>
clauses as follows.

```
                        PP
           _____/   _____
          P                            S
                                    __/  \__
       bilong                    COMP        S

                                 long
```
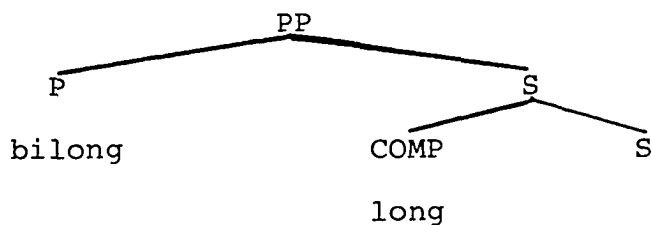
However, there is no evidence for such an analysis and
the Tok Pisin equivalent of the following English clause
is ungrammatical.

    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 complementizer. 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
complementizer.

Em i wok long kisim fis.

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 complementizer, for complements can not 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 1976)

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 complementizer 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_ complementizer 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_ complementizer 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 complementizer in some constructions. The evidence concerns comparative constructions. Bresnan (1972) claimed that _than_ or _as_ used in English comparative constructions is actually a complementizer. If this complementizer 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 comparative constructions, but olsem (the that comple-
mentizer) is also used. This seems to parallel the English
facts, indicating that long may be a complementizer, at
least when it behaves as English than or as in comparative
constructions. Nevertheless, there is an important difference
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 complementizer 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 under-
lying 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 complementizer in comparative constructions in Tok Pisin.

Conclusion

Although the analysis of long as a complementizer 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 analyzed 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 possi-
bility 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.

Chapter VII

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 (1976) 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 to up to mounten

He sends smoke up to the mountain.

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(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 of 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 underlying structure of serial verb constructions.
Givon (1975:66) has characterized 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 languages 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 constructions are often stages in diachronic processes
wherein one of the verbs evolves into something else such
as a preposition, an adverb, a causitive 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 (1976). He treats most instances of serial
verbs as derived lexical items, but he recognizes 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 coordinate 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 preferable to restrict the power of grammars by allowing syntactic transformations to operate only on structural descriptions without reference to lexical content.

I shall propose an analysis such that at least some serial verb constructions in Tok Pisin are syntactically generated. However, under this analysis serial verb constructions will be base generated as opposed 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.)

$$VP \longrightarrow V \quad (NP) \quad (VP)$$

Such a rule would overgenerate 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 generalization
that motion verbs may have <u>go</u> or <u>kam</u> (which we will call
directional verbs) following them.

$$
\begin{array}{ccc}
V & / \text{———}(NP) & VP \\
[+ \text{motion}] & & [+\text{directional}]
\end{array}
$$

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

wokabaut	(walk)
ron	(run)

kalap   (jump)

subim   (shove)

suruk   (scoot)

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
The right wing went past two fullbacks from the
        University

na pasim bol i go long Suma bilong kikim ɡɔal
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 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 <u>mekim</u> 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 <u>for</u> complement, a POSS ING complement or a <u>that</u> 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 (1976) gives the following example.

Barata bilong en i <u>kilim indai</u> darata bilong en.
Brother killed his brother.

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

*Em i <u>kilim indai</u> em.
He killed him.

In fact, no pronouns can 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.

Chapter VIII

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.

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Yam i karamap long haus yam.

The yams are covered up in the yam house.

Ol i kapsaitim bensin.

They spilled the gasoline.

Benzin 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.)

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)   If 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.

Sweetpotatoes ??? over there.

There is another large group of transitive verbs which have intransitive forms, but these intransitive forms can not 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/suck)

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 <u>pas</u> is translated as "closed", it seems more like a past participle than if it is translated as "fast". Likewise, if <u>redi</u> 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 <u>tambu</u> 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 harbor 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).

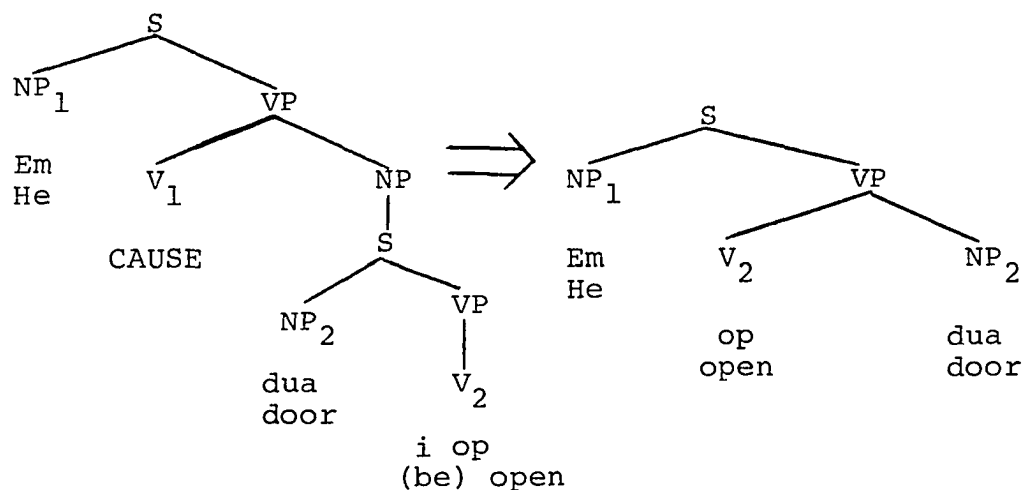passive: The baseball field was covered by the
            groundskeepers after the game.

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
reanalyzed 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 tranfᵣrmation 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:

```
              S
        ┌─────┴──────┐
      NP₁          VP
                ┌───┴────┐
      Em       V₁      NP          ⟹
      He       │        │
            CAUSE       S
                    ┌───┴───┐
                  NP₂     VP
                  dua      │
                  door    V₂
                         i op
                        (be) open


                          S
                    ┌─────┴──────┐
                  NP₁          VP
                            ┌───┴────┐
                  Em       V₂      NP₂
                  He       op      dua
                          open     door
```

(-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. Mühlhäuser (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 causitive transformation:

rus	(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 causitive form can not
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 1976). Mühlhäusler outlines a lexical
redundancy rule, or "lexical program" to capture this
generalization. His rule is essentially a causative trans-
formation 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) can not have a meaning
of "cause to write" or "written", and why adjectives such
as _klin_ can not 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_, ad adjective, is a lexical
base from which we can derive _klinim_, "cause to be clean",
we can not 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 can not be subjected to the rule
which would derive a caus tive 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.

If 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
rus (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 generalization
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 <u>brum</u> (sweep with a broom) being some of the few exceptions (Mühlhäusler 1976).

Conclusions

There is no passive transformation in Tok Pis n and those adjectives that seem to have a passive meaning have been borrowed from past participles in English, but have been reanalyzed as adjectives in Tok Pisin. The interesting question that remains about the behavior of transitive/ intransitive pairs in Tok Pisin is how their membership in one of two different classes, causitives/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 causitive 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 behavior of
English complementizers 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

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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 $[\pm$ speaker included$]$, $[\pm$ hearer included$]$ and $[\pm$ 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 creolization of Tok Pisin.

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