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# What if your roots are polyfunctional? The Lexical Entry Problem in Benue-Kwa

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## Abstract

In accounting for the so-called serial verb constructions (SVCs) in Yoruba, Awóyalé (1988) argues that any adequate analysis must focus on the lexical entries of the verbs in order to define the contribution of each verb to the series. This view is compatible with Aboh's (2009a) conclusion that SVCs in Benue-Kwa represent monoclauses where a functional verb combines with a lexical verb acting as main predicate. In his terms, SVCs are not sequences of lexical verbs but rather verbal combinations in which one verb acts as main predicate, and retains its full argument structure, while others are grammatical elements functioning as modifiers of the event that is being expressed or described. These languages therefore involve a significant class of verbal roots, with a rather vague meaning, that can either serve grammatical purposes or be used lexically, when properly specified. This view corroborates with the fact that Benue-Kwa are also well-known to exhibit Inherent Complement Verbs (ICVs) which, in their citation form, require a complement that further specifies the meaning of the verb phrase. Taking the discussion a step further, this paper shows that the recruitment of material that is used as lexical entry for grammatical purposes is also found in the nominal domain. In this case, a nominal root is used as a functional element within the noun phrase.

## 1 Introduction

One of the most investigated constructions in Benue-Kwa is Serial Verb Construction (SVC), which Westerman (1930: 126) describes as follows in reference to Ewegbe:<sup>1</sup>

A peculiarity of Ewegbe is that we often find a row of verbs one after the other. The chief features of this are that all the verbs stand next to each other without being connected, that all have the same tense or mood, and that in the event of their having a common subject and object, these stand with the first, the others remaining bare: should a conjunction stand between two verbs, the subject and object must be repeated.

Since the discovery of these constructions in West Africa in the late 19<sup>th</sup> century (cf. Christaller 1875), there have been various descriptions indicating that one finds similar constructions in other languages as well. An outstanding aspect of most descriptions of SVCs is that the verbs in the series belong to a mono-clause. Verbs in a series can form a complex predicate expressing a single event requiring the same truth conditions. This is shown in (1a) in which the sub-event expressed by *yì* cannot be negated independently, unlike in the subordinate clause (1b) in which the verbs can be negated individually.

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<sup>1</sup> I'm grateful to an anonymous reviewer whose questions, comments, and suggestions helped improve this article significantly. All remaining errors are mine.

- (1) a. Sàgbó nyàn Dànsú yì Xògbónù (\*àmón Dànsú má yì dón kpálí).  
 Sagbo chase Dansu go Porto-Novo but Dansu NEG go there NEG.ADV  
 ‘Sagbo chased Dansu to Porto-Novo (\*but Dansu didn’t go there at all).’
- b. Sàgbó dḡ Dànsú yì Xògbónù (àmón Dànsú má yì dón kpálí).  
 Sagbo say Dansu go Porto-Novo but Dansu NEG go there NEG.ADV  
 ‘Sagbo said Dansu went to Porto-Novo (but in fact Dansu didn’t go there at all).’

Single event reading in SVCs seems to corroborate with the fact that these constructions are often translated into mono clauses in non-serializing languages. The informal generalization seems to be that where some languages use two verbs to express a meaning others use just one. As Aikhenvald (2006: 5) reports, one of her consultants describes this variation saying “It is not like Portuguese, we just cannot say it with one verb”.

With regard to the composition of SVCs, it has been shown that they fall in two major classes: asymmetric SVCs in which a verb selected from a restricted or closed class combines with a verb taken from an unrestricted or open class, versus symmetric SVCs which appear to involve a sequence of verbs all belonging to an open class. Based on these characterizations, the typological discussion on SVCs has often revolved around their functions, the types of meaning that they may encode, and how they are distributed cross-linguistically (e.g., Haspelmath 2016). Likewise, work in formal syntax has mainly consisted in looking for the parameter that distinguishes serializing languages from non-serializing ones and how such a parameter could be deduced from the argument structure of the serialized verbs.

Yet, after almost a century of study of SVCs cross-linguistically, a question raised in Awóyalé (1988) remains unanswered. In the introduction to his paper, Awóyalé writes:

Every sentence containing a serial verb construction should first of all be looked at in relation to the full lexical entries of the individual verbs, especially their predicate argument structures, so that we ascertain exactly what each verb contributes to the whole. This we will refer to as the lexical entry problem (p. 1).

While, there has been a wealth of literature on various aspects of African languages including mainly phonology, morphology, and syntax, an aspect of their grammar that remains poorly studied is indeed that of the lexicon. Most research on SVCs do not address Awóyalé’s lexical problem. Typological and formal descriptions of SVCs rely heavily on the idea that verbs that occur in series retain their full lexical entries, which can be easily detected in contexts in which these verbs are used as main predicate (e.g., Haspelmath’s 2016 independent verb criterion). The common assumption is that because verbs in series exhibit similar morphological and distributive properties in SVCs and main predicates, they must be expressions of the same category in both cases. This rationale extends to asymmetric SVCs too even though it is acknowledged that in these cases the combined verbs are taken from different classes, one of which appears to be a closed class. While such restrictions indicate that one verb in asymmetric SVCs (and presumably beyond) functions as a grammatical element rather than a lexical item, thus pointing Awóyalé’s lexical problem, most studies do not address this question.

Likewise, no serious attempt has been made to contrast SVCs, mostly associated with non-European languages, to verbal combinations found in European languages. The traditional view

is that SVCs are fundamentally different from the English constructions in (2), in which the verbs *go* and *come* function as aspect markers rather than lexical verbs (cf. Jaeggli and Hyams 1993).<sup>2</sup>

- (2) a. He will go talk to his advisor today. (Jaeggli and Hyams 1993: 314)  
b. Whenever I/you have time, I/you go watch a movie.  
c. Whenever I need some advice, I come talk to you.

Yet, (2a) can be translated almost word for word into the Gungbe SVC in (3):

- (3) É ná yì ɖ̀̀-xó ná gán ét̀̀n égbè.  
3SG FUT go say-word to chief his today  
'He will go talk to his advisor today.'

How can we formally distinguish between these two constructions? The structural similarities between (2a) and (3) show the relevance of the lexical entry problem raised by Awóyalé not only in connection to SVCs but also with regard to other parts of speech. Starting with SVCs in section 2, this paper addresses the lexical problem based on Gbe languages. Section 2 recapitulates the findings in Aboh (2003, 2009a), who proposed that SVCs represent verbal sequences in which a functional verb combines with a lexical verb acting as main predicate. This would mean that only one verb acts as main predicate in SVCs. Other seemingly verbal elements in the series function as modifiers to the main predicate and express modality, manner, or aspect, in a way similar to the English examples in (2). The analysis shows that the term verb serialization appears to be misleading once one takes a closer look at the lexicon of the relevant languages. Indeed, Aboh's (2009a) account for SVCs shows that the Gbe languages involve a significant class of verbs whose meaning is rather vague and which can be recruited as functional elements to modify the lexical verb in the clause.

The characterization of the Gbe lexicon as involving a significant class of verbal roots with a vague meaning that are used to further specify other lexical verbs also corroborates with the data in section 3. Here, I show that Gbe languages also exhibit a significant class of verbs which, in their citation form, require a complement that further specifies their meaning. The English verb *eat*, for example, translates into Gungbe as the Inherent Complement Verb (ICV) *ɖ̀̀̀ ní nù* (lit. ingest something). Many of the verbs involved in ICVs also occur as  $V_1$  in SVCs. This section further discusses morphosyntactic properties of ICVs, building on Hale and Keyser (1993), Kayne (2009), and Aboh (2015a). It is shown that in such V-NP complexes, what appears to be morphologically verbal is actually a root that first merges in little *v*, as a functional verb.

Building on the findings in sections 2 and 3, section 4 discusses nominal roots showing that they too allow the functional/grammatical versus lexical use. This is additional piece of evidence that Benue-Kwa languages display a large class of roots (both nominal and verbal) that function as grammatical elements and can occur in various positions within the noun phrase and the clause. Section 5 concludes the paper.

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<sup>2</sup> In reference to English examples such as *she helped me solve the problem* or *he made her cry*, Haspelmath (2016: 305) claims that such constructions which exhibit complement-clause serialization should be excluded "because they do not belong to the original core of SVC phenomena."

## 2. SVCs: A brief description

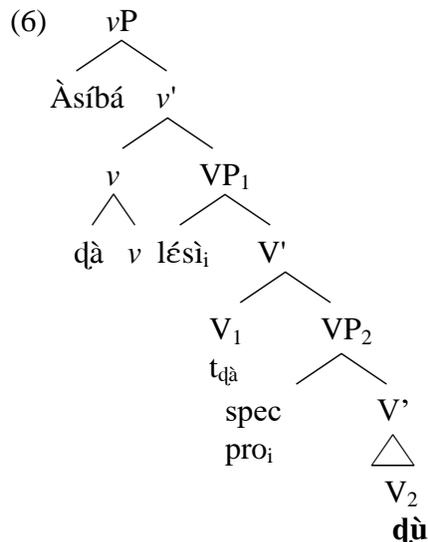
Consider again the Gungbe examples in (4). In these sentences, the two verbs combine to form a monoclausal structure. In example (4a) the first verb appears to introduce an instrument, in (4b) the construction expresses a resultative, and in (4c) the two verbs express a consecutive event.

- (4) a. Sétù zé [kpò ló] xò Kójó. [Instrumental]  
 Setu take stick DET hit Kojo  
 ‘Setu took the stick hit Kojo [i.e., he hit him with the stick].’
- b. Sétù xò [dàn ló] hù. [Resultative]  
 Setu beat/hit snake DET kill  
 ‘Setu beat/hit the snake to death.’
- c. Àsíbá dâ [lésì] dù. [Consecutive]  
 Asiba cook/prepare/made rice eat  
 ‘Asiba cooked/prepared/made the rice eat [i.e., she ate the rice].’

In these examples, the first verb in the series (henceforth  $V_1$ ) appears to share its internal argument with the second verb ( $V_2$ ). Several competing analyses of SVCs exist in terms of covert coordination, VP-adjunction, VP-complementation, or control structures, and the reader is referred to Awóyalé (1988), Campbell (1989, 1992, 1996), Lefebvre (1991), Déchaine (1997), Collins (1997, 2001, 2002), da Cruz (1997), Ameka (2004, 2005), Aikhenvald (2006), Hiraiwa and Bodomó (2008), Aboh (2009a), and references therein for discussion. Since the 80s, a popular account among syntacticians is Baker’s (1989: 527) Object Sharing Hypothesis (OSH) which stipulates that the object of  $V_1$  must be theta-marked by  $V_2$  in SVCs. Such object sharing is described in (5) for sentence (4c).

- (5) [s Àsíbá [<sub>I</sub> [<sub>VP</sub> [<sub>v'</sub> [dâ v<sub>1</sub>                    lésì                    dù v<sub>2</sub> ]]]]]
- 

Building on Baker’s view, Collins (1997) proposed a control analysis in which the second verb ( $V_2$ ) selects for a null internal argument, *pro*, which is bound by the internal argument of  $V_1$ , as represented in (6) (see also Collins 2002).



Theories which adopt the OSH predict that no overt internal argument can appear after  $V_2$ . Likewise,  $V_2$  cannot license an overt pronoun object co-referential with the object of  $V_1$  (Baker 1989: 527). Finally, these views assume that UG embeds a ‘serializing parameter’ that sets serializing languages apart from non-serializing ones, thus distinguishing between the English sentences under (2) and the Gungbe example in (3).

### 2.1. The empirical flaws of the OSH

There is sufficient evidence in the Gbe languages that the OSH is illusory. The following sentence, for instance, involves an unergative  $V_1$  followed by a transitive  $V_2$ , and there is no object sharing. Baker (1989: 534 footnote 14) claims that such constructions do not pose a problem for the OSH since “the Projection Principle puts no restrictions on the type of verb that can appear after an unergative  $V_1$ , since the  $V_2$  may or may not theta-mark the subject position, and  $V_1$  has no object that  $V_2$  must theta-mark”.

- (7) Xè ló zrón xé àtín ló jí.  $V_1$ - $V_2$ O-(XP) [Gungbe]  
 bird DET fly climb tree DET on  
 ‘The bird flew to the top of the tree.’

Other more problematic examples are shown in (8a). In this Gungbe sentence,  $V_1$  and  $V_2$  appear to select for different internal arguments. Note that the instrument in this case can be related to both verbs. This suggests that the DP *mótò cè* ‘my car’ following  $V_1$  cannot be taken to be the instrument of  $V_2$ , as one would conclude with regard to the *take*-series in (8b).

- (8) a. Òjé ! Sésínú sísé móto cè só àdó kpó gràdè étòn kpó.  
 Excl. Sesinou push car 1SG-POSS hit wall ADP tractor 3SG.POSS ADP  
 ‘Sesinou pushed my car into the wall with his tractor!’  
 b. Òjé ! Sésínú zé gràdè étòn gbà àdó ló.  
 Excl. Sesinou take tractor 3SG.POSS demolish wall DET  
 ‘Sesinou used his tractor to demolish the wall.’

In sentence (8a), both  $V_1$  and  $V_2$  appear to select for independent objects, *mótò cè* ‘my car’ and *àdó* ‘wall’, respectively. (8a) is therefore a counter-example for the OSH. At this stage, one could wonder whether (8a) or similar constructions could involve silent VP/IP coordination.<sup>3</sup>

<sup>3</sup> With regard to examples (7) and (8a), an anonymous reviewer suggested that one could alternatively propose that the unergative verb ‘fly’ in (7) can be coerced into an unaccusative verb by the presence of the directional phrase ‘climb tree on’. This variation could be compared to the variation between unergative ‘walk’ in Dutch, which is said to be unaccusative when delimited by a directional complement as in ‘walk to the store’. The distinction between the two instances of *walk* is reflected in auxiliary selection in Dutch. The reviewer thus concluded: “(7) could have two unaccusative verbs: an inherent unaccusative and a coerced unaccusative.” First, the variation in Dutch cannot be taken as a universal. Other languages with auxiliary selection (e.g., French) do not exhibit the Dutch pattern described here. Second, a major difference between Gungbe and Dutch is that the former does not have auxiliary selection and there does not seem to be any empirical fact in the language suggesting that unergative verbs can be coerced into unaccusatives in specific contexts, such as a directional complement phrase. Third, in terms of Tenny (1993), the alternation in Dutch can be considered to be related to telicity rather than resulting from an arity operation affecting directly the argument structure of the verb (cf. Zaenen 1994). The same reviewer speculated that example (8a) could be a dyadic unaccusative. No empirical fact suggests that this is indeed the case in Gungbe, but I leave the matter for future work.

### 2.1.1 Coordinate structures versus SVCs in Gungbe

As already discussed in Aboh (2009a) and reported here briefly, several facts including the presence of a coordinator, TMA specifications, extraction and binding facts, discussed below show that example (8a) is not a coordinate sentence.

1. Gungbe does not involve covert coordination: Coordinating conjunctions must be overt, as instantiated by *bɔ̃* in example (9).<sup>4</sup>

- (9) Sésínú ɖà lé̀sì *bɔ̃* Súrù ɖù nũ̀sónú. [Gungbe]  
 Sesinou cook rice COORD Suru eat soup  
 ‘Sesinou cooked rice and Suru ate soup.’

Since coordinators are obligatory in Gungbe, we can conclude from their absence in (8a) that this example does not involve coordination.

2. TMA specifications: In coordinate structures, each conjunct must be specified for TMA.

- (10) Kòfí **má ná** wá fí *bɔ̃* Súrú **má ná** ɖú wè. [COORD]  
 Kofi NEG FUT come here COORD Suru NEG FUT dance dance  
 ‘Kofi will not come here and Suru will not dance.’

In SVCs, however, all TMA specifications must occur on  $V_1$  only in Gungbe.

- (11) a. Sésínú! À **má ná** sɔ́ sí̀sé mótò cè só àdó égbè. [SVC]  
 Sesinou 2SG NEG FUT again push car 1SG-POSS hit wall today  
 ‘Sesinou! You will not again push my car hit (i.e., into) the wall today!’  
 b. \*Sésínú! À **má ná** sɔ́ sí̀sé mótò cè **má ná** só àdó égbè.  
 Sesinou 2SG NEG FUT again push car 1SG-POSS NEG FUT hit wall today

It has been shown by several authors that this restriction does not extend to all Kwa languages or all the relevant cases. Ameka (2004: 14), for instance, discusses Akan in which the verbs are marked with identical or agreeing aspect markers. The same facts hold of some Western Gbe languages such as Ewegbe and Gengbe.

- (12) Kofí bɔ̃-ɔ́ Áma ku-u no. [Akan, Ameka 2004: 14]  
 Kofi strike-PAST Ama kill-PAST 3SG  
 ‘Kofi hit Ama and killed her.’

These facts are compatible with the following example from Edó which indicates that certain adverbs (which Stewart 1998 treats as functional heads) can occur between the apparently shared object and  $V_2$ .

- (13) Òzò dùnmwún èmà [gié!gié] khién. [Edó, Stewart 1998: 34]  
 Ozo  $V_1$ -pound yam quickly  $V_2$ -sell  
 ‘Ozo pounded the yam and quickly sold it.’

<sup>4</sup> See Collins (1997) for the discussion of covert coordination in Western Gbe languages (e.g., Ewegbe and related dialects).

Put together, the facts in (12) and (13) indicate that there are sufficient structural positions between  $V_1$  and  $V_2$  that can host TMA markers and adverbs, in addition to the shared object. This indicates that SVCs involve a more articulated structure than assumed under Baker's OSH or related analyses.

3. Extraction: Gungbe wh-questions involve focus movement and exhibit island effects (Aboh 2004). Supporting evidence comes from the following sentences. Example (14a) shows that a wh-phrase cannot be extracted across an intervening wh-phrase, while (14b) indicates that a wh-phrase cannot be extracted from a relative clause.

- (14) a. \*Étẹ́ì wè ùn kànbíó dọ hwèténù; wè Sésínú ná sísé t<sub>i</sub> só àdó t<sub>i</sub>?  
 What FOC 1SG ask that when FOC Sessinou FUT push hit wall  
 'What did I ask you when Sessinou will push hit/into the wall?'
- b. \*Wémà-tẹ́ì wè ùn má nyón [ví dẹ kàn t<sub>i</sub> ]  
 book-which FOC 1SG NEG know child REL write  
 'Lit. Which book I don't know the child who wrote'

Focus movement out of coordinate structures is possible in across the board fashion only.

- (15) a. \*Étẹ́ì wè Sésínú dọ t<sub>i</sub> bọ Suru dọ nǔsónú?  
 What FOC Sessinou cook COORD Suru eat soup  
 'What did Sessinou cook and Suru ate soup?'
- b. Étẹ́ì wè Sésínú dọ t<sub>i</sub> bọ Súrù dọ t<sub>i</sub>?  
 What FOC Sessinou cook COORD Suru eat  
 'What did Sessinou cook and Suru ate?'

The examples in (16), however, show that focus movement is totally free in SVCs, unlike in coordinate structures.

- (16) a. Ménù wè --- ná sísé mótò cè só àdó?  
 Who FOC FUT push car 1SG-POSS hit wall  
 'Who will push my car hit/into the wall?'
- b. Étẹ́ì wè Sésínú ná sísé só --- àdó?  
 What FOC Sessinou FUT push hit wall  
 'What will Sessinou push hit/into the wall?'

4. Bound pronouns: A pronoun co-indexed with the apparent object of  $V_1$  is impossible in SVCs (17a), though it is allowed in coordinate structures (17b).

- (17) a. \*Sésínú ná sísé mótò cè só é àdó!  
 Sessinou FUT push car 1SG-POSS hit 3SG wall  
 'Sessinou will drive my car hit it in the wall!'
- b. Sésínú dọ lé sí bọ Súrù sà-è kpó!  
 Sessinou cook rice COORD Suru sell-3SG all  
 'Sessinou cooked rice and Suru sold it all!'

Table 1 recapitulates the differences between coordinate structures and SVCs in Gungbe

	Coordinate Structures	SVCs
(Non)-overt coordinator	yes	no
Unique tense marker	no	yes
Unique negation marker	no	yes
Extraction of arguments	no, unless in ATB fashion	yes
Binding of a pronoun in the 2 <sup>nd</sup> conjunct/verb	yes	no

Table 1: Contrasting Coordinate structures and SVCs in Gungbe

### 2.1.2 Interim summary

The data presented thus far indicate that these Gungbe examples are *bona fide* SVCs according to the traditional analysis, though they violate the OSH. The data also show that the space between  $V_1$  and  $V_2$  involves more syntactic positions than a single vP-shell would allow for. This space may involve the object, tense/aspect markers, adverbs, as well as (clitic) pronouns. These data lead me to conclude that the OSH is not a condition on SVC formation (cf. Aboh 2009a for discussion).

### 2.2 Unifying SVCs and OV constructions in Gbe

Within Gbe languages, SVCs look suspiciously akin to Object Verb Constructions (OVCs) which encode aspect (see Aboh 2003, 2004, 2005, 2009a).

- (18) a. Àsíbá      jè      xó      ná      ɖḽ      jí.  
 Asiba      reach   word   ASP   say   PRT  
 ‘Asiba was about to talk.’
- b. Àsíbá      tò      xó      ɖḽ.  
 Asiba      BE.LOC   word   ASP.PRT<sup>5</sup>  
 ‘Asiba is talking.’
- c. Àsíbá      má      yì      lésì      ná      ɖù      gbé.  
 Asiba      NEG   go   rice   ASP   eat   PRT  
 ‘Asiba has not gone to eat rice.’
- d. Àsíbá      ná      nò      gbé      lésì      ná      ɖù.  
 Asiba      FUT   HAB   refuse   rice   ASP   eat  
 ‘Asiba will habitually refuse to eat rice.’

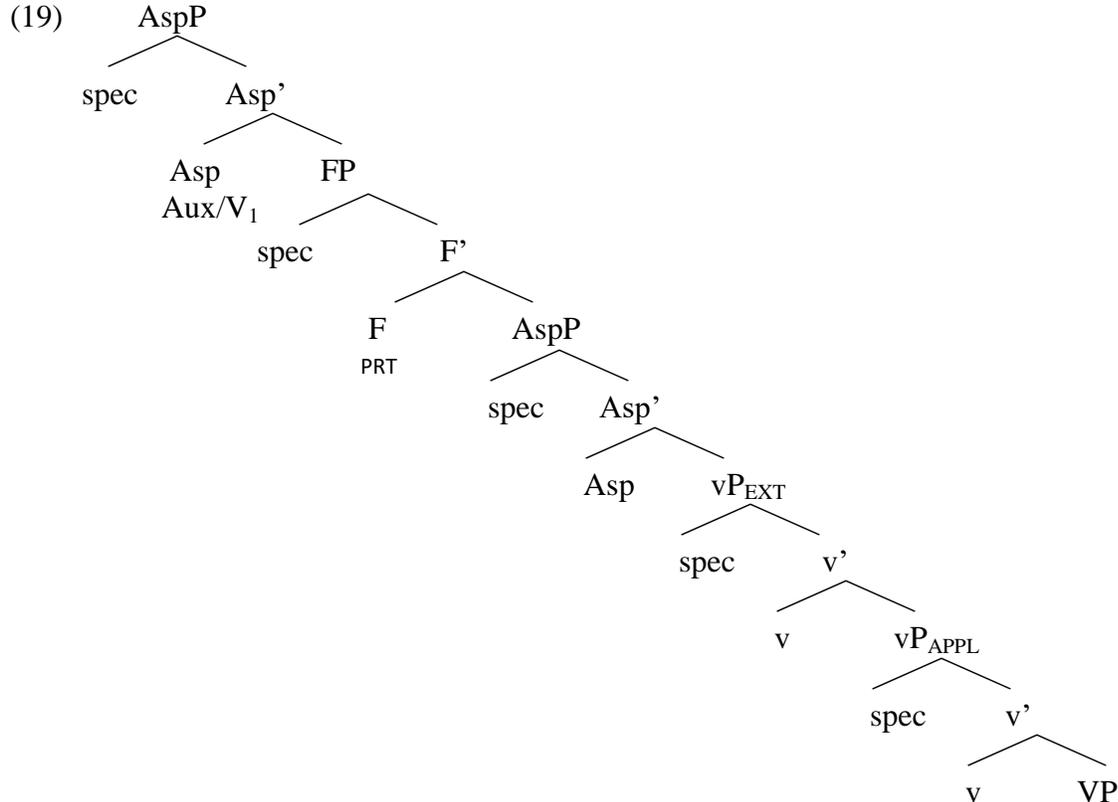
As suggested by the examples under (18), OVCs are typically introduced by a non-theta-marking element (e.g., auxiliary, aspect verb), such as *jè* glossed here as ‘reach’ and the be-located auxiliary *tò* in (18a-b), respectively. Similarly, to SVCs, these constructions require one TMA domain that necessarily precedes the auxiliary or non-theta marking element as illustrated in (18c-d). In addition, these examples display object shift to a position to the left of the lexical

<sup>5</sup> In this example, the final particle is an extra low tone on the verb ‘talk’. Compare (18d) to (18c) in which the verb bears only a single low tone (cf. Aboh 2004, 2009a and references cited therein for a detailed discussion).

verb as in SVCs. This is a derived position, since the shifted object precedes the intervening prospective aspect marker *ná*, as shown in (18a, c, and d). Finally, OVCs allow extraction of all arguments, similarly to SVCs. All in all, OVCs only differ from SVCs with regard to the clause-final particle that they sometime involve.

### 2.3 Serialization: A combination of functional and lexical verbs

In discussing these differences and similarities Aboh (2009a) concludes that SVCs represent a sub-family of OVCs in Gbe (and possibly in Kwa in general). In terms of his analysis, OVCs and SVCs display the underlying structure in (19).



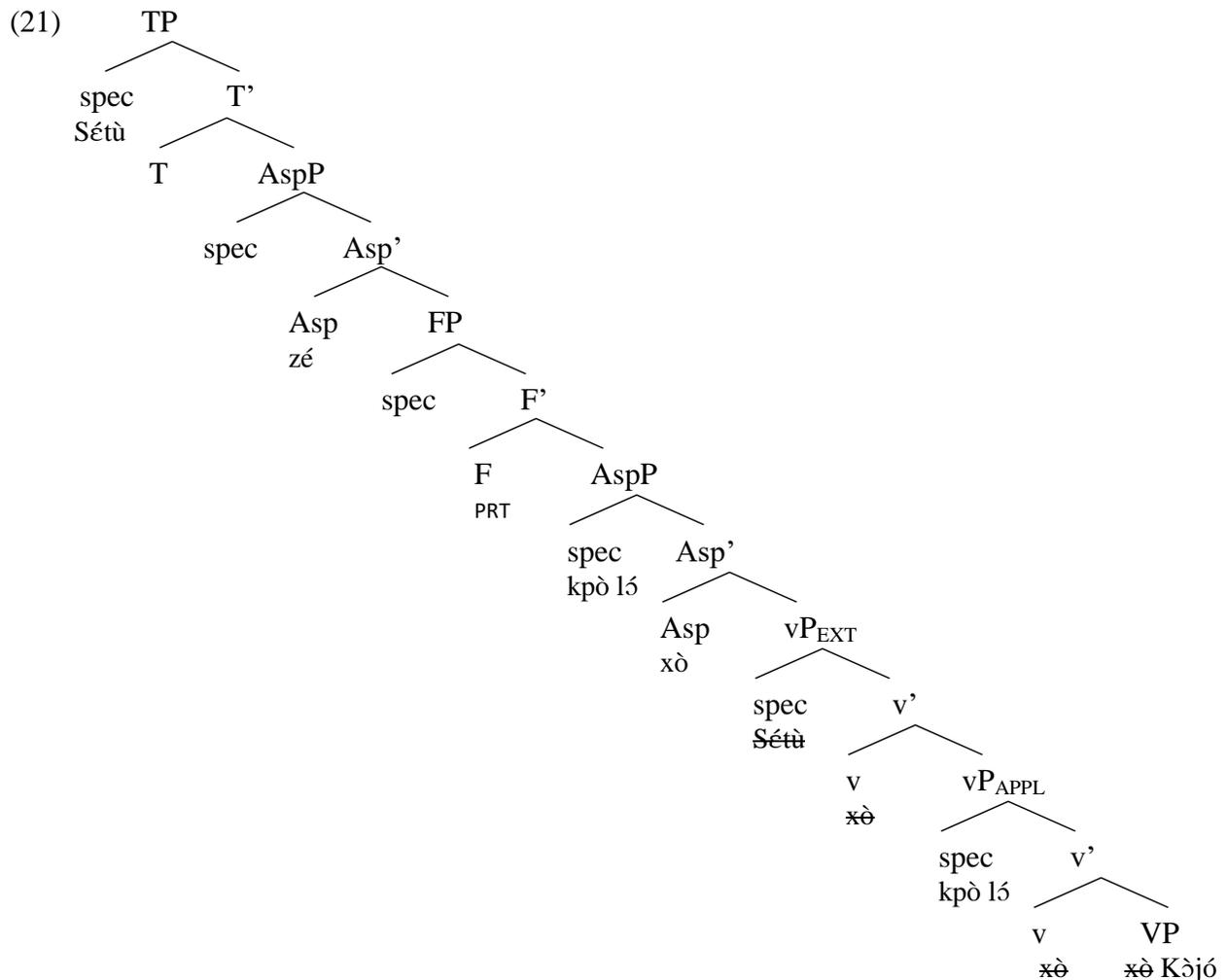
A consequence of the representation in (19) is that  $V_1$  is comparable to an *Aux* or what Aboh (2009a) refers to as a *functional verb* using a term adopted from Cinque (2004) and much related work on restructuring structures in Romance and Germanic. In such an approach,  $V_1$  has no internal  $\theta$ -role to assign, and does not determine the case-feature of the object to its right, but rather encodes aspectual or modal specifications related to the manner or the mode in which the event expressed by  $V_2$  is carried out (Awóyalé 1988). In his study, Aboh (2009a) argues that the structure in (19) applies to all types of serialization in Gbe (e.g., take-series, resultative, and consecutive SVCs). What follows briefly recapitulates the discussion based on most illustrative examples, but the reader is referred to the cited reference for a detailed discussion.

### 2.3.1 Take-series in Gbe

Aboh (2009a) demonstrates that representation (19) accounts for Gbe *take-series* in a straightforward manner. (20) illustrates such instrument series in which the intervening object *kpò ló* ‘the stick’ is interpreted as the instrument of  $V_2$ , though it is right-adjacent to  $V_1$ .

- (20) Sétù zé kpò ló xò Kòjò.  
 Setu take stick DET hit Kojo  
 ‘Setu took the stick hit Kojo [i.e., S. hit Kojo with the stick].’

The representation in (21) indicates how the surface form (20) is derived:  $V_2$  merges with the theme, which raises to [spec AspP] to check the EPP.  $V_2$  moves to Asp° (via v-appl and v-ext) due to aspect licensing. AspP merges with F°, to form FP, which merges as the complement of the first verb ( $V_1$ ) itself merged under a higher aspect head. F° has no PF content in Gungbe SVCs therefore, the interaction between verb-movement and verb object inversion gives rise to the sequence  $V_1$ -(XP)- $V_2$  that is often found in SVCs.



In this representation, the instrument argument is higher than the direct object therefore it checks the EPP feature in [spec AspP]. In a similar vein, v-ext (associated with  $V_2$ ) introduces the external argument, which must move to [spec TP] to check off case/agreement and the EPP

features under T. Accordingly, the subject DP *Sétù* is understood as the cause of the hitting (i.e., the external argument of *xò* ‘hit’). No LF-incorporation à la Collins’s (1997: 485) is needed.

We can conclude from this analysis that  $V_1$  is indeed a functional verb that has no (internal)  $\theta$ -role to assign. This view is further supported by the following facts about *take*-series in contrast to constructions in which the verb *take* functions as main predicate in Gbe.

### On some selectional properties of *take*

Consider the lexical verb *zé* ‘take’ in (22). This example shows that when used lexically, this verb cannot license DP complements with abstract reference (e.g., trouble, love, knowledge).<sup>6</sup>

- (22) *Súrù zé àgbán /\*túklá /\*wányínyí /\*nunywèn.*  
*Suru take plate trouble/\*love/\*knowledge*  
 ‘Suru took a plate /\*some trouble/\*love/\*knowledge.’

When used functionally, however, *take* can be followed by different types of constituents including the ones excluded in (22).

- (23) a. *Súrù zé túklá kpé mì tò àfónù dódó.*  
*Suru take trouble meet 1SG.ACC at morning early*  
 ‘Suru caused me (or met me with) much trouble early this morning.’
- b. *Sétù zé wányínyí kpé mì tò àfónù dódó.*  
*Setu take love meet 1SG.ACC at morning early*  
 ‘Setu showed me love early this morning.’
- c. [*Ûn zé nùkún kpòn dávè ló bò wlé àlìd cè.*  
*1SG take eye look man DET COORD catch road 1SG-POSS*  
 ‘I looked at him angrily and went my way [i.e., I stared at him with anger].’
- d. *Sétù zé àwájìjè yí yé.*  
*Setu take joy receive 3PL*  
 ‘Setu received them with joy.’

I conclude that functional *take* does not theta-mark the DP argument right-adjacent to it. In (23), the canonical subject is interpreted as the external argument of  $V_2$  only.  $V_1$  encoding *take* does not seem to assign Agent role, nor does it assign Theme to the following object, which cannot fulfil such a semantic function. Instead,  $V_1$  expresses functional *take* which encodes the way the event expressed under  $V_2$  has been carried out (cf. Awóyalé 1988, Sybesma 1997).<sup>7</sup>

<sup>6</sup> Note that while *trouble* is a simple DP in Gungbe, *love* results from a nominalized OV involving reduplication, while *knowledge* derives from a nominalized OV construction. That the verb *take* excludes these different categories suggest that the restriction is semantic rather than structural.

<sup>7</sup> Examples such as (22) and (23) show that Hapelsmath’s (2016) Independent Verb Criterion cannot be maintained for all the relevant cases: *take* in the Gungbe example (23) is clearly a functional/auxiliary verb with no thematic role to assign even though it can occur as main predicate in the example (22). The same could be said of English auxiliaries such as ‘*have*’ which can be used lexically as in ‘*John has a nice car*’ or as an auxiliary in ‘*John has bought a nice car*’. In the sentence ‘*John has just had an interview*’ both forms are used. Data like these show the importance of Awóyalé’s (1988) lexical entry problem over the search of a definition of serial verb constructions that applies cross-linguistically.

That *take* is functional in these examples is further supported by Akan. In this language  $V_1$  *de* ‘take’ has fully grammaticalized. It occurs in SVCs but cannot be used lexically (Campbell 1989, 1992, 1996).

- (24) a. Kofi de Yaw kɔɔ Kumase. [Akan]  
 Kofi take Yaw go Kumase  
 ‘Kofi took Yaw to Kumase.’  
 b. \*Kofi de Yaw.  
 Kofi take Yaw

We can conclude from these facts that the constituent that expresses the instrument argument to the right of  $V_1$  *take* does not occur in that position for theta/case reasons. Data from Fongbe, already discussed in da Cruz (1997) and Aboh (2009a), support this view. In this language, the instrument following  $V_1$  *take* is introduced by a preposition *ná* that is stranded in final position.

- (25) Kòkú sɔ́ [jìvɪ́ ɔ́]<sub>i</sub> sɛ́n wàxúxú ɔ́ **ná** ec<sub>i</sub>. [Fongbe]  
 Koku take knife DET cut bread DET PREP  
 ‘Koku cut the bread with the knife.’

Following da Cruz (1997), I conclude that the preposition *ná* is stranded in (25). Indeed, the form *ná* occurs only when its complement has been moved away, as shown by the contrast in (26).

- (26) a. Kòkú sà mótò ɔ́ **nú** Àsíbá. [Fongbe; da Cruz 1997: 36]  
 Koku sell car DET PREP Asiba  
 ‘Koku sold the car to Asiba.’  
 b. Mé wè Kòkú sà mótò ɔ́ **ná** ~~mé~~.  
 who FOC Koku sell car DET PREP ~~who~~  
 ‘Who did Koku sell the car to?’

These Fongbe examples show that the instrument is introduced by a preposition but must front to a position between  $V_1$  and  $V_2$ , hence the change from *nú* to *ná*.

### 2.3.2. Further arguments for a functional $V_1$

The view that  $V_1$  is functional is compatible with the fact that not all verbs can occur in this position, contrary to what is often claimed in the literature. For example, there is a general ban on triadic verbs as  $V_1$  in Gungbe. This indicates that there is a thematic restriction on  $V_1$  verbs.

- (27) a. Kòfí ná Asíbá kwé.  
 Kofi give Asiba money  
 ‘Kofi gave Asiba some money.’  
 b. \*Kòfí ná kwé.  
 Kofi give money  
 c. \*Kòfí ná kwé<sub>i</sub> xò xwé pro<sub>i</sub>.  
 Kofi give money buy house  
 ‘Kofi gave money buy a house [e.g., he gave money to buy a house].’



extremely productive: these languages involve a rather large class of functional verbs. An answer to Awóyalé’s (1988) lexical problem is therefore that V-(XP)-V combinations in Benue-Kwa and beyond are conditioned by the functional nature of certain classes of verbs.

A research question that arises at this point is which semantic classes of verbs tend allow a functional usage. Aside Awóyalé’s (1988) seminal paper, there is to my knowledge no other comprehensive description that tackles this issue. Another question that comes to mind in the context of the proposed analysis relates to whether functional verbs occur in other contexts than SVCs. In this regard, Aboh (2015a) argues that the analysis in terms of functional verbs extends to Inherent Complement Verbs (ICVs), which I now turn to.

### 3. Inherent Complement Verbs

If indeed, some Benue-Kwa are characterized by a large class of functional verbs, we expect these languages to exhibit other verbal complexes than SVCs instantiating the existence of functional verbs, that is, verbs which in certain contexts do not seem to retain their full semantics and argument structure. This appears to be the case of ICVs, as illustrated in (30). These examples (30a-b) show that the verbs *zɛ* ‘take’ and *bɛ* ‘collect’ which were shown in sections 2.3.1 and 2.3.2 to illustrate properties of V<sub>1</sub> also allow V-NP combinations in which the noun seems to further specify their meaning.<sup>8</sup> The data in (30c-f) indicate that the process is very productive in Gbe languages (cf. Essegbey 1999). In these examples, we see that verbs in ICVs must be supported by a nominal complement in their citation form. The stars indicate that the ‘proposed’ meanings cannot be obtained without the complement.

(30) a.	<i>zɛ</i> * <i>(tà)</i>		b.	<i>bɛ</i>	* <i>(àwútú)</i>		
	take head			collect	illness		
	‘raise one’s head or look up’			‘become sick/ill’			
c.	<i>dú</i> * <i>(wè)</i>	d.	<i>dó</i> * <i>(tù)</i>	e.	<i>dì</i> * <i>(bú)</i>	f.	<i>jè</i> * <i>(àjò)</i>
	V dance		V resistance		V fear		V <sub>[bathe]</sub> theft
	‘To dance’		‘To endure’		‘To fear’		‘To steal’

Due to the tight relation between the verb and the complement noun, it is not always clear which of the verb or the complement is the most meaningful element in an ICV, and which of the two determines the argument structure of the predicate.

#### 3.1. Some syntactic properties of ICVs

There is a wealth of literature on ICVs. I refer the interested reader to some of these studies and references therein (e.g., Nwachukwu 1987, Ihionu 1992, Avolonto 1995, Essegbey 1999, 2003, 2010, Anyanwu 2012, Aboh 2015a). In the following paragraphs, I restrict myself to the syntactic properties of ICVs that are relevant for the discussion on functional verbs.

ICVs display a similar behavior to lexical verbs: they can freely combine with TMA expressions (31a), and they exhibit comparable argument structures (examples 31a and b correspond to unergatives semantically, while 31c is a ditransitive predicate).

<sup>8</sup> These examples too point to the drawbacks of Haspelmath’s (2016) Independent Verb Criterion.

- (31) a. Kòfí ná ǹ̀ d́́ ẁ̀z̀̀ǹ̀ ỳ̀.  
 Kofi FUT HAB V<sub>[plant]</sub> race go  
 ‘Kofi will often run away’
- b. Kòfí ná ǹ̀ sá ỳ̀.  
 Kofi FUT HAB crawl go  
 ‘Kofi will often crawl away’
- c. Kòfí ná ǹ̀ d́́ nù \*(K̀̀kù).  
 Kofi FUT HAB V<sub>[plant]</sub> thing Koku  
 ‘Kofi will often give Koku a blow’

ICVs can be modified similarly to simple verb phrases: (32) involves a VP adverb.

- (32) Kòfí ǹ̀ d́́ ẁ̀z̀̀ǹ̀ ganj́.  
 Kofi HAB V<sub>[plant]</sub> race well  
 ‘Kofi often runs well’

Aboh (2015a) shows, however, that a major difference between ICVs and lexical verbs in Gbe is that the verb of an ICV cannot undergo fronting plus doubling in case of focus (33a). Verb doubling for focus purpose is a robust property of Benue-Kwa. The ungrammatical example (33b) indicates that ICVs exclude verb doubling. Indeed, verb focusing in ICVs requires the NP-complement to front (33c), even though the interpretation is equivalent to that of example (33a) involving verb doubling.<sup>9</sup>

- (33) a. Gbá Kòfí gbá xwé ló.  
 build Kofi build house DET  
 ‘Kofi **BUILT** the house’
- b. \*D́́ Kòfí d́́ ẁ̀z̀̀ǹ̀ són xwégbè.  
 V<sub>[plant]</sub> Kofi V<sub>[plant]</sub> race from house.inside  
 ‘Kofi **RUN** out from the house.’
- c. ẁ̀z̀̀ǹ̀ ẁ̀ Kòfí d́́ són xwégbè.  
 race FOC Kofi V<sub>[plant]</sub> from house.inside  
 ‘Kofi **RUN** out from the house.’

<sup>9</sup> An interesting contrast between ICVs and SVCs that requires further investigation is that while the functional verb in ICVs cannot be focused, this is not the case in Gungbe SVCs in which only V1 can be focused, while V2 remains in situ. Accordingly, a focused counterpart of sentence (28a) results in the sequence in (ia) below, in which the focus is on the V-complex even though only V1 is fronted. Example (ib) shows that V2 cannot be fronted on any circumstance. I take this difference to derive from the structural dissimilarities between the two constructions, rather than the functional nature of the verbs only.

- (i) a. B́́ Àsíbá b́́ lésì q̀̀.  
 collect Asiba collect rice eat  
 ‘Asiba **ATE** a lot of rice.’
- b. \*q̀̀ Àsíbá b́́ lésì q̀̀.  
 eat Asiba collect rice eat  
 ‘Asiba **ATE** a lot of rice.’

Finally, though one could think that the verbs select for specific NPs to form ICVs, there are very many cases in which the verb itself seems to be a dummy element that does not impose any selectional requirement on the following nominal complement. Consider the verb *dù* in the following examples:

- (34) a. Kòfí **dù** *nú*                      b. Kòfí **dù** *làn*                      c. \*Kòfí **dù** ...  
       Kofi eat thing                      Kofi eat meat                      Kofi eat  
       ‘Kofi ate’                              ‘Kofi ate meat’

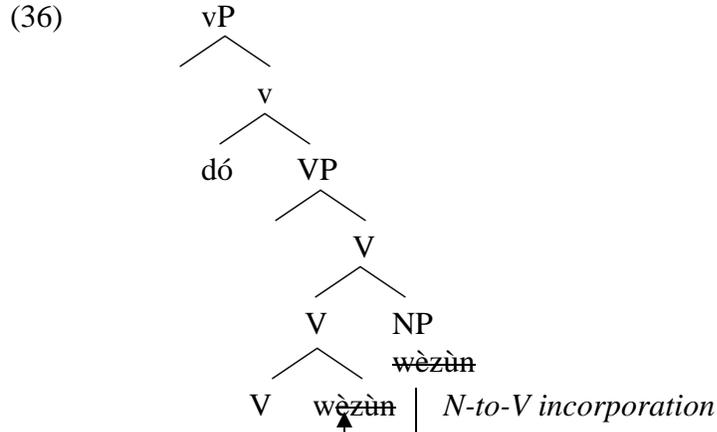
At first sight, these examples suggest that *dù* has the basic meaning of *ingest* somehow comparable to English *eat*. This analysis is hard to maintain though, given example (35) in which this verb associates with complements that are not eatable:

- (35) a. **dù** *àxó*                      b. **dù** *gbè*                      c. **dù** *xwè*                      d. **dù** *àdì*  
       V debt                              V life                              V year                              V poison  
       ‘to go bankrupt’                      ‘to enjoy’                              ‘to celebrate’                      ‘to be angry’
- e. **dù** *gán*                              f. **dù** *yà*  
       V chief                              V pain  
       ‘be (appointed) chief’                      ‘to suffer’

Similar combinations are extremely productive in Gungbe and cannot be considered fixed idiomatic expressions of the English ‘kick the bucket’ type. Summarizing therefore, the examples discussed in the previous paragraphs indicate that the verb in ICVs shows specific distributive properties (e.g., it’s banned from verb doubling constructions), does not seem to be semantically determined, and does not impose any selectional requirement on its complement. This recalls our characterization of  $V_1$  in SVCs which led us to conclude that such verbal elements are not fully lexical.

### 3.2 The proposal

In accounting for these properties, Aboh (2015a) argues that ICVs involve a functional verb that merges in little *v* and selects for a VP whose head is empty. This empty V may have certain semantic properties, but it has no morpho-phonological shape (cf. Hale and Keyser 1993). V takes a bare NP complement thus rendering incorporation of N into V possible (cf. Baker 1988): the incorporated N lexicalizes the empty V. This analysis indicates that the semantics of an ICV derives (somehow compositionally) from the complex *v* + N (incorporated into V). The representation in (36) illustrates this for the verb *dó wèzùn* [plant race] ‘run’.



Under this view, ICVs differ from lexical verbs in that they do not involve V-to-*v* movement, as the *v* position is already filled by the functional verb. The analysis predicts that little *v*, filled by the functional verb, and its VP-complement are different entities and can be separated by syntactic operations (e.g., displacement of VP containing N as in the case of verb focus). Being a functional verb, *v* does not show typical properties of lexical verbs, hence its unavailability in verb doubling structures.

The analysis of Gungbe verbs into functional versus lexical verbs further raises the question of whether this partition is limited to verbs only. The following section shows that this is not the case since Gungbe, and most Gbe languages, involve nominal roots that are used as functional categories within the noun phrase.

#### 4. Lexical versus nominal roots in Gungbe

A fact already noticed in the literature is that some Gungbe verbs and nouns share the same root. Examples of these are given in (37) in which we see that the nominal element is derived by adding an initial vowel *o-* to the root.

(37)	Noun	Verb
a.	ò-xú bone	xú dry
b.	ò-nù mouth	nù drink
c.	ò-kú death	kú die

While there is a clear tendency in Gungbe to allow such correspondences with roots that take the initial vowel *o-*, not all words of this class correspond to an existing word or verb in the language, as indicated by example (38).

(38)	ò-jǎn	vs.	*jǎn
	chair/stool		

Nouns with an initial vowel *o-* contrast with another class of nouns in which the initial vowel is *a-*, as instantiated in (39). These nouns do not seem to immediately allow the correspondence in (37) and it is not clear what their relations might be with verbs.

- (39) a. àtán  
saliva  
b. àzán  
day  
c. àgán  
stone

Not only do the *a-*prefixed nouns differ from the *o-*prefixed ones with regard to their relation to verbs, the two classes also differ with regard to elision of the initial vowel in speech. While the prefix *o-* can be elided in speech, the prefix *a-* cannot (cf. Aboh 2010, 2015b). Thus both (40a-b) are possible in actual speech, but only (40c) is allowed, and the example (40d) with an elided *a-* prefix is excluded.

- (40) a. Ùn zé ò-jǎn  
b. Ùn zé jǎn  
1SG take chair  
'I took a chair.'  
c. Ùn zé àgán  
d. \*Ùn zé gán  
1SG take stone  
'I took a stone.'

Despite the *o-* vs. *a-* contrast in (40) both initial vowels must be absent if they belong to the second element in a compound. Relevant examples are given below. Examples (41a-b) illustrate a compound in which the second conjunct has an initial vowel *a-*. In (41c-d) the second conjunct has an initial vowel *o-*.

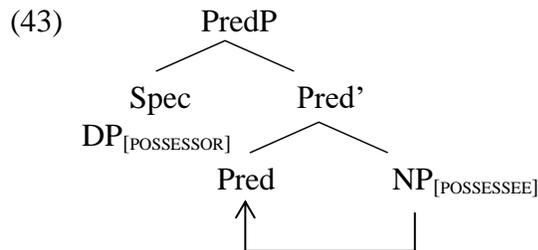
- (41) a. òwè; àfɔ → b. (ò)wè-fɔ  
dance; foot dance-foot  
'dance step'  
c. àhàn; òtà → d. àhàn-tà.  
drink; head drink-head  
'spirits (i.e., strong alcoholic drink e.g., imported gin, rum)

In discussing these facts, Aboh (2005, 2010) argues that absence of the initial vowel in apparent N-N combinations can be seen as a diagnostics for bare roots. His working hypothesis is that the initial vowel heads its own functional projection within the noun phrase. This projection (say nP) takes NP as its complement. This would mean that absence of the initial vowel in the second conjunct of apparent N-N compounds indicates that these prefix-less nouns do not project an extended domain (i.e., involving modifiers): they do not project beyond NP. If indeed the second conjunct in the examples in (41) is a bare NP, this would mean that such combinations are not simple adjunctions of two roots but rather complex NP phrases. This hypothesis is compatible

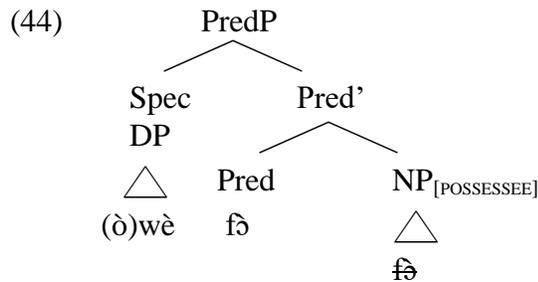
with the fact that the compound-like examples in (41) seem to involve a reduced possessive construction such that (41b) can be paraphrased with the possessive construction in (42). The latter is very similar to the French expression *pas de dance* ‘lit. step of dance’.

- (42) (ò)wè    **sín**    àfð  
 dance    POSS    foot  
 ‘dance step’

Note that in such possessive constructions the vowels are retained even though the initial *o-* can be optionally elided as mentioned previously. Taking the relation between (41) and (42) seriously, Aboh (2010) argues that compounds of the type in (41b) involve a reduced possessive construction that embeds a non-projecting possessed phrase and a null possessive marker. Such reduced possessives can be considered Predicate phrases as represented in (43) (see Aboh 2010 and references therein for discussion). This representation provides the right context for incorporation of N into Pred, as depicted by the arrow (Baker 1988). Incorporation here is understood as head movement.<sup>10</sup>



In terms of this analysis, the compound in (41b) can be represented as in (44) in which the noun head of the second conjunct raises to lexicalize Pred.



In addition to showing that compounds of the types in (41b) are not simple N-N compounds in Gungbe, this analysis suggests that a class of nominal functional elements emerges from roots. In this regard, Aboh (2010) demonstrates that the incorporation of the head of the possessed noun into Pred is the first step on a grammaticalization path of body parts and landmark nouns (e.g., head, back, front, side) into adpositions expressing location, as illustrated in (45b) in which the noun *tà*, whose citation form means ‘head’ is used as an adposition to mean ‘above, or on top of’. In such uses, the form *tà* cannot be modified or moved away from the noun phrase that it marks (cf. Aboh 2010 for discussion).

<sup>10</sup> Interestingly, the initial vowel *o-* is systematically elided in ICVs, while *a-* is sometimes retained (see example 35). It also seems to me that ICVs with an NP that normally combines with the *o-* vowel form a larger class, but I stand for correction. These facts need further explanation but as a first attempt, one could propose that the two vowels do not realize the same functional position within the spine of the NP.

- (45) a. òtá cè  
 head 1SG.POSS  
 ‘my head’
- b. xè ló zrón yì xò ló tà.  
 bird DET fly go house DET TOP  
 ‘The bird flew to the top of the house.’

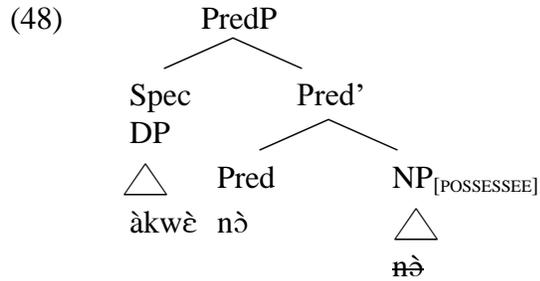
Likewise, Aboh (2009b, 2015b) discusses examples involving the agentive morpheme *tɔ́*, and the property denoting element *nɔ́* which can function either as lexical elements or as functional nominal markers. In their citation form, Gungbe (*ò*)*tɔ́* and (*ò*)*nɔ́* mean father, and mother, respectively (46).

- (46) a. òtá cè  
 father 1SG.POSS  
 ‘my father’
- b. ònɔ́ cè  
 mother 1SG.POSS  
 ‘my mother’

*tɔ́* (father) and *nɔ́* (mother) can attach to nouns to derive new nouns. The operation results in the loss of gender distinction (47a-b), and animacy (47c). This latter example can be uttered by someone whose car continuously breaks down and who has to pay a lot of money for maintenance.

- (47) a. Tòlú ɔ̀ tányì étàn nyín àzè-tɔ́.  
 Tolu say aunt 3SG.POSS be witch-person  
 ‘Tolu said that his aunt was a witch.’
- b. Tòlú ɔ̀ òtá étàn nyín àkwè-nɔ́.  
 Tolu say father 3SG.POSS be rich-person  
 ‘Tolu said that his father is rich.’
- c. Mótò túklá-nɔ́ éhè ná vò àkwè cè.  
 car trouble-person DEM FUT finish money 1SG.POSS  
 ‘This troublesome car will ruin me.’

Note from these examples that *tɔ́* generally denotes agency of a referent and encodes dynamicity, while *nɔ́* denotes the property of a referent and therefore expresses a state. Applying the analysis of predicate phrases to these expressions, we can propose that they involve the structure in (48), which stands for the phrase *àkwè-nɔ́* in example (47b).

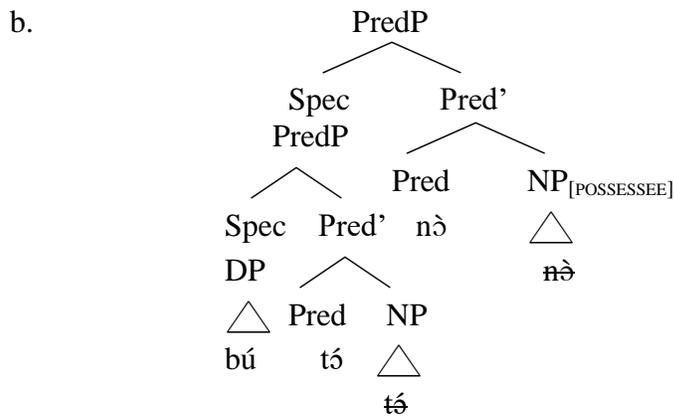


These functional elements can also serve to nominalize a VP as indicated in (49).

- (49) a. [mótò kùn]-tɔ̀  
 car drive-person  
 ‘car driver’  
 b. [nùkún tón]-nɛ̀  
 eye pierce-person  
 ‘a blind person’

These examples further indicate that, when used as functional items, *tɔ̀* and *nɛ̀* can mark different phrases. As is often the case with functional items, these elements can also be stacked on the phrase they attach to. An example is given in (50a) which further indicates that *tɔ̀/nɛ̀* marking can be recursive as partially represented in (50b) which stands for the bracketed constituent *bú-tɔ̀-nɛ̀*. In this representation, the predicate phrase headed by *tɔ̀* with *bú* in its specifier forms a complex phrase *bú-tɔ̀* which merges as the specifier of a predicate phrase headed by *nɛ̀*.

- (50) a. [Bú-tɔ̀-nɛ̀] wè à nyín.  
 fear-person-person FOC 2SG be  
 ‘You are a fearful person.’



This is additional piece of evidence, that Gungbe (and generally Gbe) languages allow the usage of verbal and nominal roots to spell out specific functional/grammatical categories within the nominal and verbal domains. I conjecture that these functional elements are more commonly found across Benue-Kwa than previously acknowledged in the literature. This discussion shows the importance of Awóyalé's (1988) words of caution that one must look closely at lexical properties of elements in apparent V-V or N-N series.

## 6. Conclusion

This paper argues that Gbe (Benue-Kwa) languages involve a significant class of functional verbs that can merge in distinct functional positions (e.g., *v* or *Asp*). In SVCs,  $V_1$  merges in the functional domain of the lexical verb ( $V_2$ ) that introduces the (internal) argument and is embedded under an aspect phrase whose head is endowed with an EPP feature. It is shown that surface word order variations in Benue-Kwa reduces to the interaction between EPP-licensing which triggers  $V_2$ -object inversion ( $V_1$ -object- $V_2$ ), sometimes followed by subsequent movement of  $V_2$  past the object ( $V_1$ - $V_2$ -object). This analysis implies that, if anything, the serializing parameter relates to the lexicon rather than to core syntax. Keeping to this logic, I propose that ICVs should be treated as VP-shells in which the verbal component of the ICV is a functional verb that first merges under little *v*. The facts in SVCs and ICVs therefore confirm the existence in Gbe (and generally in Benue-Kwa) of a large class of functional verbs. Extending this view to the nominal domain, I show that the Gbe languages also involve a class of nominal roots which can be used in different structural contexts as well, sometimes as grammatical elements within the noun phrase, sometimes as lexical nouns. Put together, these facts indicate that an important aspect of the explanation as to why some Benue-Kwa languages display series involving sequences of verbs or nouns results from properties of the lexicon. These languages appear to involve a significant class of roots that can merge in structural positions corresponding to lexical entries or within the functional sequence of both verbal and nominal predicates.

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