ON THE DEVELOPMENT OF THE VERB INFINITIVE PHRASE IN YORUBA*

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This paper will concentrate on a type of verb complement
structure referred to as the HTS construction in Yoruba,
essentially to show four points: a. that it is an older
form of the verb-infinitive phrase in Yoruba, out of which
the infinitival gerunds, the à-ti complements, and (by
a historical change) the serial verbal constructions ori-
ginate; b. that the HTS construction is different from
(and should not be confused with) the infinitival gerunds,
since they are demonstrably distinct constructions; the
infinitival gerunds which do not have HTS equivalents
number in the hundreds, far too many to be exceptions;
c. that the HTS constructions show Yoruba to be related
to neighboring Kwa languages like Igbo, Itsekiri and Efik.
Furthermore, the serial verb constructions will be shown
to be far more productive and economical than the HTS con-
structions, the infinitival gerunds, and the à-ti comple-
ments; hence the former's gradual replacement of the latter,
probably to suggest a direction of change (from relative
complexity to relative simplicity and productivity); and
lastly d. that it will become necessary to modify a portion
of the orthography of the language to accomodate these
new facts.

1. Introduction

Nothing seems to have defied rigorous analysis in Yoruba grammar as the

structure of what has been referred to as the infinitive phrase (cf. Bamgbose

[1971:38]). There are three main markers that have at one time or another been

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associated with this structure: (i) láti (<ní + à-ti) 'to'; (ii) à-ti 'to';
and (iii) a high tone syllable (HTS), 'to', all three occurring mutually exclu-
sively in the same position in a complex sentence:[1]

(1) a. Adé fẹ́ ẹ́ wá

     b. Adé fẹ́ láti wá

     c. Adé fẹ́ àti wá

         'Ade wants to   come'

In general, there are not strong restrictions on the use of láti or àti as
complementizers in a verb phrase. Both are almost freely interchangeable since
they come from the same source ní + à-ti . The only tangible restriction is
that they co-occur with embedding verbs. However, not all Yoruba embedding verbs
permit the high tone syllable (henceforth HTS). The following list, drawn largely
from Awobuluyi [1970] and Bamgbose [1971], is arranged in two groups (the signi-
ficance of this division will be spelt out later):

GROUP A		GROUP B	
rọrùn	'be easy'	fẹ́	'want; be about to'
dára	'be good for/to'	wá	'come; be about to'
ṣe/jẹ́	'be possible'	bẹ̀rẹ̀ sí	'start; be about to'
pẹ́	'be late'	sí'wọ́	'stop; refrain; cease;
yá	'be fast; be on time'	yé	'stop; refrain; cease'
gọ̀	'be unreasonable'	dẹ́kun	'stop; refrain; cease'
dùn	'be easy'	mọ̀	'know'
tó	'be enough; be ready; be capable'	kọ́	'learn'
yé	'be clear to'		
ṣòro	'be difficult'	ní	'has to; will have to'
ṣú/gọ́	'bores; tires'	kú/kún	(verb of greeting)
wù	'pleases; appeals to'		
fẹ́rẹ̀	'be almost'		

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[1]This translation is following Bamgbose [1971].

From the different types of analyses of the HTS and related structures in
Yoruba, all of which are well documented in Awobuluyi [1970] and Bamgbose [1971],
the following can be said to be the outstanding issues:

    a. the HTS is a marker of the infinitive verb--Crowther [1852:19]; Bowen
        [1858:56]; Rowlands [1954:386; 1969:67]; Ward [1952:116] and Bamgbose
        [1971:38];

    b. the HTS is a prefix--Crowther [1852:19]; Bowen [1858:56]; Ward [1952:
        116]; Rowlands [1954:386; 1969:67] and Bamgbose [1971:38];

    c. the HTS is underlyingly /i/ --Crowther [1852:19]; Bowen [1858:56];
        Ward [1952:116]; Rowlands [1969:67]; Awobuluyi [1970:35; 1978:77] and
        Bamgbose [1971:38];

    d. the HTS is derived from a gerundive reduplicated nominal source--Bowen
        [1858:38]; Ward [1952:116]; Abraham [1958:xxvi]; Awobuluyi [1967:129,
        136; 1970:34; 1977:77];

    e. the HTS is derived from a verb-verb source--Ward [1952:116]; Rowlands
        [1954:386; 1969:67]; Bamgbose [1971:38];

    f. it is the first verb, rather than the second, which conditions the
        appearance of the HTS--Bamgbose [1966:77; 1971:37].

Additional crucial issues to this discussion, but which are either not raised
in the previous analyses or are obscured by them, are:

    g. whether or not there is a semantic basis (besides a purely structural
        basis) for the HTS group of verbs;

    h. the pattern of interrelationships between the HTS and the láti/àti
        constructions; between these on the one hand, and the serial verb con-
        structions on the other; and between the HTS and tense in an embedded
        structure;

    i. whether or not Yoruba now has what can be called a verb infinitive
        phrase;

    j. whether or not àti can be broken down into the prefix à- and ti,
        and the consequence thereof; and finally

    k. whether or not the surface linear order of the words can fully explain
        what verbs condition the HTS.

    In this paper, we intend first to show that the proper understanding of
the HTS underlies our insight into the verb complement structures in Yoruba, and
further to demonstrate how previous analyses of the group of verbs that co-occur
with the HTS have failed to reveal the true (syntactic and semantic) nature of
such verbs. Secondly, and most importantly, we intend to establish the inter-
relationship between the HTS constructions on the one hand, and the láti /à-ti

structures and the serial verb constructions on the other. Thirdly, we intend
to use the rules of grammar as they apply to these structures to suggest a pos-
sible modification of the relevant portion of the Yoruba orthography.

2.   The Nature of the High Tone Syllable (HTS)

2.1 <u>Prefix source</u>. Among the issues emanating from the previous analyses,
points (b), (c), (f) and (k), can easily be disposed of. The claim that the HTS
is a prefix has no clear synchronic evidence. If it is truly a prefix, then it
must be a very peculiar one. When verbals take prefixes, the new derivatives
become cemented as compounds, with their former internal morpheme/word boundaries
wiped out. The HTS does not do such a thing, as we will go on to show. Previous
writers have taken the prefix claim for granted for too long, without considering
the phonological, as well as the morphological implications. We therefore reject
the prefix interpretation in a synchronic description, on the grounds that it
violates both phonological (with its initial high tone) and morphological prin-
ciples (for not converting the base to a compound). Rather, the HTS is a separat-
ate particle on its own, its phonetic shape being dependent on the preceding
vocalic form.[2]

   The claim that the HTS is underlyingly /i/ is based on cases where there
are two alternative pronunciations, as in:

(2)   a.   iṣé náà ṣe   í ṣe   =
      b.   iṣé náà ṣe   é ṣe

           work the possible   do
           'the work is possible to do'

where (2b) is produced by backward assimilation. However, there is intense con-
troversy over its derivation. As we shall go on to show, it seems too tempting

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[2] The high tone phenomenon with its phonetic shape being dependent on the
preceding vocalic segment, is not restricted to the infinitive structure.
Others are: (i) the subject demarcator; (ii) the progressive tense spread, as
in O lú ń sùn HTS lọ (Olu PROG sleep PROG go) 'Olu is sleeping away'; and (iii)
in negative polarity reduplication, as in kò sùn HTS sùn (not sleep HTS sleep)
'did not sleep at all'.

to argue that the /í/ in (2a) is the remnant of the gerundive C_1í-C_1V... form,
after the initial C- has been deleted. Otherwise, (3b) would be claimed to be
derived from a non-attested (3a):

(3) a. *òjò fẹ́   rírò   ≠   b. òjò fẹ́   ẹ́ rò
         rain wants pouring   rain wants pour
                                            'it wants to rain'

That a totally ungrammatical sentence would suddenly become grammatical as a re-
sult of a phonological deletion rule is unsatisfactory. It is not that (3a) is
unpronounceable, but that it is ill-formed. 'Rain wants pouring' is not the
same thing as 'it wants to rain.' On the other hand, the claim that the HTS
is a prefix would force one to compare the HTS as a prefix with other prefixes
in the language. No other prefix has a high tone, and no other prefix fails to
produce a nominal compound after attaching to a stem. Certainly, the two posi-
tions--that the HTS is an ordinary prefix, and that it is derived from a gerun-
dive source--are untenable.

    That it is the first verb, rather than the second, which conditions the sur-
facing of the HTS, is a bit misleading without further clarification. In embed-
ding, directionality is determined by the relative position of the subordinate
verbs to the main predicate. The term "pre-infinitive verb" as used by Bamgbose
[1971:37], can only be true at the surface structure, since, as we shall go on
to show, there are two main types of embedding involved here: one to the right
of the matrix verb, and the other to the left of it, in deep structure. In
other words, the surface linear order of words cannot fully explain what verbs
condition the HTS.

    Claims (a), (d), (e), (g), (h), (i) and (j) therefore, form the central
issues in this discussion. The centre of the controversy is whether the HTS is
derived from a gerundive reduplicated nominal source via initial consonant de-
letion, or from a verb-verb source.

2.2. Gerundive source. Gerunds are formed by prefixing a syllable consisting
of a copy of the initial consonant of the predicate stem, plus a high tone /í/ ,
on to the stem, as in

(4) a. gbí-gbàgbé   'forgetting' (< gbàgbé 'to forget')
     b. kí-korò   'being bitter' (<korò 'bitter')

Essentially there are three main structures in which gerundive forms can occur:
(a) gerundive adjectives, (b) factive gerunds (cf. Lees [1960:64]), and (c) in-
finitival gerunds.

The gerundive adjectives are derived from predicate adjectives, and function
primarily as qualifiers of nouns, as in

(5) ewé kí-korò
     leaf bitter
     'bitter leaf'

On the other hand, a gerundive form of this type can also function as a head
nominal form, and can be qualified (and possibly quantified), as in

(6) kí-korò   rè̩ dára
     being-bitter its good
     'its bitterness/ its being bitter is good'

(7) kí-korò   díè̩ rè̩ dára
     being-bitter small its good
     'its mild bitterness/its being mildly bitter is good'

Like gerundive adjectives, factive gerunds can occur in two structural
patterns: either as in (8) and (9) on the one hand, or like (10), on the other:

(8) Ií-lo̩-Olú dùn   mí   (subject complement)
     going-Olu sadden me
     'Olu's going saddens me'

(9) mo ti   gbàgbé e Ií-lo̩-Olú   (object compelement)
     I have forget of going-Olu
     'I have forgotten (about) Olu's going'

(10) Ílo̩ -tí -Olú lo̩ dùn   mí   (subject complement)
     going-that-Olu go sadden me
     'the fact that Olu went saddens me'

The factive gerunds are generally either subject (as in (8) and (10)), or object
of factive predicates, as in (9). Example (10) has been variously referred to
in Yoruba syntax as factive nominalization (cf. Awoyale [1974:390]; Bamgbose
[1975:205]), or verb phrase relativization (Awobuluyi [1972]). Note that (8)
and (10) are synonymous; they both presuppose that Olu went. The factive ger-
unds therefore acquire their factivity from the factive predicates with which
they co-occur. Note further that the gerunds in (8) and (10) are immovable, as
in

(11) **ó dùn   mí Ií-lo̩-Olú
     it saddens me Olu's going

(12) ?*ó dùn   mí lí-lọ tí Olú lọ
         it saddens me going that Olu went

    The infinitival gerunds, on the other hand, are essentially objects of
prepositions (fún 'for'; sí '(in)to'; and ní 'to, at, in') as in:

(13) a. Adé pẹ́   sí lí-lọ =

    b. Adé pẹ́   ní lí-lọ
         Ade be late in going
         'Ade is/was late in going'

(14) a. iṣu dára fún jí-jẹ =

    b. iṣu dára ní jí-jẹ
         yam be good for eating
         'Yam is/was good for eating/to eat'

These gerunds are claimed to be infinitival because they lack: (a) a definite
tense of their own, (b) any overt subject of their own, and (c) they in them-
selves do not limit the truth value of their own predicates. Their main predi-
cates are usually emotive verbs. These points are worth noting since Yoruba
does not have the type of inflections that will automatically mark embedded verbs
as infinitives. These points will also re-emerge when we come to examine the
serial verb constructions. Furthermore, it is our contention, as we shall go
on to show, that gerundivization is occupying the slot for the embedded tense.
Similarly, all other factive and non-factive nominalizing prefixes, à- and ì-,
have the characteristic of neutralizing embedded tense. That is why lí-lọ and
jí-jẹ in (13) and (14) respectively, cannot limit their own truth value; rather,
pẹ́ and dára do that. And, similarly, in the following,

(15) a. Adé pẹ́   sí à -ti -lọ =

    b. Adé pẹ́   ní à -ti -lọ
         Ade be late in fact-have-go
         'Ade was late in going'

(16) a. iṣu dára ní à -ti -jẹ =

    b. ?iṣu dára fún à -ti -jẹ
         yam good for fact-have-eat
         'yams are good for eating/to eat'

(which are synonymous with (13) and (14) respectively), the embedded tense has
been neutralized. Our attempt to impose tense interpretation on (15b) and (16b)
has resulted in semantic awkwardness. The ti in (15) and (16) must have ear-

lier been related to the perfective marker, ti . Note further that as is to be
expected, both (13) and (14), with pé and dára , can occur with the HTS:

(17) a. Adé   pé   HTS lọ

     b. Adé   pé   é lọ
       'Ade was late to go'

(18) a. iṣu   dára HTS jẹ

     b. ïṣu   dára á jẹ
       'yam is good to eat'

where again the embedded tense is non-definite. These pairs, from (13) through
(18), have equivalent meanings.

2.3 Rules for embedding nominalizations. What now remains to be established
are the processes of derivation. On the one hand is the claim that (13) and
(14) result in (17) and (18) by phonological deletion; while on the other hand
is the claim that (17) and (18) come from (15) and (16) by a process of replace-
ment. These two claims apart, it is only what we have referred to as infinitival
structures, among the three, that are relevant to our discussion; and these
structures can be derived by prefixing Cí- or à-ti- to the predicate stems.

    The matrix verbs with which the HTS co-occur have been subdivided into two
main groups. Group A is largely subject-embedding, while Group B is largely
object-embedding. Each group will now be examined to establish the link between
the two, as it concerns the HTS.

2.3.1. Group A verbs. These subject-embedding verbs are essentially TOUGH-
verbs.[3] Tough Movement applies to almost any non-subject complement NP in
Yoruba. Such an NP may be the direct object, indirect object, locative object,
directional object, time object, though not manner adverbials and predicative

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[3]Tough Verbs and Tough Movement in English are discussed in Postal
[1971:27-31].

ideophones.[4] Examples are:[5]

(19) a. ọmọ náà rọrùn ní à-ti-bí   ---[5]

   b. ọmọ náà rọrùn ní bí-bí   ---   OBJECT

   c. ọmọ náà rọrùn HTS bí   ---
   baby the easy in being-delivered/to deliver
   'the baby was easy to deliver/in being delivered'

(20) a. ìyà   ṣe   HTS kọ̀   --- fún Ẹbùn   DIRECT OBJECT
   misery possible   shake off   for Ẹbun
   'misery is possible to shake off for Ẹbun'

   b. Ẹbùn ṣe   HTS kọ   ìyà   fún ---   INDIRECT OBJECT
   Ẹbun possible   shake off misery for
   'Ẹbun is possible to shake off misery for'

(21) ilé   dùn HTS fún ọmọ   ní ìwé ---   LOCATIVE OBJECT
   house easy   give child   book
   'house is easy to give a child a book'

(22) owúrọ̀ dùn HTS fún ọmọ   ní ìwé ---   TIME OBJECT
   morning easy   give child   book
   'morning is easy to give a child a book'

(23) ilé   dùn HTS gbé   ìwé lọ ---   DIRECTIONAL OBJECT
   house easy   carry book go
   'home is easy to carry a book to (to go to)'

(24) **pèlẹ̀-kùtù dùn HTS fún ọmọ   ní ìwé ---   PREDICATE IDEOPHONE
   much ease easy   give child   book
   'much ease is easy to give a child a book'

(25) **tilé-tilé dùn HTS kó   lọ ---   ADVERB OF DEGREE/
   completely easy   gather go   EXTENT
   'completely is easy to gather (and to) go'

The following is the approximated deep structure for sentences like (20a) and
(20b):[6]

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[4] Ideophones are consonant-initial forms which are basically non-verbals;
they can function predicatively and nominally (cf. Awoyale [1974, 1979, 1980,
1981a]).

[5] The lines in these sentences indicate semantic gaps created by movement.

[6] Yoruba has no category of tense. All references to tense stand for aspect.

(26)
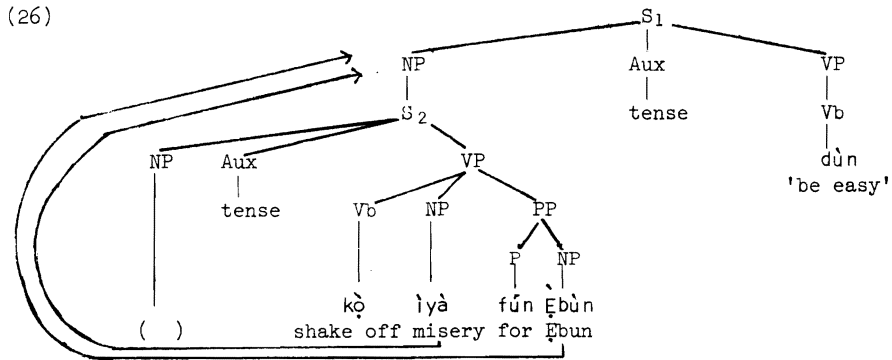
Tough Movement will move a non-subject complement NP in the direction of any of
the two arrows after Extraposition has moved S_2 out and adjoins it to the right
of the top VP. The following will be the result of the two operations (Extra-
position and Tough Movement) for (20a):

(27)
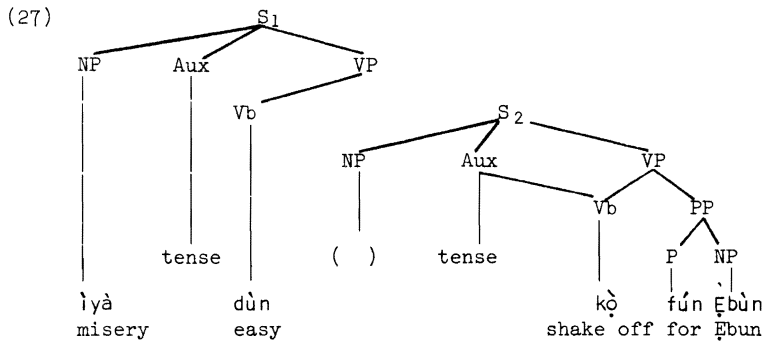
It is possible for dùn 'be easy' in (26) to have what Curme [1931:192] calls
a "sentence dative" accompanying it, so that the verb phrase will be dùn fún mi
'be easy for me', or any other suitable NP. The occurrence of sentence datives
is characteristic of most TOUGH verbs. In (26) therefore, we will have to
assume that a rule like Unidentified NP Deletion has erased the subject NP of
S_2. But in other cases with a sentence dative, Equi-NP Deletion may be employed,
as in the following intermediate derivation:

(28) ìyà   dùn fún mi (èmi   kò   --- fún Ẹbùn)
      misery easy for me (I   shake off --- for Ẹbun)
      'misery is easy for me that I shake off for Ẹbun'

where èmi , which is within the scope of mi in deep structure, will delete
through Equi.

        The structural configuration of (27) after embedded subject deletion is now

(29) ìyà   tense dùn (tense   kò   fún Ẹbùn)
      misery   easy (shake off for Ẹbùn)
      'misery is easy to shake off for Ẹbun'

which can now be realised as any of the following:

(30) a. ìyà   dùn HTS   kò   fún Ẹbùn =(infinitivization)

      b. ìyà   dùn ní   kí-kò-fún-Ẹbùn   =(gerundivization)

      c. ìyà   dùn ní   à-ti-kò-fún-Ẹbùn   =(prefixation)
          'misery is easy to shake off (in shaking off) for Ẹbun'

through Infinitivization. Infinitivization is automatic once the embedded sub-
ject has left its original position. Later on, we shall discuss the significance
of this close interaction between these processes. To sum up here, the following
rules can be said to have applied in these derivations: Extraposition, Tough
Movement, Unidentified NP Deletion/Equi-NP-Deletion, Infinitivization (HTS/ger-
undivization/prefixation).

2.3.2. Group B verbs. The object-embedding verbs form a large group, but only
the ones listed earlier permit the HTS. An example of this group in a sentence
is (31):

(31) a. Olú dẹ́kun HTS pa ariwo   = (by HTS)

      b. Olú dẹ́kun ní à-ti-pa-ariwo = (by prefixation)

      c. Olú dẹ́kun ní pí-pa-ariwo   = (by gerundivization)
          'Olu ceases to make noise/making (killing) noise'

with (32) as an approximated deep structure:

(32)
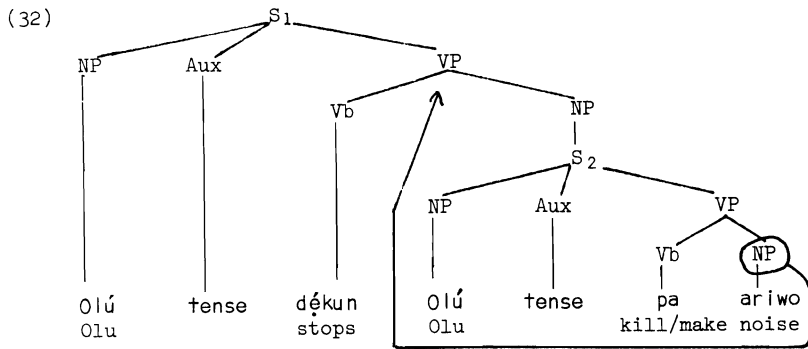
Equi-NP-Deletion will delete the embedded subject to derive (33):

(33) Olú tense dẹ́kun (tense   pa   ariwo)
      Olu   stops (make/kill noise)
      'Olu ceases to make/kill noise'

which is converted to any of (31). However, (31) has other equivalents:

(34) a. Olú dẹ́kun ariwo HTS   pa   (=31a)

      b. Olú dẹ́kun ariwo ní   à-tí-pa   (=31b)

      c. Olú dẹ́kun ariwo ní   pí-pa   (=31c)
              'Olu ceases noise (in) to make/making'

We propose that raising is what is involved here. The rule however, is Object-
Object Raising rather than the familiar Subject-Object Raising in generative
syntax (cf. Postal [1974] and Awoyale [1981b]).

2.3.3. <u>Co-occurrence restrictions</u>. Besides the two groups of verbs, each
functioning as a distinct group, the two groups also cut across each other.
In other words, just as members of one group can embed each other, some mem-
bers of Group B can conveniently embed Group A, but not the other way round
without considerable semantic difficulties.

    Table 1 below illustrates the patterns of co-occurrence between these
verbs; the vertical ones can pair up with the horizontal ones as ticked (X
and ? indicate impossibility and doubtful co-occurrence respectively).

Table 1: Mutual Embedding Among Group A Verbs

	pé	sú	jé/ṣe	tó	yá	rọrùn	wù	dára	dùn	yé	sòro	gò
gò	x	x	x	x	x	x	x	x	x	x	x	x
sòro	√	x	√	x	√	x	x	x	?	x	x	x
yé	x	x	√	√	?	?	?	√	√	?	?	x
jé/ṣe	√	√	x	x	√	√	x	x	√	x	?	x
dùn	√	x	√	√	√	x	x	x	x	?	x	x
dára	√	x	√	√	√	?	x	x	x	x	?	x
wù	x	x	√	√	√	?	x	√	√	?	?	x
rọrùn	√	x	√	√	√	x	?	x	√	√	x	x
yá	x	√	√	?	?	√	√	?	√	√	?	x
tó	x	√	√	x	√	√	√	x	x	√	x	x
jé	√	√	x	√	√	√	x	√	√	√	√	x
sú/gọ	√	x	√	√	√	√	√	x	√	√	√	x
pé	x	√	√	√	√	√	√	√	√	√	?	x

These verbs are mostly factive, which probably explains their high degree of
mutual embeddability. The following points on the table are worth noting.
First, gò 'be unreasonable' scores zero in mutual embedding. No other verb
on the list can embed it, just as it cannot embed any of the others. However,
gò can embed almost any active verb, as in

(35) a. Adé gò   HTS   sọ   ọ̀rọ̀
      b. Adé gò   ní   à-ti-sọ-ọ̀rọ̀
      c. Adé gò   ní   sí-sọ-ọ̀rọ̀
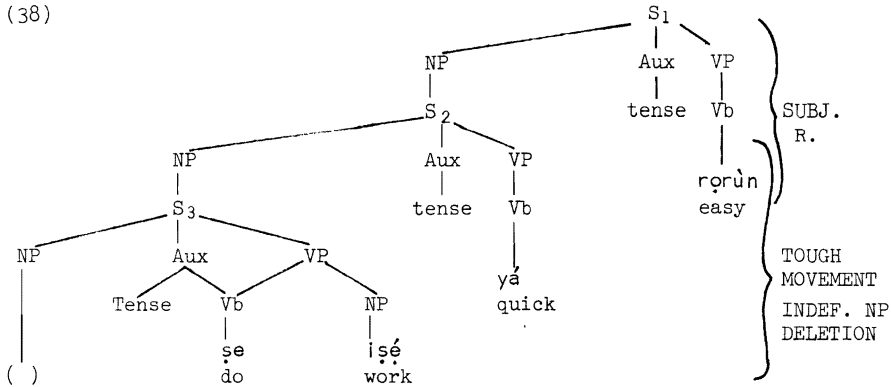   'Ade be unreasonable   talk/talking talk'

Secondly, those verbs among them which are either semantically similar, or are
semantically incompatible, cannot embed each other; an example is

(36) a. **iṣẹ́ rọrùn HTS   sòro HTS ṣe
      b. **iṣẹ́ rọrùn ún   sòro ó ṣe
          work easy   difficult   do
          'work is easy to be difficult to do'

This sentence is ruled out on the basis of meaning alone. On the other hand,
we can have the following as an example of multiple embedding:

(37)   iṣé náà rọrùn HTS yá   HTS ṣe
       work the easy   quick   do
       'the work is easy to be done quickly'

with (38) as an approximated deep structure:

(38)

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                                              S₁
                                             /  \
                               NP          Aux   VP      ⎫
                               |           |     |       ⎪
                               S₂          tense  Vb      ⎬ SUBJ.
                              / \                  |      ⎪  R.
                NP          Aux  VP               rọrùn   ⎭
                |           |    |                easy
                S₃         tense Vb                       ⎫
               / | \             |                        ⎪
       NP    Aux  VP            yá                         ⎬ TOUGH
       |     / \   \            quick                      ⎪  MOVEMENT
       |  Tense Vb  NP                                     ⎪
       |        |   |                         TOUGH        ⎪
      ( )      ṣe   iṣé                        MOVEMENT    ⎪
               do   work                      INDEF. NP    ⎭
                                              DELETION
```

After Tough Movement on S₂, iṣé 'work' will become the derived subject, and from thereon, Subject Raising will apply to derive (37).

The à-ti- and Cí- versions of (37) on the other hand are very weird indeed:

(39) a. **iṣé náà rọrùn ní à-ti-yá ní à-ti-ṣe

      b.   iṣé náà rọrùn ní à-ti-yá-HTS-ṣe
           work the easy   in fact-have-quick-do
           'it is easy for the work to be quick to do'

(40) a. **iṣé náà rọrùn ní yí-yá ní ṣí-ṣe

      b.   iṣé náà rọrùn ní yí-yá-HTS-ṣe
           work the easy   in being-quick-do
           'it is easy for the work in being quick to do'

We contend that the grammaticality of (39b) and (40b) is due to a global application of à-ti- and Cí- prefixation to the underlined stem, rather than a cyclic application which the ungrammatical (39a) and (40a) suggest. In another section below, we shall provide appropriate explanation for the similar behaviour of these verbs.

The following table illustrates the patterns of co-occurrence between these verbs, again pairing the vertical ones with the horizontal ones as ticked.

Table 2: Mutual Embedding Among Group B Verbs

	ní	wá	bèrè(sí)	fẹ́	yé	dẹ́kun	mọ̀	kọ́	ṣíwọ́	kú
kú	x	x	x	x	x	x	x	x	x	x
ṣíwọ́	x	x	x	x	x	x	x	x	x	x
kọ́	x	x	x	x	x	x	x	x	x	x
dẹ́kun	x	√	x	?	x	x	√	√	x	x
yé	x	√	√	√	x	x	x	√	x	x
fẹ́	?	√	√	x	√	√	√	√	√	x
wá	?	x	√	√	√	√	√	√	√	x
bèrè(sí)	√	√	x	√	√	√	√	√	√	x
ní	x	√	√	√	√	√	√	√	√	x

Again the following points about the table are worth noting. First, ní is a polarity negative-sensitive item, and therefore cannot occur without kò or a negative equivalent. That probably explains why it has the highest frequency relative to this context. Secondly, none of the verbs denoting cessation, yé , dẹ́kun and ṣíwọ́ , can occur in mutual embedding to avoid tautology. Thirdly, the two verbs of perception, kọ́ and mọ̀ cannot embed each other because of their cognitive interpretation. Fourthly, kú scores zero on the chart of mutual embedding because it is an absolute idiom; it occurs as a greeting verb with no particular meaning in regular usage. And finally, the remaining three verbs, bèrè sí , wá and fẹ́ , which are process verbs, score the highest in mutual embedding. In fact, the three of them can co-occur, as in the following:

(41) a. Adé bèrè sí HTS wá   HTS fẹ́   HTS lọ ilé-ìwé
          Ade start‾   come‾   want‾   go school
          'Ade now is about to want to go to school'

      b. Adé bèrè sí HTS fẹ́   HTS wá   HTS lọ ilé-ìwé
          Ade start‾   want‾   come‾   go school
          'Ade now wants to be about/ready to go to school'

      c. Adé wá   HTS fẹ́   HTS bèrè sí HTS lọ ilé-ìwé
          Ade come‾   want‾   start‾   go school
          'Ade has come to want to start to go to school'

      d. Adé wá   HTS bèrè sí HTS fẹ́   HTS lọ ilé-ìwé
          Ade come‾   start‾   want‾   go school
          'Ade has come to start to want to go to school'

    e.　Adé fẹ́　HTS bẹ̀rẹ̀ sí HTS wá　　HTS lọ ilé-ìwé
        Ade want　　 start　　　come　　　 go school
        'Ade wants to start now to go to school'

    f.　Adé fẹ́˙　HTS wá　　HTS bẹ̀rẹ̀ sí HTS lọ ilé-ìwé
        Ade want　　 come　　　start　　　　go school
        'Ade wants to be about to start to go to school'

Though these verbs freely embed in these contexts, each of them is contextually undergoing a semantic change from a basic meaning to a derived one: fẹ́ 'want' > 'be about to'; wá 'come' > 'be about to'; bẹ̀rẹ̀ sí 'start' > 'be about to'. Only lọ has a constant meaning in (41). The implication of this observation is that it is possible for a (process) object-embedding verb as in (41) to become subject-embedding, as in the following:

(42)　işẹ́ náà fẹ́　HTS wá　　HTS bẹ̀rẹ̀ sí HTS şe
      work the want　　come　　 start　　　 do
      'the work wants to be about to start (to be done)'

The possibilities with prefixation and gerundivization follow the same patterns as in (39) and (40), as in the following:

(43)　a.　**Adé bẹ̀rẹ̀ sí ní wí-wá ní fífẹ́ ní lí-lọ-ilé-ìwé

    b.　**Adé bẹ̀rẹ̀ sí ní wí-wá ní fí-fẹ́-HTS-lọ-ilé-ìwé

    c.　?Adé bẹ̀rẹ̀ sí ní wí-wá-HTS-fẹ́-HTS-lọ-ilé-ìwé
       Ade start　　 in going　　 want　　 go school
       'Ade started in going/coming in wanting in going to school'

(44)　a.　**Adé bẹ̀rẹ̀ sí ní à-ti-wá ní à-ti-fẹ́ ní à-ti-lọ-ilé-ìwé

    b.　**Adé bẹ̀rẹ̀ sí ní à-ti-wá ní à-ti-fẹ́-HTS-lọ-ilé-ìwé

    c.　Adé bẹ̀rẹ̀ sí ní à-ti-wá-HTS-fẹ́-HTS-lọ-ilé-ìwé
       Ade start　　 in fact-have/of-come-want-go-school
       'Ade started to be going to be wanting to be going to school'

Again cyclic application, either prefixation or gerundivization, will produce the totally ungrammatical sentences in (43a, b) and (44a,b).

    Besides the three process verbs, fẹ́ , wá and bẹ̀rẹ̀ sí , in mutual embedding the combined string can further embed either kọ́ or mọ̀ , but not dékun and şíwọ́ because of the conflict in meaning with bẹ̀rẹ̀ sí . Examples are:

(45)　a.　Adé fẹ́　HTS wá　　HTS bẹ̀rẹ̀ sí HTS kọ́　 işẹ́ HTS şe
       Ade want　　 come　　　start　　　 learn work　　 do
       'Ade wants now to start to learn to (do) work'

b. Adé fẹ́   HTS wá   HTS bèrè sí HTS mọ   iṣẹ́ HTS ṣe
    Ade wants   come   start   know work   do
    'Ade wants to be about to start to know (how) to (do) work'

c. *Adé fẹ́   HTS wá   HTS bèrè sí HTS ṣíwọ́ iṣẹ́ HTS ṣe
    Ade wants   come   start   stop work   do
    'Ade wants to be about to start to stop to (do) work'

d. *Adé fẹ́   HTS wá   HTS bèrè sí HTS dẹ́kun iṣẹ́ HTS ṣe
    Ade wants   come   start   stop work   do
    'Ade wants to be about to start to stop to (do) work'

In Table 3 below, the vertical entries (Group B) can pair with the horizontal ones (Group A) as ticked.

Table 3: Group B Verbs Embedding Group A Verbs

	pẹ́	ṣú	jẹ́/ṣe	tó	yá	rọrùn	wù	dára	dùn	yé	ṣòro	gò
kú	x	x	x	x	x	x	x	x	x	x	x	x
ṣíwọ́	x	x	x	x	x	x	x	x	x	x	x	x
kọ́	x	x	x	x	x	x	x	x	x	x	x	x
mọ̀	x	x	x	x	x	x	x	x	x	x	x	x
dẹ́kun	x	x	x	x	x	x	x	x	x	x	x	x
yé	x	x	x	x	x	x	x	x	x	x	x	x
fẹ́	√	√	√	√	√	√	√	√	√	√	√	x
wá	√	√	√	√	√	√	√	√	√	√	√	x
bèrè(sí)	√	√	√	√	√	√	√	√	√	√	√	x
ní	√	√	√	√	√	√	√	√	√	√	√	?

There are two points to note on these patterns of cross-embedding. First, it is significant that only the process verbs in Group B permit cross-embedding, while the others do not. Even the perception verbs, mọ̀ and kọ́ , do not. It is very probable that the three process verbs and the Group A verbs belong to related semantic fields. The second point is that gò is almost totally excluded in cross-embedding, perhaps to further highlight the point that gò is gradually losing its distribution with the HTS. We can use the following to illustrate cross-embedding among these verbs:

(46) a.   iṣẹ́ náà fẹ́   HTS wu   Ẹ̀bùn HTS ṣe

      b.   iṣẹ́ náà fẹ́   ní à-ti-wù-Ẹ̀bùn-HTS-ṣe

      c.   iṣẹ́ náà fẹ́   ní wí-wu-Ẹ̀bùn-HTS-ṣe
           work the want   please Ẹbun   do
           'the work wants to appeal to Ẹbun to do/in doing'

3.   Relation of the HTS to Other Structures

3.1. Infinitivization and/or gerundivization. The preceding pages have shown
the close affinity between the HTS phenomenon on the one hand and gerundivization
and factive prefixation on the other. What now remains to be shown is whether
it is gerundivization (i.e. infinitival gerunds) that results in the HTS through
phonological deletion rules as contended by Bowen [1858], Ward [1952], Abraham
[1958] and Awobuluyi [1967, 1970, 1978]; or outright replacement of láti and
à-ti- by í , by Bamgbose [1971]; or of the HTS by láti / à-ti- and the infin-
itival gerunds as we contend here.

     However, before going further, let us summarize the points made so far.
First, there is overwhelming evidence that the HTS is closely related to a verb-
verb sequence as witnessed in (39), (40), (43) and (44), where cyclic gerundivi-
zation and á-ti- prefixation are blocked. Secondly, the HTS, gerundivization,
and á-ti- prefixation, on the one hand, and tense-aspect on the other hand are
mutually exclusive; hence the HTS, the gerundive marker, and the à-ti- prefix,
each becomes the leftmost node in its own clause, as in (34). Thirdly, (34) has
demonstrated that we need a rule like Object-Object Raising to explain the per-
vasive object inversion in Yoruba. Recall that the derived object now comes in
front of the HTS, the gerundive marker, and the á-ti- prefix, and therefore,
technically, is no longer part of the remnant of the embedded clause, but a de-
rived direct object of the upper verb. And fourthly, there is a greater similar-
ity between the sets of rules that apply in both Group A and B verbs. So far,
the following syntactic processes have been featured: Equi-NP-Deletion/Indef-
inite NP Deletion; Raising; Extraposition; Tough Movement; (Sentence Dative De-
letion); Infinitivization (Gerundivization; à-ti- prefixation; HTS).

3.1.1. Derivation of the HTS from gerunds. The claim that the HTS is a relic
of the gerundive structure seems to be supported by one very strong point. The

high tone /í/ in the structure already provides explanation for the HTS. This
is backed up by the correspondence between the infinitival gerundive phrase and
the HTS phrase, as in the following:

(47) a. Olú pẹ́   HTS dé   =

      b. Olú pẹ́   ní dí-dé
          Olu late   arrive/in arriving
          'Olu was late in arriving/to arrive'

Hence it is claimed that (47a) is derived from (47b) after both ní and /d/
have been unilaterally deleted. However, the same correspondence also exists
between the HTS and the à-ti- phrase, as in the following:

(48) a. Olú pẹ́   HTS dé   =

      b. Olú pẹ́   ní à-ti-dé
          Olu late   arrive/in arriving   .
          'Olu was late in arriving/to arrive'

This same evidence leads Bamgbose to claim that /í/ must have replaced à-ti .
In other words, the issue at stake is in finding how these three are inter-re-
lated.

     We take this side of the coin first. While it looks simple enough to de-
rive the HTS from the /í/ of the gerund, there are several problems that
positively advise against such a move. First, at least three prepositions
feature in the infinitival gerundive phrase: fún, ní and sí , as pointed out
earlier in (13) and (14). Therefore, the appropriate deletion rule will be a
preposition deletion rule rather than ní- deletion. Such a preposition dele-
tion will be a syntactic rule, not a phonological rule. Yet, deletion of the
initial consonant of the gerundive phrase is dependent on the preposition dele-
tion; that is, making a phonological rule dependent on a syntactic rule. Unless
the preposition is deleted, the initial consonant of the gerund cannot delete;
we do not have (49):

(49) **iṣẹ́ náà sòro   ní HTS ṣe
        work the difficult in   do
        'the work is difficult to do'

In other words the two crucial rules that are supposed to derive the HTS do not
belong in the same component of the grammar. While one of them is motivated
(i.e. preposition deletion), the other (i.e. initial consonant deletion of

the gerund), is not clearly motivated.[7]

　　Secondly, gerundivization in Yoruba makes compound lexical items out of a string, just like other instances of prefixation, so that if lọ ilé 'go home' is gerundivized, we have lí-lọ-ilé or lí-lọ-lé 'going home' as a single word. Similarly, when a compound verb like gbàgbọ́ 'believe' is gerundivized in a verb phrase, we have gbí-gba-ọmọ-gbọ́ 'believing the child' but not *gbí-gba ọmọ gbọ́ . However, the HTS plus verb sequence does not function like (nor does it mean) a gerundive phrase, as in

(50)　a.　ìṣẹ́ náà kò ṣe ní ṣíṣe[8]　≠　b.　ìṣẹ́ náà kò ṣe 　　HTS ṣe
　　　　　work the not do in doing　　　　　work the not possible 　 do
　　　　　'the work is not done in　　　　　'the work is not possible to do'
　　　　　doing/at all'

(51)　a.　**ọjà kò 　ní 　ní títà　≠　b.　ọja kò ní 　HTS tà
　　　　　wares not have to in selling　　　wares not have to 　sell
　　　　　'the wares will not/have not　　　'the wares will not sell'
　　　　　in selling'

Furthermore, while the gerundive phrase can undergo some transformations, its HTS equivalent cannot. While lí-lọ-ilé 'going home' in (52) can focus, its HTS equivalent cannot:

(52)　a.　Adé pẹ́ ní lí-lọ-ilé

　　　b.　Adé pẹ́ 　HTS lọ ilé 　→　 Adé pẹ́ ẹ́ lọ ilé
　　　　　'Ade is late in going home'　'Ade is late to go home'

(53)　a.　 lí-lọ-ilé ni Adé pẹ́ 　sí (*ni)

　　　b.　**ẹ́ lọ ilé ni Adé pẹ́ 　sí (*ni)
　　　　　going 　　is Ade late in
　　　　　'going home is what Ade was late in'

Our explanation for the blockage in (53b) is that the HTS does not cement its constituents the way gerundivization does: ẹ́ lọ ilé is not a word the way lí-lọ-ilé is.

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[7]The objection here, though, may be more of description than of explanation or analysis.

[8]The full meaning of (50a) is that the work was not done at all, not even attempted; whereas (50b) implies that the work was attempted but was not possible to do.

Thirdly, the ill-formedness of (49) has shown that ní (on which either the
gerundive marker or the à-ti- depends) and the HTS are mutually exclusive.
In other words, the HTS can function independently of the ní ; that is, either
(54) or (55), not both:

(54) ìṣé náà sòro   ṣe
      work the difficult   do

(55) ìṣé náà sòro   ní ṣí-ṣe
      work the difficult in doing
      'the work is difficult to do/in doing'

Yet, if the HTS truly comes from the gerund, then the two should be able to co-
occur in a clause. In addition, both the à-ti- phrase and the gerund crucially
depend on a preposition before they can surface at all. If therefore the gerund
and the HTS are the same thing, then there should be no conflict with ní .

     Fourthly, while gerundivization destroys the verb phrase nature of the stem
and replaces it with a quasi-nominal sense, the HTS on the other hand preserves
the verb phrase nature, hence the difference in grammaticality between the fol-
lowing two:

(56) mo fẹ́ HTS máa lọ
      I want   keep on go
      'I want to keep going'

(57) **mo fẹ́   mí-máa-lọ
        I want keeping-on-going

Similarly, while a gerundive structure can be potentially ambiguous,[9] the HTS
equivalent is not usually so:

(58) mo mọ ọkọ̀   ní wí-wà
      I know vehicle in driving (as a process)
      'I know driving/how to drive'

(59) mo mọ ọkọ̀   wí-wà
      I know vehicle driving (as a profession)
      'I know driving/vehicle driving'

(60) mo mọ ọkọ̀   HTS wà   =   mo mọ ọkọ̀   ọ́ wà
      I know vehicle   drive   I know vehicle   drive(as in 58 only)
      'I know driving/how to drive'   'I know driving/how to drive'

     And finally the co-occurrence restrictions on both the gerundive phrase

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[9]Cf. Bamgboṣe [1971:39] for a similar view on the potential ambiguity of
these forms.

and the HTS are not the same. While (41) and (45) show that we can have as many
of the HTS as possible, (40) and (43) show the impossibility of more than one
gerundive marker. If they truly come from the same source, the main problem
should be unpronounceability rather than ill-formedness.[10]

These points put together make the conclusion that the HTS cannot be directly
derived from a gerundive source inescapable.

3.1.2. <u>Derivation from láti or à-ti-</u> . Now to the other side of the coin.
Bamgbose [1971] claims that either láti or à-ti- can be replaced by /í/ ;
and so, he sets up láti for all the so-called infinitives in Yoruba, out of
which à-ti phrase and the í- phrase are derived. He then specifies two en-
vironments for the replacement: (a) where /í-/ replaces láti when the verb
after láti does not govern a nominal (i.e. the verb is not transitive); and (b)
where /í-/ replaces either láti or à-ti- when such a verb governs a pre-
ceding nominal.

The problems with this analysis are equally tremendous. First, the decision
both to make láti basic, and to replace láti or à-ti- with /í-/ , is ar-
bitrary, the process can work the other way round. Secondly, the impossibility
of directly deriving the HTS from either láti or à-ti- , but resorting to a
process of replacement, has created a gap in the argument. Thirdly, the verbs
that Bamgbose claims to precede láti (which í- replaces) do not fall neatly
into two (formal and/or semantic) classes. Following his division, while in (a)
we have fẹ́ 'want', ní 'has to', pẹ́ 'be late', tó 'be enough, be ready',
yé 'stop', and bẹ̀rẹ̀ sí 'start' (p.44); in his (b) we have bẹ̀rẹ̀ sí 'stop,
start', mọ̀ 'know', ṣe 'possible', yé 'clear to' and kú (verb of greeting)
(p.45). Not only is there a conspicuous overlap, there is also crosslisting in
the types of embedding verbs. Fourthly, it is not obvious whether í- should
be related to à- in à-ti or to ní in ní à-ti > í'á-ti > í'áti .
In other words, are the HTS, à-ti- and í'á-ti on the same level?

_____

[10]It seems to us that this is more than a descriptive problem since ill-
formedness is not matched by unpronounceability.

3.1.3. <u>The HTS as underlying</u>. The position we take here is that the HTS, rather
than being directly derived from í- , or replacing ｌ'á-tｉ/à-tｉ- , may be older
and more representative than either of the two. Something like it, phonologically
/*í-/ , has been attested in Igbo, Itsekiri, Efik and Igala. In fact, Yoruba,
Igbo and Igala are very close on this; and like Yoruba, the verbs that permit
the /í-/ vary, but the context is still between verbs:

(61) a. English: I want to see him
          Yoruba: mo fẹ́   HTS rí ｉ
          Igbo: achoro-m í- hu ya

      b. English: he began   to cry
          Yoruba: o bẹ̀rẹ̀ sí HTS so'kún
          Igala: ì tsanè é raku   .

In fact, Igala uses the HTS to form all verbal nouns, gerunds and infinitives:

      c. Igala: é-rakú   yò mẹ̀
                   to cry/crying good enough
                   'to cry/crying is good enough'

This type of distribution would seem to suggest that the HTS is no longer a
Yoruba affair, but may be older and more widespread than has hitherto been
assumed; and further that the HTS is only recently being replaced by actual lex-
ical items or lexicalized phrases in individual languages, most especially in
the Kwa group. It can be conjectured that the systematic phasing out of the HTS
as a verbal prefix in Yoruba has to do with the non-functioning of the HTS as a
verbal prefix, in keeping with its function in other languages. Synchronically,
Yoruba verbs no longer have prefixes, hence the conspicuousness of the HTS in
Yoruba grammar.[11] Historically, therefore, the HTS could be regarded as another
variant of the associative morpheme in Yoruba (cf. Welmers [1952]); in this case,
between a sequence of verbs.

     Viewing the HTS as an associative morpheme will explain much of its distri-

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[11]Both the HTS and the subject demarcator, also on high tone, are probably
relics of noun class affixes which proto-Yoruba shared with Bantu languages of
the Niger-Congo family.

butional properties as well as its relationship to both the gerund and the à-tì-
structure in Yoruba complement structures. Unlike both the gerund and the à-tì-
phrase, the HTS cannot introduce subject complements; it can only function be-
tween a sequence of two or more appropriate verbs, relating subordinate verbs to
the main verb. On the other hand, the language now has three other possibilities
in addition to the HTS: (a) the gerund, (b) à-tì- , and (c) a zero associative
morpheme as in serial verb constructions. These three now serve as alternatives
to the HTS, in terms of relating subordinate verbs to the main verb.

Both the gerund and the à-tì- need either a preposition or particle to in-
troduce them. In this regard, the prepositions fún , sí and ní merely sig-
nal a node in a derived position. In other words, one can conjecture that since
the basic word order of Yoruba is SVO, any node that has by one reason or another
vacated its original position, in the journey from deep to surface structure,
and yet does not end up inside the SVO, will end up behind any of the three pre-
positions.[12] For example, (62) is considered more basic than (63):

(62)   mo mú   ìwé fún Olú =
       I take book give Olu
       'I gave a book to Olu'

(63)   mo fún Olú ní ìwé
       I give Olu   book
       'I gave Olu a book'

yet, with the interchange of position between ìwé and Olú , ní has to intro-
duce ìwé which is taking up a position outside of the SVO order. In other
words, the presence of ní in ì'à-tì is just to introduce the nominalization.
The fact that we can do without it in both the gerundive phrase and the à-tì-
phrase, shows that not much importance should be attached to it. Rather, the
HTS should be related to both the gerundive marker and the à-tì .

Not much will be said on the relationship between the HTS and the gerund
since as we have indicated, the two should be regarded as two separate processes.
The only similarity between them which is important to our discussion is that

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[12]It is interesting to note that this 'filter' affects only rightward move-
ment of NP nodes; hence the different types of Raising attested in Yoruba do
not yield the particle ní .

both the HTS and the infinitival gerund relate subordinate predicates to the
main one; the former does this directly, while the latter does so indirectly via
Cí- prefixation.

A-tì- on the other hand performs the same function in a more complex manner.
Originally, one could conceive of à-tì- as two morphemes: the prefix à- and
-tì- . Awoyale [1974:390] claims that à- is primarily a factive nominalizing
prefix, as in à-dédé-lọ (fact-for-nothing-go) 'going-for-nothing', dédé
being a factive predicate. Tì on the other hand, has a different history.
Abraham [1958:639-40] lists the following entries for tì :

    a. tì (perfective particle)   'has'
    b. tì (genitival particle)   'of/for somebody'
    c. tì (directional particle)   'issued from, came out of'
    d. tì ?   'how?'

Of these four, only (c) and (d) can occur in a nominal compound:

(64) a. à-tì-ìgboro-lọ   (fact-from-town-go) 'going-out-from-town'

      b. à-tì-lè-lọ   (fact-manner-able-go)'being-able-to-go'

neither the perfective tì nor the genitival tì can.

These supposed four tì 's however can be divided into two groups: (i) the
perfective tì (as in (a)), and (ii) the genitival/manner/source tì as in
(b, c and d). The latter pattern of grouping is common in many languages.[13]
In this context however, the -tì- in à-tì- has lost its full perfective in-
terpretation, since in this type of nominalization, tense-aspect has been neu-
tralized; though it can still be shown that the sense of tì in our à-tì- com-
plements is related to the perfective tì :

(65) a. tì   lọ   'has gone'

      b. tì-ilé-lọ (from home go)   'went from home'

      c. à-tì-ilé-lọ (fact-from-home-go) 'fact-of going-from-home'

      d. à-tì-lè-lọ (fact-manner-able-go) 'fact-of being able-to go'

We contend that tense-aspect neutralization by prefixation has resulted in a
shift or loss of meaning of tì .

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[13]Cf. de in French and Spanish; da in Hausa; where a single morpheme
is used for genitive, source, conjoining and manner (Russell Schuh, personal
communication).

Synchronically, the originally morphologically complex form à-tì- has
come to be treated as two separate forms in Yoruba grammar and writing. When it
is used to conjoin two noun phrases as in Olú àtì Adé 'Olu and Ade', it is
written and understood as a unit. On the other hand, when it is used with a
subjectless verb, it is an affix. In fact, Abraham [1958:75] would derive the
conjunction àtì from the genitival tì , but not the other à-tì- , which he
claims forms verbal nouns. We however claim that à-tì- is derived from a
neutralized perfective particle.

3.2. <u>The HTS constructions vs. serial verb constructions</u>. Having shown that
the infinitival gerunds (marked with Cí-) and the à-tì- complements are two
different constructions in their own right, from the HTS constructions, and that
the former cannot directly derive the latter, we now want to show that the only
two constructions in Yoruba which *directly* relate main and subordinate verbs to
each other are the HTS constructions and the serial verb constructions. In
spite of the similarity in function however, the two are different from each
other. The serial verb constructions, which are myriad, are principally charac-
terized by the significant absence of overt markers of the verb infinitive; the
HTS constructions on the other hand, have the HTS located strategically between
two (or more) verb phrases in agreement with the main verb. An example of the
latter construction is:

(66) a. kò ní   HTS wá   HTS bèrè sí HTS fé   HTS kó   iṣé HTS ṣe

     b. kò ní   ín   wá   á   bèrè sí í   fé   é   kó   iṣé é   ṣe
         not have   come   start   want   learn work   do
         'he will not be about to start to want to learn to (do) work'

(66), however, without the HTS or any other overt marker, is completely unaccep-
table:

(67) ** kò ní wá bèrè sí fé kó iṣé ṣe

(67) Would have been the serial verb equivalent of (66). The serial verb con-
struction can be illustrated with the following examples:

(68) iṣé náà ṣú/gó mi Ø pé
      work the bore me   late/long time
      'the work bored me for a long time'

(69) iṣé náà sòro   Ø pé
      work the difficult   late/long time
      'the work was difficult for a long time'

Both these two patterns of co-occurrence in (68) and (69) are unacceptable with
the HTS, the serial verb constructions being more productive and far less re-
strictive than the HTS forms. However, the two types of constructions can be
combined, with each yet maintaining its identity, as in the following:

(70) iṣé náà ṣú   mi ∅   pé   HTS ṣe
     work the bore me   long time   do
     'in doing the work, I got bored for a long time'

Furthermore, some non-permissible sequences of multiple HTS predication of these
verbs will easily pass as serial verb constructions:

(71) iṣé náà rọrùn ∅ dára ∅ pé   ∅ tó
     work the easy   good   long   enough
     'the work is very easy enough for a long time (to do)'

(72) a. **iṣé náà rọrùn HTS dára HTS pé   HTS tó

     b.   iṣé náà rọrùn ún dára á pé   ẹ́ tó
          work the easy   good   long   enough
          'the work is easy to be good to be long to be enough'

We contend that the basic difference between the HTS constructions and the
serial verb constructions, among others, is the inability of the former to pro-
gressively subordinate its clausal meaning to the overall sentential meaning.
That is, in the HTS constructions, the HTS makes the unit within its domain a
small island. In the serial verb constructions however, there is a single focal
meaning to which the other smaller propositions are subordinate. In (71),
rọrùn 'be easy' is the focal meaning (i.e. the main assertion), while in (72)
there are at least three focal meanings, rọrùn 'be easy', dára 'be good',
pé 'be long', without any acceptable sum total.

Note further that in (71), rather than in (72), there is a gradual shift
(in context) in the meaning of the predicates following the head predicate:
dára 'be good' > 'very'; pé 'be late' > 'for a long (time)'; tó 'be
capable' > 'be enough (time and/or degree)'. The possibility of reducing a
full verbal meaning to a semi-verbal meaning (what Ansre calls "verbid") has
cleared (71), while blocking (72), in spite of the obvious similarities between
the two. The same fact seems to be true of the so-called prepositions in Yoruba:
fún 'give' > 'to/for'; ní 'have' > 'at'; sí 'exist' > 'to/into';
mọ́ 'touch' > 'against'; ṣááju 'precede' > 'before'.

In other words, the full facts about the HTS, the infinitival gerunds and

and the à-t i- complements, and the serial verb constructions, point to a his-
torical change, with the HTS preceding the serial verb constructions. Right now,
the latter type of construction is far more productive and far more economical
than the former. The possibility of verbs serializing enables far more seman-
tically compatible verbs to be juxtaposed without any overt marker between them,
as in

(73) Olú bá   mi ∅ fi ọwọ́ ∅ wó   ọ ∅ tì   ∅ sí òkè ∅ dè   mí
      Olu help me   use hand   push it   touch   be at top   precede me
      'Olu helped me to use (my) hand to push it up before I returned'

where all the underlined items are potential verbs; yet there is no overt marker
between them.

    The final picture we get from these facts is one where the HTS precedes all
the other forms of relating predicates to each other in Yoruba. That is, the
other three--the infinitival gerunds, the à-t i- complements, and the serial verb
constructions with zero associative morpheme--originate from the HTS; and since
the serial verb constructions are far more productive and far more economical,
we can conclude that the change is from a position of relative complexity to
relative simplicity:

(74) HTS complements ────────► infinitival gerunds
                                                        serial verb
                                                        constructions
                        ► à-t i- complements
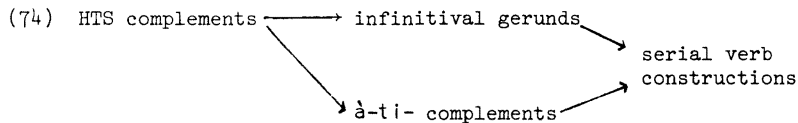
That this may be the true picture can be seen from the fact that, of the four
constructions, the HTS complements are far more restrictive and far less pro-
ductive,[14] while at the other end are the serial verb constructions which are
far more productive and far more economical. The infinitival gerunds and the
à-t i- complements, in the middle, run parallel lines to each other. While they
are more productive than the HTS complements, they fall far short of the serial

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[14]Presumably there will be some dialects which will allow more HTS than
others, as in (35a), which is common in the writer's dialect.

verb constructions.[15]

3.3. <u>Summary</u>. In summing up, does Yoruba now have infinitive constructions?
The *Shorter Oxford English Dictionary* [1933:1067] defines an infinitive as "the
name of that form of a verb which expresses simply the notion of the verb with-
out predicating it of any subject...a verb that is not inflected to indicate
person, number, or tense." By that definition, Yoruba would be claimed to have
a verb infinitive structure, even though the language does not have inflections.
First, the gerunds, which are claimed to be infinitival, arise from a loss of
subject, and a subsequent neutralization of the tense, otherwise there will be
no explanation for the exclusion of tense in the infinitival gerundive struc-
tures. Secondly, the à-tí- complements similarly arise after a loss of subject,
and a subsequent neutralization of tense. The tí in the à-tí- complements
does not allow a perfective interpretation. Even the prefix à- has lost the
normal factive interpretation that one would normally have associated with it.
In other words, à-tí has constituted itself into an idiom, and hence a special
marker of a type of nominalization--the infinitive, in a synchronic description.
In this indirect manner therefore, these two constructions relate subordinate
predicates to the main predicate.

As for the HTS and the zero associative morpheme in the serial verb con-
structions, the conclusion we have been led into by this discussion, is that
the HTS represents an older form of the infinitive phrase, while the zero asso-
ciative morpheme is the neutralization of all these markers of the infinitive
phrase, as a result of a historical change. Note also that in these two con-
structions, like the former two, tense has also been neutralized. In surface
structure, the serial verb constructions are marked for tense once; that is,
the tense of the main predicate usually determines the tense of the other pre-
dicates.

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[15]As is to be expected, there is hardly anything which can be expressed by
HTS, infinitival gerunds and à-tí complements, which cannot be expressed in
serial verb constructions; but this cannot be the other way around.

4. Yoruba Orthography and the HTS/à-tì- Complements

In the light of our discussion of the HTS and the à-tì-complements, we suggest that the present Yoruba orthography be modified to reflect the uniqueness of these two structures. The HTS should not be written together with the verb since it is not a prefix, as is being done presently; rather it should stand on its own as a free morpheme, just as we have done in this paper. Similarly the à-tì should now be treated as an independent marker for the infinitive verb. Fortunately, most Yoruba writers follow this recommendation, because they intuitively feel that à-tì has now been lexicalized. In other words, (75a) should be preferred to (75b):

(75) a.   Olú gbà   àtì lọ

      b. *Olú gbà   àtì-lọ
          'Olu agreed to go'

For (75b) to be acceptable, the low tone on gbà would have to change to mid, and in that case, the interpretation would differ:

(75) c. Olú gba   à-tì-lọ
          'Olu agreed to/accepted fact-of-having-to-go'

On the other hand however, both gerundivization and the other types of nominalization by prefixation create new and full words out of the stems, and should be written to reflect this fact, as in:

(76) a. à -tètè -dé -ilé -sùn   (factive nominalization with à-)
          fact-early-reach-house-sleep
          '(fact of) getting-home-to-sleep'

      b. tí -tètè -dé -ilé -sùn   (gerundivization)
          ing-early-get-home-sleep
          'getting-home-early-to-sleep'

      c. *ì   -tètè -dé -ilé -sùn   (non-factive nominalization with ì-)
          non-fact-early-get-home-sleep
          'getting-home-to-sleep'

5. Conclusion

This paper has concentrated on the HTS construction to show four important points: (a) that it is an older form of the verb-infinitive phrase, out of which the infinitival gerunds, the à-tì- complements, and (by a historical change) the serial verb constructions, originate; (b) that the HTS construction is different from (and should not be confused with) the infinitival gerunds,

since both have been shown to be distinct constructions; the infinitival gerunds which do not have HTS equivalents are in hundreds, far too many to be exceptions; (c) that the HTS constructions have shown Yoruba to be related to some of its neighbouring Kwa languages, like Igbo, Itsekiri and Igala. Furthermore, the serial verb constructions have been shown to be far more productive and far more economical than the HTS constructions, the infinitival gerunds and the à-tí-complements, hence the former's gradual replacement of the latter set, probably to suggest a direction of change (from relative complexity to relative simplicity and productivity); and lastly (d) that it will become necessary to modify a portion of the orthography to accomodate these new facts.

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