

THE STRUCTURE OF VERBAL CONSTRUCTIONS
IN EDO (BINI)^{1,2}

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1. What is a Verbal Construction ?

In Edo (Bini) a verb can be made to express the continuity, completeness, priority, manner, etc. of an action by selecting, or failing to select, an auxiliary marker (AM) to occur with it, as well as by effecting some tonal changes on the subject concord marker (SCM). In one instance, a suffix (Su.) is also added to the verb stem (VS). Each such unique modification of a verb stem is what we regard as a verbal construction. The underlined

1. Earlier drafts of this paper were presented at the Linguistic Seminar, University of Ibadan, in February, 1976 and at the 12th West African Languages Congress at Ife in March, 1976. I am indebted to all those who made useful comments at both presentations, most especially Ben Elugbe, Kay Williamson, Ayọ Bamgboṣe and Jan Voorhoeve.
2. The Edo (Bini) language belongs to the Edo sub-group of Kwa. It is usually referred to in the literature either as Bini or as Edo. At a conference on Edo orthography in 1974 (the proceedings of which are published in Edo Language and its Orthography, cf. bibliography), it was decided to adopt the name Edo (Bini) in all future publications in English.

parts of the following sentences are examples of verbal constructions:

1. Present continuous:

òzó !ghà !rhùlé³ "Ozo is running"

3. All vowel and consonant symbols used in this paper have IPA values except the following whose IPA equivalents are given:

ɛ = e

ɔ = o

gh = ɣ

rr = r

rh = ʀ (Vl. alveolar trill)

r = ɭ (tapped alveolar lateral)

vb = v

The following conventions have been followed in marking tone:

high tone ' .

Low tone ` .

A raised exclamation mark, ! , before a syllable indicates that the tone of that syllable is downstepped. A downstepped low tone is one which is phonetically level (instead of the usual fall) after a high tone, usually as a result of the presence of an underlying floating low tone. We also regard every occurrence of the downstepped high tone as deriving from the influence of an underlying floating low tone. (For a detailed discussion of the phenomenon of downstep in Edo (Bini) cf. Amayo 1976).

2. Simple completive:

òzò !lèé=rè "Ozo escaped"

3. Anticipative:

ú tè rré, í ghá !mwègbé

"Before you come, I will be ready"

In this paper we shall identify those elements which occur in Èdo (Bini) verbal constructions and attempt to relate their underlying representation to their surface representation.

2. Constituents of Verbal Constructions

We shall regard those elements which can uniquely modify a verb stem as together constituting the construction marker (CM). A verbal construction is thus obligatorily made up of the construction marker and the verb stem. The subject concord marker is the only obligatory element in the construction marker. The construction suffix occurs only in the simple completive construction while the auxiliary marker occurs in all but a few constructions.

The structure of verbal constructions can be specified by the subset of phrase structure rules in 4:

4. VC \rightarrow CM + VS

CM \rightarrow SCM (+ AM) (+ Su.)

We shall now describe each of the constituents of the verbal construction.

3. The Subject Concord Marker

3.1. Evidence for the Subject Concord Marker

In most sentences there is clear evidence of some underlying element between a nominal subject and a following auxiliary marker, or verb stem where there is no AM. In the following examples,

5. àmè ghà kpòló ...
"if Amẹ sweeps ..."

6. àmẹ́ ghà kpòló
"Amẹ would have swept" ,

although there is ostensibly no element occurring between àmè and ghà in 5, there is the high tone vowel, é, in 6.

Most cases are, however, not as clear as 6. In some cases there is no trace in the phonetic representation of any underlying element while, in many other cases, only tonal evidence points to the occurrence of some segment in the position between the noun phrase and the verb phrase. In this regard, consider the following:

7. òzó 'kpòló "Ozo sweeps."

8. úgbó !rá kpòlò "Ugbo is about to sweep"
9. ùzí !gbé "Uzi dances"

From what we know of the phenomenon of downstep (cf fn. 3), 7 - 9 should, at a deeper level of analysis, be represented with floating tones in the positions where downstep occurs, i.e.

7. (a) òzò ` kpòlò
8. (a) úgbó ` rá kpòlò
9. (a) ùzí ` gbé

It seems natural to postulate, especially by analogy with 6, that at a still deeper level of analysis the floating tones of 7(a) - 9(a) are borne by segments which have been deleted.

When the noun subjects in 7 (a) - 9 (a) are replaced by "pronouns", the "pronouns" bear the tones which are postulated as floating when the sentences have noun subjects.

7. (b) ò kpòlò "he sweeps"
8. (b) ò rá kpòlò "he is about to sweep"
9. (b) ò gbé "he dances"

In the same way, 10 (a) will be replaced by 10 (b):

10. (a) ègwí ghà wú "the tortoise would have died"
- (b) ó ghà wú "he would have died"

Could it then be that o is the element which occurs between the noun and the predicate in 7(a)-10 (a) ? In other words, could we expect 10 (a), for example, to be represented as 10 (c) at a deeper level of analysis ?

10 (c) ègwí ọ ghà wú

As a matter of fact, 10 (c) actually occurs as an emphatic sentence meaning "it is the tortoise who should have died". In this position (i.e. as in 10 (c)), o is clearly a subject concord marker which relates the NP and VP. It appears that the fully specified form of the subject concord marker occurs obligatorily in emphatic sentences, as the following examples will further illustrate:

11. àmọ́ ghà rré (← àmẹ ọ ghà rré)

"It is Amẹ who should have come"

12. òzó ghà rré (← òzó ọ ghà rré)

"It is Ozo who should have come"

In non-emphatic sentences, such as 7-9, the segmental features of the 'subject concord marker

are deleted leaving their tones floating.⁴

3.2. The Subject Concord Marker Versus

the Subject Pronoun

If the o of 10 (c) is clearly a subject concord marker, what about the occurrences of o in 7 (b) - 9 (b) ? As we have seen, they bear the same tones which are postulated as floating in the position where we would posit an SCM. Moreover, the tonal alternations which o undergoes are very crucial in distinguishing verbal constructions. For instance, the only difference between 13 and 14 lies in the tone of o:

13. ọ ghà rré ... "if he comes ..."

14. ọ ghà rré ... "he would have come ..."

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4. Although emphatic and non-emphatic sentences have similar deep structures, the emphatic sentences contain a dummy EMPH which blocks the deletion of the SCM. Where the subject NP of the emphatic sentence ends in a non-high and non-low vowel, the vowel is assimilated as in 11 and 12. In the case of a final nominal low vowel, it is the SCM which assimilates to it, e.g. ọsàá ghà dé, "it is the chimpanzee which should have fallen."

In non-emphatic sentences the SCM segment is deleted, although its floating tone is then segmentalized under certain conditions.

It would then appear that o is also a subject concord marker in 7 (b) - 9 (b), and in 13 and 14, and that it belongs to the following paradigm:

- i - 1st pers. sg.
- u - 2nd pers. sg.
- o - 3rd pers. sg.
- i - 3rd pers. pl. (used in relative constructions only)
- a - indefinite pers.

It will be demonstrated in 3. 3. below that this paradigm is that of the 3rd person pronoun and not the subject concord marker.

However, if we were to recognize all instances of o and, of course, all the other members of the paradigm as subject concord markers, this would imply that there are no subject pronouns in the language. This would be a serious claim to make, especially in view of the fact that other valid personal pronouns - namely the object and the possessive pronouns - have to be recognized in the language.

The following examples will illustrate the object and possessive pronouns:

- 15. (a) àmè tié òzó "Amè is calling Ozo"
- (b) àmè tié èrè "Amè is calling him"

- (c) àmẹ tié ` rùé "Amẹ is calling you"
16. (a) èbé úyì ` nọ "it is Uyi's book"
- (b) èbé ` éré ` nọ "it is his book"
- (c) èbé ` rùé ` nọ "it is your book"

The underlined items in the (b) and (c) sentences are personal pronouns which substitute for the underlined nouns in the (a) sentences. In 15 éré and ` rùé are third and second person object pronouns respectively, substituting for òzó. Similarly, éré and ` rùé in 16 are respectively third and second person singular possessive pronouns substituting for úyì.

Since the language clearly makes use of personal pronouns of the object and possessive types, it is quite unlikely that it should not make use of personal pronouns of the subject type. In other words, we ought to be able to substitute subject pronouns in place of noun subjects just as we do for object and possessor nouns. This is the more to be expected because semantically the o in 7 (b) - 10 (b) is as valid a noun substitute as the object and possessive pronouns of 15 and 16.

There is however, an essential difference between the subject pronoun and the subject concord marker. While the subject pronoun is a substitute which replaces a noun that has been previously mentioned, the subject concord marker is an element

which occurs obligatorily between a noun subject and the predicate.⁵ In which case a pronoun, like the noun it replaces, occurs immediately to the left of a subject concord marker. The subject concord marker then gets deleted after the pronoun, as happens after a noun subject.

It is not quite clear whether the subject pronoun has an inherent tone. It would be reasonable to expect that it bears an inherent tone like the other pronouns. But since there is no way of determining its actual tone, we will assume, for simplicity, that the subject pronoun is toneless. The tone it bears in surface structure is derived through the shifting of the floating SCM tone on to it. For example, 7 (b) will be derived as in 17.

(a)

(b)

(c)

17. òzò ò kpòlò → ɔ ò kpòlò → ɔ̀ kpòlò →

(d)

ò kpòlò.

At stage (b) ɔ replaces òzò by pronominalization; at (c) the vowel features of the SCM are deleted leaving the tone floating; and at (d) the floating SCM tone shifts onto the subject pronoun (cf. 3.4

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5. For a detailed discussion of the difference between an SCM and the pronoun, cf. Bamgboṣe (1972) and Ingram (1971).

for the formalization of the SCM segment deletion rule).

3.3. The Shape of the Subject Concord

Marker

So far we have encountered only o as a subject concord marker. Since o is identical in shape with the third person singular subject pronoun, one could be tempted to think that the SCM will have the same paradigm as the subject pronoun. We should, therefore, find out whether the SCM exhibits other phonological shapes. Since, as we have seen, the fully specified form of the SCM occurs obligatorily in emphatic sentences, we can find out the shape or shapes of the SCM in emphatic sentences with the pronominals imè, ùwè and irè.

Thus in 18 - 20

18. imè o ghà rré (→ imò^ó ghà rré)
"it is I who should have come"
19. ùwè o ghà rré (→ ùwò^ó ghà rré)
"it is you who should have come"
20. irè o ghà rré (→ irò^ó ghà rré)
"it is he who should have come"

we find that o occurs with the first, second and third person pronominals, so that it is not possible to have, for example, 21 in place of 18:

21. *imè í ghà rré
I lp. SCM

Nor can the SCM be inflected for number;

22. òzó vbV àmẹ ọ ghà rré
(→ òzó vbá!mọọ ghà rré)

"it is Ozo and Amẹ who would have come"

23. írǎ ọ ghà rré (→ írǎǎ ghà rré)

"it is they who would have come"

There is, therefore, only one subject concord marker, o, in the language. The paradigm in 3.2 is, therefore, that of the subject pronoun only.

3.4 Derivation of the Subject Concord

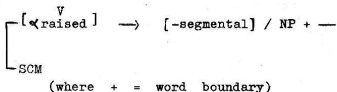
Marker

In 3.1. we showed that the vowel features of the SCM are deleted, leaving the tone floating, when the SCM occurs with a subject NP. We shall now further examine the process by which the underlying representation of the SCM is related to its phonetic realizations in the environment of a subject NP. The rules which follow apply only to non-emphatic sentences (cf. 3. 1, especially fn. 4, for some discussion of the derivation of the phonetic realizations when the SCM occurs with subject NPs in emphatic sentences).

3.4.1. The Deletion of the SCM Segment

When the SCM occurs after an NP, its vowel features are deleted. This can be formalized as follows:

SCM Segment Deletion



By this rule 24-27 will have the following intermediate stages in their derivation.

24. òzó ò ghà rré → òzó ` ghà rré
"if Ozo comes"

25. àmẹ ọ ghà rré → àmẹ ` ghà rré
"Amẹ would have come"

26. òzó ọ ghà rré → òzó ` ghà rré
"Ozo would have come"

27. àmẹ ò ghà rré → àmẹ ` ghà rré
"if Amẹ comes"

3.4.2. Tonal Segmentalization

After the deletion of the SCM segment, the SCM floating tone is segmentalized, that is, it acquires the segmental features of the final vowel of the preceding NP (all morphemes end in vowels). Thus 24 - 27 will have the following representations after the application of the tonal segmentalization rule.

23. (a) òzó ò ghà rré

25. (a) àmẹ ẹ ghà rré

26. (a) òzó ó ghà rré

27. (a) àmè è ghà rré

The tonal segmentalization rule is formalized as follows :

Tonal Segmentalization

$$[- \text{segmental} \text{ \& raised}] \rightarrow [\beta_F^V] / [\beta_F^V]_{NP} + -$$

After the application of this rule, 24(a) will undergo further modifications by the application of high tone spreading (b), tonal simplification (c), and vowel contraction (d), in that order (cf. Amayo 1976).

(a)

(b)

24. (a) òzó ò ghà rré → òzóô ghà rré →

(c)

(d)

→ ozóó ghà rré → òzó ghà rré.

The downdrift rules and the floating low tone deletion rule will further apply to produce the final surface form: òzó !ghà rré (cf. Amayo (1976) for a discussion of these rules).

The vowel contraction rule will further apply to 26 (a) and 27 (a) because of the tonal and segmental identity of the contiguous vowels.

It may appear clumsy that we delete the vowel features of the SCM only to segmentalize its tone, instead of postulating that the SCM segment assimilates to the final vowel before it is deleted in some cases. However, this alternate analysis would yield the wrong result in all cases. Take 27, for example:

27. (a) (b) (c)

àmè ò ghà rré → àmò ò ghà rré → àmò ghà rré

The only way we could derive the correct output, going by this analysis, is to assume that vowel assimilation is progressive, so that stage (b) of 27 would be àmè è ghà rré. However, vowel assimilation is normally regressive in the language, and there is no reason why the derivation of the SCM should be an exception.

4. The Auxiliary Marker

An auxiliary marker usually occurs between the subject concord marker and the verb stem. It occurs in all constructions except the simple habitual, the simple completive and the simple imperative.

Auxiliary markers are generally either monosyllabic or disyllabic in their phonetic representations. The only exceptions are kàkàbó (marker of the habitual intensive construction) and ká!kàbó

or kàká!bó` (markers of the completive intensive construction) which are compounds in their underlying structures.

The majority of auxiliary markers occur in pairs which oppose incomplete (usually habitual or continuous) action to completive action. In pairs which reflect this kind of opposition, the AM which marks habitual action usually bears a plain low tone, the AM which marks continuous action a LH tone pattern and the marker of completive action a H` tone pattern (i.e. a high tone followed by a floating low tone).

Examples:

28. Completive Unfulfilled Conditional (kpá`)
àmè kpá` rré, í ghà ghòghò
"if Amè had come, I would have been happy"
29. Habitual Unfulfilled Conditional (kpá)
àmè kpá rré, í ghà ghòghò
"if A. were in the habit of coming,
I would have been happy"
30. Completive Concessive. (rhé`)
ò rhé`dé, t-ó mú òkàrò
"even though he fell, he still came first"
31. Continuous Concessive
ò rhèé dòlò, íkpóhò ò hòó
"even though he is scrubbing (the floor),
it is sweeping that he wants".

5. The Verb Stem

By definition a verbal construction must contain a verb stem. A verb stem can be either monosyllabic or disyllabic and always begins with a consonant.

Edo (Bini) verb stems have been differently analysed as having lexical tone (Melzian 1937) and as exhibiting purely grammatical tone (Wescott 1963: 146-7; Elugbe 1973: 171). Melzian (1937:xii) says that

There are many pairs of verbs differentiated by a combination of vowel length and intonation, one type having a shorter vowel and a high tone in the imperfective form, the other, a longer vowel and a rising tone, e.g. *ma* ['] "to fit", *ma* [↗] "to be good".

Melzian seems to think that the tonal difference is more basic than that of length in pairs of verbs such as the above, hence he consistently represents them by showing only the tonal difference.

However, as neither vowel length nor rising tone is known to be independently distinctive in the language (i.e. there is no evidence of distinctive vowel length not accompanied by contour tone, and vice versa), we interpret the long vowel in *ma* [↗] as a sequence of two vowels bearing a low tone followed by a high tone. That verb stems of the *màá* type are not monosyllabic (but rather disyllabic) is borne out by the fact that they behave differently

from monosyllabic verb stems when they are followed by the simple completive suffix and when followed by noun and pronoun objects.

To take the example of the simple completive suffix, the suffix consonant is retained after verbs of the máá type but deleted after other verbs. e.g.

- | | | | |
|-----|-----|---------|---------------------|
| 32. | (a) | ò máè | "it fitted" |
| | (b) | ò màárè | "it became good" |
| 33. | (a) | ò lǝè | "he ground (smth.)" |
| | (b) | ò lǝǝrè | "he ironed" |

We see, therefore, that there is no real basis for contrasting high tone and rising tone in verb stems. (Cf. Amayo 1976).

As a matter of fact, since we cannot elicit any minimal tonal contrasts on verb stems independently of their grammatical contexts, we have no basis for representing tone on verb stems in the lexicon.

We are, in effect, in agreement with the conclusion reached by Wescott and Elugbe that Èdo (Bini) verb stems exhibit exclusively grammatical tone. We therefore postulate that, although Èdo (Bini) verb stems do not have tonal representation in the lexicon, they acquire tonal representation at the syntactic level. Therefore, verb stems obligatorily have tonal representation at the

systematic phonemic level.⁶

Verb stems have the tone pattern (L)H (i.e. H if monosyllabic and LH if disyllabic in the phonetic representation. However, in the simple imperative construction, a rule applies to change the high tone to low tone.

Simple Imperative High Tone Lowering

[+ raised]_{VS} → [- raised] / - +]_{S.Imp.}

Examples

34. kpòlò → kpòlò "sweep"

35. wà gbé → wà gbè "you (pl.) dance"

6. The Simple Completive Suffix

In the simple completive construction a construction suffix, -rè, obligatorily occurs with the verb stem. The phonetic shape of the suffix depends on the type of verb stem with which it occurs (cf. exx. 32 and 33 and Amayo 1976).

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6. However, it is not yet clear to us exactly how the tones are assigned at the syntactic level. All that seems clear at the moment is that verb stems are tonally empty in the lexicon and that they have tonal representation in underlying phonological structure.

7. Examples of Verbal Constructions

Thus we see that a verbal construction is made up of two obligatory elements - the verb stem and the subject concord marker - and two optional elements - the auxiliary marker and the construction suffix.

The following are some of the thirty-five verbal constructions so far identified in the language. The formula abbreviating the structure of a construction is given after it.

7.1 Habitual : SCM + VS

34. ò dé "he buys"
35. òzò lǎǎ "Ozo buys"
36. òzò !kpòlò "Ozo sweeps"

7.2 Future : SCM + { $\begin{matrix} \text{rá} \\ \text{ghá} \end{matrix} \}$ + VS

37. ò { $\begin{matrix} \text{rá} \\ \text{ghá} \end{matrix} \}$!gbé "he will dance"
38. ègwí ! { $\begin{matrix} \text{rá} \\ \text{ghá} \end{matrix} \}$!wú "the tortoise will die"

7.3 Simple Completive : SCM + VS=rè

39. òzò !lǎǎ-rè "Ozo escaped"
40. ò kèkè-è "it rotted"

7.4 Completive Reservative : S^{CM} + té + VS

41. ọ té !kpòlò "he swept (but it doesn't appear as if he did)"

7.5 Habitual Reservative : S^{CM} + té + VS

42. ọ té kpòlò "he usually sweeps (but it doesn't appear as if he does)"

43. ọ tẹ rhàá "he used to steal"

7.6 Completive Unfulfilled Resultative :

S^{CM} + ghà + VS

44. ọ ghà kpòlò "he would have swept"

45. àmẹẹ ghà rré "Amẹ would have come"

7.7 Completive Intensive :

S^{CM} + $\left\{ \begin{array}{l} \text{ká!kàbọ́} \\ \text{kàkà!bọ́} \end{array} \right\} + VS$

46. òzó 'ká!kàbọ́ !dé

"Ozo fell very hard"

47. òzó 'ká!kàbọ́ !kpòlò

"Ozo swept intensely"

7.8 Habitual Intensive :

SCM + kàkàbó + VS

48. ùzì !kàkàbó gwí
"Uzi quarrels very much"

49. ọ kàkàbó mósé
"it is very beautiful"

7.9 Simple Imperative (SCM)+VS

50. wà kpòlò "you (pl.), sweep!"

51. myè "take!"

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