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SERIAL VERBS IN THE CREOLE LANGUAGES¹

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In many Creole languages we find constructions such as the following:

- (1) am a flieg lo (NEGERHOLLANDS)
he ASP fly go
'he flew away'
- (2) çhaché zwazo yo bâ mwê (HAITIAN)
get 'bird PL give me
'get the birds for me'

This type of verb concatenation is commonly referred to as serialization.

Ever since Schuchardt pointed out that the serial verb constructions occurring in some West African languages are shared by the Creole languages of the Caribbean, they have been recognized as one of the focal points in the study of Creole syntax (Meijer & Muysken, 1977: 33).

A number of recent articles (Williams, 1972; Givón, 1974; Huttar, 1975; Roberts, 1975; Voorhoeve, 1975) have been trying to deal with two central questions:

- (a) What is the relationship between the serial verb constructions in the Creoles and in the West African languages?
- (b) What is the syntactic structure of the serial verbs in the Creole languages?

In this paper, both questions are discussed. After trying to give a tentative working definition of what may be a serial verb, the results will be presented of a survey of a number of Creole languages as to verb serialization.

Following a discussion of the implications of the survey data for the monogenetic vs. polygenetic controversies, verb serialization in the West African languages will be discussed briefly, and the problem of substratum influence. Then the ground will have been prepared for the question of the structure of the serial verbs in the Creole languages, which will be dealt with in detail on the basis of Sranan data.

1. Rough working definition

Serial verb constructions are constructions which:

- (a) contain only one overt subject, and more than one verb;
- (b) contain no overt conjunctions or complementizers;

A further characteristic of serial constructions is that:

- (c) if one of the verbs in the construction serves as an auxiliary or a modal auxiliary to another verb, it is not a serial construction;
- (d) if one verb serves as an infinitive complement to another verb, it is not a case of serialization;
- (e) often there is in the construction one "lexical" verb, selected from a large class, and one or more "grammatical" verbs, selected from a very limited, closed class.

Some examples of how to apply these criteria will be given using Jamaican Creole data (Bailey, 1966). We would like to say, on the basis of criterion (b), that (3) is not a serial construction, since it contains an 'and':

- (3) im faaldong an brok im fut
'he/she fell and broke his/her leg'

Similarly, (4) is not a serial construction since it contains the complementizer fi 'for ... to':

- (4) im waan fi go
'he/she wants to go'

By criteria (c) and (d) we want to exclude modal and true auxiliaries from the discussion, as in sentence (5):

- (5) Jan wuda hafi ron
'John would have to run'

These criteria are a little harder to apply, but a useful distinction may be made as follows:

- (f) the configuration V NP V NP is indicative of serialization;
(g) in the configuration $V_1 V_2 \dots V_{n-1} V_n$, only V_1 can be the "lexical" verb in serial constructions, and only V_n in infinitival complements or constructions with modal auxiliaries.

More examples of serial constructions will be presented in the next section.

An important question to answer is: when is there any basis to assume that we are dealing with a verb at all? Here the simple criterion has been applied of lexical origin, since Creole languages do not distinguish verbs morphologically. If the item is a verb in the European lexifier language, we may assume that it is in the Creole language as well.

Thus, for instance, Haitian Creole sifi 'be enough' is regarded as a verb since in French there is a verb suffire 'be enough'. Similarly, Sranan gi 'give, for' is included in the survey since it corresponds to English give.

Although this criterium might seem ad hoc, it has some initial plausibility if we take the original relexification process into account, in which items in an African language (or possibly in some intermediary pidgin) were replaced by the corresponding European item. There is no reason to assume that give was selected for purely semantic reasons: in the English of the relevant period, both the prepositions to and for were available to express dative and benefactive.

It is possible, of course, that in the development of the Creole, a given element has lost its verbal status, as will be pointed out in the next section.

2. A Survey

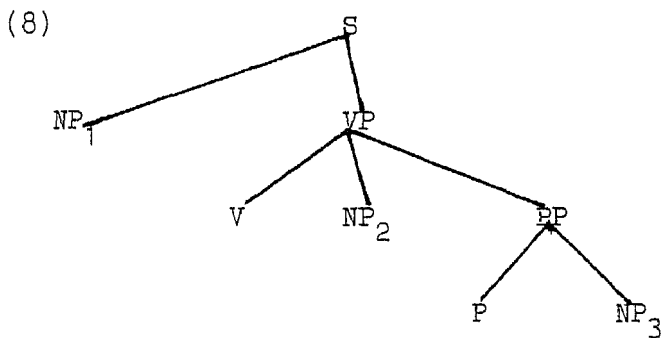
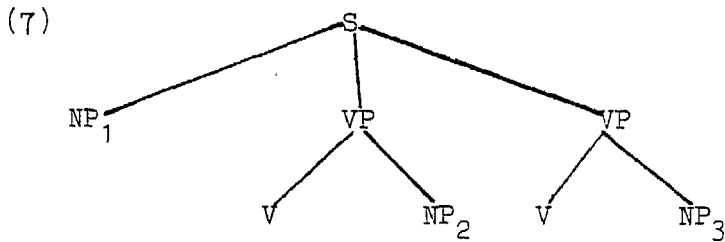
The following section will present the result of a survey made of a number of Creole languages. It is based almost entirely on texts and written descriptions of those languages.

We found that the serial constructions differ markedly in their distribution across languages. The directional was found to be very frequent, while e.g. the locative hardly occurred at all. Although the survey will have to be corrected and amended on many points of detail, we hope (and will assume) that on the whole the results stand. A question about which we have no clear ideas at all is whether the grammatical status of the serial constructions is the same in different languages.

Thus, for instance, the lexical item give in a construction such as:

(6) NP₁ 'buy' NP₂ 'give' NP₃

which occurs in several different Creole languages, may have either a verbal or a prepositional character. Therefore (6) could be assigned either structure (7) or (8), to take just two of the possibilities.



It may well be the case that in one language (6) should be assigned structure (7), and in the other, structure (8). And so on and so forth. A detailed analysis will have to be made for each individual language to establish its precise structure. We will make a beginning of this for Sranan in the second part of this paper.

The interest of the survey is primarily a historical one. It provides us with a partial basis for evaluating different theories accounting for the genesis of the Creole languages.

(INSERT SURVEY CHART HERE)

3. The Substratum problem and Mongogenesis

There are several Creole languages in which none of the serial constructions occur; among this group is Philippine Creole Spanish, Mauritian Creole, and S n gal Portuguese Creole.

This suggests that substratum influence played a central part in the emergence of the serial constructions in the Creole languages: only those languages with a direct Kwa substratum evidence serialization and a language such as S n gal Creol shows a Fula and Wolof substratum, not a Kwa substratum. In fact, it appears that within the Kwa group, the distinction can be made between those languages that possess serial constructions with a verb like take, and those that don't. In the Creole languages, the same distinction can be made. (Although it may be the case that particular Creole languages which originally possessed serial constructions with take, have lost this construction) (cf. Hyman, 1975: 140 - 141).

The list of both types is as follows:

Kwa languages with take:

Akan
Nupe
Yoruba
Yatye
Twi
Ewe
Igbo
etc.

Creoles with take:

Krio
Sranan
Jamaican
Gullah
'Guyanais
Saramaccan
etc.

Kwa languages without take:

Gwari
Kru

Creoles without take:

Haitian
Sao Tomé
Príncipe
Negerhollands
Papiamentu
etc.

Thus we find three groups:

- (1) Creoles without any serial verbs;
- (2) Creoles with serial verbs, but without the take construction;
- (3) Creoles with serial verbs, including the take construction.

Besides, we find many individual differences between the particular serial verb constructions available in groups (2) and (3).

This distribution has important consequences for the monogenetic hypothesis. A first possibility is that West African Portuguese Pidgin (WAPP), the hypothetical ancestor of many Creole languages, was so limited that it did not express grammatical relations in a consistent manner, and serial verbs developed later on the basis of substrata available in the individual Creoles. A second possibility is that WAPP did not exist at all as the ancestor to many of the present Creole languages. In any case, the question of whether WAPP existed or not becomes trivial.

There appears to be a rather close connection between the degree in which a given Creole language is a serializing language and its stage of decreolization. Thus the first six Creoles in the chart, with the widest variety of serial constructions, have not developed a post-creole continuum. Of course the results presented here are not entirely reliable since various Creoles mentioned, such as Príncipe, Saramaccan and Guyanais Creole, have not been studied in enough detail even for the survey made here. They may well have to be ranked higher on the scale. Papiamentu, which has not so far developed a post-creole continuum, presents a problem for the hypothetical correlation.

Thus it appears that the implication only goes in one direction. If a language shows a large variety of serial constructions a post-creole continuum is absent. The converse is not the case.

The major exception to the claim that serialization in the Creole languages must be due to the Kwa substratum influence is Tok Pisin. While Tok Pisin is linked fairly closely to other Pacific English Pidgins such as Samoan Plantation English (Mühlhäusler, 1976), and maybe indirectly to Chinese Pidgin, it would be untenable to claim Kwa substratum for Tok Pisin via some form of WAPP. A major reason is that, as was seen just now, WAPP could not possibly have been structured and complex enough to transfer Kwa features to the Creole languages.

Thus Tok Pisin serialization, which appears to be widespread, must be due either to universal features of creolization or to New Guinea substratum influences. Since the issue of Tok Pisin substratum influences is an exceedingly complex one (due to the large number of contributing languages), we will leave this matter for further study.

Perhaps we should not ask ourselves why some Kwa serial constructions were lost in the Creole languages, but why they were maintained at all, considering that so many of the features of the Kwa languages and other West African languages were not transferred to the Creoles. Thus the simple question of substratum becomes a complicated one: why were some forms maintained and others lost?

The survival issue is probably a very complex one. Almost certainly, constructions which are crucially dependent upon complex morphology do not survive, since the process of pidginization and subsequent creolization implies the morphological reduction of both the substratum and target languages.

Probably, the factor of markedness also plays a part. Marked constructions disappear, unmarked constructions may survive. Voorhoeve (1975) hints at the possibility that serialization appears in the Creole languages because of its maximally unmarked character, not particularly because of the Kwa substratum in the Creoles. An intermediate hypothesis would be that serialization survived the process of pidginization / creolization due to its unmarked character.

But what evidence do we have that serializing constructions represent the unmarked case? None, possibly. On the contrary, at least two facts would suggest that serial constructions represent the marked case:

(a) The fact that they appear to be relatively rare among the languages of the world (we write 'appear to be' since no systematic research has been done on this issue);

(b) the fact that in those languages where they do occur, they are highly unstable (Li & Thompson (1974) for Chinese, Lord (1973) for Kwa languages, Maysken (1977) for Quechua), and tend to evolve into non-serial constructions.

Thus we may be left with the rather paradoxical fact that the serial constructions have survived in spite of their being marked. This leaves the problem of Tok Pisin and its frequent serialization out of consideration.

SURVEY CHART

- | | |
|--|--|
| (a) E-l-a bula bay (PAP)
He ASP fly go
He flied away | (b) A waka go a wosu (SAR)
He walk go at house
He walked home |
| (c) Li poté sa bay mó (GUY)
He brought that give me
He brought that for me | (d) Fan som fligi gi mi (NEGERH)
Catch some flies give me
Catch some flies for me |
| (e) Rima m; maysh f;rti pasa mi (PRIN)
Brother my more strong pass me
My brother is stronger than I am | (f) Li pli grâ pasé mwê (HAIT)
He bigger pass me
He is bigger than I am |
| (g) A brin di kasada kam na os (XRIO)
I bring the cassava come LOC house
I brought the cassava to the house | (h) Ou té-môté vin Fisi (HAIT)
You PAST come up come Furey
You came up to Furey |
| (i) Kofi kibiri wan sani gi Gado (SR)
Kofi hide something give God
Kofi hid something for God | (j) E fa da i'ne (ST)
He talk give them
He talked to them |
| (k) Jan ena fait nek im kluoz tieraf (JA)
John PAST PROG fight make his clothes tear off
John's clothes are torn because he was fighting | |
| (l) I t; k (s) tik kil am (GUL)
He take stick kill them
He killed them with a stick | (m) Di man tek di tik bit di bobo (KR)
The man take the stick beat the boy
The man beats the boy with the stick |
| (n) Kofi sabi taki a tru (SR)
Kofi know say it true
Kofi knows that it is true | (o) Mi miin se yu fi go (JA)
I mean say you must go
I mean that you must go |
| (p) Kofi njam en kaba (SR)
Kofi ate it finish
Kofi ate it already | (q) Afta mi wash don, mi wi shuc yu.. (JA)
After I wash done, I FUT show you..
After I've finished washing, I'll.. |
| (r) Kofi teki en sisa go bay krosi (SR)
Kofi take his sister go buy clothes
Kofi bought clothes with the help of
his sister | (s) D; m go in t; k am go bak (GUL)
They go take him go back
They are going back in company with |
| (t) Kofi teki skropu tja go na abrasey (SR)
Kofi take shells carried went to overside
Kofi brought shells to the other side (of the road) | |
| (u) E 'bila ba 'tl; ga 'sukli (ST)
He return go hand over sugar
He returned the sugar | |
| (v) Mwê pa-té g; gné you gros f; sifi poum té réponsable you family (HAIT)
I not PAST have a big fund suffice for me PAST responsible a family
I don 't have money enough to be responsible for a family | |

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Sranan (SR)	X	X	?	X	X
Krio (KR)	X	X	X	X	X
Haitian (HAIT)	X	X	X	X	X
Tok Pisin (TP)	X	X		X	
Sao Tomé (ST)	X	X			X
Saramaccan (SAR)	X	X	X	X	
Jamaican (JA)	X				
Principe (PRIN)	X	X	X		X
Gullah (GUL)	X		X		
Guyanais (GUY)		X	X	X	
Negerhollands (NEGERH)	X	X		X	
Papiamentu (PAP)	X				
Mauritian					
Sénégal Kriol					

DIRECTION AWAY / go

BENEFACTIVE / give

MORE THAN / pass

DIRECTION TOWARDS / come

CATIVE / give

CAUSATIVE / make

X X X X X

INSTRUMENTAL / take

X X X X X

COMPLEMENTIZER / say

X X X X X

PERFECTIVE / done / finish

X X X X X

COMITATIVE / take

X X X X X

DIRECT OBJECT / take

X X X X ?

ITERATIVE / return

X

ENOUGH / suffice

X

Sranan (SR)

Krio (KR)

Haitian (HAIT)

X

Tok Pisin (TP)

X

Sao Tomé (ST)

X

Saramaccan (SAR)

Jamaican (JA)

Principe (PRIN)

Gullah (GUL)

Guyanais (GUY)

Negerhollands (NEGERH)

Papiamentu (PAP)

Mauritian

Sénégal Kriol

LOCATIVE / be

(w) Em i gat kon i stap (TP)
He PART has corn PART stay
It has corn on it

TOO MUCH / pass

(x) N-kum pa'sa (ST)
I eat pass
I ate too much

AROUND / surround

(y) Gê bwa âtouré kay-la (HAIT)
Have wood surround house the
There is a wood around the house

CONTINUATIVE / be

(z) Em i harim i stap (TP)
He PART hear PART stay
She was listening

X

PART TWO : THE STRUCTURE OF SERIAL VERBS IN SRANAN

5. Introduction.

In some Creole languages we have morphological evidence bearing on the problem of the verbal status of the serial elements. In Sao Tomé, for example, the personal pronoun is marked for case, and in the 1sg pronoun there is an overt distinction between the pronoun when it is governed by a verb and when it is governed by a preposition:

- (9) bí ku amí 'come with me'
 bô mandá mu 'you send me'

With serial da 'give' in Sao Tomé we find the objective, and not the oblique pronoun:

- (10) komplá sapé da mu 'buy a hat for me'
 buy hat give me
 (11) e fa da mu 'he talked to me'
 he talk give me

Quite obviously this is evidence for the verbal status of da 'give,for', even though da can not only be used to express benefactive, but also dative.

In many cases however, there is no morphological evidence available, and we must rely on syntactic evidence. This we will do for Sranan.

We will contrast serial verb constructions (SVC) with Prepositional Phrases (PP's), as to their behavior in wh-questions, relative clauses, topicalized clauses and emphatic predicate cleft constructions. First we will present a brief scetch of these constructions and give a preliminary account for them.

Then we will contrast PP's with SVC, where we will limit ourselves to some of the serial verbs, since the overall picture turns out to be highly complex and needs more thorough investigation. We will attempt to determine their syntactic status. Finally we will discuss some possible analyses for these constructions.

We will adopt the framework of the EST, in particular Chomsky (1975, 1977). In Chomsky (1977), a uniform analysis for e.g. wh-questions, relative clauses and topicalization is presented in terms of wh-movement, since these constructions show many similarities.

Thus we find the following derivations for wh-questions:

- (12) [_S [_S John eats what]] ==> [[_S what [_S does John eat ___?]]]

and for relative clauses:

- (13) ... the woman [[_S [[_S John saw [wh]]]] ==> [[_S who [_S John saw ___]]]

We will adopt the diagnostic criteria for wh-movement as proposed in Chomsky (1977):

- (i) it leaves a gap;
- (ii) where there is a bridge, i.e. where it applies across S-boundaries, there is an apparent violation of subadjacency, the Propositional Island Constraint, and the Specified Subject Constraint;
- (iii) it observes the Complex Noun Phrase Constraint;
- (iv) it observes the wh-island constraints.

We will use these criteria to see whether wh-movement is involved in Sranan wh-questions, relative clauses and topicalized sentences.

6. Wh-questions

In Sranan direct and indirect questions are formed by fronting the questioned element.

Sranan has the following interrogative pronouns:

- | | | |
|------|-------------------|---------|
| (14) | suma ² | 'who' |
| | san | 'what' |
| | pe | 'where' |
| | fa | 'how' |
| | etc. | |

Thus we find the following direct questions:

- | | | | |
|------|-------------------------------------|--|------------------------------------|
| (15) | <u>suma</u> e go na foto? | | |
| | who ASP go to town | | 'who is going to the town?' |
| (16) | <u>san</u> den fisi nyam ____ ? | | |
| | what the fish eat | | 'what do the fish eat?' |
| (17) | <u>suma</u> Meri gi ____ wan kado ? | | |
| | who Mary give a present | | 'to whom did Mary give a present?' |

and indirect questions:

- | | | | |
|------|--|--|---|
| (18) | Meri aksi <u>suma</u> ____ e go na foto | | |
| | Mary ask who ASP go to Paramaribo | | 'Mary asked who is going to Paramaribo' |
| (19) | Roy aksi ensefri <u>san</u> fisi nyam ____ | | |
| | Roy ask himself what fish eat | | 'Roy wondered what fish eat' |
| (20) | mi e verteri <u>suma</u> mi ben gi ____ a buku | | |
| | I ASP tell who I TNS give the book | | 'I'm telling to whom I have given the book' |

In these examples we find the questioned subject, direct object, or indirect object to the left of the clause. Furthermore we find a gap on its normal position.

When we question PP's, the pattern turns out to be more complex. All PP's can occur in front of the clause, with a gap on their normal position, as shown in the examples (21) - (23). In these cases fronting is obligatory.

- | | | | |
|------|--|--|---|
| (21) | <u>nanga san</u> a pikin e pre ____ ? | | |
| | with what the child ASP play | | 'with what does the child play' |
| (22) | <u>foe suma</u> Meri e bai bromki ____ ? | | |
| | from who Mary ASP buy flowers | | 'from whom does Mary buy flowers' |
| (23) | <u>abra san</u> joe waka ____ ? | | |
| | over what you walk | | 'on the other side of what did you walk?' |

We can also find the pronoun pe which replaces a whole PP:

- | | | | |
|------|-------------------------|--|----------------------|
| (24) | <u>pe</u> a e go ____ ? | | |
| | where he ASP go | | 'where is he going?' |

For at least one preposition (tapoe 'on'), the PP can be fronted, or the preposition can optionally be left behind:

- (25) tap san joe e sidon _____ ?
on what you ASP sit
'on what do you sit'
- (26) pe joe e sidon na tapoe _____ ?
where you ASP sit on
'what do you sit on?'

We can't get (27):

- (27) *pe tap joe e sidon
where on you ASP sit

We would like to make some remarks about the cases where tapoe stays behind:

1. It is the pro-PP pronoun pe which shows up, and not the pronoun san or suma:

- (28) *san wi e waktu na tapoe _____ ?
what we ASP wait on
'where are we waiting for?'
- (29) *suma joe e reken na tapoe _____ ?
who you ASP count on
'who do you count on?'

2. In fact, we are dealing with a compound preposition na tapoe, where na can be deleted under some conditions. Na, however, is obligatory when we question or pronominalize the NP, as illustrated by (26) and (30):

- (30 a) a e sidon (na) tap a sturu
he ASP sit on the chair
'he sits on the chair'
- (b) a e sidon na en tapoe
he ASP sit it on
'he sits on it'
- (c) *a e sidon en tapoe
he ASP sit it on

Concluding, we may say that, disregarding the special case of na tapoe, PP's have to be fronted in wh-questions.

Let's return to the question of whether wh-movement is involved in wh-questions.

As to criterium (i) we can conclude that it leaves a gap. The fronting of the wh-element can occur across S-boundaries, without violating the Tensed-S (31) and the Specified Subject Constraint (32). This conforms to criterium (ii):

- (31) pe Kofi taki a ben go _____ ?
where Kofi say he TNS go
'where did John say that he had been?'
- (32) san joe e bribi a e taki Meri nyam _____ ?
what you ASP believe she ASP say Mary eat
'what do you believe that she said that Mary ate?'

A wh-element can't be fronted out of a Complex Noun Phrase (criterium (iii)):

(33a) Meri verteri a tori taki a bai brompki gi en m'ma
 Mary tell the story that she buy flower give her mother
 'Mary told the story that she bought flowers for her mother'

(b) * san Mèri verteri a tory taki a bai ___ gi en m'ma
 what Mary tell the story that she buy ___ give her mother

A wh-element can't be fronted out of a wh-island (criterium iv):

(34) * suma Roy aski ensefri san ___ nyam
 who Roy ask himself what eat

Thus we may conclude that the facts for wh-questions conform to the diagnostic criteria for wh-movement, and we will assume that wh-movement is involved in question formation.

7. Relative clause formation

Relative clauses can be introduced by san (or by die, the Dutch relative pronoun, which seems to be replacing san), or by pe. The latter appears when a locative PP is relativized.

The following examples show that when a subject, direct object, or indirect object is relativized, we find a gap in the relative clause:

(35) a oso san ___ e k'napoe, dape bigi
 the house that ASP stand there big
 'the house standing over there is big'

(36) den man san ___ e waka dape go na Paramaribo
 the man that ASP walk there go to Paramaribo
 'the man walking over there went to Paramaribo'

(37) a pikin san mi gi ___ wan buku no ben lesi en
 the child that I give a book not ASP read it
 'the child to whom I gave a book has not read it'

In the case of relativized PP's, almost the same pattern occurs as in wh-questions: All PP's can be fronted, in which case we find the P followed by the wh-pronoun:

(38) Meri e teki a nefe nanga san a e koti a brede ___
 Mary ASP take the knife with wh she ASP cut the bread
 'Mary takes the knife with which she cuts the bread'

(39) mi .sabi den man over suma joe e taki ___
 I know the man of whom you ASP talk
 'I know the man about whom you are talking'

(40) a e si foe suma a bai brompki ___
 he ASP see for whom he buy flower
 'he sees for whom he bought flowers'

It is impossible to leave these prepositions stranded:

(41) * .. a nefe san a e koti a brede nanga ___

(42) * .. den man suma joe e taki over ___

(43) * .. suma a e bai brompki foe ___

Again, there are two possibilities in the case of tapoe 'on': the whole PP can be fronted, and tapoe can optionally be left behind. We find the following paradigm:

(44) a sturu tapoe san joe e sidon ___ broko
 the chair on which you ASP sit broken
 'the chair on which you are sitting is broken'

- (45a) ... pe na tapoe ...
 b) * ... pe na en tapoe ...
 c) ... san na en tapoe ...
 d) * ... san na tapoe ...

From these examples we may conclude that when pe 'where' introduces the relative clause, we must have a gap, and the pronominal element en 'it, him, her' can not show up. When san introduces a clause in which tapoe is relativized, en must show up. With tapoe the same difficulties occur as in the case of wh-question formation. Locative PP's in Sranan merit much further study.

Let us return to the question of whether wh-movement is involved in relative clause formation. Apart from the case of tapoe, there is always a gap. As to Chomsky's criterium (ii), we see that when there is a bridge, subjacency is violated:

(46) a meti Meri e bribi taki den pikin ben nyam ___
 the meat Mary ASP believe that the child TNS eat
 'the meat Mary believes that the children have eaten ...'

It also observes the Complex Noun Phrase Constraint (criterium iii):

(47) * a meti Meri e verteri a tori taki den pikin ben nyam ___
 the meat Mary ASP tell the story that the children TNS eat

Similarly, in the case of the wh-island constraint.

Concluding, we may state that, if the problem of tapoe can be resolved, a coherent account of relative clause formation can be given in terms of wh-movement.

8. Topicalization

We did not make a detailed analysis of topicalization. Therefore we will only present some cases relevant to the subject of this article.

We find the topicalized element in front of the sentence, optionally preceded by na or a. We maintain here the traditional spelling of the introducer element, although in actual speech it is often reduced to a or left out altogether.

Thus we find:

(48) na Kófi ___ teki a buku gi mi
 is Kofi take the book give me
 'it is Kofi that took the book for me'

(49) na a búku Kofi teki ___ gi mi
 is the book Kofi take give me
 'it is the book that Kofi took for me'

(50) na Kófi mi gi ___ wan buku
 is Kofi I give a book
 'it is Kofi I give a book'

When a subject, object, or indirect object is topicalized, we find a gap in its normal position, and no overt complementizer. For PP's we find the following pattern:

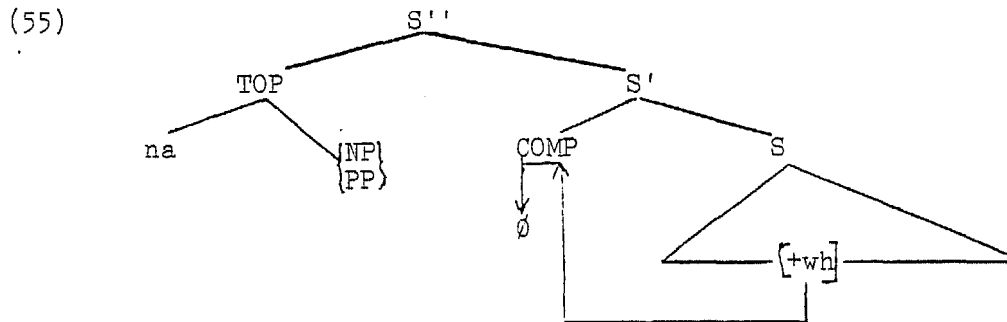
- (51) na nanga wan gon Jan kiri a sneki _____
 is with a gun Jan kill the snake
 'it is with a gun that John killed the snake'
- (52) na foe mi Kofi tjari den brompki _____
 is for me Kofi carry the flowers
 'it is for me that Kofi brought the flowers'

In the case of tapoe we find:

- (53) na tap a stury mi e sidon _____
 is on the chair I ASP sit
 'it is on the chair that I am sitting'
- (54) * na a stury mi e sidon na tapoe _____
 is the chair I ASP sit on
 'it is the chair that I am sitting on'

Thus, although tapoe can stay behind in relative clauses and in wh-questions, this is not the case in topicalized sentences.

Here again, we will adopt Chomsky's analysis of Topicalization, where the topicalized element is base generated under the TOP-node, the corresponding element is moved into COMP by wh-movement, and then deleted:



9. Emphatic predicate cleft

In Sranan, we find, as well as in several West-African languages and in other Caribbean Creole languages, a construction in which a verb or an adjective is preceded by na and followed by a full sentence with an identical verb or adjective. Examples of an emphatic verb are shown in (56) and (57), an example of an emphatic adjective in (58).

- (56) na teki Kofi e teki a buku gi mi
 is take Kofi ASP take the book for me
 'Kofi really takes the book for me'
- (57) na go a e go na Paramaribo
 is go he ASP go to Paramaribo
 'he is going to Paramaribo'
- (58) na moi a e moi
 is beautiful it ASP beautiful
 'it is really beautiful'

The verb following na can't get aspect-or tense markers:

- (59) * na e teki Kofi e teki a buku gi mi
 it ASP take Kofi ASP take the book for me
 'Kofi is really taking the book for me'
- (60) * na ben go mi ben go na Paramaribo
 is TNS go I TNS go to Paramaribo
 'I have really gone to Paramaribo'

It can be preceded by the negator no, but then no cannot precede the second verb:

- (61) na no teki Kofi ben teki a buku gi mi
is not take Kofi TNS take the book for me
'Kofi had not taken the book for me'
- (62) * na no teki Kofi no teki a buku gi mi
is not take Kofi not take the book for me

We can't find a VP in this position:

- (63) * na teki a buku Kofi e teki a buku gi mi
is take the book Kofi ASP take the book for me

In the case of a 'complex VP', we can front either of the verbs:

- (64) a go luku
he go look
'he went to look'
- (65) na go a go luku
is go he ge look
'he really went and looked'
- (66) na luku a go luku
is look he go look
'he went and really looked'

or both verbs:

- (67) na go luku mi go luku
is go look I go look
'I really went to look'

However, it appears that we cannot have any verb in this position, although we must be very careful when interpreting the facts, since judgments vary rather drastically. For some people certain modals can't occur in this position (e.g. man 'can'), while others can (e.g. moesoe 'must').

- (68) * na man mi man lesi a buku
is can I can read the book
'I'm really capable of reading the book'
- (69) na moesoe mi moesoe waka go na wowojo
is must I must walk go to market
'I really must walk to the market'

In some cases fronting out of an embedded clause seems to be unacceptable,

- (70) * na ferteri Jan e bribi a e ferteri a tori foe a pikin
is tell Jan ASP believe he ASP tell the story to the child
'John believes that she really told the story to the child'

but in others it is acceptable:

- (71) na suari mi bribi a fisi suari aka
is swallow I believe the fish swallow the hook
'I believe the fish really swallowed the hook'

Summarizing, we can say that there are the following possibilities:

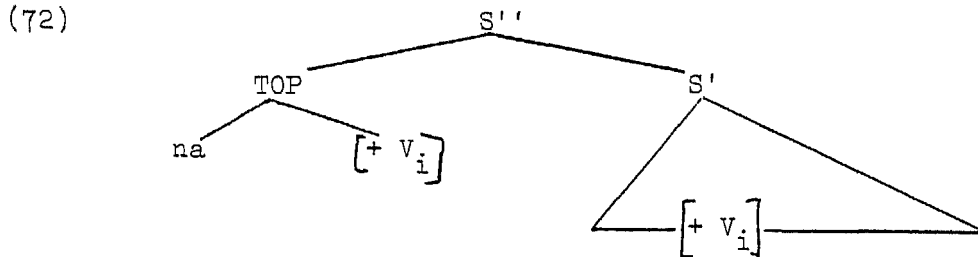
- (a) na +(no) +verb(s) of main clause, and under some conditions verbs of embedded clauses.
- (b) na + adjective
- (c) na + (some ?) modals

Impossible are:

(d) na + TNS/ASP + V , with a full sentence

(e) na + $\begin{Bmatrix} \text{NP} \\ \text{V NP} \\ \text{PP} \end{Bmatrix}$ + V , with a full sentence, in which the NP or PP is repeated.

As we have seen the position after na is preserved for a verb or an adjective. We can characterize this position by using the syntactic feature [+ V]. This will exclude NP's and PP's. We will assume the following structure:



The precise mechanism for guaranteeing the identity of the two verbs has to be worked out.

10. SERIAL VERBS

As we saw in table 1, Sranan has, following our working definition of serial verbs, the greatest number of them. Due to limitations of space and as the matter is complex, we will not analyze in detail the following SVC's:

<u>nofo</u> 'suffice, enough'	: mi abi <u>nofo</u> I have suffice 'I had enough'
<u>teki</u> 'comitative'	: mi e <u>tek</u> Meri go na foto I ASP take Mary go to town 'I bring Mary to the town'
<u>kaba</u> 'finish'	: na kaba mi <u>kaba</u> nyam is finish I finish eat 'I just finished eating'
	: Kofi nyam en <u>kaba</u> Kofi eat it finished 'Kofi ate it already'
<u>taki</u> 'complementizer'	: Jan e feni <u>taki</u> a buku a e lesi moi Jan ASP find say the book he ASP read beautiful 'John likes the book he is reading'
<u>psa</u> 'overtake'	: a sani disi <u>psa</u> marki the thing this pass mark 'this is too much'
<u>moro</u> 'more than ,pass'	: a langa <u>moro</u> mi she long pass me 'she is taller than me'

We will be concerned with the following serial verbs:

<u>go</u>	'direction away'
<u>kon</u>	'direction towards'
<u>gi</u>	'dative/benefactive'
<u>teki</u>	'instrumental'

These verbs can occur as independent verbs as well as in serial verb constructions.

- (73a) mi m'ma e go na wowojo
 my mother ASP go to the market
 'my mother goes to the market'
- b) mi m'ma e waka go na wowojo
 my mother ASP walk go to the market
 'my mother walks to the market'
- (74a) a e kon
 she ASP come
 'she comes'
- b) a e waka kon
 she ASP walk come
 'she comes walking'
- (75a) ibri dé a e gi den dagoe meti
 every day she ASP give the dog meat
 'every day she gives meat to the dogs'
- b) Kofi go na Paramaribo gi mi BEN
 Kofi go to Paramaribo give me
 'Kofi went to Paramaribo for me'
- c) Kofi tjari den fisi kon gi mi DAT
 Kofi carry the fish come give me
 'Kofi brought me the fish'
- (76a) mi e teki a buku
 I ASP take the book
 'I take the book'
- b) Meri e teki a gon kiri a sneki
 Mary ASP take the gon kill the snake
 'Mary kills the snake with a gon'

11. PP's and serial verbs: go and nanga

In this part we will contrast PP's and serial verbs in terms of their behavior in wh-questions, relative clauses, topicalized clauses and emphatic predicate cleft constructions. First we will present the paradigm case of a verb go 'go', and a preposition nanga 'with'. Then we will discuss, one by one, kon, gi and teki, while contrasting them with prepositions.

(a) wh-questions

As we saw, PP's like nanga NP, have to be fronted in the case of wh-questions. When we question go na NP however, this can't be fronted. This gives us the following paradigm:

- (77a) Kofi e koti a brede nanga a nefi
 Kofi ASP cut the bread with the knife
 'Kofi cuts the bread with a knife'
- b) nanga san Kofi e koti a brede _____
 with what
- c) * san Kofi e koti a brede nanga _____
 what with

- (78a) Meri e tyari a pikin go na en m'ma
Mary ASP carry the baby go LOC her mother
'Mary takes the baby to her mother'
- b) na suma Meri e tyari a pikin go ____?
whom
- c) *go na suma Meri e tyari a pikin ____?
go to whom
- d) pe Meri e tyari a pikin go ____?
where
- e) *go pe Meri e tyari a pikin ____?
go where

There is an asymmetry between the behavior of the PP with nanga and the serial construction with go: whereas the PP must be fronted, go must stay behind.

(b) relativization

We find the same pattern for relativization:

- (79a) Kofi e teki a nefi nanga san a e koti a brede ____
Kofi ASP take the knife with which he ASP cut the bread
'Kofi takes the knife with which he cuts the bread'
- b) *Kofi e teki a nefi san a e koti a brede nanga ____
- (80a) dape na a skoro pe Meri e tyari a pikin go ____
there is the school where Mary ASP carry the child go
'there is the school where Mary takes the child'
- b) *dape na skoro go pe Meri e tyari a pikin ____
- (81a) en m'ma, na suma Kofi tyari a pikin go ____...
his mother to whom Kofi carry the child go
'his mother, to whom Kofi took the child, ...'
- b) *en m'ma, go na suma Kofi tyari a pikin, ...

(c) topicalization

Here again we find the same pattern:

- (82a) na nanga a nefi Kofi koti a brede ____
is with the knife Kofi cut the bread
'it is with the knife that Kofi cut the bread'
- b) *na a nefi Kofi koti a brede nanga ____
- (83a) na skoro a e tyari a pikin go ____
is school he ASP carry the child go
'it is to school that he brings the child'
- b) *na go na skoro a e tyari a pikin ____

For all these constructions there is a clear asymmetry between the behavior of PP's and the behavior of serial go: where the PP has to be fronted, serial go can not be fronted. If go were a preposition, it would show a very different type of behavior, and we can conclude that it is not a preposition.

(d) predicate cleft

We have assumed that the possibility of occurring in the predicate cleft construction constitutes a crucial test for the verbal status of a given form. With nanga and go we find the following distribution:

(84) * na nanga Kofi koti a brede nanga a nefe

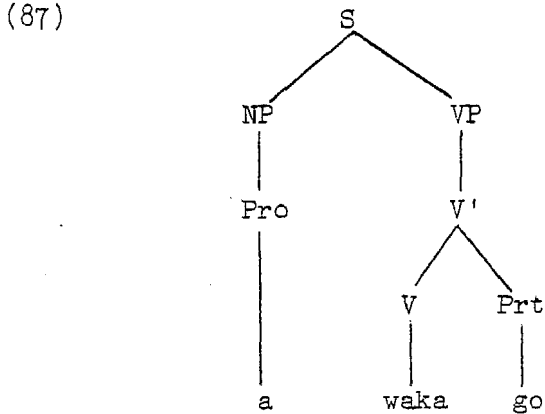
(85) na go a e tyari a pikin go na skoro

Again, go behaves differently from the preposition.

If go is not a preposition, maybe it is a verbal particle. Consider (86):

(86) a waka go 'he walked (in a different direction)'
 he walk go

What prevents us from assigning a structure such as (87) to (86)?:



First of all, waka and go can not be fronted together:

(88a) * na waka go a waka go

As was seen, they can be fronted separately:

(88b) na go a waka go

c) na waka a waka go

This in contrast with a complex verb form such as go luku 'go (and) look', which can be fronted as a whole and presumably has a $V'[\text{go luku}]$ structure:

(89) na go luku a go luku
 is go look he go look
 'he really went and looked'

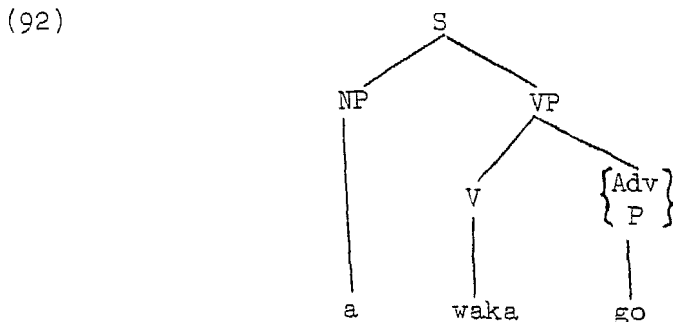
In the second place, go can be separated from the other verb by an NP, as we saw in (78), (80), (83), etc.

In the third place, serial go can take the same locative prepositional complements as non-serial go:

(90) a go na oso 'he went home'
 he go LOC house

(91) a waka go na oso 'he walked home'
 he walk go LOC house

This same set of examples (90) and (91) provide an argument against analyzing go as an adverb or intransitive preposition:



Another argument against analysis (92) is that locative PP's and adverbs can be fronted without leaving a copy, while go cannot:

- (93a) a kan plei a fesi
he can play LOC_face
'he can play in front'
b) na a fesi a kan plei ____
- (94) * na go a waka ____

We may conclude that go is not a preposition, particle or adverb, and indeed has the status of a verb. The structure of sentences such as (86) is a question to which we will return in the final section of this article.

12. kon

For kon 'come' we find exactly the same distribution as for go.

(a) wh-questions

kon can't be fronted in wh-questions:

- (95a) a tjari den fisi kon a oso
she carry the fish come the house
'she brought the fish to the house'
b) pe a tjari den fisi kon ____
where come
c) *kon pe a tjari den fisi ____
come where

(b) relativization

kon can't be fronted in a relative clause:

- (96a) a oso pe a tjari den fisi kon ____ bigi
the house where she carry the fish come big
'the house she brought the fish to is big'
b) *a oso kon pe a tjari den fisi ____ bigi

(c) topicalization

kon can't occur under the TOP-position

- (97a) na a oso a tjari den fisi kon ____
is the house she carry the fish come
'it is to the house that she carried the fish'
b) * na kon a oso a tjari den fisi ____

(d) predicate cleft

kon can occur in predicate cleft constructions:

- (98) na kon a tjari den fisi kon a oso
is come she carry the fish come the house
'she really brought the fish to the house'

We see that kon shows exactly the same pattern on these four constructions as go. Also in other respects kon shows the same behavior as go, cf (88), (90), (94). Thus we may conclude that kon just like go, is not a preposition, particle or adverb, but indeed has the status of a verb.

13. gi

For gi the pattern turns out to be a different one.

(a) wh-questions

In wh-questions [gi + NP] can be fronted.

(99a) mi e verteri wan tori gi Meri
I ASP tell a story give Mary
'I tell a story to Mary'

b) gi suma mi e verteri wan tori ____?
give who

(100a) Meri teki watra gi den plantjes
Mary take water give the plants
'Mary took water and gave it to the plants'

b) gi san Meri teki watra ____?
give what

For some people fronting of the whole constituent is the only possibility, for others gi can be fronted or stay behind. (cf. Voorhoeve 1975)

(101) (*) suma Meri e verteri wan tori gi ____
who give

(102) (*) san Meri teki watra gi ____
what give

(b) relativization

In relative clauses we find gi + NP in front of the relative clause. A peculiarity of this construction is, that we can find a gap on the place of the moved constituent (103a), but also a second gi (103b), while there is no difference in meaning.

(103a) Kofi na boi gi suma Meri teki a buku ____
Kofi is boy give who Mary take the book
'Kofi is the boy to whom Mary gave the book'

b) Kofi na boi gi suma Meri teki a buku gi
give who give

It is impossible to front the NP, and leave gi behind:

c) * Kofi na boi suma Meri teki a buku gi
who give

(c) topicalization

For topicalization we find the same pattern as for relative clauses. gi + NP can occur under the TOP-position, in which case we have a gap on the place of the moved constituent, or a second gi.

(104a) na gi mi Meri teki a buku ____
is give me Mary take the book
'it is to me that Mary gave the book'

b) na gi mi Meri teki a buku gi ____
give me give

Judgments vary as to the occurrence of the NP under the TOP node. For some speakers (104c) is grammatical, while for others it is not:

(104c) (*) na mi Meri e teki a buku gi
 is me give

There is a great deal of similarity between the behavior of gi and that of a canonical preposition like nanga. Although there remain some problems it seems that gi functions as a preposition.

(d) predicate cleft

We find the same variation in judgments for the occurrence of gi in predicate cleft sentences. For some speakers (105) is ungrammatical, while for others it is not.

(105) (*) na gi Kofi teki a buku gi mi
 is give Kofi take the book give me
 'Kofi gave the book to me'

The informants who judged (101) and (102) grammatical, also found (104c) and (105) grammatical. This supports Voorhoeve's contention that for conservative speakers gi may still have verbal status.

At first sight, the sentences in which the second gi turns up (e.g. (104b)), that we will repeat here for convenience,

(104b) na gi mi Kofi teki a buku gi

constitute a problem for the assumption that wh-movement is involved in the generation of these sentences, since there is no way to account for the second gi. These sentences seem to suggest that there has been no movement at all, but rather base-generation.

Alternatively, we could assume that the underlying structure of (104b), is something like,

(106) [S' na gi mi [S [S Kofi teki a buku [V gi] [PP gi mi]

where gi mi is moved into COMP and then deleted, and [gi]_v is either generated, or not. In the latter case [gi mi]_{pp} is a complement of the verb teki.

Returning to the question of whether gi should be considered to be a verb or a preposition, we can safely assume, considering the similarity of the behavior of gi to that of canonical prepositions, that gi is present in the lexicon as a preposition and as a verb. Speakers differ as to which particular cases are interpreted as prepositions, and which as verbs.

14. teki

Instrumental in Sranan usually is expressed by nanga :

(107) mi e koti a brede nanga a nefe
 I ASP cut the bread with the knife
 'I cut the bread with the knife'

An other possibility is to use a serial verb construction with teki:

(108) mi e teki a nefe koti a brede
 I ASP take knife cut the bread
 'I cut the bread with the knife'

In (108), we see that teki NP precedes the other verb, while go, kon and gi followed the other verb.

Although (107) and (108) are translated in the same way, there is a difference between them: (107) seems to be exactly equivalent to the English instrumental

while (108) implies that there have been two consecutive actions.

We find the following results on our four constructions:

(a) wh-questions

teki NP can't be fronted.

- (109) * na teki san Kofi koti a brede ____
is take what Kofi cut the bread
'with what did Kofi cut the bread'

The first NP can be questioned:

- (110a) san Kofi teki ____ koti a brede
what

However, judgments vary as to the questioning of the NP of koti. (For a summary of the variability of judgments see table 2)

- (110b) (*) san Kofi teki a nefe koti ____
what

(b) relativization

teki + NP can't be fronted in relative clauses.

- (111) * a nefe teki san Kofi ____ koti a brede srapoe
the knife take what Kofi cut the bread sharp
'the knife with which Kofi cut the bread was sharp'

The first NP can be relativized:

- (112a) a nefe san Kofi teki ____ koti a brede srapoe

As to the questioning of the second NP, we find the same variation in judgments. Some speakers only accept (112a).

- (112b) (*) a brede san Kofi teki nefe koti ____ srapoe

(c) topicalization

We can't find teki + NP under the TOP position.

- (113) * na teki a nefe Kofi ____ koti a brede

The topicalization of the NP's gives us essentially the same pattern as in relative clauses. Thus (114a) is grammatical for all speakers:

- (114a) na a nefe Kofi teki ____ koti a brede

judgments vary for (114b):

- (114b) (*) na a brede Kofi teki a nefe koti ____

(d) predicate cleft

teki can occur in a predicate cleft construction:

- (115a) na teki Kofi teki a nefe koti a brede

Judgments vary as to the occurrence of the second verb in the predicate cleft construction:

- (115b) (*) na koti Kofi teki a nefe koti a brede

We can conclude from these examples that teki is a verb and has no prepositional characteristics.

We can summarize the variability of judgments as follows:

TABLE 2	teki NP ₁ koti NP ₂	
	GRAMMAR 1	GRAMMAR 2
NP ₁ questioned	+	+
NP ₂ questioned	-	+
NP ₁ relativized	+	+
NP ₂ relativized	-	+
NP ₁ topicalized	+	+
NP ₂ topicalized	-	+
V ₁ predicate cleft	+	+
V ₂ predicate cleft	-	+

Thus we see that of the surface structure $.V NP V NP$, both verbs and NP's are available for syntactic operations in grammar 2, while only the first verb and NP are in grammar 1.

In this section (10-14), we tried to establish the syntactic status of several serial verbs. On the basis of their behavior in several constructions we came to the following conclusions:

- go, kon and teki are present in the lexicon as main verbs and serial verbs, gi is present as a main verb, a preposition and a serial verb.

15. THE VP ANALYSIS

We will assume that serializing languages differ in fundamental respects from non-serializing languages. Our main task then is to decide where the locus of the differences lies.

Earlier generative treatments (e.g. Stahlke, 1970, Bailey, 1966) have assumed that the main difference lies in the transformational component. Serial verbs are generated either as S-complements in matrix VP's :

$$(116) \quad \begin{array}{l} S \rightarrow NP \quad VP \\ VP \rightarrow NP \quad VP \quad (S) \end{array}$$

or as coordinated S's. Later, all non-surface NP's, complementizers and auxiliaries are deleted through Equi-NP deletion and similar rules, and possibly the complements are raised (in the complement-S version).

Schachter (1974) has provided a number of arguments against this type of analysis. As an alternative, he proposes that the main difference between serializing and non-serializing languages has to be accounted for on the level of Phrase Structure rules, and suggests the following rule for the African cases:

$$(117) \quad \begin{array}{l} S \rightarrow NP \quad AUX \quad VP \quad VP* \\ VP \rightarrow V \quad NP \end{array}$$

The arguments are given for Akan and related West-African languages, and one of the first questions which comes to mind is whether his analysis applies for the Creole languages. We will illustrate our points with examples from Sranan, but they apply equally well to other languages.

Schachter's first argument is that there is only one superficial subject in serial constructions, while a multi-sentential source would have one subject for each verb in deep structure, which would then have to be deleted. This argument applies equally well to the Creole languages, as is illustrated by (118) and (119):

(118) Roy teki nefi koti a brede
 Roy take knife cut the bread
 'Roy cut the bread with a knife'

(119)*Roy teki nefi Roy koti a brede

A second argument of Schachter's involves tense/aspect marking. Since serial clauses contain only one Aux-node, all the verbs carry the same aspect or tense marking, or alternatively (as in Yoruba), only the first verb is marked for tense/aspect. If serial constructions had a multi-sentential source, the different verbs would have their own AUX-node, and the identity of the tense/aspect markers would remain unexplained. This argument applies as well to the Creole languages:

(120a) Roy e tyari a pikin go na oso
 Roy ASP carry the child go LOC house
 'Roy took the child home'

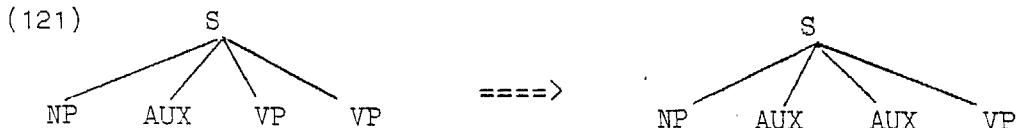
b)* Roy e tyari a pikin e go na oso
 ASP_i ASP_i

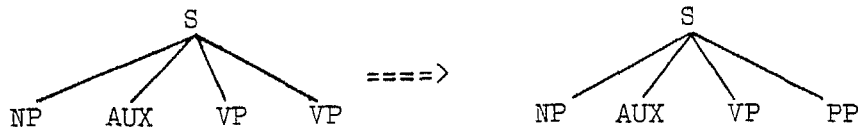
c)* Roy e tyari a pikin sa go na oso
 ASP_i ASP_j

Schachter's third argument applies equally well to the African and to the Creole cases. If serial constructions have a multi-sentential base, why are there no subordination or coordination markers in evidence, as with ordinary multi-sentential structures? Adopting a VP analysis neatly accounts for the absence of these markers.

The remaining two arguments of Schachter's are not as convincing. The first one involves 'idiomatic compounds' of serial verbs, where the two verbs separately have a widely different meaning from when they are combined. (nye die = believe, jye = receive, di = eat). If the two verbs are indeed present in the lexicon as a single discontinuous lexical element, as Schachter claims, then it is indeed an argument against a multi-sentential base analysis, but not really an argument for a multi-VP base analysis. Equally possible is that the elements of the idiomatic compound are inserted into one single VP.

The last argument of Schachter involves historical considerations: the string of VP's directly dominated by S in Fe'fe' is argued to be historically derived from a series of S's linked by consecutive markers. The transition from consecutivization to serialization is claimed by Schachter to be a natural one. Similarly, the serial construction may give rise to new auxiliaries and prepositional phrases, through reanalysis, in a rather simple way, if we assume the VP analysis of Schachter's:





This argument is only valid, and even then only in part, if we can demonstrate that the resulting structures are indeed the appropriate ones for the later stages, and it presupposes a specific view of syntactic change; which needs to be substantiated.

Concluding, we may say that Schachter argues convincingly against a multi-sentential analysis for serial verbs and in favor of a VP analysis.

Another argument against a multi-sentential analysis for serial verbs is based on the fact that serial verbs are lexically constrained in various ways. As far as we know, we do not find idiomatic compounds in Caribbean Creoles, as are present in several West-African languages. Nonetheless, the verbs in a serial construction are subject to several subcategorization restrictions which limit their cooccurrence. Thus serial go and kon can only occur with an earlier verb of movement, serial teki when followed by a verb which can take an instrumental argument, etc.

If lexical insertion is local, i.e. constrained by the principle of subadjacency, by the Tensed-S condition etc., this is an additional argument for analyzing the SVC as a construction involving no \bar{S} -constituents.

On the basis of Schachter's arguments and this last argument we conclude that SVC are VP's and not S's. This assumption leaves us with the following possible base rules:

- ~~(i)~~ $VP \rightarrow V(NP) V(NP)$
- (ii) $VP \rightarrow VP VP^*$
- (iii) $VP \rightarrow VP V NP$
- (iv) $VP \rightarrow V NP VP$
- (v) $S \rightarrow VP VP^*$

where (i) - (iv) are VP-expansionrules (presupposing an S-expansion rule of the type $S \rightarrow NP VP$) and (v) is an S-expansion rule.

An appropriate test to decide on the constituent status of a given string of elements is VP-deletion, although we must be very cautious when interpreting the facts, while VP-deletion crucially depends on the existence of an AUX-node, under which Tense and Modals are generated. We do not know for certain if there exists a separate category modal in Sranan.

Let's look at the proces of VP deletion, which yields the following results for Sranan:

- (122) Meri no moesoe go na skoro ,ma Jan moesoe _____
 Mary not must go to school, but Jan must
 'Mary does not have to go to school, but John has to'
- (123) mi moesoe go luku pe a boi e tan, nanga joe moesoe toe
 I must go look where the boy is with you must also
 'I must go and look where the boy is, and you must too'

- (124) suma kan tjari den buku ? Mi kan _____
 who can carry the book ? I can _____
 'who can carry the books ? I can'

Although we did not make a detailed analysis for this construction, we can safely assume that the bracketed constituents are VP's, since they delete (or are interpreted) as a whole. (e.a.Sag (1976),Williams (1977)).

When we look at serial constructions, it appears that they function as a single constituent:

- (125) Meri no moesoe teki a nefi koti a brede, ma Kofi moesoe _____
 Mary not must take the knife cut the bread, but Kofi must _____
 'Mary does not have to cut the bread with the knife, but Kofi has to'
- (126) Ibride Meri moesoe tjari den fisi kon a oso , ma Jan no moesoe _____
 Every day Mary must carry the fish come the house, but John not must _____
 'every day Mary has to carry the fish home, But John does not have to'
- (127) Suma wani go na Paramaribo gi mi? Wi wani _____
 who want go to Paramaribo for me? we want _____
 'who wants to go to Paramaribo for me? We want to'

Concluding we can say that serial constructions function as a single constituent, and therefore we will not accept base rule (v) as a suitable candidate for the description of the serial verb construction.

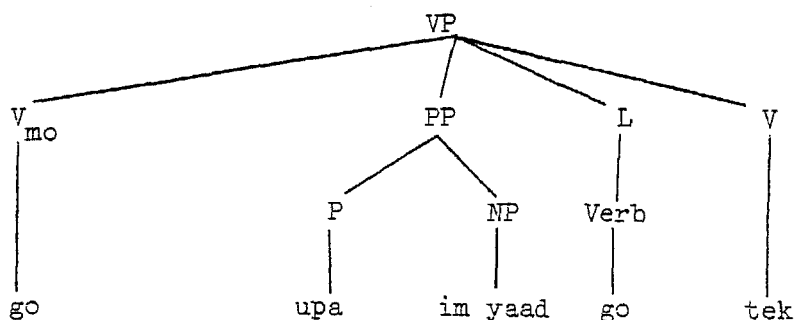
A version of the first base rule has been proposed by Roberts (1975). He gives a VP-expansion rule for serial verb constructions in which a single VP is expanded into several non-adjacent V's. Thus for a construction such as:

- (129) Mi go upa im yaad go tek (im autsim yaad)

he proposes base expansion rule (130):

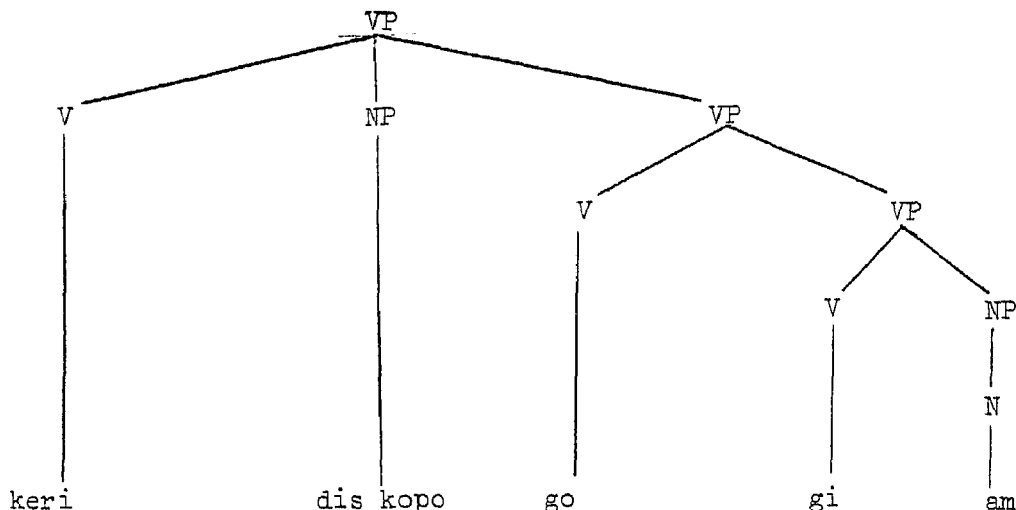
- (130) VP V_{mo} (PP) L V...

So that (130) has the following structure:



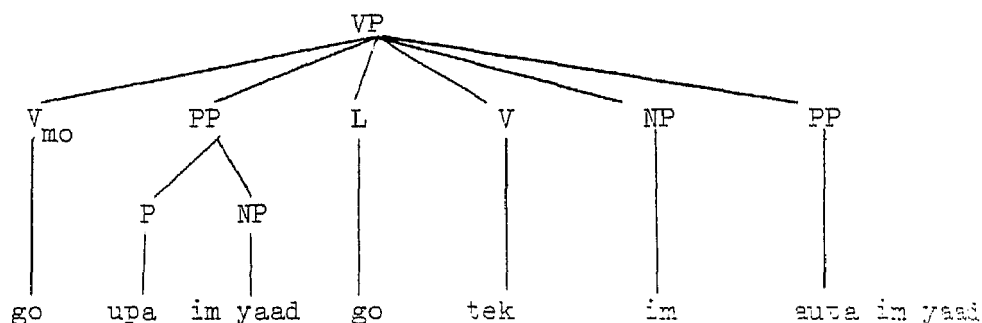
The argument for base rule (130) seems to be primarily a semantic one: "One of the outstanding points in the above proposal is that the verb phrase has more than one element. This analysis avoids the falseness of the deep structure of Williams (here repeated as (131), which puts keri in a higher cycle than go and both keri and go in a higher cycle than gi. It also avoids the deep structure of Bailey which makes a clearly repeated semantic element like the second go the main feature of an independent S." (Roberts 1975 p. 7)

(131)



The main problem with Roberts' analysis becomes clear when we expand the structure (130) to cover the whole sentence (132):

(132)



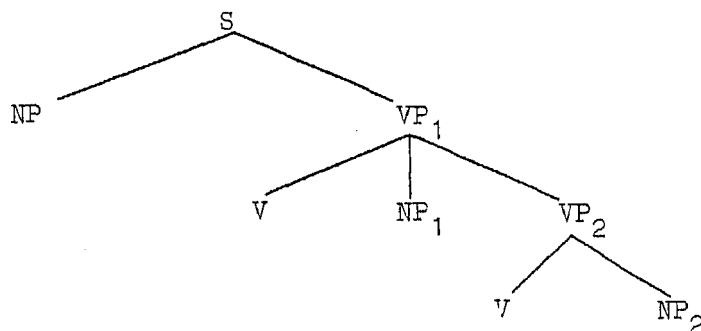
Roberts is forced to assign the correct grammatical relations between V's, NP's, and PP's on the basis of contiguity. His interpretation rule would presumably be something like:

(133) When you encounter a V, all NP's and PP's following it until the next V have to be interpreted as arguments of that V.

So far, semantic theory has excluded this type of rule, and there is no reason at present to increase the power of interpretation rules, if other devices are available, e.g. the definition of grammatical relations in terms of structural configurations, in this case of the VP. On the basis of these considerations we will not accept rule (i) as a possible candidate for SVC.

So we are left with rules (ii)⁵, (iii) and (iv). There is no evidence for rule (iii) except for the superficial semantic similarity of teki NP and nanga NP. However, in the case of the teki construction, we do find some evidence for the following configuration (rule (iv)):

(134)



Two sets of arguments could be given:

(a) The inaccessability of the elements in VP₂ to fronting and predicate cleft in one of the dialects. (see section 14)

(b) The similarity of the teki NP V NP constructions to teki NP S' constructions:

(135) Mi teki a nefi koti a brede ...cut the bread

(136) Mi teki a nefi foe koti a brede ...for to cut the cut the bread

Indeed, it is not immediately clear that teki serial constructions do not involve S' complements as in (136).

Two things could serve to distinguish serial constructions from constructions involving infinitive complements:

(a) The absence versus presence of the complementizer, in this case foe. However, we know that in other cases, foe can be either present or deleted:

(137) Mi wani foe go

(138) Mi wani ∅ go

The same could occur in complements of teki, and account for the difference between (135) and the 'serial' cases discussed.

(b) Differences in the interpretation of the ∅ tense marker. The absence of a tense marker on the second verb could be due to foe complements being tenseless, as well as to the serial character of the teki constructions. Note, however, that different predictions are made about the interpretation of the tense of the second verb.

Infinitive complements are interpreted as being tenseless, serial complements as having the same tense as that of teki. It would appear that the following data crucially distinguish between the two analyses:

(139) *a teki a nefi koti a brede , ma no koti en
he take the knife cut the bread, but not cut it
'he took the knife and cut the bread, but did not cut it'

(140) a teki a nefi foe koti a brede , ma no koti en
for
'he took the knife to cut the bread, but did not cut it'

We can conclude that infinitive complements differ from serial constructions in important respects.

The differences can be accounted for either by saying that serial constructions should have a different configuration from infinitive complements, or that the difference follows from the difference in the semantics of S' and of VP complements. Little is known about this, but it is possible that (134) could be maintained and that the contrast between (139) and (140) is due to the fact that S' functions as a propositional island in logical form, being opaque to the contradiction in truth value of the two propositions CUT BREAD , NOT CUT BREAD , while VP does not.

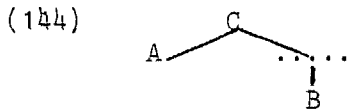
The same analysis can be adopted for kon, go and gi (when gi functions as a serial verb). There is a problem, however, and that is that the elements under VP₂ are, in contradistinction with teki, available for syntactic operations for all speakers. Nevertheless we do find a great deal of similarity with infinitive complements, and the same difference in the interpretation of tense:

- (141) * Meri tjari den pikin go na Paramaribo, ma no kon a Paramaribo
 Meri carry the children go to Par. but not come to Par.
 'Mary carried the children to Paramaribo, but not from Par.
- (142) Meri tjari den pikin foe go na Paramaribo, ma no kon a Paramaribo
 Meri carry the children to go to Paramaribo, but not come from Par.
 'Mary carried the children to go to Paramaribo, but not to come to P.

The analysis given in (134), which is the expansion of base rule (iv) has additional advantages if we take the notion of c-command into account. C-command is defined as follows (Reinhardt 1976 (36)):

- (143) Node A c(onstituent)-commands node B if neither A nor B dominates the other and the first branching node which dominates A dominates B.

Thus, A c-commands B in the following configuration :

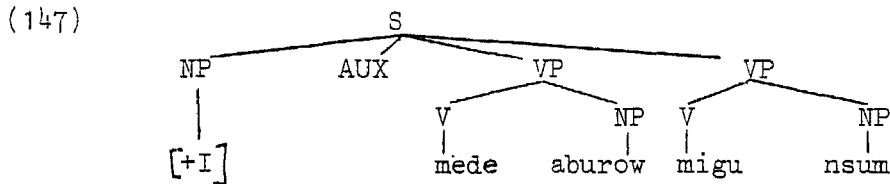


Semantic interpretation would be constrained in the following way:

- (145) Grammatical relations (subject-of, object-of, etc) are defined in terms of c-command configurations.

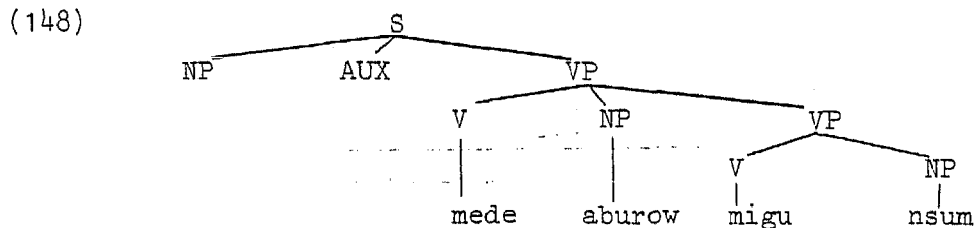
If we accept this principle, the analysis given by Schachter for (146), that is (147), is invalid.

- (146) mede aburow migu nsum (Schachter (1974))
 I-take corn I-flow water-in
 'I pour corn into the water'



In this case, /aburow/ 'corn' can never be interpreted as the subject of /migu/ 'I flow', since it is not in a c-command relation with this form. (/mede/ c-commands /migu/)

It would be preferable to assume an analysis such as:



Here, /aburow/ 'corn' properly c-commands /migu/, and can be interpreted as its subject.

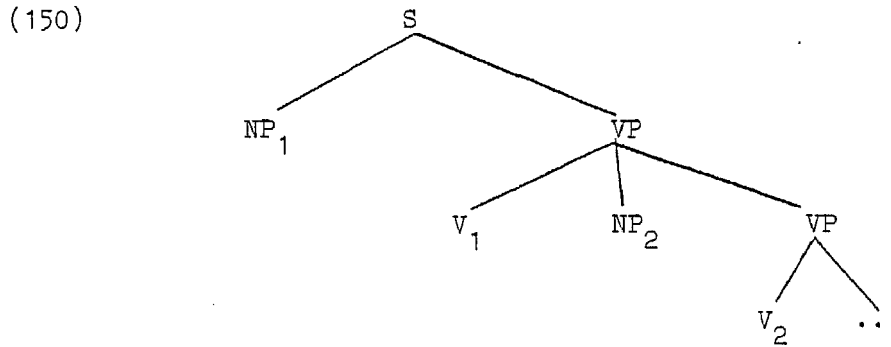
Quite similarly, there is a Sranan example, in which the object of the first verb is interpreted as the subject of the second verb (Voorhoeve, 1962.p 43).

- (149) mi har mi bruku go t a m kindi
 I pull my trousers go till LOC my knees
 'I pull my trousers up to my knees'

Presumably, this example also needs to be assigned a structure such as (148).

Of course, the examples in which the object of the first verb is the subject of the second verb constitute the unusual, the 'marked' case. Normally, the subject of the first verb is also the subject of the second one.

If we assume configuration (150) for serial constructions:



the marked character of (146) and (149) follows from two additional assumptions:

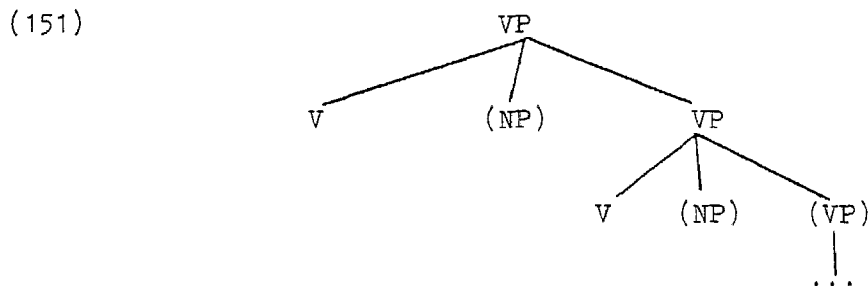
- (a) the 'subject-of' relation is assigned as follows: the NP which is the sister node of the node dominating V is its subject;
- (b) the A-over-A principle defines the unmarked case.

Thus, in (150) NP₁ is generally interpreted as the subject of V₂. Only in exceptional cases, NP₂ is interpreted as its subject. (Here semantic factors probably play a part, such as the fact that in (146), 'I' cannot FLOW into the WATER.)

16. CONCLUSION

Concluding we can say that serial verbs have VP status on the basis of the absence of tense-aspect marking, the absence of a complementizer, the absence of a lexical NP subject, and their semantic characteristics.

They must be considered to form one constituent with the matrix verb and its complement. Possibly they have the following structure:



This structure can be produced by a rather simple base rule:

- (152) VP → V NP VP

Structure (151) can be assigned a semantic interpretation in a simple way, as was sketched in the previous section. The special character of the serial construction is accounted for on the level of semantic interpretation rules and lexical insertion rules, which only allow specified verbs in one of the positions of (151).

Although we hope to have brought the discussion about serial constructions in Creole languages a little further, many more questions remain open than have been answered.

This is primarily so because little is known about VP's in general. In the case of Sranan, for instance, there is a number of elements which have to be contrasted with serial verbs, but on which little, if any, work has been done. The main problem is: what syntactic arguments are there to distinguish serial constructions from other complex verbal constructions.

- (a) Modals. Does Sranan have a separate category Modal, like English may, can, or do we have verbs which can take infinitive complements, like English want?
- (b) Causatives. Can Sranan causatives be distinguished from serial constructions?
- (c) Complements of perception verbs. Which syntactic differences are there between complements of perception verbs and serial verbs?
- (d) Comparatives. Do Sranan comparatives, 'involving' moro and p'sa, behave like serial constructions, or do they have special characteristics?

A major difficulty is that the serial constructions (even the ones which do show the transition from VP to PP, such as gi) are a rather marked and highly variable type of construction in the Sranan speech community. This is particularly the case for the teki construction (see also Hutter (1975) on this point).

For this reason, a detailed study of serialization in Sranan (or for that matter, in any language) will need to be based on a large-scale investigation of Sranan speech in a natural setting.

FOOTNOTES

- 1) The first part of this paper is an outgrowth of a seminar held in the spring semester of 1977 on serial verbs. Participants were Henk Ali Alimohammed, Edgar Cairo, Eddy Charry, Miep van Diggelen, Jacques Hendrickx, Helène van Leynseele, Linda Richardson, Catherine Snow, as well as the three co-authors. August Duttenhofer, Philibert Derveld, and Carmen Lie helped with the Sranan data in the second part of this paper, and contributed much good advice. Finally, we wish to thank Raúl Römer and Peter Mühlhäusler for general comments. The responsibility for the ideas, good or bad, expressed here remains with the authors, of course.

- 2) The sources from which the examples are drawn can be found in the bibliography with the particular language involved mentioned in capital letters between parentheses. The spelling of the non-Sranan examples is that of the original source from which they were taken. The spelling of the Sranan examples is somewhat inconsistent, particularly: oe and u for /u/ (e.g. joe, suma), and y and j for the glide /y/ (e.g. tyari, tjari).

- 3) It is unclear whether take functions as a serial verb taking direct object complements in the Creole languages, for the following reasons:
 - (a) the direct object relation is almost always expressed in a non-serial way;
 - (b) all the examples we found of take NP as a serial verb include a verb of movement as well:

(153) Kofi teki skropu tja go na abrasey (SR)
 Kofi take shells carried went to overside
 'Kofi brought shells to the other side'

- 4) In this case we use the broader definition of c-command.

- 5) An argument against base rule (ii) is that the Coordinate Structure Constraint (Ross, 1967) would prohibit the extraction of either NP of structures of the type:

(154) [NP] [VP [VP V NP] [VP V NP]]

Since it is perfectly possible to extract either NP (e.g. san Meri e teki teki ___ koti a brede?), we will not consider rule (ii) VP → VP VP* as a suitable candidate for the serial verb construction.