Exploring the Morphosyntax and Semantics of Verbal Extensions in Gokana

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ABSTRACT

The phenomenon of verbal extensions has not been adequately examined in Gokana. This paper identifies verbal extensions in Gokana and provides an objective and principled description of their morphology, syntax, and semantics within the framework of Principles and Parameters Theory. The paper shows that simple and seriated extensions are attested in Gokana. The paper identifies nine simple extensions and three seriated extensions in Gokana verbal morphology. Interestingly, the paper notes that the logophoric extension has the features of an anaphor but functions as a pronominal since it violates the clause-mate condition on anaphors. The paper claims that the nine simple extensions that occur in the language are productive synchronically. The paper, however, finds that the seriated extensions are not as synchronically productive as the simple extensions, and those described in this study may likely be traces of the fossilized extensions that indicate that seriated extensions perhaps were once productive in the language. The paper therefore recommends a diachronic study of the seriated extensions.

KEYWORDS: Gokana, Verbal Extensions, Morphological structure, Logophoric Suffix, Seriated, Syntax, Semantics, Synchronic, Diachronic, Principles and Parameters Theory

Introduction

Gokana is spoken in the Gokana Local Government Area of Rivers State, Nigeria by approximately 200,000 people. It is closely related to Baan, Eleme, Tee, and Kana. These languages form a genetic unity and Williamson and Blench (2000:33) classify them as Delta-Cross of Cross River within the Bantoid-Cross of the East Benue-Congo branch of Benue-Congo.

This paper identifies verbal extensions in Gokana and describes their syntax and semantics within the framework of Principles and Parameters Theory.

The Phenomenon of Verbal Extensions

Discussions on verbal extensions and extensional affixes generally can be found in Arnott (1970), Voeltz (1977), Emenanjo (1978), Ndimele (2003), Newman (1990), Brooks (1991), Kari (1995), Hyman (2007), Blench and Williamson (2015), and Werigbelegha and Kwokwo (2019). According to Kari (1995) "the similarity of these affixes in other Niger-

Congo languages to the present-day Bantu system was not noted until 1977, when Voeltz presented ample evidence to demonstrate it".

These affixes have been found to vary in number from language to language. A language like Igbo for instance, has been described as having 17 different extensions (Emenanjo 1978), while Fula distinguishes well over 19 different extensions (Arnott 1970). Languages with fewer extensions have also been reported.

Blench and Williamson (2015) report that "systems of verbal extensions, consisting of affixes that alter argument structure, are widely reported in the world, and are scattered throughout Africa, where they compete with strategies such as serial verbs and auxiliaries plus verbal collocations".

Werigbelegha and Kwokwo (2019) asserts that a verbal extension is a suffix attached to a verb which substantially changes the meaning and valency of the verb, while Hedlinger (1990) describes a verbal extension as a verbal suffix added to the root resulting in a new stem.

Verbal extensions have both syntactic and semantic consequence in sentence grammar. Syntactically, they affect the valency or argument structure of the verb in any given sentence while semantically they generate verb stems that alter the original meaning or add a component of a new meaning to the base meaning of the verb within clause-structure.

Blench and Williamson also note that "within African languages, extensions can be sub divided into two major sub-classes, systems which permit seriated or strings of verbal extensions and those where a variety of individual extensions may be affixed to the verb root, but which do not permit seriation". Verbal extensions also constitute a productive morphological process of word formation in many African languages.

It is attested in the literature that verbal extensions constitute a class-maintaining type of derivational affixes as they do not change the word class of the words to which they are attached. There seems to be a consensus of opinion among most scholars in African linguistics that verbal extensions are an integral part of the verbal morphology in most Bantu and Benue-Congo languages. More commonly attested are applicative, causative, passive, reversive, and stative extensions.

Methodology

The researcher collected data from fluent native speakers of Gokana with the help of field assistants. The researcher also relied on his intuition as a native speaker of the language but where any given set of data contradicts his intuition, direct oral interview was used to elicit comparative data from other native speakers of the language. Secondary sources of data such as texts and library materials were also utilized. The data were analyzed within the framework of Principles and Parameters Theory.

Analysing Verbal Extensions in Gokana

This paper analyses the morphology of verbal extensions in Gokana under two major sub-categories: Simple extensions and Seriated extensions. Simple extensions refer to a variety of individual extensions that are attached to a given verb root that can only take one extension at a time, while Seriated extensions refer to the sub-class of verbal extensions that permit a sequence of two or more verbal extensions to be attached to a single verb root. In what follows, we describe the morphological, semantic and syntactic features of these extensions.

A.   Simple Extensions

This paper identifies nine verbal extensions as simple-extensional forms in Gokana. Our description of these extensions include their structure, meaning and any idiosyncratic features.

i.   The Reciprocal Extension

The reciprocal extension is a suffix with the morphological structure –a. the reciprocal extension shows that the action, state or event conveyed by a verb is a 'shared experience'. It expresses the meaning of mutual relationship. In other words, it shows a kind of 'give and take' relation between persons or things referred to by the verb. The reciprocal suffix -á has the reading 'each other'. Consider the following data:

1a)   dé-á   as in: bà   dé-á   (gyãá)
       Eat + REC   they   eat *suff*   food
       'eat'   'They ate each other's food'

b)   tÚ-á   as in: bà   tÚ-á   (ene)
      take + REC   they take *suff* one
                             'They received each other'

c)   si-á   as in: bà   si-á   (tóm)
      work + REC   they   work *suff* work
                             'They worked for each other'

d)   món-á   as in: bà   món-á (ene)
      see + REC   they see *suff* one
                             'They saw each other'

e)   bã-á   NPs   as in: ba   bã-á   (to)
      menter + REC   they enter *suff* house
                             'They entered each other's house'

This extensional suffix can only be attached to verbs with a plural subject because of its reciprocal meaning. Syntactically, the suffix appropriates the nominal grammatical features of the object NP. Observe that the suffix reduces the valency and argument structure of the verb as the object NPs in (1a-e) are optional which means the constructions are

grammatical without the objects. But, without the suffix, the objects are obligatory for the grammaticality of these constructions. Thus, the reciprocal extension inherits the grammatical features of person and number from the object which it subsequently shares with its antecedent, the subject in SPEC I-bar position of the minimal clause. It is only by positing this syntactic analysis that the semantic well-formedness of the constructions in (1a-e) can be explained with an optional or deleted object NP.

ii.   The Anti-Causative Extension

The morphological shape of the anti-causative extension is –a. This extension applies to typically two-place verbs. Just like the reciprocal extension, the anti-causative extension reduces the valency of a verb by taking away an argument. Consider the following data:

2a)   à   kyo   kpòte á
        s/he   spoil   chair the
        'She spoiled the chair'

b)   à   ful té   á
        s/he cut tree the
        'She cut the tree'

c)   à   be   èèrè á
        s/he   block road the
        'She blocked the road'

In (2a-c), the verbs admit two arguments (an external and internal argument), which shows that they are two-place verbs. But if we attach the anti-causative extension –a to these verbs, they loose an argument as in (3a-c):

3a)   kpòte   á   kyo à
        Chair   the   spoil + *suff*
        'The chair got spoilt'

b)   té   á   fulà
        tree   the   cut + *suff*
        'The tree got cut'

c)   èèrè a   beà
        road the block + *suff*
        'The road got blocked'

Observe that in (3a-c), the same verbs that previously admitted two arguments; each has a single argument in their constructions when the anti-causative extension is attached to the verbs. The anti-causative extension –a causes the internal argument to move from its original position into SPEC I-bar position, and the NP in SPEC I-bar position is deleted, but

the internal argument still retains its case and θ-role. Thus, the anti-causative extension shows that the situation expressed by the verb has no explicit agent. Although not identical, the anti-causative construction in Gokana is similar to the agentless passive in English. And it is more likely an ergative construction.

In terms of structure, there is only a tonal difference between the reciprocal extension and the anti-causative extension. They also have similar syntactic function by reducing the valency of verbs. The reciprocal extension renders the internal argument of its clause redundant while the anti-causative extension deletes the external argument of its clause and superficially assumes the position. But semantically, their function differ significantly.

iii.   The Causative Extension

The morphological shape of the causative extension is –e. the following verbs can take this suffix:

4a)   díí 'sink (of a boat)'
b)   kãa 'dry (of cloth)'
c)   doo 'fall (of rain)'
d)   ẹẹ 'whiten, ripe'
e)   bèm 'rotten, decay, smell'
f)   zeg 'refuse to heal (of injury)'
g)   pii 'quieten'
h)   gyoo 'be wet'
i)   daa 'sleep'

The causative extension is attached to the verbs in (4a-i) to derive the sentences in (5a-i):

5a)   fóoró á   diirè   faà   á
       Wind   the sink + *cs* boat   the
       'the wind sank the boat'

b)   gbei á   káãmè̱ kàn   á
       sun   the dry + *cs* cloth the
       'The sun dried the cloth'

c)   à   doovẹ̱ bòo
       s/he fall + *cs* rain
       'He caused the rain to fall'

d)   sóò á   ẹẹrẹ   kàn á
       soap the white + *cs* cloth the
       'The soap made the cloth to be clean'

e)   dí bemẹ̱   kòràló á
       dirt smell + *cs* dress   the

'Dirt caused the dress to smell'

f)   biè   a   Zẹgẹ̱ kom   á
medicine   the   v + *cs* wound the
'The medicine caused the injury not to heal'

g)   Ledum pîne   nvín   á
PN   quiet + *cs* child   the
'Ledum quietened the child'

h)   a   máni gyoovẹ vái á
his   urine wet + *cs* bed the
'His urine made the bed wet'

i)   biè   á   dare   nvín á
medicine   the sleep + *cs* child the
'The drug made the child to sleep'

From the data in (5a-i), the causative extension has three allomorphs which are predictable according to the preceding phonological context:

i)   The causative suffix is realized as -è if the verb root contains an expanded vowel (see (5a, i)).

ii)   The causative suffix is realized as -è if the verb root contains a narrow vowel (see (5c, d, f, h)) and

iii)   The causative suffix is realized as -ē if the verb root contains a nasalized vowel (see (5b, e, g)).

It is also observed that in some cases, a stem extender is required to attach the causative suffix to the verb as seen in (5a, b, c, d, g, h, i). The process is similar to the phonological process that attaches [-r-] to the word 'child' in order to form the plural 'children' in English.

Syntactically, the causative extension increases the valency of a verb by allowing it to take an additional argument. Observe that in (5a-i), the additional argument is the agent of the situation expressed by the verb. All the external arguments in SPEC I-bar position of the clauses in (5a-i) are possible because of the attachment of the causative suffix. If the causative extension is deleted, the constructions will become ungrammatical.

The causative extension applies to typically one-place verbs. Thus. It is functionally a transitivising suffix

iv.   The Logophoric Extension

The morphological shape of the logophoric extension is –ee. This verbal extension marks co-reference in constructions. Consider this data:

6a)   ài   kó   ai   beè   sí-ee
       He say he PST go +LS
       'He said he travelled'

b)   ài   kó   ai   beè do-ęę
      he say he PST fall +LS
      'He said he fell'

c)   ài   kó   ai   beè mòn-ēe
      he   say he PST see +LS
      'Hei said he saw it'

Observe that there is co-reference between the subject in SPEC I-bar position of the main clause and the subject in SPEC I-bar position of the lower clause in (6a-c). This explains why both argument positions are co-indexed.

The co-reference is generated by the logophoric extension attached to the respective verbs of the lower clauses in (6a-c). If we delete the logophoric suffix, the co-reference will be lost and each subject will have a disjoint reference as in (7a-c):

7a)   ài   kó   aj   beè   sí
       He say he   PST go
       'Hei(Peter) said hej(John) travelled'

b)   ài   kó   aj   beè   dò
      he say he   PST fall
      'He(Peter) said he(John) fell'

c)   ài   kó   aj   beè   mòn
      he say he PST   see
      'He (Peter) said he(John) saw it'

The logophoric extension has three allomorphs which are predictable according to the preceding phonological context (see (6a-c)):

i)   The logophoric suffix is realized as -ee if the verb root contains an expanded vowel (see (6a)).

ii)   The logophoric suffix becomes -ęę if the verb root contains a narrow vowel (see (6b)).

iii)   The logophoric suffix becomes -ēē if the verb root contains a nasalized vowel (see (6c)).

The first report of the logophoric suffix in Gokana was Hyman and Comrie (1981:19) who acknowledged that Gokana utilizes a verbal suffix –ee to mark logophoric reference which is a type of co-reference found between two argument positions in reported speech.

We found in our present analysis that the domain of usage of the logophoric reference is restricted to reported speech because it is distinct from the co-reference in reflexive and reciprocal constructions. It is observed in this study that in the marking of the logophoric reference, the entity that takes reference is not in the same clause with its antecedent which violates the clause-mate requirement on anaphors.

Interestingly, while the logophoric suffix has the features of an anaphor by marking co-reference; it actually functions like a personal pronoun since its antecedent is found outside its minimal clause which violates the clause-mate condition on anaphoric reflexives and reciprocals.

This paper therefore argues that although the logophoric extension marks co-reference, its grammatical features contradict the well-known features of anaphors. Given this fact, we classify the logophoric extension as a pronominal and not an anaphoric suffix. The logophoric suffix can therefore be labelled as [+Pronominal, -Anaphor]. Thus, the logophoric extension is not locally bound but may be bound elsewhere in the discourse context. So its binding feature is A-bar binding and not A- binding.

v. The Modal Extension

The morphological shape of the modal extension is -gé. It is an extensional suffix that indicates the attitude of the speaker. It shows a polite plea. Sometimes, it can co-occur with politeness markers. Consider this data:

8a) de-gé   gyãa í
Eat +MS food this
'Please eat this food'

b) tu-gé   o   va
take +MS your wife
'Please accept your wife'

c) sóosóo, tu-gé   o   va
please   take +MS your wife
'PLEASE accept your wife'

This verbal extension marks politeness even without the occurrence of a politeness marker in the construction as in (8a-b). In (8c), a politeness marker is introduced to show that this extension can co-occur with a politeness marker but the meaning of the construction remains the same with or without an extra politeness marker.

Apart from marking polite imperatives, this extension is also attested to form polite questions as in (9):

9) O beè tu-gé   o   va
You PST take +MS your wife
'Please, have you accepted your wife?'

Thus, this extension is considered a modal since it reveals the attitude of the speaker towards his assertion. It is interesting to note that Ikoro (1995:152) also attests the occurrence of the modal extension in Kana imperative constructions but did not examine the use of this suffix in questions.

vi.   The Comparative Extension

The comparative extension has the morphological shape -èl. It has the meaning 'more than' or 'better than' and it is used to indicate comparative analysis between arguments in clause structure as in (10a-b)

10a)   Ledum   dé-èl   oro
PN   eat+*suff* you
'Ledum ate more than you did'

b)   Ledum   sí-èl   va
PN   work+*suff*   them
'Ledum worked more than them'

Observe that if the comparative suffix in (10a-b) is deleted, the comparative meaning will be lost and the resultant construction will not only be pragmatically un-interpretable but also ungrammatical as shown in (11a-b):

11a)   ! Ledum dé va
PN   eat   them
! 'Ledum eats them'

b)   * Ledum   sí   va
PN   work   them

Whereas (11a) is deviant because it is pragmatically un-interpretable, (11b) is ungrammatical because the verb <u>sí</u> in Gokana cannot subcategorize an internal argument that is [+HUMAN]

vii.   The Instrumental Extension

The instrumental extension has the morphological shape –ma. It is a suffix that is attached to the verb. Semantically, it shows an instrument with which something is done.

Examples:

12a)   zomà   as in: à   zomà   a   va
Dance+*suff*   he   dance+*suff* his wife
'dance with'   'he danced with his wife'

b)   timà   as in: bà   timà   dem
build+*suff*   they build+*suff* block
'build with'   'They built(the house) with blocks'

It is observed that in their citation form, the verbs that occur with this suffix end in a consonant but when the suffix is attached, the final consonant of the verb gets deleted as in (13a-b):

13a) Zob   ⟶   zomà
     'dance'   'dance with'

b)   tib   ⟶   timà
     'build'   'build with'

This phonological process of final segment deletion in (13a-b) occurs because Gokana does not permit consonant clusters in word form.

viii.   The Pluractional Extension

The pluractional extension is a suffix with the form -gági. Functionally, this suffix indicates multiple actions that occur simultaneously on the same occasion.

Examples:

14a)   dé-gági   as in: bá   de-gági   gyaá
      Eat+*suff*   they eat+*suff* food
      'eat(many times)'   'They ate many times (at a singular meal time)

b)   sa-gági   as in: Ledum sa-gági   dáro
      select+*suff*   PN   select+*suff* apple
      'take (many times)'   'Ledum kept selecting the apples'

c)   tu-gági   as in: ba   tu-gági   a   koràlo
      take+*suff*   they take+*suff* his shirt
      'take (many times)'   'They kept taking his shirt'

ix.   The Repetitive Extension

The repetitive extension has the morphological shape –nage. It is a suffix attached to the verb root.

Examples:

15a)   náa-nage
      Do +*suffix*

b)   dé-nagé
      eat +*suffix*

c)   dÚ-nagé
      come +*suffix*

This extension primarily has a repetitive meaning which implies to 'do again' or 'the act of doing again' which is illustrated in the constructions in (16a-c):

16a) à   beè   náa-nage
      He PST   do +*suff*
      'He did it again'

b)   à   beè   de-nage
      he PST   eat +*suff*
      'He ate it again'

c)   à   beè   du-nagé
      he PST   come +*suff*
      'He came again'

On the other hand, this suffix can also be used as an attitude marker. Ikoro (1995:151) points out that it shows 'polite but reluctant approval' in the modal usage. Thus, the constructions in (16a-c) can be repeated here as (17a-c) to show the modal usage of this suffix:

17a) à   beè   naa-nage
      He PST do +*suff*
      'He may also do it'

b)   à   beè   de-nage
      he PST   eat +*suff*
      'He may also eat it'

c)   à   beè   du-nage
      he PST   come +*suff*
      'He may also come'

Given the ambiguity in the constructions in (16 and17), whatever meaning that this verbal extension implies appears to be determined by the discourse context as it is the background information that provides 'the repetitive' or 'polite but reluctant approval' gloss for the suffix. This pragmatic application appears to be an idiosyncratic feature that is peculiar to this particular verbal extension and not others.

B.   Seriated Extensions

This paper identifies three seriated verbal extensions in Gokana and presents an analysis of their structure and meaning. It appears, however, that the seriated extensions are not as synchronically productive as the simple extensions. What we describe here may likely be traces of the fossilized extensions that point to the fact that the seriated extensions were once productive in the language. And the paper suggests a diachronic study of this perspective.

i.   Causative +Pluractional Extension

It is possible to attach the causative and pluractional extension to the verb root simultaneously so that they form a string as shown in (18):

18)   diiregagi   as in: bà diiregagi   féé   a   mm mÚÚ
        Sink+*cs*+PL   they sink+*cs*+PL calabash the in   water
                                 'They sank the calabash into the water several times'

In fast speech, the first segment of the pluractional suffix may be deleted when it co-occurs in a string with the causative suffix as in (19):

19)   bà   diiregi   féé   a   mm mÚÚ
        They sink+*cs*+PL   calabash   the   in   water
        'They sank the calabash into the water several times'

ii.   Causative + Instrumental + Pluractional Extensions

The causative and instrumental and pluractional extensions can co-occur to form a seriated string as in (20).

20)   diiremagagi   as in:
        Sink+*cs*+IS+PL

21)   bà   diiremagagi   bà   bá   gbo féé   á   mm muu
        They sink+*cs*+IS+PL   their hand PL   calabash the in   water
        'They sank the calabash several times in the water with their hands'

This seriated form in (20 and 21) implies that the verb must obligatorily take an agent, an instrument with which the agent performs and a repetition of the action performed by the agent.

iii.   Causative + Instrumental + Pluractional + Modal Extensions

It is possible for four extensional suffixes to be attached to the verb root simultaneously to form a complex verb as in (22):

22)   diiremagagige
        Sink+*cs*+IS+PL+MS

The complex verb in (22) can only be used synchronically in a construction whose verb must indicate the following:

i)   an agent

ii)   an instrument with which the agent performs

iii)   several instances of the performance simultaneously

iv)   the mood of the agent towards the performance

Thus, the complexity of this verbal string affects its synchronic usage as speakers are often motivated by economy in speech to avoid highly complex verb forms. This explains why such forms are not often frequent in the statistical structure of actual usage in natural languages. But we can illustrate the usage of the complex verb form in (22) in the construction in (23):

23)   ba   diiremagagige   bà   bá   gbo fee   á   mm mÚÚ?
      They sink+*cs*+IS+PL+MS their hand PL calabash the in   water
      'Did they sink the calabash several times in the water with their hands?'

Interestingly, the modal –gé suffix that occurs as the final extension in the complex verb form in (23) converts the resultant construction into the interrogative mood.

C.   Order of Co-occurrence of Suffixes in Seriated Extensions

The linear order attested in the combination of seriated verbal extensions in Gokana is dependent on the number of seriated extensions in the complex verb.

a)   In a verbal sequence of two extensions, the following order occurs:
       i) Causative Extension
       ii) Pluractional Extension

b)   In a verbal sequence of three extensions, the following order occurs:
       i) Causative Extension
       ii) Instrumental Extension
       iii) Pluractional Extension

c)   In the maximum sequence of four extensions, the following order is attested:
       i) Causative Extension
       ii) Instrumental Extension
       iii) Pluractional Extension
       iv) Modal Extension

D.   Inventory of Verbal Extensions

For ease of reference and clarity of analysis in terms of structure and meaning, we provide an inventory of all verbal extensions in Gokana in a tabular form.

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Figure 1: Inventory of Verbal Extensions in Gokana

S/N	Verb	Extension	Gloss	Usage	Remarks
			SIMPLE EXTENSIONS		
	de	-	Eat	Ledum de gyaa 'Ledum ate'	Citation form of the verb
1	de-á	á	Reciprocal	ba de-a (gyaa) 'They ate each other's food'	Marks mutual relation; takes only plural subject

2	de-à	-à	Anti-causative	Gyaa de-a 'The food was eaten'	Reduces valency, affects argument structure, deletes not applicable agent
3.	*de-e	-e	Causative	-	Applies only to inherently in-transitive verbs, e.g bem 'smell' i)*di bem ni lo ii) di beme ni lo 'Dirt smells your body'
4.	de-ee	-ee	Logophoric	A ko, a bee de-ee 'He said that he ate'	Marks co-reference across clause boundary; pronominal not anaphoric
5.	de-gé	-gé	Modal	De-ge gyaa i 'Please eat this food' A bee de-ge? 'Did he eat?'	Attitude marker, mood; can be used to form question
6.	de-èl	-èl	Comparative	Ledum de-el oro 'Ledum ate more than you did'	Means 'more than' or 'better than'
7.	de-ma	-ma	Instrumental	A dee-ma ikpe 'He ate with a spoon'	Shows an instrument with which something is done; lengthens short vowels, deletes consonants that it follows
8.	de-gagi	-gagi	Pluractional	A de-gagi gyaa 'He ate many times at a single meal'	Indicates multiple actions at a time
9.	de-nage	-nage	Repetitive	A be de-nage 'He ate it again/He may also eat it'	Also marks attitude, mood; shows polite but reluctant approval; often ambiguous
			SERIATED EXTENSIONS		
	dii	-	sink	féé á dii 'the calabash sank'	Citation form, inherently intransitive verb
1	diiregagi	-e -gagi	-causative -pluractional	bà diiregagi féé á mm mÚÚ 'they sank the calabash into the water several times'	Verb inserts a stem extender –r- before attachment of suffixes; two suffixes occur in a sequence
2	diiremagagi	-e -ma -gagi	-causative -instrumental -plurational	bà diiremagagi bà bá gbó féé a mm mÚÚ 'they sank the calabash several times in the water with their hands'	Three suffixes occur in a sequence
3	diiremagagige	-e -ma -gagi -ge	-causative -instrumental -plurational -modal	Bà diiremagagigé ba bá gbó féé á mm mÚÚ 'did they sink the calabash in water several times with their hands'	Four suffixes occur in a sequence

It is observed that inherently transitive verbs do not require the causative extension which is a valency adding suffix that generates an agent for a verb. This explains why the form *de-e (see No. 3 in the table) does not occur in the syntax of the language. The causative extension therefore functions in Gokana as a transitivising suffix that causes inherently

intransitive verbs to become transitive. And can only be attached to inherently intransitive verbs.

Conclusion

This paper identifies the verbal extensions that occur in Gokana and provides an objective and principled description of the morphology, syntax and semantics of these extensions. The paper shows that simple and seriated verbal extensions are attested in the language but argues that the three seriated extensions found in the language are not synchronically productive as the nine attested simple extensions.

In the analysis of the syntax and semantics of each of the verbal extensions attested in the language, the paper argues that although the logophoric extension shows co-reference, it should be conceived as a pronominal and not an anaphor because it violates the clause-mate condition on anaphors since its referent occurs outside its minimal clause.

The paper claims that the respective order of combining the seriated forms analysed in this study are the only combination permitted in the syntax of the language. There appears to be a severe semantic constraint that disallows other alternative combinations. The study shows that all alternative forms are uninterpretable and illogical.

The study finds that inherently intransitive verbs do not use the causative extension since it is a valency adding suffix that generates an agent for the verb. The causative extension functions in the language as a transitivising suffix that causes inherently intransitive verbs to become transitive

The paper claims that there is a severe syntactic restriction on the co-occurrence of the simple extensions as only the causative, instrumental, pluractional and modal extension can serialize; but notes that all the simple verbal extensions identified in this study are productive synchronically.

Recommendation

The researcher therefore recommends a diachronic study of the seriated extensions.

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