

BEYOND VARIABLE RULES*

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G. Sankoff (1972b) discusses the extension of variable rules to the syntactic and semantic component. Citing works by Hymes, Labov, and Gumperz in support of the point of view that "semantic, discourse, or cultural constraints will be no more (or less) categorical than the type of linguistic constraints now agreed to be allowable," she proposes to deal with variability "at levels of grammar above (or beyond) the phonological."

This paper discusses the variable occurrence and non-occurrence in Tok Pisin of what is traditionally called the direct object, or object of a transitive verb, seeking not only to describe but also to explain the observed phenomena. Tok Pisin, one of the three official languages of New Guinea, has until recently been a pidgin, the lingua franca of over half a million speakers, and has now acquired a generation of native speakers. Tok Pisin has had such a successful history for a number of reasons, among them the tremendous linguistic diversity of New Guinea (where some two million people speak more than 500 languages) and the fact that it is easier to learn Tok Pisin as a second language than the native Papuan and Austronesian languages or German, Japanese or English, all of which were possible competitors (Sankoff and Laberge, 1973). This ease of acquisition lies, according to Sankoff and Laberge, in its "relatively limited vocabulary, relative few grammatical categories, and relative lack of grammatical complexity."

In this paper, I examine first, the overall pattern for transitivity in the language, based on tapes and transcripts of conver-

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sations and narratives by more than seventeen second-language and native speakers of Tok Pisin (collected by Sankoff and Laberge); second, the difference in the patterns exhibited by second-language speakers; and third, how best to explain the patterns observed.

In Tok Pisin, grammarians such as Laycock (1970), Mihalic (1971) and Wurm (1971) tell us, the relationship of transitivity may be expressed in a number of ways: the transitive verb may be suffixed by the marker *-lm*, it may be followed by the preposition *long* (in which case a more indirect relationship may be expressed), or a relatively small number of verbs may occur with no marker of transitivity at all. It is possible, in certain cases, to get a three-way distinction: *pait* 'to fight', *paitlm* 'to hit', *pait long* 'to hit at'. It is, however, also the case, and this is not mentioned in the above-cited works, that the transitive marker *-lm* may co-occur with the preposition *long*:

- (1) Na ml lusim long Nudul na igo kamap long Kero...
'And I LEFT Nudul and went up to Kero...'

The shades of meaning difference among these variations are not yet clear, extensive analysis of *-lm* and *long* having not yet been accomplished. It is possible to get the same interpretation (or at least the same translation) of the verb in the following sentence as of that in the sentence above:

- (2) ... pikinini bilong en em ilusim ples.
'... his child, she LEFT the place.'

It is not the purpose of this paper to concentrate on the different ways of expressing the verb-object relation. Rather I wish to concentrate for the most part on a study of presence versus absence of the object. In order to get a clear picture of the total distribution, however, I tabulated all verbs whose meanings indicate transitivity, whether they occurred

- a) with object following
- b) with object preceding
- c) with \emptyset object
- d) followed by *long* + object
- e) followed by a sentential object

The normal word order in Tok Pisin is SVO, though both subject and object may be omitted. Table 1 shows, then, the totals for all subjects in the five categories listed above. The corpus consisted of 725, let us say, verb phrases, in which the verbs might be said to have a semantic feature (+ transitive), i.e. the action described by the verb is directed at an object.

TABLE 1

Object follows V	Object precedes V	∅ Object	V followed by long+obj.	V followed by S obj.
411	21	242 ¹	36	15 ²

As can be seen from Table 1, both object preceding the verb and object following long occur relatively infrequently, and sentential objects least of all. Suffice it to say here that most instances of preposed object (and the order is then almost always OSV when the subject is expressed) are connected to the occurrence of a relative or other subordinate clause, e.g.,

- (3) Na pren bilong dispela, a blakfela plisn
 iputim ia, em i kirap na tok... (6-2/21)
 (ia marks relative clause)
'So this girlfriend of the one who had put on the black feather, started up and said...'
- (4) Na dispela meri ia, em ikisim igo na tupela
 istap nau... (10-1/27)
'And this woman, he went to get (her) and the two of them are here now...'

The patterning for long is less easily generalised, but may have the effect of establishing a certain distance between agent and object. Let us simply give a few examples:

- (5) ... mipela i no skul long inglis. (1-1/10)
'... we weren't educated in English.'
- (6) Na olgeta man ia ol iporet long guria na ol
 igo pinis. (5-5/20)
'And all the people were afraid of the earthquake and they had all left.'
- (7) ... tupela iwet long maunten na was long
 tupela pren bilong tupela igo. (6-1/11)
'... the two of them were waiting on the mountain and watching their two boyfriends coming.'

Object omission, however, occurs 242 times out of a total of 725, or 33% of the time (i.e., with a probability of .33). This is a significant pattern, and it is this phenomenon that we shall now examine.

When these figures are broken down into second-language versus native speakers, they appear as follows:

TABLE 2

	Total	ø Object
Second-language speakers	486	171
Native speakers	239	71

Here we see a difference between 35% object omission for the non-natives as against 30% for the natives. That is, those who speak Tok Pisin as their only language tend to delete objects less than those who speak it as a second language. They also use preposed objects (.013 vs. .04) and long (.017 vs. .065) less frequently than the second-language speakers.

However, these figures are somewhat misleading. While they reflect percentages of object deletion on the whole, they fail to relate to a rather important detail, which derives from the fact that human beings use language to communicate:

Only those objects can be deleted (with a few definable exceptions⁴) that have received prior mention in the speech event. Obviously, we need to know what we're talking about before we can allow ourselves the luxury of neglecting to mention it. In omitting an object, then, the speaker functions basically on an avoidance-of-the-obvious principle - which can be overridden for emphasis or when the communicative situation requires redundancy. In view of this, let us revise Tables 1 and 2 as follows:

TABLE 3

	Total # of cases where a possible object has been mentioned before	# of ø objects	%
Second-language speakers	250	171	68
Native speakers	121	71	59
Combined	371	242	65

The figures take an interesting percentage leap, though the relative deletion for the two groups remains roughly the same. The difference, though small, still points to the fact that the native speakers delete objects on fewer occasions than the second-language speakers. Add to this the fact that they also prepose objects less and use long + object less and the data indicate a greater reluctance on the part of first-

language speakers of Tok Pisin to depart from an SVO order with an expressed object.

How does this compare to linguists' claims about the development of a creole from a pidgin? Hymes (1971) cites "reliance on overt word order" as one of the characteristics of a pidgin and claims that "the heart of pidginization is a focus on words and their order in situational context."

Are our findings, then, incompatible with what would be expected in creolisation? We should bear in mind that we are comparing fluent second-language speakers with first generation native speakers. Any differences should reflect a tendency in the development of the language (unless we can ascribe them to sociological or psychological factors dependent on the age difference).

It appears that the younger speakers are taking more advantage of the information carried by overt word order than their elders. Why? Is this an example of the phenomenon noted by Dan Slobin (personal communication to G. Sankoff, cited in 1972a) that "children tend to use full forms much more frequently than do adults in utterances which can be realised as either full or contracted forms"? This is possible, though unlikely in the present context. More than half of our native-speaker examples come from speakers well into their teens, consequently to be grouped more with adults than with children.

What then is happening? The younger group speak much faster than their elders, consequently producing a great deal of morphophonemic reduction and loss of syllabic stress. This phenomenon is discussed in Sankoff and Laberge (1973), and is applicable here as well. A concomitant of this fluency is the frequent loss of necessary communicative information. In order to make up for such a loss, speakers often resort to redundancy, thus giving the hearer repeated chances at the necessary linguistic information. This is perhaps the case in our examples.

- (8) Mi go na, em i raunim mi na mi go lang hap,
mi lukim ol manmeri na mi tok: "Masalai
 raunim mi ia - tebel meri raunim mi." Mi
 tok oiosem na em raunim mi tuhat, na olgeta
 skin bilong mi guria. (19-1/23)

'I went and she chased me and I went to that place, and looked at the people and I said: "The spirits are chasing me - devil woman is chasing me." I talked thus and she chased me hard, too hot, and all my skin quivered.'

The need for redundancy is a possible explanation for the difference in performance of the two groups. Let us consider the variation and possible ways of characterising it.

The recognition of variable phenomena as an intrinsic part of language and the concomitant focus on linguistic variation in language study is a relatively recent development. Bickerton, who deals with variation in terms of implicational scales (1971, 1973), credits DeCamp, Labov, and C.J. Bailey with the parentage of a metatheory whose goal is the study of linguistic variation. Linguistic competence has been approached as a probabilistic rather than deterministic phenomenon in G. Sankoff (1972a, b), Sankoff and Laberge (1973), and Cedergren (1972, 1973). What all this work has in common, however, is a shift from shunting linguistic variation to "the periphery of language study" (Bickerton, 1973) and placing it in the centre of the stage.

The studies of variation have largely been concerned with phonological phenomena, or with grammatical phenomena in environments predominantly affected by phonological features or grammatical categories. In such cases, the investigator chooses the salient features or categories and proceeds to evaluate the effects of same, either in probabilistic or implicational terms.

In trying to apply this approach to the data of the current study, one immediately discovers that one is dealing with a different kind of variation here. The salient feature for possible omission of an object is the presence of a prior mention of that object. Except for the cases with tokim, harlm and wokim (see Note 4), that prior mention, or a complete obviousness from the situational context⁵, is an absolute prerequisite for omission of an object. Consequently we cannot look at object omission in terms of some Feature A, which is present sometimes, Feature B, which is present at other times, and Feature C, etc. Our salient feature is prior mention (or obviousness) and is always present.

Wherein does the variation lie, then? It must be found in the speaker's exploitation of the linguistic material intervening between the point of prior mention and the point of object omission or presence. What are the factors that enter into the speaker's decision?

In answering this, we should first consider a few, perhaps obvious characteristics of language and language use, which bear repeating here, in order to direct attention to them. Communication by language involves a minimum of two people, a speaker and a hearer. These people, as they are human beings, are possessed of two characteristics which concern us here: intelligence and laziness. Every speech event necessarily strikes the proper balance between these two qualities in order to be a successful act of communication.

The speaker, being lazy, seeks to go through the minimum number of articulatory movements necessary to get his message across. The hearer,

also no paragon of industriousness, would prefer maximum clarity, maximum redundancy, etc. -- in effect, all the things necessary to make his act of comprehension as easy as possible. Consequently, whenever a speaker reduces his efforts in one area of utterance production, he must increase them in another, hence, e.g., the increase in redundancy accompanying a more rapid pace of speech.

But we have attributed two characteristics to our language users. The other is human intelligence. What use do speaker-hearers make of this? It is often the case that the message intended to be conveyed is anything but obvious from the sound sequences uttered. Whenever there is a deviation from obvious sound-meaning correspondence, the speech event participants rely on human intelligence to bridge the gap.

This is also the case in the problem under discussion. I have said that prior mention is a prerequisite for object omission and that variation is centred in the intervening material. Let us take a look at this intervening material, and see what factors may be applied to it.

First, there is the matter of distance. How far away may the previous mention, henceforth antecedent, of an object be for that object to qualify for omission? Clearly not every prior mention in a narrative will allow for subsequent object omission. If we mention Little Red Riding Hood in the first paragraph and then use the pronoun *she* from that point on (which is how this phenomenon would have to work in English), we'd clearly run into difficulty once Grandmother comes on the scene. The difficulty is more obvious in Tok Pisin, where it is possible to omit the object without inserting a pronoun copy.

The data reveal no clear answer. For both groups of speakers, the distance between antecedent and omitted object may vary from a few words to several sentences:

Second language speakers:

- (9) "Yupela laitim wanpela pala na givim \emptyset mi." (6-5/11)
 "'You guys light a torch and give (it) to me.'"
- (10) Em pepa bilong en giamanim em ia. Em i yet wokim \emptyset
 na igo putim \emptyset long bokis bilong misis. (12-7/5)
 'That paper of his fooled her. He wrote (it) himself
 and went and put (it) in the missus' box.'
- (11) "Di, igat wanpela leta bilong yu, Ikam istap, yu kam
 kisim \emptyset ." "Nogat. Mi no save rit rait ia na yu yet
 lukim \emptyset ." Em giamanim misis olsem. Misis iritim \emptyset
 na itok ... (12-7/1)
 "'Di, a letter came for you, come get (it)."' "No. I
 don't know how to read and write, so you look (at it)
 yourself." He deceived the missus like that. Missus
 read (it) and said...'

Native speakers:

- (12) ...em lkisim rop nau, pasim ϕ long nait nau... (17-2/11c)
'... he got a rope, fastened (it) during the night...'
- (13) Em stori long tupela pinis nau, em, wonem, wokim supia
 na solm ϕ tupela. Long ol na slutum ϕ na wonem,
 ol isutim ϕ na yusim ϕ , holim ϕ gut. (16-2/16)
*'The story to the two finished then, she, uh,
 made a spear and showed (it) to the two of them.
 To them, and they shot (it), and used (it), held
 (it) good.'*
- (14) Ol i save kilim man nabaut. Yu no ken wokabout long
 nait. Ol kilim ϕ . (8-1/17)
*'They know how to kill men around here. Don't walk
 around at night. They kill (people).'*

It would be possible to write a probabilistic variable rule, or prepare an implicational scale with a) same sentence, b) preceding sentence, or c) more distant sentence, as the factors involved. Either of these methods would show that there is a certain relationship (probabilistic or implicational) between distance of antecedent and absence of object. But what would this explain? Very little, I claim, in the current case.

What is at issue here is not the amount of intervening material, but its nature. Once an object antecedent has been uttered, then another instance of that object is a candidate for omission -- as long as the connection with the antecedent has not been broken. In other words, if it is still clear what the object is, then it can be omitted.

In (9) and (12) above, it is clear that the deleted objects must have been *paia* and *rop* respectively. Nothing but *na* ('and') and the verb intervened. In (10) and (13) the omitted objects are not as easily identified, but with a little effort it becomes clear that *pepa* is what was "written and put in the box" and that *supia* is what was shown, shot, used and held. And so on, to the other examples. In (11), *leta* remains the topic of conversation; no potential object for the verbs *klisim* 'get', *lukim* 'look at' and *ritim* 'read' intervenes. In (14), it is perhaps more difficult to ascertain whether *man* or *yu* should be the object of the second *killim*. However, the previous relation established between *killim* and *man* and the absence of a future marker *ba* with the *killim* that follows the negative command lead one to infer that the killing of people (generic) is referred to again.

The importance of this established connection between omitted object and logical antecedent can be seen from a story told by one of the second-language speakers, which tells of the loss of a loin cloth under compromising circumstances. Much of the story concerns itself with the

hero's search for his missing piece of clothing. There are numerous occurrences of sentences like the following:

- (15) "Nogat, em istap, ml klism ø plnis." (6-5/20)
"No, it's here. I've found (it)."
- (16) Tasol em ipalnim ø yet, em istap as nating na,
 inogat malo bilong en. (6-5/23)
*'But he was still looking for (it), he was there
 naked, he didn't have his loin cloth.'*
- (17) Orait, em ipalnim ø yet. (6-6/2a)
'So he kept on looking for (it).'

where the omitted object is in each case the topic under discussion throughout most of the story -- and there is no possibility of misunderstanding, even though it may not have been specifically mentioned for some time prior to the nonoccurrence of the object.

Indicative that it is really a matter of the individual nouns and speakers involved in the individual contexts, and not a matter of structure or intervening NP in the abstract is the following pair of sentences. In (18) a possible antecedent intervenes and the speaker felt the need to repeat the object, while in (19) a possible antecedent intervenes but the speaker, relying on the intelligence factor in his hearer, felt no such need.

- (18) I no save long tokples bilong papa, i no save long
 tokples bilong ml tasol, tupela yusim Pidgin (antecedent)
 tasol. Pikinini i no inap long save long tokples
 (possible antecedent) bilong mama o papa bal yusim
 Pidgin (object), i ting tokples bilong mama tupela
 papa i long Pidgin. (1-4/12)
*'They don't know their father's language, or mine,
 so they just use Pidgin. Children who can't under-
 stand their mother's or father's language will just
 use Pidgin, they think Pidgin is their parents'
 native language.'*
- (19) Em mipela i bin skul long, mipela i bin skul long
tok Pisin (antecedent), long pastaim, mipela i no
 skul long Inglis (possible antecedent). Long
 wonem bipo ol Gieman ol i solm ø ol bikpela
 man bifo. (1-2/6)
*'We learned, we learned Pidgin in school, before,
 we weren't educated in English. Because the
 Germans had taught (it) (i.e., tok Pisin) to
 the adults before.'*

How, then, is this material to be dealt with in an analysis? Are we to use a variable rule or an implicational scale to describe the facts? They do describe some of the facts, and make certain predictions as to the pattern of the language, both certainly useful features of a linguistic analysis.

It would seem, however, that these methods, while providing part of the picture of object presence versus absence, fail in this case to offer the desired explanation for the phenomena they describe. A variable rule could indicate the probability with which

a) second-language speakers would delete an object that has previously been mentioned or is obvious from context -- we have the probability .68 from Table 3. This could be subdivided for the factors

- 1) the antecedent is in the same sentence
- 2) the antecedent is in the preceding sentence
- 3) the antecedent is further removed

b) native speakers would delete the same object -- probability .59 from Table 3 -- or further, under conditions 1), 2) and 3).

We might also write a variable rule for object omission that would indicate the probability of an NP intervening between antecedent and omitted object, or even the probability that an intervening NP would be a possible antecedent, and thus might affect the application of the rule. We could have two groups of speakers, our second-language speakers and our new generation of native speakers of Tok Pisin, each exhibiting different probabilities with respect to the rules.

But an analysis of this phenomenon in Tok Pisin would be incomplete, I feel, without a statement regarding the relationship between NPs, the effect of what we may perhaps best call an inferential strategy: that having focused his attention on a particular object NP, the hearer will continue to refer to it, so long as his intelligence deems it applicable and not contra-indicated by any other portion of the utterance.

Such a strategy would, of course, govern the possible omission of an object NP. It would place no constraint on the speaker who wishes to repeat an object NP even though it was an antecedent and would thus qualify for omission.

Let us review the environment and conditions for object presence vs. absence to see how they can best be characterised and what there is about the facts that will help provide an explanation of the observed linguistic behaviour.

- 1) There must be an antecedent NP, referring to the same entity as the potential omitted object, or the situational context must make it perfectly clear who or what the object is.

An example of the latter from Note 5:

Maski i ken holim ... Em!

'The boy can hold (it) ... Here!' -- as

the speaker hands him the baby.

- 2) The connection between the action (i.e., successive verbs) and a particular object must be maintained. This can be achieved
 - a) when the antecedent is immediately adjacent
 - b) when, although there are intervening NPs, they do not constitute possible objects (semantically) for the verb in question.
 - c) when an intervening NP (or NPs), though a possible object for the verb, is ruled out by the context, i.e., it is not a likely antecedent.

You will recall that distance between the antecedent and the point of object omission played no significant role for either group of speakers (Examples 9-14) and that the established topic of conversation can remain an understood object over considerable linguistic distance (Examples 15-17).

Leaving aside for the present the difficulties inherent in trying to define the notion "likely antecedent" - and they are great -- let's take a brief look at cases in which conditions 1) and 2) are met. Can we then predict whether an object will be expressed or omitted?

We would expect the following tendencies:

- 1) an object is expressed when there is a likely antecedent intervening between it and its antecedent;
 - 2) an object may or may not be expressed when unlikely candidates intervene;
 - 3) an object is omitted when there is no intervening NP.
- A partial count of the data reveals a strong tendency to 1), a 50-50 reaction to 2), and a tendency, though not so strong as that for 1), toward 3).

But can we make any systematic prediction? In particular, can we formalise a meaningful rule to account for the variation? I claim that we cannot. It is true that for many of the cases where an object was expressed when no NP intervened between it and its antecedent, I can offer reasonable explanations why the speaker resorted to redundancy -- explanations like the following:

- a) the re-expression of the object contained additional semantic information

(20) Em il, tupela meri ilap na tupela em ilukim na
 isem na, senesim dispela gras plsin igo long
narapela ... Mm, trikim wantok bilang en. (6-2/9)

*'They, the two girls were laughing and he saw the
 two of them and was ashamed and exchanged his
 feather with THE OTHER ONE ... Yeah, tricked HIS FRIEND.'*

- (21) Olsem ol ledi, ledi long kako na, taim ol i wokabout igo na ologeta samting ol i kalim igo finis. (5-1/4)

'So they got ready, they got ready their SUPPLIES (belongings) and then they walked off and took EVERYTHING away.'

- b) the antecedent was only half uttered

- (22) Mipela igo suim igo na lukim ol karim ka-, ol igo wet long gurla igo nogat na, ol ikalim kako na ol ikam bek gen. (5-5/7)

'We had gone to swim and we saw them carrying belong(ings) - they had gone to wait for the earthquake so, they were carrying their BELONGINGS and coming back.'

- c) the object was re-expressed after a string of omissions of that same object, to re-emphasise.
 d) the object was the subject of the preceding S, and needed to be brought into the object role.
 e) the immediate antecedent was a pronoun, and the hearer may have lost track
 f) there was a change in speaker

To these may be added a point made above, that the native speakers spoke very rapidly and that this speed and phonological reduction may very well be a condition for redundancy.

From the communicative point of view, these are all reasonable linguistic motivations for redundancy. But they can be generalised in a vague way only. And the generalisation -- the tendencies I mentioned above and which I have called an inferential strategy -- can always be modified by the immediate situation and the particular speaker(s) and hearer(s) involved. If you recall the near-minimal pair included as (18) and (19) you can see that the employment of such a strategy remains subjective. It is the speaker's assessment of the communicative situation -- with due consideration not only to the clues given in the linguistic and non-linguistic context, but also to the inferential powers of his hearer -- that will favour a realisation or non-realisation of this particular, and no doubt many another, instance of linguistic behaviour.

Consequently, I think it is meaningful to talk about strategies of inference that are used by speakers and that it is something like them -- and reasonable violations thereof -- that will point us at an explanation of linguistic behaviour. The variable rule -- if it can be written at all in such a case -- remains a device of description, not explanation.

N O T E S

1. Included here are six instances of verb + olosem, which appear to have an omitted object. In each of these cases, however, the antecedent is unidentifiable, and it may be that olosem should be considered an object in Tok Pisin, rather than an adverbial. The percentage is, however, so small that it will not significantly affect the data herein discussed.

2. Includes six cases where the sentential object begins with an NP (Numbers 15, 17, 96, 140, 636, 644).

3. See in this regard Gillian Sankoff's paper given at the International Conference on Pidgins and Creoles 1975: "The Origins of Syntax in Discourse: Some Evidence from Tok Pisin."

4. Certain verbs describing the communicative act, specifically tokim 'say' and harim 'hear, understand', usually occur in the texts used here with no object and no antecedent, there is only one case of tokim with an object:

- (a) Bikpela man nau, em itok, em tokim tupela stori
long pik ia ... (16-2/14)
*'The big man, he spoke, he told the two of them
the story of the pig ...'*

And eight of harim, with a language object, as in

- (b) Wonem, ol i no harim tok ples ... (1-8/5)
*'You know, they don't understand tok ples (i.e.,
the native language).'*
- (c) "Yu harim sampela tok?" (7-9/4)
"Did you hear any news (talk)?"

Harim also occurs five times with no object, but where an antecedent is identifiable, as in

- (d) "Sarap, yu no ken tok ples, yu tok Pisin na mi harim." (1-6/5)

"Shut up. You don't talk your language. You talk Pidgin for me to understand."

In each of these the antecedent is a language. Also occurring regularly without an object and without identifiable antecedent is the verb wokim, used as a general verb of activity, akin to do in English.

5. A few cases have neither object nor expressed antecedent, but it is perfectly clear from the linguistic or extra-linguistic context what the missing object is.

Example:

- (e) Nau, wonem, wanpela taim nau em bonim, wonem, em karim tupela pikinini boy ... (16-2/6)

'Now, once now, she gave birth, ah, she carried two boy children ...'

It is obvious that she gave birth to offspring and just in case you weren't sure, the next clause tells how many.

- (f) Tok, "Oh, tupela bagarapim." (13-2/12)

'He said, "Oh, the two of them messed up everything."

The context has just made clear what-all the boys have done, and this despairing comment is much more effective without the re-enumeration.

- (g) Maski i ken holim ... Em! (5-7/2)

'Never mind, he can hold (it) ... Here!' -- as she hands him the baby.

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