

ON SERIAL VERBS AND VERBAL STATUS¹

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1. INTRODUCTION

The term 'serial verbal construction' or 'serial verbs' has been applied to the combination of verbs found in many West African languages where all the verbs share a common subject in the surface structure. Examples of this construction are:²

- (1) Twi: òdè sɪká nó màà mè
 he-take money that gave me
 'He gave me the money'
- (2) Igede: àhì hù ólo chu
 we take load put-on-head
 'We carried the load'
- (3) Vagala: ù kpá kíyɛé mòng ówl
 he took knife cut meat
 'He cut the meat with a knife'
- (4) Izi: ò shíá ʼjí èrí
 she cooked yam is-eating
 'She cooked yam and is eating it (now)'
- (5) Ijò: èrí ɛ̀dɛ̀jɛ̀n -bí àkù bó -mí
 he knife the take come past
 'He brought the knife'
- (6) Yoruba: ó mú iwé wá
 he took book come
 'He brought a book'

The traditional analysis of the serial verbal construction has been to derive it from two or more underlying sentences by the deletion of any identical noun phrases functioning as subject or object. For example, (2) is derived from the two sentences:

- (7) (a) Igede: àhì hù ólo
 we take load
- (b) " àhì chu ólo
 we put-on-head load

by the deletion of àhì 'we' and ólo 'load' in (7b).³

¹ This paper was presented at the Tenth West African Languages Congress in Accra, Ghana, March 21-27, 1972.

² The examples are taken from the following: Twi, Stewart (1963) p. 147; Igede, Pike (1967) p. 3; Vagala, Pike (1966) p. 67; Izi, Bender-Samuel (1968) p. 121; Ijò, Williamson (1963) p. 153. An unmarked syllable in the transcription represents a mid tone, and a dot in the Yoruba examples represents an assimilated low tone (see Bamgbose (1966)). When a language name is not indicated beside an example, it is to be assumed that the language is Yoruba.

³ See Pike (1967), p. 3.

The correctness of the traditional analysis has always been assumed, and it was hardly considered necessary to show why serial verbs of the type in sentences (1)–(6) must be derived from two underlying sentences. In this paper, an attempt will be made to demonstrate the correctness of the derivation from underlying sentences and its superiority over any other alternatives.

Another weakness of the traditional analysis of the serial verbal construction is that it generally assumes that serial verbs are usually all of the type which can be derived from more than one underlying sentence.⁴ In this paper, it will be shown that there are at least two types of serial verbal construction: a 'linking' type which can be derived from two or more underlying sentences, and a 'modifying' type which can only be derived from a single underlying sentence.⁵ Sentences (1)–(6) are examples of the former, while sentence (8) which cannot be derived from the two sentences in (9) is an example of the latter.

- (8) ó ñsùn lọ
 he sleeping go
 'He is falling asleep'

- (9) ó ñsùn ; ó ñlọ
 he sleeping; he going
 'He is sleeping; he is going'

It will also be shown that the modifying type of serial verbal construction has interesting implications for verbal status, in the sense that it throws some light on the behaviour of verbs in this structure as compared with their behaviour in a minimal sentence (i.e., a basic sentence having only one verb), the latter of which is usually taken as a diagnostic frame for determining verbal status in several languages.

2. THE SERIAL CONSTRUCTION AND THE COORDINATE STRUCTURE

The derivation of the linking type of serial verbal construction from two or more underlying sentences is generally agreed upon by most writers who have described this feature for West African Languages.⁶ Quite recently, however, Stahlke (1970) has called into question the assumption that this construction can be derived from two underlying sentences. In particular, he has tried to show that as far as Yoruba is concerned, the derivation of the linking type from underlying coordinate structures is not only wrong but likely to result in ungrammatical sentences. Stahlke advances three arguments in support of his stand:⁷

- (i) There is a semantic difference between a coordinate structure and a serial verbal construction. This difference can be shown by the possibility of extending a coordinate structure by a contradictory clause introduced by *şùgbón* 'but', and the impossibility of doing the

⁴ There are instances in the literature where doubts have been expressed about the appropriateness of a derivation from more than one underlying sentence. See for example, Williamson (1963), p. 154, Bendor-Samuel (1968), pp. 123–124. But even in these cases, this same derivation has been postulated.

⁵ This distinction is similar to that made in Bendor-Samuel (1968), pp. 123–127, between 'serial constructions' and 'close-knit constructions', the difference being that the latter, which are analogous to the modifying type of serial construction, are still considered as 'restricted serial constructions' consisting of 'two or more clauses'.

⁶ See, for example, Stewart (1963) pp. 145, 147, Williamson (1965) pp. 47–60, Bamgboşe (1966) pp. 157–158, Awobuluyi (1967), pp. 86–102, Pike (1967), p. 3, Bendor-Samuel (1968), pp. 120–121, 127.

⁷ Stahlke (1970), pp. 77–80. Stahlke (personal communication) now thinks that derivation from a coordinate structure is possible.

same with a serial verbal construction. For example, (10a) is a coordinate structure and it can be extended by (10b), whereas (11) which is a serial construction cannot be similarly extended by (10b):

(10) (a) *mo mú ìwé; mo sì wá ilé*
 I took book; I and came home
 'I took a book and came home'

(b) *şùgbón mo gbàgbé lá.ti mú u wá pèlú*
 but I forgot to take it come also
 'But I forgot to bring it along'

(11) *mo mú ìwé wá ilé*
 I took book come home
 'I brought a book home'

It is true that (11) cannot be extended by (10b), but the reason for this is to be found in the semantic interpretation of *mú* 'take' on which this argument is based. (10a) has two possible meanings: 'I took a book at some point but left it behind before coming home' or 'I took a book and I still had it with me when I came home'. It is the first interpretation that allows (10a) to be extended by (10b). The second interpretation is exactly the same as the meaning of (11). And when this interpretation is given to (10a), it cannot be extended by (10b) just as (11) cannot be similarly extended. Therefore from a semantic point of view, it is not wrong to derive (11) from (10a).

- (ii) Conjunction reduction on a coordinate structure will produce an ungrammatical sentence. For example, conjunction reduction on (10a) will produce

(12) **mo mú ìwé sì wá ilé*
 I took book and came home
 which is ungrammatical in the language.

It is true that (12) is ungrammatical; but its ungrammaticality is due to the occurrence of *sì* 'and' in the serial construction. The point may be made, quite plausibly, that conjunction reduction automatically involves another transformation that deletes *sì*.⁸ The evidence for such a rule is that in the derivation of the serial verbal construction, all items occurring initially in the verb phrase (modals, negators, tense and aspect markers) must be deleted to leave only the main verb of the second of two underlying sentences.⁹ For example, the combination of (13a) and (13b) yields (13c), where the negator *kò* has been deleted, and not (13d) which is ungrammatical.

(13) (a) *èmi mú ìwé*
 I took book

(b) *èmi kò wá*
 I not come
 'I did not come'

⁸ For an example of such a transformation, see Awobuluyi (1967) p. 102.

⁹ One exception to this deletion rule is the verbal particle *ń* which may occur before the second verb.

- (c) èmi kò mú ìwé wá
 I not take book come
 'I did not bring a book'
- (d) *èmí mú ìwé kò wá
 I took book not come

Just as in the derivation of (13c), the negator occurring in (13b) has to be deleted, in the same way, in the derivation of (11), the linking item *sì* in (10a) has to be deleted. It is clear therefore that, given the appropriate rules, there is no reason why the derivation of the serial verbal construction (11) from the coordinate structure (10a) should be considered syntactically barred on the grounds that it would yield an ungrammatical sentence.

- (iii) If the serial verbal construction were derived from a coordinate structure, then it should be impossible to move noun objects out of the original conjunct, for example in questioning or topicalization. Since such NP movements are possible with the serial construction and not with the coordinate structure, the former could not validly be derived from the latter.

It is not the case in fact that NP's cannot be moved in a coordinate structure. Both sentences (11) and (10a) have the corresponding topicalized versions (14) and (15) respectively.

- (14) ìwé nì mo mú wá ilé
 book is I took come home
 'It was a book that I brought home'
- (15) ìwé nì mo mú tí mo sì wá ilé
 book is I took that I and came home
 'It was a book that I took and came home'

In other words, the object of the first of the two underlying sentences in both the serial construction and in the coordinate structure is subject to NP movement.

The real difference between the serial construction and the coordinate structure, as far as NP movement is concerned, is that whereas the second object in the serial construction is subject to NP movement, this is not possible in the coordinate structure. For example, (16) is a valid derivation from (11) but (17) is not a possible derivation from (10a)

- (11) mo mú ìwé wá ilé
 I took book come home
 'I brought a book home'
- (16) ilé nì mo mú ìwé wá
 house is I took book come
 'it was to the house that I brought a book'
- (10) (a) mo mú ìwé; mo sì wá ilé
 I took book I and come home
 'I took a book and came home'
- (17) *ilé nì mo mú ìwé tí mo sì wá
 house is I took book that I and came

The grammaticality of (16) as compared with the ungrammaticality of (17) can be explained by the fact that at the point when the NP movement rule operates on (11), it is no longer dominated by two S nodes, whereas (10a) which is still so dominated obeys Ross's 'coordinate structure constraint' which forbids the movement of any conjunct or any element within it.¹⁰ Thus, the derivation of (11) from (10a) cannot be rejected on account of the difference stated in (iii) above. All that can be shown is that the possibilities of NP movement vary before and after conjunction reduction transformation, and the difference is easily explained by the constraint on such movement in a coordinate structure.

3. CHARACTERISTICS OF THE LINKING TYPE OF SERIAL CONSTRUCTION

In the foregoing paragraphs, we have argued that there is no reason why serial verbal constructions of the linking type cannot be derived from coordinate structures. What is even more important is to demonstrate why this type of serial construction must be derived from two or more underlying sentences. This we shall now proceed to do.

There are five important facts about the serial construction which cannot adequately be accounted for unless two or more underlying sentences are postulated in its derivation. These facts are: reference, sequence and consequence, negation, case, and tense and aspect.

(i) REFERENCE

In a serial verbal construction, it is necessary that the analysis should reveal which NP a verb refers to, as this is essential to the meaning of the construction. There is no problem about the first verb in the construction for its reference is always to the preceding subject. In the case of the non-initial verb, however, there are different possibilities of reference as the following sentences show:

- (18) Olú gbé àga wá
Olu took chair come
'Olu brought a chair'
- (19) Olú ló aṣọ náà gbó
Olu used dress the worn out
'Olu used the dress and it became worn out'
- (20) Olú lé ọmọ náà wá ilé
Olu drove child the come home
'Olu drove the child home'
- (21) Olú bú ọmọ náà já.de
Olu abused child the go out
'Olu abused the child and he/the child went out'

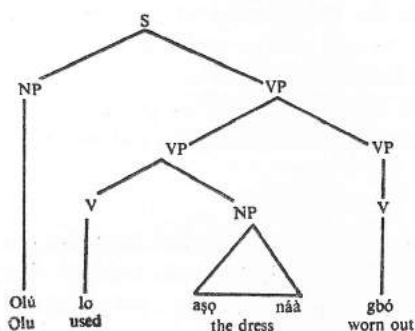
In (18) Olu, the subject, is the same person who carried the chair and came. The verb wá 'come' therefore refers to the first NP Olú. In (19) the situation is different; the verb gbó 'be worn out' refers to the second NP which is the object of the initial verb in the string, and not to the first NP. In other words, the second NP aṣọ náà 'the dress' is both the object of the first verb ló 'use' and the subject of the second verb gbó. In (20), there are two possible interpretations: either 'Olu drove

¹⁰ Ross (1967) p. 89.

the child and the child came home' or 'Olu drove the child and both the child and Olu came home'. The first meaning corresponds to a reference of the second verb to the second NP as in (19), while the second meaning corresponds to a reference of the second verb to both NP's. Sentence (21) is probably three-ways ambiguous: 'Olu abused the child and went out' with the second verb referring to the first NP as in (18); 'Olu abused the child and the child went out' with the second verb referring to the second NP as in (19); and 'Olu abused the child and both Olu and the child went out' with the second verb referring to both NP's as in one of the two interpretations given above for (20).

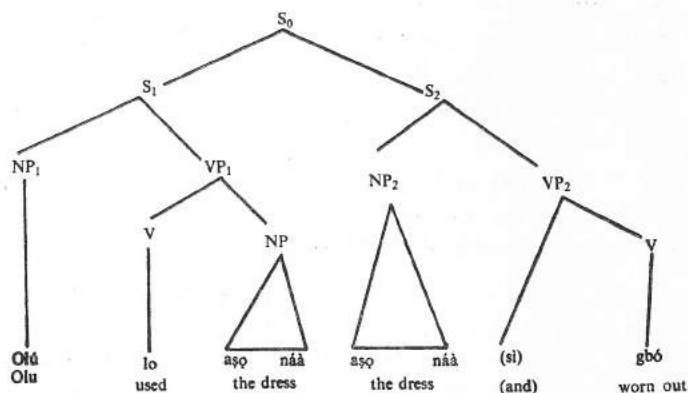
In a grammar that does not allow the derivation of (18)–(21) from more than one underlying sentence, the facts given above will be difficult, if not impossible, to state. For instance, a possible representation of the underlying structure of (19) in such a grammar might be:

(22)



where each verb is dominated by a different VP node, and there is no easy way of showing that the object to the verb *lò* 'use' is the same as the subject to the verb *gbó* 'be worn out'. On the other hand, in a grammar that postulates two underlying sentences in the derivation of (19), the underlying structure might be (assuming for the time being that the underlying sentences are coordinate):

(23)



Such a structure will adequately account for the facts of reference, as the relationship between the verbs and the NP's are clearly shown before the deletion transformations (equi-NP deletion, preverb deletion) result in the pruning of *S*₂ to yield the structure in (22).

There is another advantage in having a structure such as (23) as the underlying structure for a serial construction. It will account adequately for the ambiguity of reference which may arise in this type of construction. For example, the ambiguities in sentences (20) and (21). Taking NP₁ as the subject of the first underlying sentence (S₁) and NP₂ as that of the second sentence (S₂), it can be shown that:

- (a) Where NP₁ = NP₂, there is no ambiguity of reference. For example, (18) has the underlying sentences:

(24) (a) Olú gbé àga
'Olu took a chair'

(b) Olú wá
'Olu came'

where the NP subjects are identical. Therefore the verb wá 'come' in (18) can only refer to NP₁, after the deletion of NP₂.

- (b) Where NP₁ ≠ NP₂, there is no ambiguity of reference provided the two NP's have different selectional possibilities in relation to the verb. For example in

(19) Olú lo așo náà gbó
Olu used dress the worn out
'Olu used the dress and it became worn out'

where Olú is NP₁ and așo náà 'the dress' is NP₂, there is no ambiguity of reference since gbó 'be worn out' can only select a non-animate NP as its subject, which NP₁ is not.

- (c) Where NP₁ ≠ NP₂ and the two NP's have the same selectional possibilities, there is potential ambiguity, for the verb in S₂ may refer to NP₁, NP₂ or both NP's depending on the verb of S₁. Compare for example, (25) and (26)

(25) Olú ti ɔmɔ náà şubú
Olu pushed child the fall
'Olu pushed the child and the child fell'

(26) Olú fa ɔmɔ náà já.de
Olu pulled child the go out
'Olu pulled the child out'

In (25), it is likely that the verb in S₂ şubú 'fall' refers only to NP₂ i.e. 'Olu pushed the child and it fell but he himself did not fall', while in (26) it is obvious that já.de 'go out' refers to both NP's, since the fact of pulling automatically involves both the child and Olu going out.

(ii) SEQUENCE AND CONSEQUENCE

In a serial verbal construction, the verbs in the string form a sequence which is irreversible without change of meaning. For example, in

(18) Olú gbé àga wá
Olu carried chair come
'Olu brought a chair'

which is derived from the combination of (24a) and (24b), the action of carrying the chair precedes that of coming. A reversal of this sequence, results in

- (27) Olú wá gbé àga
 Olu came carry chair
 'Olu came to carry the chair'

which is not only different in meaning, but is a different kind of construction containing an adverbial phrase of purpose.¹¹ The fact of sequence is adequately represented in the underlying structure where S₁ precedes S₂ and consequently the VP of S₁ (VP₁) precedes that of S₂ (VP₂).

In addition to the sequential relation, many verbs in a serial construction are also marked by the relation of consequence, i.e. the action of VP₂ is a consequence of the action of VP₁. For example in

- (28) wọn mu ọtí yó
 they drank wine drunk
 'They were drunk'

the action of VP₂ (getting drunk) would not have occurred unless the action of VP₁ (drinking) had taken place.

The difference between sequence and consequence is reflected in:

- (a) different transformational possibilities for the sentences underlying the two types. For example, the sentences underlying (28) may be linked by *nítorípé* 'because' to yield

- (29) (a) wọn yó nítorípé wọn mu ọtí
 they drunk for reason that they drank wine
 'They were drunk because they drank wine'

and a possible topicalization transformation on (29a) would be

- (29) (b) mímu tí wọn mu ọtí ní wọn fi yó
 drinking that they drank wine is they drunk
 'It was because they drank wine that they got drunk'.

Such a transformation for the sentences underlying (18) will be impossible because the corresponding statements will be false for (18). Compare (29) with (30)

- (30) (a) Olú wá nítorípé ó gbé àga
 Olu came for reason that he carried chair
 'Olu came because he carried a chair'
- (b) gbígbé tí Olú gbé àga ní ó fi wá
 carrying that Olu carried chair is he came
 'It was because Olu carried a chair that he came'

- (b) difference in negation. In the sequential relation, either of the two underlying sentences may be negated. For example, the negative of (18) is (31)

¹¹ The verbal string in Yoruba involving a purpose construction is excluded in this paper, as it is considered to be different from a serial construction. Cf. Stahlke (1970) p. 82. Another construction that is similarly excluded is the verb-infinitive construction. See Bamgbose (1971).

- (18) Olú gbé àga wá
'Olu brought a chair'
- (31) Olú ò gbé àga wá
Olu not carry chair come
'Olu did not bring a chair'

(31) is, however, ambiguous. It could either mean 'Olu took the chair but did not come with it' or 'Olu came but did not bring the chair'. (We are excluding from this discussion the general meaning of 'not happening' i.e. 'it did not happen that Olu came with a chair' which is obviously derived from a negation of the two underlying sentences). This ambiguity can be traced to the difference in negation between the two underlying sentences. The first meaning corresponds to the occurrence of negation in S₂, while the second corresponds to its occurrence in S₁ i.e.

- (32) S₁: Olú gbé àga; S₂: Olú ò wá
Olu carried chair Olu not come
'Olu took the chair but did not come'
- (33) S₁: Olú ò gbé àga; S₂: Olú wá
Olu not carry chair Olu came
'Olu came but did not bring the chair'

In the case of the consequential relation, there is no such ambiguity as only S₂ may be negated i.e. the negative of (28) is (34), and (34) can only be derived from (35) and not from the contrary-to-fact sequence of S₁, S₂ in (36).

- (28) wọn mu ọtí yó
'They were drunk'
- (34) wọn ò mu ọtí yó
'They were not drunk'
- (35) S₁: wọn mu ọtí; S₂: wọn ò yó
they drank wine they not drunk
'They drank (wine) but were not drunk'
- (36) S₁: *wọn ò mu ọtí; S₂: wọn yó
they not drank wine they drunk
'They did not drink (wine) but they were drunk'

(iii) NEGATION

As shown in the discussion of sequence and consequence in (ii) above, negation must be related to underlying sentences. A grammar that does not postulate two underlying sentences will find it difficult to explain why negation in (34) is not a negation of the verb the negator immediately precedes, but that of the second verb. This fact is immediately explained by the possibility of (35) and the impossibility of (36). Similarly, the ambiguity of (18) can only be explained by reference to (32) and (33).

(iv) CASE

The case indication of the NP's in a serial verbal construction is exactly the same as that of the underlying sentences, even when a deletion has taken place. For example in

- (37) Olú lé ọmọ náà já.de
 Olu drove child the go out
 'Olu drove out the child'
- (38) S₁: Olú lé ọmọ náà; S₂: ọmọ náà já.de
 'Olu drove the child; the child went out'

the NP ọmọ náà 'the child' is deleted in S₂ of (38) to give (37). In (38) this NP is dative (in Fillmore's case grammar terms, Fillmore (1968) ¹² in both instances of its occurrence. In (37), it retains this dative case. This sort of example presents no difficulty since the NP represents the same case in both instances of its occurrence in (38). Compare, however, (39) and (40):

- (39) ajá gbé egungun (fi) há ẹnu
 dog took bone use wedge mouth
 'The dog took the bone in its mouth'
- (40) S₁: ajá gbé egungun; S₂: ajá fi egungun há ẹnu
 dog took bone dog use bone wedge mouth
 'The dog took a bone; the dog wedged its mouth with the bone'

In (40), the NP *egungun* 'bone' is objective in case (again in Fillmore's use of the term 'objective' for case), and the same NP in S₂ is instrumental. The rule that converts (40) to (39) effects a deletion of the instrumental NP *egungun* 'bone' in S₂, yet in spite of this deletion, the surviving NP in (39) still retains two cases: objective and instrumental. This apparent anomaly can only be understood by reference to the underlying sentences in (40) where the instrumental case is clearly expressed. Unless two underlying sentences are postulated, the double case represented by the NP in question would probably go undetected, and if detected, impossible to explain.

(ν) TENSE AND ASPECT

It has often been observed that verbs in a serial construction agree in tense and aspect.¹³ To take an example from Ijọ, sentence (41) is derived from the two sentences in (42):

- (41) ẹrí ìndì fẹ́ bó -mí
 he fish buy come past
 'He bought fish and brought it'
- (42) ẹrí bó -mí; ẹrí ìndì fẹ́ -mí
 he come past he fish buy past
 'He came'; 'He bought fish'.¹⁴

The agreement in tense is shown in the underlying sentences in (42) which both have the past tense marker *-mí*. In the serial construction in (41), the tense marker, although indicated on only one of the two verbs, is understood to cover both of them as shown by (42).

It may be thought that agreement in tense or aspect in the serial construction is an argument for postulating more than one underlying sentence. In fact, this is not so. Derivation from a single underlying sentence can easily take care of tense or aspect agreement, since the tense need only be

¹² Fillmore (1968) pp. 24-25.

¹³ See, for example, Ansre (1966) p. 30, and Stahlke (1970) pp. 80-82.

¹⁴ Williamson (1965) p. 50.

indicated at one point for all verbs in the string. If anything, derivation from more than one underlying sentence proves wasteful at this point, since a restriction will have to be built into the underlying structure to prevent any of the sentences in it from having a tense or aspect that is different from that of any other sentence in the string.

The really strong case for having more than one underlying sentence is when tense or aspect is not the same for all the verbs in the serial construction. Such a situation does occur in Izi where 'the verb of the first clause can be of any independent or non-subordinate aspect, but the verbs in successive clauses are restricted to certain aspects'. In the Izi sentence (43), the sequence of aspects for the three verbs in the serial construction is: Past—Present Progressive—Present Progressive:

- (43) ò shíá 'jí àtsù èrí
 she cooked yam is pounding eating
 'She cooked yam and is pounding and eating it'¹⁵

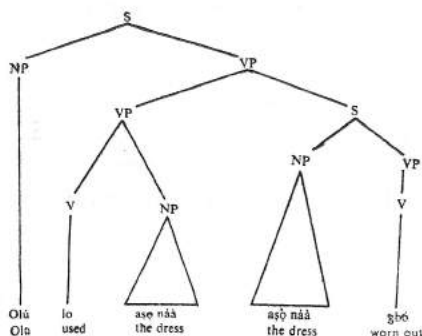
Since there are different tenses in the construction, it will not do to indicate the aspect at only one point or for only one verb. In other words, more than one underlying sentence is required to account for the difference in the aspect of the verbs. It is serial verbal constructions such as (43), rather than the type where there is tense or aspect agreement, that provide a justification for having more than one sentence in the underlying structure. But as has been shown above, there is a strong case for derivation from underlying sentences on other grounds for all serial verbal constructions of the linking type.

4. SOME PROBLEMS OF DERIVATION

There are two problems connected with the derivation of serial verbs which will only be briefly mentioned but not fully discussed here. One is the relationship between the underlying sentences; the other is the nature of the rules required to prevent the derivation of unacceptable serial constructions.

In the foregoing discussion of the underlying structure of serial verbs, the assumption has been made that the underlying sentences are coordinate. It is possible to argue, however, that the relationship between the sentences could be one of dependence: the first sentence being the matrix sentence and the other sentence being an embedded sentence. For example, an alternative representation to the underlying structure in (23) could be

(44)



¹⁵ Bendor-Samuel (1968) p. 121.

where the second sentence is a complement to the first verb phrase. This underlying structure will account equally well for the five characteristics of the serial verbal construction discussed above i.e. reference, sequence and consequence, negation, case, and tense and aspect. As far as one can see, there are hardly any objective grounds for choosing between (23) and (44), except one accepts Stahlke's argument that the verbs in the matrix sentence 'are not the type which one normally treats as taking sentential complements',¹⁶ therefore invalidating (44). It may well be the case that the choice between (23) and (44) will depend on the language being described. For instance Williamson (1965) finds it necessary to derive the serial verbal construction from two types of underlying sentences: coordinate sentences, and a matrix and a constituent (embedded) sentence, the difference between the two types being that the embedded sentence modifies the matrix sentence, while the coordinate sentences are independent.¹⁷

It is a well-known fact that not all underlying sentences can serve as input to the set of transformations that are used to derive the serial verbal construction. For example, from the two sentences in (45) the serial construction (46) may be derived:

- (45) ó ra iṣu; ó wá
 she bought yams she came
 'She bought yams; she came'
- (46) ó ra iṣu wá
 she bought yams come
 'She bought yams and brought them'

Compare (45) with the two sentences in (47) which are perfectly well-formed, but from which the serial construction in (48) cannot be derived

- (47) ó ta iṣu; ó wá
 she sold yams she came
 'She sold yams; she came'
- (48) *ó ta iṣu wá
 she sold yams come
 'She sold yams and came'

Notice that there is nothing wrong with the sequence of actions in (47). One can sell yams and then come, just as in (45) one can buy yams and come; but apparently in Yoruba such a sequence of actions can be compressed in the serial construction in (46), but not in (48). There are two ways of tackling this problem. One could say that the combinations are not subject to syntactic rules, hence the transformations deriving serial verbal constructions will not be constrained from producing ill-formed sentences such as (48).¹⁸ On the other hand, one could attempt to find sequences of classes of verbs which admit of serialization. Such an exercise has been done for serial constructions involving verbs of motion in Ijọ (Williamson 1963). Perhaps this is another question which will depend on the nature of the language being described: It may be easier in some languages than others to build in syntactic constraints. In the final analysis, however, no grammatical statement

¹⁶ Stahlke (1970) p. 77.

¹⁷ Williamson (1965) p. 47.

¹⁸ This is the attitude taken by Awobuluyi (1967) pp. 93-94.

may be regarded as complete, if it allows a large number of ill-formed sentences to be generated as will undoubtedly be the case, if no constraints are put on the sequence of sentences from which serial constructions are to be derived.

5. SERIAL VERBS AND ADVERBIAL CLAUSES

There is one other possible source of derivation of the linking type of serial verbal construction which should be examined before we go on to consider the other type of serial construction. It has been proposed that a sentence such as (28) may be derived from the complex sentence (49) containing an adverbial clause¹⁹

- (28) wọn mu ọtí yó
'They were drunk'

- (49) wọn mu ọtí tíí wọn fi yó
they drank wine until they drunk
'They drank (wine) until they were drunk'

On the face of it, it would appear that (28) is a paraphrase of (49), and it could easily be derived from it by equi-NP deletion as well as the deletion of *tíí fi* 'until'. However, a closer look reveals an important difference between them. The former can be negated, whereas the latter cannot. Compare, for example (34) and (50)

- (34) wọn ò mu ọtí yó
'They were not drunk'

- (50) wọn ò mu ọtí tíí wọn fi yó
'They did not drink (wine) before they were drunk'

(50) is clearly a contradiction of the 'consequence' principle and therefore could not have been the source of (34). The most probable source for (34) is (35) where negation occurs in the second sentence. It is interesting to note that the adverbial clause cannot be similarly negated, as shown by (51) which is ungrammatical

- (35) wọn mu ọtí; wọn ò yó
'They drank (wine) but were not drunk'

- (51) *wọn mu ọtí tíí wọn ò fi yó
* 'They drank wine until they were not drunk'

Sentences such as (34) and (35) on the one hand, and (50) and (51) on the other tend to cast doubt on the validity of the proposed derivation of a serial construction such as (28) from a sentence containing an adverbial clause *tíí fi* such as (49). This clause appears to be a 'fact' clause which cannot be negated, whereas the serial verbal construction allows for the negation of the verb in the second of two underlying sentences. Even where the complex sentence can be negated as in (52), there is a difference in meaning between it and the serial construction (53) supposedly derived from it. Thus in the pair of sentences

- (52) Olú ò jìyà tíí ó fi kú
Olu not suffered until he died
'Olu did not suffer before he died'

¹⁹ Such a proposal is made by Awobuluyi (1967) pp. 89-90. although he considers *tíí fi* as a mono-morphemic conjunction linking two sentences.

- (53) Olú ò jìyà kú
'Olu did not die suffering'

(52) asserts that Olu never suffered before he died, whereas (53) states that Olu died in his suffering.

It is not difficult to find sentences with adverbial clauses or phrases within the framework of serial verbal constructions. Compare, for example, the following pairs of sentences and their paraphrases of each other:

- (54) (a) ó jẹun kí ó tóó sùn
he ate let he reach sleep
'He ate before he slept'
- (b) ó jẹun sùn
he ate sleep
'He ate before he slept'
- (55) (a) ó ńjẹun bí ó ti ńrìn
he eating as he walking
'He was eating as he walked'
- (b) ó ńjẹun rìn
he eating walk
'He was eating as he walked'
- (56) (a) ó jẹun ní.gbà tí ó ńlọ
he ate at time that he going
'He ate while he was going'
- (b) ó jẹun lọ
he ate go
'He ate while going'

In view of the similarity in meaning between the pairs of sentences, it is reasonable to assume that sentences in (b) should be derived from those in (a).²⁰ However, this presents several problems:

- (i) Several adverbial clauses and phrases would have to be postulated as source sentences from which the serial verbal construction is to be derived. This would require deletion transformations would be needed to generate the required serial verbal constructions.
- (ii) Since not all complex sentences will be subject to reduction to a single clause, the same problem which arises with other underlying sentences will arise here. Which combinations of verbs will trigger off deletion transformations? For example, although (54b) can be derived from (54a), despite the fact that the source sentences (54a) and (54b) both have 'jẹun' 'eat' in the matrix sentence, and have the same type of adverbial clause,

²⁰ Note that the mere existence of a paraphrase is not enough to justify a derivation. (1969), p. 200: "We will also assume that the existence of a paraphrase . . . is not enough, in case there is a paraphrase, we will assume that it indicates lexical relationship. The structure of the paraphrase can tell us something about the semantic structure of the original sentence."

- (57) (a) ó jẹun kí ó tóó padà
 he ate let he reach return
 'He ate before he came back'

- (b) *ó jẹun padà
 *'He ate return'

- (iii) Some explanation would be required for the combination of a sentence in (b) with one in (a), which does occur in some cases. For example, the sentences in (56) can be combined to form

- (58) ó jẹun lọ ní.gbà tí ó ńlọ
 'He ate while he was going'

Clearly (58) could not have been derived from

- (59) *ó jẹun ní.gbà tí ó ńlọ ní.gbà tí ó ńlọ
 'He ate while he was going while he was going'

which is not only ungrammatical but contains two identical adverbial phrases, one of which will be reduced by the deletion transformation while the other remains intact.

- (iv) In any case, even all the adverbial clauses and phrases required in (i) above will not generate all the serial verbal constructions of the linking type. For example, (60a) cannot be paraphrased by any sentence containing an adverbial clause or phrase. Therefore it will still have to be derived from (60b).

- (60) (a) ó ńgbé àga bọ
 he carrying chair come
 'He is bringing a chair'

- (b) ó ńgbé àga; ó ńbọ
 he carrying chair; he coming
 'He is carrying a chair; he is coming'

6. THE MODIFYING TYPE OF SERIAL CONSTRUCTION

The second type of serial verbal construction is the modifying type. Like the linking type, it contains a string of verbs which share a common subject in surface structure; but unlike the linking type, the string of verbs cannot meaningfully be related to more than one underlying sentence. Examples of the modifying type of serial verbal construction are:

- (8) ó ńsùn lọ
 he sleeping go
 'He is falling asleep'

- (61) ọbẹ náà dùn tó
 stew the sweet enough
 'The stew is delicious enough'

- (62) ó sọ fún mí
 he said give me
 'He told me'

- (63) ó rọra gbé àga
 he careful carry chair
 'He carried the chair carefully'

Each of the two verbs in (8) and (61)–(63) can occur in a sentence containing only one verb. In view of this, it may be thought that the serial construction can be derived from two underlying sentences on the analogy of the derivation of the linking type of serial construction. In other words, (8), (61), and (62) may be considered as being derived from (9), (64) and (65) respectively:

- (9) ó ńsùn; ó ńlọ
 he sleeping he going
 'He is sleeping; he is going'
- (64) ọbẹ náà dùn; ọbẹ náà tó
 stew the sweet stew the enough
 'The stew is delicious; the stew is enough'
- (65) ó sọ; ó fún mí
 he said he gave me
 'He said; he gave me'

The main problem with such a derivation is that the transformation which will convert the structures underlying these sentences into the corresponding serial verbs will necessarily involve a change of meaning. For example, 'He is sleeping and going' > 'He is falling asleep', 'The stew is delicious and it is enough' > 'The stew is delicious enough'; 'He said and gave me' > 'He told me'. It is doubtful whether many people would subscribe to the view that a transformation should be allowed to effect such a radical change of meaning. In contrast to the change of meaning involved here, the same transformation will be used to produce the linking type of serial construction, and no change of meaning will be involved in its derivation. The question then is: If both types of serial construction have the same underlying structure, why should the transformation deriving them produce such different results?

Another problem with the proposed derivation is that it is likely to result in having several underlying sentences which break the normal selectional restrictions between noun and verb. For example, (66) will be derived from (67a) and (67b).

- (66) Olú rìn tì
 Olu walked fail
 'Olu was unable to walk'
- (67) (a) Olú rìn
 'Olu walked'
- (b) *Olú tì
 'Olu failed'

But (67b) is not a grammatical sentence in the language. Of course, it is possible to set up ungrammatical sentences in the underlying structure, but then there must be independent motivation for this other than to make possible the proposed derivation.²¹ Note that in the derivation of the linking type of serial construction, no selectional restrictions are violated, since each of the underlying sentences is well-formed.

²¹ Such an independent motivation is provided for the proposed ungrammatical underlying sentences for serial constructions in Stewart (1963) p. 147.

If (66) were really a serial construction of the linking type, the reference of the verb *tì* 'fail' could only be to the only NP, which is the subject. The fact that there is no such reference is shown by the impossibility of (67b).

It may be thought, however, that the underlying sentences (9), (64), (65) and (67) are not really appropriate, and that other underlying sentences may be found which are closer in meaning to the desired serial constructions in (8), (61), (62) and (66) respectively. For example, (61) may be seen as being derived from (68) and not from (64).

- (68) *ɔbɛ náà dùn; dídùn ɔbɛ náà tó*
 stew the sweet sweetness stew the enough
 'The stew is delicious; the deliciousness of the stew is enough'

It is true that (68) is a possible paraphrase of (61), while (64) is entirely different from it in meaning; but there is no justification at all for postulating (68) as the source of (61). The rule that derives serial constructions from underlying structures always involves a deletion of one of two identical NP's. Thus, as shown in (37) and (38), the subject of the second sentence in (38), *ɔmɔ náà* 'the child', which is identical with an NP in the first sentence, has to be deleted to yield (37).

- (37) *Olú lé ɔmɔ náà já.de*
 Olu drove child the go out
 'Olu drove out the child'
- (38) *Olú lé ɔmɔ náà; ɔmɔ náà já.de*
 'Olu drove the child; the child went out'

Notice that the same rule cannot be applied to the structure underlying (68) to yield (61), since the subject of the second sentence *dídùn ɔbɛ náà* 'the deliciousness of the stew' is not identical with any NP in the first sentence.

In order to derive (61) from (68), an ad-hoc and completely arbitrary rule of NP deletion will be required. Such a rule will differ from the regular Equi-NP deletion rule which will be used for deriving the serial constructions of the linking type. We would then be in the untenable position of deriving the same structure from the same type of underlying forms by two different sets of rules. Furthermore, several of the serial constructions will still have to be derived from sentences which involve a change of meaning or unmotivated ungrammatical sentences. For example, (62) will still have to be derived from (65), and one of the sentences underlying (66) is bound to be ungrammatical.

The logical conclusion that can be drawn from the points raised above is that verbs such as *tì* 'fail' in (66), *lɔ* 'go' in (8), *tó* 'enough' in (61), *fún* 'give' in (62) and *rɔra* 'careful' in (63) are not really derived from an independent underlying sentence. What they appear to do in the above sentences is merely to modify the meanings of the other verbs with which they occur. It is for this reason that they are assigned to the category of "modifying verbs".

It is true that the sequence of verbs in both types of serial construction is irreversible. But this cannot be attributed to sequential relation as described for the linking type, since the absence of reference in the modifying type implies that there is only one action and not a series of actions in a sequential order. The irreversibility of the verbs in the modifying type of serial construction is a constraint of their characteristic positions of occurrence in this construction. Some modifying verbs

only precede, while others only follow, the verbs they modify. For example, *sáré* 'run' as a modifying verb only precedes the verb it modifies. If this sequence is reversed, then it ceases to be a modifying verb. Compare, for example, sentences (69a) and (69b)

- (69) (a) *ó sáré gbé e*
 he ran race carried it
 'He carried it quickly'
- (b) *ó gbé e sáré*
 he carried it ran race
 'He carried it and ran'

in which *sáré* 'run' is a modifying verb in (69a), but simply one of the verbs in a linking type of serial construction in (69b). In cases where a modifying verb may precede or follow the verb it modifies (and so far only one such case has been discovered), the sequence of verbs in the string is reversible without any change of meaning. This is the case with (70a) and (70b).

- (70) (a) *ó šáájú mi lɔ*
 he preceeded me go
 'He went before me'
- (b) *ó lɔ šáájú mi*
 he went precede me
 'He went before me'

The difference between the linking type and the modifying type of serial verbal construction becomes clearer still if an ambiguous case is considered. Sentence (71) is ambiguous as between

- (71) (a) *Olú sáré wá ilé* (Linking Type)
 Olu ran race come home
 'Olu ran and came home'
- (b) *Olú sáré wá ilé* (Modifying Type)
 'Olu came home quickly'

and the two sentences differ in the following ways:

- (i) For the reasons given above, (71b) cannot be traced to two underlying sentences, but (71a) can and should.
- (ii) In (71a) negation of the serial construction (which is indicated by the occurrence of the negator *ò* 'not' before the first verb) involves a negation of either of the two verbs in the string i.e. 'Olu ran but did not come home' or 'Olu did not run but came home'. In contrast to this, the negation of (71b) involves only a negation of the modifying verb *sáré* 'run' i.e. 'Olu came home but did not do so quickly'²²
- (iii) In (71a) *sáré* can be topicalized as

²² It may be thought that the behaviour of the modifying verb in a negative sentence is a justification for deriving the verb from a higher sentence. Cf. arguments for such a derivation in Lakoff (1965), Appendix F. In postulating the structure in (74b), we are implicitly rejecting this derivation. It seems to us that the arguments advanced for the derivation of an adverb from a higher sentence could equally well be used for deriving NP objects from higher sentences. And certainly, such a derivation will be rejected by many people as counter-intuitive and absurd.

- (72) sísaré ni Olú sáré wá ilé
 running is Olu ran race come home
 'It was running that Olu ran and came home'

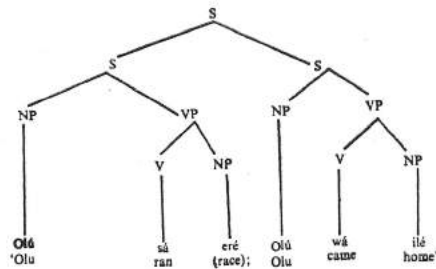
but this cannot be done in (71*b*)

- (iv) The cognate object *eré* 'race' in *sáré* can be separated in (71*a*) but not in (71*b*). Proof of this can be shown by the possibility of topicalizing it as in (73) and the impossibility of doing the same with (71*b*). In fact it is likely that *eré* 'race' in the latter is not really an object but part of the morphemic structure of the verb.

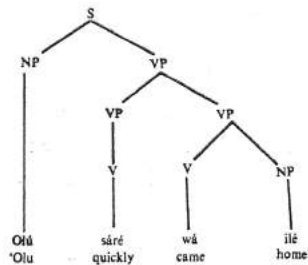
- (73) *eré* ni Olú sá wá ilé
 race is Olu ran come home
 'It was running that Olu ran and came home'

The differences of meaning and syntactic behaviour outlined above must be reflected in the underlying structure of the two sentences. It is therefore proposed that (71*a*) should have the underlying structure (74*a*), and (71*b*) the underlying structure (74*b*).

(74) (a) LINKING TYPE



(74) (b) MODIFYING TYPE



Similar ambiguous sentences which would require different underlying structures analogous to the above are:

- (75) Olú rìn lẹ
 Olu walked go
 'Olu walked while going' (Linking Type)
 'Olu is lost' (Modifying Type)
- (76) Ọmọ náà ké wá
 child the cried come
 'The child came crying' (Linking Type)
 'The child suddenly cried' (Modifying Type)
 (as from his sleep)

7. MODIFYING VERBS

The term 'modifying verb' has been applied above to verbs that modify other verbs in a serial construction. Since the same verb may be a modifying verb in one case and a non-modifying one in another, it is necessary to find a way of keeping apart the two types of verb. This is especially important in a serial verbal construction consisting of two verbs either of which is potentially capable of being a modifying verb. For example, in

- (77) (a) ó sáré tán
 it ran race finish

it is necessary to indicate which of the two verbs modifies the other. If sáré 'run' is the modifying verb, then the meaning of the sentence is 'It finished quickly' where 'it' refers to an inanimate noun like 'water' or 'rice'. On the other hand, if tán 'finish' is the modifying verb, the meaning of the sentence will be 'it finished running' where 'it' refers to an animate noun like 'dog' or 'horse'. The solution proposed is to attach the feature [+MOD], i.e. plus modification, to any modifying verb so as to distinguish it from a non-modifying one which will have the feature [-MOD]. Hence, the two meanings of (77a) will correspond to the specification in (77b) and (77c) respectively

- (77) (b) ó sáré tán
 [+MOD] [-MOD]
- (77) (c) ó sáré tán
 [-MOD] [+MOD]

and similarly for the ambiguous sentences in (71).

There are two classes of modifying verbs: those that precede the verbs they modify (labelled 'preverbal' modifying verbs) and those that are preceded by the verbs they modify (labelled 'post-verbal' modifying verbs). One or more modifying verbs may occur in a serial construction. For example,

- (78) (a) wọn jẹ rọra gbé e
 [+MOD] [+MOD] [-MOD]
 they assemble careful carried it
 'They carried it together carefully'

- (b) wọ̀n lẹ̀ ó pọ̀ tì
 [-MOD] [+MOD] [+MOD]
 they used it many fail
 'They were unable to use it together'
- (c) wọ̀n yára jọ tò ó pọ̀ fún gbogbo wa
 [+MOD] [+MOD] [-MOD] [+MOD] [+MOD]
 they quick assemble arranged it many give all us
 'They quickly arranged it together for all of us'

A list of some modifying verbs in Yoruba is given below:

PREVERBAL MODIFYING VERBS	FULL MEANING	MODIFYING MEANING
sáré	'run'	'quickly'
yára	'be quick'	'quickly'
rọra	'be careful'	'carefully'
jọ	'assemble'	'together'
gíra	'strive'	'with difficulty'
ṣáájú	'precede'	'before'
ṣì (+ object inversion)	'miss' ²³	'in error'
ṣọ (" ")	'watch'	'carefully'
gán (" ")	'trim'	'with economy'
jí (" ")	'steal'	'stealthily'
tó (" ")	'take a little (of something)'	'sparingly'
yọ (" ")	'slip'	'stealthily'

POSTVERBAL MODIFYING VERBS	FULL MEANING	MODIFYING MEANING
lọ	'go'	'off, on'
wá	'come'	'on, towards'
bọ	'come'	'on, towards'
tán	'finish'	'completely'
pọ	'be many'	'together'
tó	'be enough'	'sufficiently'
tì	'fail'	'unable to'
tì	'push'	'against'
lù	'hit'	'against, on'
jù	'exceed'	'than'
kù	'remain'	'left'
fún	'give'	'for'
kárí	'go round'	'all round'
ká	'fold'	'round'
yíká	'surround'	'all round'

²³ For this and subsequent verbs, '+ object inversion' means that the object of the following verb is inverted. For example *ó ṣì sọ ọ̀rọ̀ > ó ṣì ọ̀rọ̀ sọ 'He spoke wrongly'.

kiri	'roam about'	'all over'
gbé	'perish'	'irretrievably'
jìnnà	'be far'	'far'
mọ	'stick'	'to, against'
nù	'be lost'	'away'
pẹ	'be late, be long'	'for a long time'
pa	'kill'	'to extreme, too much'
wò	'look, examine'	'just to see'
kẹ.hìn	'be last'	'last'
gbẹhìn	'be last'	'last'

8. THE VERBAL STATUS OF MODIFYING VERBS

The existence of the class of modifying verbs raises the important question of verbal status. What is a verb in Yoruba, and indeed can modifying verbs be called verbs at all?

The most complete criteria available so far for determining verbal status in the language are those provided by Awobuluyi (1969). These criteria boil down to the following:

- (i) occurrence in the frame $\neq$ NP — (NP) $\neq$
- (ii) possibility of topicalization by reduplication
- (iii) selection of subject
- (iv) selection of object

Judged by these criteria, all the modifying verbs are verbs. To take one example, *ṣáájú* 'precede' satisfies the four criteria in (79a), (79b), and (79c) for the third and fourth criteria, respectively:

- (79) (a) *omọ náà ṣáájú*
child the preceded
'The child was in front'
 - (b) *ṣíṣáájú ni omọ náà ṣáájú*
preceding is child the preceded
'It was the case that the child was in front'
 - (c) *okùnrin náà ṣáájú mi*
'The man was in front of me'
- (Note that *ṣáájú* cannot select a concrete non-animate NP as its subject or object)

However, in (79) *ṣáájú* does not function as a modifying verb. And this is true of all the verbs in this class when they occur in a minimal sentence.

Let us now take a look at the behaviour of the same verb in a serial verbal construction where it occurs as a modifying verb. In this construction, this verb fails the above tests for verbs. It cannot be topicalized. For example, the only possible topicalization of (80a) is (80b), and not (80c).

- (80) (a) *ó ṣáájú mi ra aṣọ*
'He bought a dress before me'
- (b) *rírà ni ó ṣáájú mi ra aṣọ*
'It was buying that he bought a dress before me'
- (c) **ṣíṣáájú ni ó ṣáájú mi ra aṣọ*
* 'It was preceding that he bought a dress before me'

It does not select its subject.²⁴ For example, although (81a) and (81b) are possible sentences, (81c) is not.

- (81) (a) *ilé náà wó*
house the collapsed
'The house collapsed'
- (b) *ilé náà wó šáájú tēmi*
'The house collapsed before mine'
- (c) **ilé náà šáájú*
'The house was in front'

The impossibility of (81c) as contrasted with (81a) and (81b) is proof that it is the verb *wó* 'collapse' that selects the subject in (81b) and not the modifying verb *šáájú* 'precede'. It does not select its object. The point has been made in (79) that *šáájú* cannot select a concrete non-animate object. This point is further confirmed by the impossibility of (82a). But in (82b) which is a grammatical sentence, *šáájú* appears to take exactly such an object.

- (82) (a) **ilé náà šáájú ilé tēmi*
* 'The house preceded my own house'
- (b) *ilé náà wó šáájú ilé tēmi*
'The house collapsed before my own house'

The obvious conclusion from this is that it is not *šáájú* that selects the object in (82b), but the combination of the two verbs, i.e., as a modifying verb, *šáájú* loses its power to select an object.

It is clear, therefore, that modifying verbs do not satisfy the proposed criteria for verbal status. Yet we have seen that the same items are unambiguously verbs in minimal sentences. This kind of phenomenon is attested in other West African languages. For example,

Vagalla (Pike, 1966)

	FULL MEANING	MODIFYING MEANING
<i>kpá</i>	'take'	'with' (instrumental)
<i>tè</i>	'give'	'for'
<i>kuàrì</i>	'fix, make'	'again'
<i>bìr</i>	'turn'	'again'

Izi (Bendor-Samuel, 1968)

<i>gude</i>	'hold'	'with' (instrumental)
<i>nodu</i>	'stay'	'continue (doing something)'

Yatye (Stahlke, 1970)

<i>ahyẹ</i>	'squat, lie'	continuous
<i>aga</i>	'wander'	habitual
<i>ibu</i>	'return'	repetitive

²⁴ A notable exception in this respect is *jɔ* 'assemble, together' which always selects a plural subject.

There are two ways of handling this phenomenon:

- (i) To regard these items in their modifying function as adverbs, prepositions or auxiliaries of some sort which are merely homophonous with verbs but are not verbs at all.
- (ii) To regard the items as verbs which have a different kind of function in the serial verbal construction as compared with their function in a minimal sentence.

In support of the first solution, one can point to the fact that it is not unusual in West African languages to have homophonous items belonging to different classes.²⁵ Secondly, as we have seen above, these modifying items do not share some verbal characteristics. On the other hand, the first solution is rather unsatisfactory for a number of reasons:

- (a) It is uneconomical in that it involves the setting up of two or more large classes in which there is a one-to-one correspondence between an item as a verb and a corresponding homophonous item as a non-verb.
- (b) It ignores the semantic relation between these items as verbs and as 'non-verbs' (whatever class or classes they are assigned to). It is more than sheer accident that these items in different classes are homophonous as well as similar in meaning.
- (c) It ignores certain morphological and syntactic characteristics shared by verbs and these items irrespective of the structure in which they occur. For example in some languages they take the same tense and aspect markers or the same extensor suffixes.²⁶
- (d) In some languages, there is no justification at all for lumping these items together with some other class. For example, in Yoruba, adverbs behave very differently from modifying verbs as shown by (83a) and (83b) on the one hand, and (83c) and (83d) on the other.

- (83) (a) *ó lò ó pátápátá*
 he used it completely
 'He used it completely'
- (b) *pátápátá ni ó lò ó*
 completely is he used it
 'It was completely that he used it'
- (c) *ó lò ó tán*
 he used it finish
 'He used it up'
- (d) **tán ni ó lò ó*
 finish is he used it

In (83a), the adverb *pátápátá* 'completely' can be topicalized as in (83b), but this cannot be done with the modifying verb in (83c), as shown by the ungrammaticality of (83d).

In view of the points raised above, it seems reasonable to conclude that modifying verbs are in fact verbs. When they occur in a minimal sentence, they have all the characteristics of a full verb; but when they occur in a serial construction, they take on a modifying function and do not have

²⁵ See, for example, Ansre (1966), pp. 30-32.

²⁶ For example, such items in Yatye have tense markers like true verbs, Stahlke (1970) p. 80; and in Izi, they may take extensor suffixes, again like true verbs, Bendor-Samuel (1968) pp. 120, 123.

the full range of verbal characteristics. In other words, the difference in the behaviour of a verb varies according to whether it occurs as the only verb or as one of a number of verbs in a sentence. This solution is the one generally accepted in the description of verbal combinations in West African languages. Modifying verbs are primarily identified as verbs and then secondarily classified according to their function in the verbal string.²⁷

If the view that modifying verbs are verbs is valid, then it follows that the criteria proposed for determining verbal status in Yoruba are inadequate, since they will exclude modifying verbs. The characteristics noted in the criteria are only true of minimal sentences. They do not take into account the fact that verbs occurring in a string may not necessarily have these characteristics. One strong evidence in support of the position taken here is that the restriction in the characteristics of verbs when they occur in a string is not limited to modifying verbs alone. In the serial construction of the linking type, non-modifying verbs may lose certain characteristics associated with full verbs. For example, such a verb may lose the possibility of being topicalized by reduplication (see criterion (ii) above). In (18) which is accepted as consisting of two undisputed verbs *gbé* 'carry' and *wá* 'come', only the former verb may be topicalized. Compare (84a) and (84b).

- (18) *Olú gbé àga wá*
'Olu brought a chair'
- (84) (a) *gbígbé ni Olú gbé àga wá*
'It was bringing that Olu brought a chair'
- (b) **wíwá ni Olú gbé àga wá*
* 'It was coming that Olu brought a chair'

It is shown in (84b) that *wá* cannot be topicalized. Yet when this same verb occurs as the only verb in a sentence, it can. Compare the impossibility of (84b) with the occurrence of (85b).

- (85) (a) *Olú wá*
'Olu came'
- (b) *wíwá ni Olú wá*
'It was coming that Olu came'

Obviously, the difference in the behaviour of this verb can be traced to its occurrence in a minimal sentence in (85a) in contrast to its occurrence in a verbal string in (18). (Note that this is exactly what happens to modifying verbs, as examples (79) and (80) show). Should we now say that *wá* is a verb in (85a) and not a verb in (18)? Clearly this will be absurd. The logical thing to do is to reject any criterion that will produce such an unsatisfactory result. And this is precisely what has been proposed above.

9. THE STATUS OF OTHER MODIFYING ITEMS

There is a large group of words in Yoruba which differ from modifying verbs in respect of their inability to occur in the frame $\neq NP - (NP) \neq$. An example of such a word is *tètè* 'early' which can occur in a verbal string as in (86a), but not as the only verb as in (86b)

²⁷ Examples of such an approach are: Pike (1966), (1967), Bamgbose (1966), Bendor-Samuel (1968), and Stahlke (1970).

- (86) (a) *mo tètè lə*
 I early went
 'I went early'
 (b) **mo tètè*
 *I early'

In most analyses of the language, these items are usually consigned to a miscellaneous list of categories such as auxiliaries, preverbs, adverbs, prepositions, and particles, and are regarded as non-verbs. Rather than accept the conventional analyses uncritically, we should first examine these items in relation to modifying verbs. How similar are they to modifying verbs? Since they do not occur in the one-verb frame above, it is futile trying to compare them in such a structure. But they do occur in a verbal string in the same positions in which modifying verbs occur. The question then is: How does their syntactic behaviour in a verbal string compare with that of modifying verbs? A comparison of the two types of items shows that they share the same characteristics:

- (i) Like modifying verbs, the function of these items is to modify the verbs with which they occur in the verbal string. Compare the modifying verbs in (87) with these other items in (88)

- (87) (a) *ó sáre mú iwé náà*
 he ran race took book the
 'He took the book quickly'

- (b) *ó şubú lù mí*
 he fell hit me
 'He fell on me'

- (88) (a) *ó mọ́ọ́mọ́ mú iwé náà*
 he intentionally took book the
 'He took the book intentionally'

- (b) *ó şubú lé mí*
 he fell on me
 'He fell on me'

- (ii) Like modifying verbs, they divide into two classes: preverbal (occurring before the verbs they modify), for example, (88a) and postverbal (occurring after the verbs they modify), for example, (88b). The list of items in the two classes is:

PREVERBAL

<i>tètè</i>	'early'
<i>mọ́ọ́mọ́</i>	'intentionally'
<i>şẹşẹ</i>	'just (with reference to time)'
<i>kúkú</i>	'even'
<i>kọ́/kọ́kọ́</i>	'first'
<i>jùmọ́</i>	'together'
<i>şì</i>	'still'
<i>dédé</i>	'just by chance'
<i>kàn</i>	'only'
<i>túnbò</i>	'further'

tilè	'even'
nìkan	'alone'
sáábà	'usually'
sì	'and'
sàà	'just'
jàjà	'managed to'
ti	'from'
dá	(± object inversion) 'alone'
tún	(± object inversion) 'again'
bá	'accompany, with'
fi	'use, with' ²⁸

POSTVERBAL

kà	'on'
dè	'for one's arrival'
lé	'on'
sí	'into'
ná	'meanwhile'
rí	'before'
tì	'incompletely'
rará	'at all'
mó	'(not) ever'
şá	'just'
sé	'definitely'

- (iii) They do not select their subjects.²⁹ For example, in

- (89) (a) ɔbè náà tètè tán
 'The stew finished early'
 (b) *ɔbè náà tètè wá
 *'The stew came early'

tètè is neutral in the selection of the subject. The impossibility of (89b) is due entirely to the fact that the verb wá 'come' cannot select that particular noun as subject. Compare this with the similar neutrality of the modifying verb in (81).

- (iv) They do not generally select their objects. This is especially true of the post-verbal ones which appear to behave like the post-verbal modifying verb in (82b) where selection of object is shown to be a function of all the verbs in the string.

²⁸ This list excludes tense and aspect markers and modals which exhibit certain additional characteristics. For example, they must be repeated in each underlying sentence, and with one or two exceptions, they are mutually exclusive and do not operate in imperative sentences. Cf. Bamgboṣe (1966), p. 69. They probably belong to the same class as the items listed here, although they must be regarded as constituting a distinct subclass.

²⁹ There are one or two exceptions to this general rule: mọ́mọ́ 'intentionally' selects an animate subject, while jùnmọ́ 'together' selects a plural subject.

- (v) They cannot be topicalized. For example, (90b) is the only possible topicalization of the verb in (90a); (90c) is ungrammatical.

- (90) (a) wón tètè lọ
'They went early'
(b) lílọ ní wón tètè lọ
'It was the case that they went early'
(c) *títètè ní wón tètè lọ
'It was early that they went'

In this respect, (90) may be compared with (80).

- (vi) There is only one possibility of negation. In the case of modifying verbs, negation of the verbal string involves a negation of the modifying verb only. In the case of these items, negation of the verbal string involves either a negation of the item or a negation of the whole string. For example,

- (91) (a) Olú ò tètè gbé àga
'Olu did not take the chair early'
(b) Olú ò kúkú gbé àga
'Olu did not even take the chair'

In (91a), the presupposition is that Olu took the chair but did not do so early. What is negated, therefore, is *tètè* 'early'. In (91b), on the other hand, the presupposition is that Olu did not take the chair. What is negated therefore is the whole string including the verb.³⁰ Compare (91a) with the negation of (71b) which is described above.

- (vii) Like preverbal modifying verbs, these other modifying items that are preverbal may be preceded or followed by the verbal particle *ń* which indicates the progressive or habitual aspect.³¹ Compare, for example, the modifying verbs *rọra* 'be careful' in (92) with *tètè* in (93)

- (92) wón ńrọra sọrọ
wón rọra ńsọrọ
'They are talking quietly' or 'They talk quietly'
(93) wón ńtètè sọrọ
wón tètè ńsọrọ
'They are talking in time' or 'They talk in time'

The facts given above indicate that the items in question and modifying verbs are identical in behaviour, except in respect of the inability of the former to occur in a minimal sentence. This tends to cast doubt on the validity of this criterion as the sole factor for determining what is and what is not a verb. And there is additional evidence in support of the view that this criterion is not crucial. This evidence is as follows:

³⁰ This negative presupposition is true of *kúkú*, *kàn*, *tilẹ*, *jàjà*, *sàà*, *rí*, *rará*, *sẹ*, *şá*. It is also true of tense and aspect markers and modals.

³¹ Some of the items can be preceded by the verbal particle only when they occur in a negative sentence. For example, *kì í kúkú sọrọ* 'He doesn't talk' where *kì ń* > *kì í* by assimilation. Note that there is no positive counterpart **ó ńkúkú sọrọ*.

- (i) There are verbs in the language which cannot occur in a sentence without some modifying item occurring obligatorily with them. For example,

(94) (a) ó fi owó sí ɛnu
 he put coin into mouth
 'He put a coin in the mouth'

(b) *ó fi owó
 He put coin

(95) (a) owó ò sí
 money not be
 'There is no money'

(b) *owó sí
 money be

(96) (a) aʃɔ náà bɛ yòò
 dress the red bright
 'The dress is bright red'

(b) *aʃɔ náà bɛ
 'The dress is red'

All the verbs in (94)–(96) fail the test of occurrence in the diagnostic frame $\neq$ NP — (NP) $\neq$. In (94), the verb *fi* 'put' requires the post-verbal modifying item *sí* 'into'; in (95) the verb *sí* 'be' requires a negator; and in (96) the verb *bɛ* 'be red' requires an adverb. The fact that these verbs are accepted as verbs is proof that the diagnostic frame is not really crucial to the determination of verbal status. Semantic and syntactic constraints may require that a verb should occur obligatorily with another verb or some other item (such as a transitive verb always occurring with an object). This is precisely the situation with those modifying items which cannot occur without the verbs they modify.

- (ii) Some of the modifying items in question can occur in a minimal sentence in certain restricted contexts. For example, *tètè* 'early' can occur as the only verb in an imperative sentence as in (97).

(97) ɛ tètè
 you-plural early
 'You, be quick'

Similarly, *mòfòmò* 'intentionally' can occur as the only verb in the second sentence of two coordinate sentences as in (98).

(98) ó ʃe é; ʃùgbón kò mòfòmò
 he did it but not intentionally
 'He did it but it was not intentional'

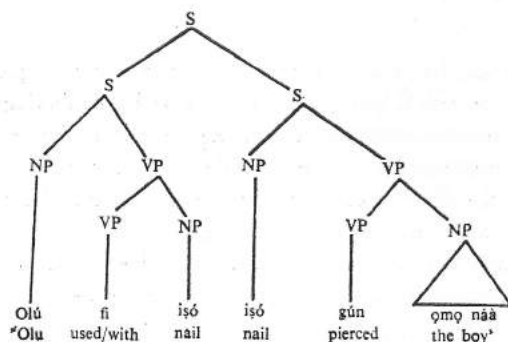
Examples such as (97) and (98) point to the verbal nature of these modifying items, and, at the same time, show that there is no clear-cut division between them and verbs.

- (iii) Non-occurrence in a minimal sentence is sometimes a superficial phenomenon. Let us examine the following sentences:

- (99) (a) Olú fi ìṣó gún ọmọ náà
 Olu used/with nail pierce boy the
 'Olu pierced the boy with a nail'
- (b) *Olú fi ìṣó
 'Olu used/with nail'
- (c) *Olú gún ọmọ náà
 'Olu pierced the boy'
- (d) ìṣó gún ọmọ náà
 'A nail pierced the boy'

In (99a), *fi* cannot occur without a following verb. This is shown by the ungrammaticality of (99b). (99c) is also an impossible sentence, since the subject of the verb *gún* 'pierce' is not *Olú* but *ìṣó* i.e. it was the nail that did the piercing and not Olu. This fact is represented in the occurrence and grammaticality of (99d). What then is the underlying form of (99a)? Clearly, it contains (99d) as one of its underlying sentences. The only other underlying sentence it could possibly contain is (99b). In other words, the underlying structure of (99a) is something like (100):

(100)



In (100), it is clear that *fi* does occur in a minimal sentence in the underlying structure. Its non-occurrence in such a sentence in (99a) is a mere surface phenomenon.³² Therefore, there is no justification for saying that *fi* is not a verb simply because it does not occur in the frame $\neq \text{NP}$ — (NP) $\neq$. Again this shows up the inadequacy of the diagnostic frame.

The compelling conclusion from the above is that the similarities between modifying verbs and the other modifying items are far too strong to be rendered invalid by the narrow constraint of the one-verb sentence which has been shown above to be neither crucial nor particularly revealing. We are, therefore, justified in taking the logical step of making these other modifying items verbs as well. The difference between them and the other modifying verbs will simply be that

³² Another verb that behaves like *fi* in this respect is *bá* 'accompany, with'. For example, the sentence *ó bá ọrẹ rẹ lẹ* 'He went with his friend' has as its underlying form the two sentences **ó bá ọrẹ rẹ* 'He accompanied/with his friend', *òun àti ọrẹ rẹ lẹ* 'He and his friend went', which shows that *bá* does occur in a minimal sentence in deep structure.

whereas they always have the feature [+ MOD], the latter have the feature [$\pm$ MOD] since they can occur both as full verbs and as modifying verbs. There will, therefore, be two major categories of the verb:

- (i) Full Verbs, which have the feature [-MOD]
- (ii) Modifying verbs which are either 'free' with the feature [$\pm$ MOD], or 'bound' with the feature [+ MOD].³³

10. CONCLUSION

In this paper, an attempt has been made to distinguish between two types of serial verbal construction—the linking type and the modifying type—by outlining the characteristics of each type and describing differences in their structure. The modifying type is particularly interesting for the light it throws on the behaviour of modifying verbs, which has been shown to be no different from that of a large group of modifying items variously classified as auxiliaries, preverbs, adverbs, prepositions, particles etc. In this respect, the usual criteria for determining verbal status, which are based on occurrence in a minimal sentence, are shown to be inadequate, since they ignore the behaviour of verbs in verbal strings. It is suggested that the class of modifying verbs includes the miscellaneous items referred to above which are in fact bound modifying verbs, and that the term 'serial verbal construction' can therefore no longer be confined to combinations of those verbs which can occur in minimal sentences in surface structure. In fact, it is demonstrated that a verb may occur in a minimal sentence in the underlying structure, and yet be unable to do so in surface structure. These facts call for a re-appraisal of the definition of the verb in Yoruba and in other West African languages which exhibit features similar to those described for this language.

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³³ The bound modifying verbs *fí* 'use, with' and *bá* 'accompany, with' differ from the other modifying verbs having the feature [+ MOD] in that sentences in which they occur have to be derived from two or more underlying sentences.

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