Verb Serialization in Ewe

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INTRODUCTION

The Phenomenon of Serial Verbal Constructions is commonly found with the Kwa languages of West Africa and Carribean Creoles. They are also reported in Chinese (Li & Thompson 1973) and in Burmese (Matisoff 1973)[1] In this paper, I will examine SVCs in Ewe (a Kwa language of Ghana) in the light of the principles of Government and Binding Theory. The paper will specifically examine the syntactic framework proposed by Baker (1989) and the problems with that framework will be outlined. I will argue, for instance, that the object-sharing phenomenon, which Baker (1989) suggests is obligatory, is not found in all cases (at least for Ewe). I will also argue that certain SVC structures in Ewe pose a problem for Baker's model, with respect to the Projection Principle, and I will suggest an alternative framework for SVCs. The paper is organized as follows: in the next section, I shall discuss the major characteristics of SVCs that distinguish them from other structures in Ewe. In section three, I shall discuss Baker's proposal in some detail, noting the problems with his framework in section four. I shall show that Baker's proposal does not account for all the SVC types in Ewe, and in section five, I shall make an alternative proposal.

1. CHARACTERISTICS OF SVCS

One of the early linguists who hinted about the notion of SVCs was Westermann, who wrote a grammar of the Ewe language in 1930. He wrote:

> A peculiarity of Ewe 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 (Westermann 1930: 126).

Baker (1989) describes SVC as a construction in which a sequence of verbs appears in what seems to be a single clause (p. 513). According to him, there is usually one tense/aspect specification for the whole chain of verbs. The verbs in a

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[1]   Reported in Awoyale, 1988.

SVC are also believed to have a single structural subject and they share logical arguments. The following are some examples of SVCs.[2]

1. *Yoruba*: Aje sunkun lo ile
Aje weep go home
'Aje wept on his way home' (Awoyale 1987)

2. *Haitian*: Emil pran liv la bay Mari
E. take book DET give M.
'Emil gave the book to Mary' (Dechaine 1988)

3. *Sranan*: Kofi naki Amba kiri
Kofi hit Amba kill
'Kofi struck Amba dead' (Baker 1989)

4. *Akan*: Kofi tōō bayire dii
Kofi bought yam ate
'Kofi bought yam and ate' (Campbell 1991)

5. *Ewe*: Kofi ɖa nu ɖu
K. cook thing eat
'Kofi cooked and ate'

One powerful test that has been developed over the years to distinguish SVCs from coordinate and purposive constructions is WH-extraction. If the NP argument of a verb in a SVC can be extracted by WH-movement, it follows that the structure cannot be a coordination or an embedded purpose or result clause (see Ross 1967).

Consider the following examples in Ewe.

6a. Kofi ɖa nu ɖu   b. Nuka Kofi ɖa ɖu?
K. cooked thing ate   Thing-which K. cook eat
'Kofi cooked and ate'   'What did Kofi cook and eat?'

7a. Kofi ƒle agbale na Ama   b. Nuka Kofi ƒle na Ama?
Kofi buy book give Ama   Thing-which K. buy give A.
'Kofi bought a book for Ama' 'What did Kofi buy for Ama?'

In (6) and (7), the (b) examples are Wh-extractions of the NP arguments. In (7), there is an extra argument because of the presence of the 3-place predicate verb "na" (give). All the three NP arguments can undergo WH-extraction.

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[2] The symbol [ō] is used to represent open /o/.

The verbs in a SVC form a complex VP. One test that proves this for Ewe is negation. In Ewe, the negative marker is a discontinuous element (me ... o) and the negated constituent lies between the two elements. This is shown by the ungrammaticality of the (c) and (d) examples in (8) below.

8a.   Me ƒle agbale na Ama
      1sg buy book give A.
      'I bought a book for Ama'

 b.   Nye me ƒle agbale na Ama o
      1sg NEG buy book give A. NEG
      'I did not buy a book for Ama'

 c.   * Nye me ƒle agbale me na Ama o
      1sg NEG buy book NEG give A. NEG

 d.   * Me ƒle agbale me na Ama o
      1sg buy book NEG give A. NEG

2. SYNTACTIC REPRESENTATION OF SVC

The issue this paper wishes to address is to demonstrate that SVCs are subject to the conditions - universal principles and parameters (e.g. Theta-theory, Case theory etc.) that license other syntactic configurations. One of the most challenging phenomena in SVC analysis, according to Baker (1989), is the notion of object sharing. Stewart (1963) in analyzing Twi SVCs suggested that SVCs formed out of a sequence of two transitive verbs show an object deletion under identity (i.e. one of the objects is deleted (normally that of V2) because it is identical to the object of V1)). So for example, the Ewe example in (9) below will be derived from (10),
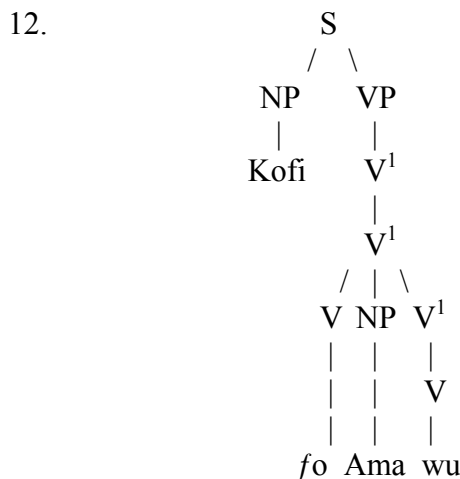
9.   Kofi ƒo Ama wu   10.   Kofi ƒo Ama wu Ama
     K. beat A. kill   K. beat NP kill NP
     'Kofi beat Ama to death'

and the subsequent deletion of the second NP under identity with NP1. With the demise of transformations as prevailed in early generative transformational grammar, one option that readily comes to mind is to posit a D-structure in which the two verbs in the SVC take an object NP either to their right or left, depending on the type of language.

11.   [VP [V1 beat [V2 kill [NP Ama]]]].

In the above structure, only the V2 directly theta-marks the NP. The V1 does not case-mark the NP because the adjacency condition is violated. One alternative is to move the NP to a position between the two verbs. In this case the V1 directly theta-marks the NP. But how can we account for the theta-marking and case-marking properties of the V2, which is a transitive verb, and, therefore, has to assign case?

Baker (1989) suggests a framework for SVCs in Yoruba. He proposes that the NP that comes between the two verbs in the SVC is literally a shared object, in that it occupies a position which is theta-marked by both verbs (or their projections). Thus under Baker's analysis, (11) above will be assigned the structure in (12).

12.
```
                       S
                      / \
                    NP   VP
                    |    |
                   Kofi  V¹
                         |
                         V¹
                        / | \
                      V  NP  V¹
                      |  |   |
                      |  |   V
                      |  |   |
                      ƒo Ama  wu
```

Baker assumes that SVCs are dual-headed - that the serial verbs jointly constitute a complex predicate. In the above structure, therefore, the VP is double-headed and the NP it contains is governed by both verbs. From the structure in (12) above, the theta-marking of the NP within the VP by the V1 is straight-forward, but the notion of V2 also theta-marking the same NP might seem doubtful. To account for this Baker invokes the standard conditions on theta role assignment from Chomsky (1986a), which are stated as follows.
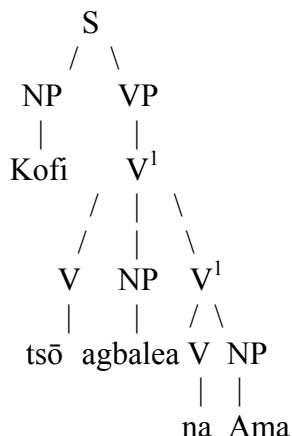
13.   α may theta-mark β iff:

     (a) α and β are structural sisters;
     (b) a projection of α is a structural sister of β.

Clause (a) in the above conditions allows for theta-marking of the NP by V1 while condition (b) allows for the theta-marking of the NP by V2, whose projection is a structural sister to the NP. Under Baker's analysis, theta-marking of the external argument is achieved by invoking Williams' (1984) notion that the external (argument) role of the verb percolates to its maximal projection. Since VP in the
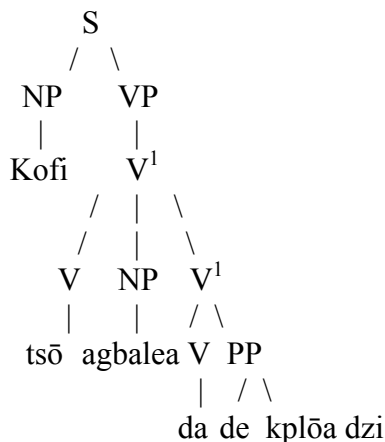
structure in (12) is the maximal projection of both V1 and V2, the external theta role of both verbs percolate up to it, where they are assigned to the subject by clause (13b) (Baker 1989: 520). So the lexical theta role assignment properties of both verbs are satisfied and the Projection Principle is obeyed. I shall examine, in the rest of this section, how the framework of Baker can handle the various types of SVCs in Ewe. The example in (12) above involves two transitive verbs with a shared NP. Each of the verbs is a 2-place predicate. There are examples in which one of the verbs is triadic (i.e. a 3-place predicate). This type can fit into Baker's framework. We only have to expand the last V^1 into a V and NP as in (14).

14.
```
                    S
                   / \
                 NP   VP
                 |    |
                Kofi  V¹
                     / | \
                    /  |  \
                   V  NP   V¹
                   |   |   / \
                  tsō agbalea V NP
                             | |
                            na Ama
```

In (14), the shared NP is "agbale" (book) and the V2, a triadic "na" (give), takes an additional argument "Ama". V1 theta-marks the NP "agbale" by (13a) and V2 theta-marks the same NP by (13b). The V2 theta-marks its additional argument by (13a). There is a type of SVC which differs from the one in (14) in that V2 takes a PP complement instead of NP in (14). This sentence is also successfully represented in the framework under discussion as shown in (15).

15.
```
                    S
                   / \
                 NP   VP
                 |    |
                Kofi  V¹
                     / | \
                    /  |  \
                   V  NP   V¹
                   |   |   / \
                  tsō agbalea V PP
                             | / \
                            da de kplōa dzi
```

Now consider the sentence in (16) below.

16. Adela da tu wu xevi
    Hunter shoot gun kill bird
    'The hunter shot and killed a bird'

In the SVCs represented so far, the two verbs have a common NP object which is theta-marked by both verbs. The verbs assign the same theta role to the NP. But in (16), the NP between the two verbs receives two different theta roles from the two verbs: *Theme* from V1 and *Instrument* from V2. Despite this assignment of different theta roles to the NP object, the sentence fits well into the syntactic frame we are considering. It is possible for the NP to receive two different theta roles, provided it is the same structural position that is involved (c.f. Baker 1989: 521). One characteristic of SVCs that comes out clearly at this stage is that they share at least one argument, and that this argument is not always the grammatical object of both verbs.

A class of verbs in Ewe and Yoruba (Baker 1989) which raises some questions about their role in SVCs, is the so-called "bimorphemic" verbs which are made up of a bound verb and a noun complement referred to as "bound verb complement (BVC)". for example,

17.	ɖa nu cook thing "cook"	19.	dzi ha sing song "sing"
18.	no tsi drink water "drink"	20.	kpa ha compose song "compose"

The controversy is whether the BVCs are syntactic objects of the verbs or whether they compound lexically with the verb root to form true intransitives. I suggest that the BVCs are syntactic objects to the verbs concerned in 17-20 above. Consider the following sentences.

21.	E - ɖa nu ɖu 3sg cook thing eat 3sg. 'He cooked and ate the thing'	22.	E - ku tsi no fetch water drink 'He fetched water and drank it'

23. E - kpa ha dzi
    3sg compose song sing
    'He composed a song and sang it'

In the above examples (all grammatical and acceptable), the V2s have no object after them. Like most of the SVCs we have examined already, these examples have NPs which are theta-marked by both verbs. If the verbs in 18-21 are true intransitives (as Baker assumes for Yoruba), then they should not share an argument, and we expect forms like (24) and (25).

24.　* E - ɖa nu du nu　　　　25.　* E - ku tsi no tsi
　　　He cook thing eat thing　　　　　He fetched water drink water

But these forms are not grammatical in Ewe. Moreover, other nouns can be substituted for the BVCs. consider (26) and (27).

26.　E - ɖa te du　　　　　27.　E - no aha mu
　　　3sg cook yam eat　　　　　3sg. drink alcohol be drunk
　　　'He cooked yam and ate'　　　'He got drunk by drinking
　　　　　　　　　　　　　　　　alcohol'

In the above examples, the nouns act as complements to the so-called bound verbs in grammatical SVCs. They amply suggest that the NPs are the syntactic complements of the verbs concerned. I, therefore, suggest that the verb roots in 17-20 are real transitive verbs that subcategorize for NP objects, just like any other transitive verb in the language. It seems the syntactic properties of the types of verbs found in 17-20 in Ewe are similar to the corresponding examples in Yoruba, in which "momi" and "jeun" are both bimorphemic verbs made up of

28.　(a) mu + omi → momi
　　　　　drink water "drink"

　　　(b) je + oun → jeun
　　　　　eat   something "eat"

The Yoruba sentence in (29):

29.　* Mo bu omi mumi
　　　I pour water drink
　　　'I poured water and drank'

is ungrammatical in Yoruba, just like the Ewe (25). There are, however, some verb-noun pairs which can be said to form true intransitives in Ewe. These are shown in 30-33.

30.　ku dzi　　　　　　　32.　ve dō me
　　　kill heart "annoy"　　　　　hurt stomach "annoy"

31.　ƒu du　　　　　　　33.　tsi megbe
　　　run race "run"　　　　　　　remain behind "be late"

This class of verb-complement pairs are more or less idiomatic expressions that behave like single verbs and true intransitives in that no NP can occur in place of the BVCs in these examples. As intransitives they cannot take direct objects. They can, however, take other verbs in SVCs.

34.	Devi-a ƒu du dzo	35.	Nufiala tsi megbe va suku
	child-the run race go		Teacher remain behind come school
	'The child ran away'		'The teacher was late to school'

In these examples, the complements (BVCs) of the first verbs (V1) are not shared by the second verbs (V2), because the V1 in each case is made up of the "bound" verb root and the complement (BVC) to become an intransitve verb.

Another class of verbs in some African languages (including Ewe and Yoruba (c.f. Awoyale 1987)) is the class of morphologically complex transitive verbs which have been treated as some kind of serial verbs (Bamgbose 1982) or as a distinct class of their own and referred to as "splitting verbs" (Awolobuyi 1969; quoted in Awoyale 1987: 21). Ewe has such examples as:

36.	xō se	38.	bia se
	receive hear - "believe"		ask hear "inquire"

37.	ɖe fia	39.	dō kpō
	remove show "introduce"		taste see "taste"

The term "splitting" is applied here to refer to the fact that the two verbs forming the complex can be "split" by an intervening NP object. Those who hold this view regard the verb pairs as single lexical items. Others like Bamgbose (1982)[3] regard them as relatively "frozen serial collocations". I hold the latter view that these verb pairs form serial verb strings. They behave just like other serial verbs. If they are, then it follows that the two verbal elements forming the pair are syntactic lexical heads forming a complex VP. To show that they are lexical heads in a complex VP, we subject these pairs in SVCs to the tense/aspect test.

40a.	Kofi ɖa nu ɖu	(b).	Kofi a-ɖa nu a-ɖu
	K. cook thing eat		K. FUT.-cook thing FUT.-eat
	'Kofi cooked and ate'		'Kofi will cook and eat'

41a.	Kofi xō nya la se
	K. receive word the hear
	'Kofi believed the message'

(b).	Kofi a-xō nya la a-se
	K. FUT.-receive word the FUT.-hear
	'Kofi will believe the message'

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[3]   Cited in Awoyale, 1988.

As the (b) examples in 40-41 show, each of the verbs receives a FUTURE marker, proving that they form a double-headed predicate. Example (40) involves the normal transitive verb while (41) involves the "splitting" verbs under discussion. These "splitting" verbs, though they are not single syntactic units, form single semantic units. They are a kind of fixed collocations, because the two verbs forming the pair in each case have a fixed semantic interpretation.
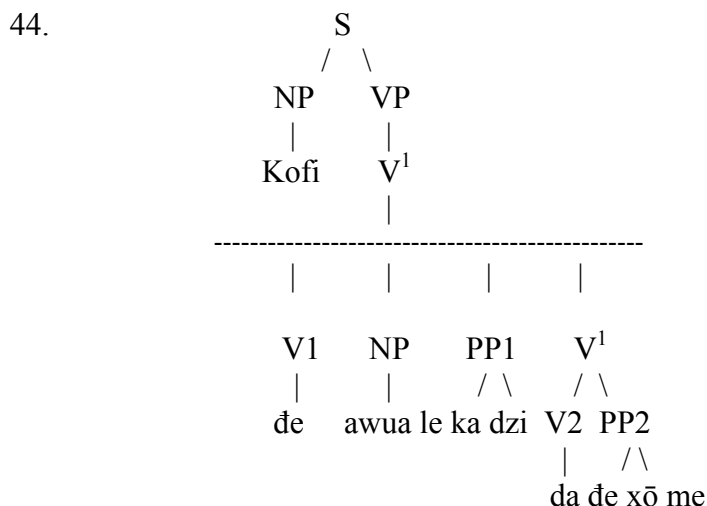
3. THE PROBLEM

The examples of Ewe SVCs examined so far seem to be adequately accounted for by Baker's model. These are examples involving transitive verbs. In those examples, it must be noted that the V1 takes only one argument. Now let us consider cases in which the V1 takes an extra argument.

42.   Kofi ɖe awua le ka dzi da ɖe xō me
      K. remove shirt on rope top put LOC. room in
      'Kofi removed the shirt from the line and put it in the room'

43.   Kofi fō agbaleawo le xōa me da ɖe gota
      K. collect book-the-PL. in room put LOC. outside
      'Kofi collected the books from the room and put them outside'

In the two examples in (42) and (43), the V1 in each case assigns an additional theta role to the PP. Applying Baker's model to these examples, we would expect that the V2 would theta-mark the PP argument of V1.

44.
```
                        S
                      /   \
                   NP      VP
                    |       |
                  Kofi     V¹
                           |
        ---------------------------------------------
         |       |         |        |
                           
         V1     NP        PP1      V¹
          |      |        / \      / \
         ɖe    awua  le ka dzi   V2  PP2
                                  |   / \
                                 da ɖe xō me
```
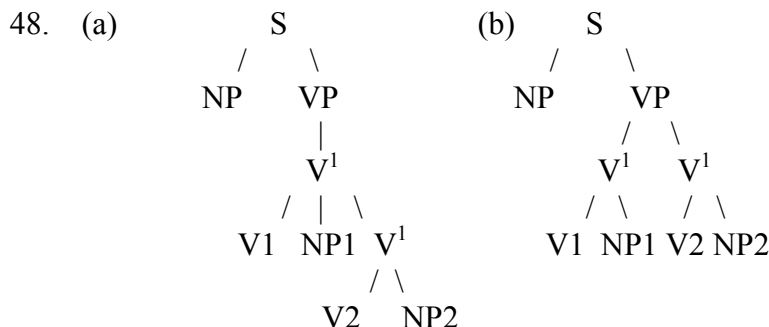
In the representation in (44), a projection of V2 is a sister to both the NP and the PP. Note that Baker (1989) claims that the sharing of the NP by the two verbs is obligatory (p. 527). That is, the two verbs should theta-mark the NP between them. Since the PP1 in (44) above is an argument of V1 and a structural sister to

the projection of V2, we would expect that V2 should theta-mark the PP too; but it does not. This constitutes a violation of the Projection Principle and the standard conditions on theta-role assignment adopted by Baker.

Now let us consider examples of SVCs involving a transitive verb and an intransitive or two intransitives.

45. Kofi no tsi ku
K. drink water die
'Kofi died by drinking water'

46. Kofi tutu devia dze anyi
K. push child-the fall down
'Kofi pushed the child and fell down'

47. Xevia dzò dzó
Bird fly go
'The bird flew away'

In all the examples in 45-47, the V2 is intransitive and the object-sharing does not apply. To account for these examples, Baker suggests that where the two verbs theta-mark the NP between them, the structure in (48a) is projected. The structure in (48b) which Baker terms "covert co-ordination" is projected where only the first verb theta-marks the NP.

48. (a)
```
              S                    (b)        S
            /   \                           /   \
         NP      VP                      NP       VP
          |                                      /   \
          V¹                                   V¹     V¹
        /  |  \                              /  \   /  \
      V1  NP1  V¹                          V1 NP1 V2 NP2
              /  \
            V2    NP2
```

According to Baker, the Projection Principle forces the V2 to theta-mark the NP1 in 48a above, but this requirement would not hold for 48b. He suggests that the V2 would not be able to theta-mark the NP1 in the configuration in 48b because the NP is not sister to V2 or any of its projections. He views the so-called "overt co-ordinations" as a sequence of distinct events, whereas the true SVC is perceived as a single event. This is suggesting that "covert co-ordination" types are not true SVCs. This position is not acceptable (at least for Ewe). The Ewe examples in 45-47 above all pass the WH-extraction and negation tests for SVCs.

49a. Kofi no tsi ku
K. drink water die
'Kofi died by drinking water'

    b.   Nuka Kofi no ku?
          What K. drink die?
          'What did Kofi drink and died?'

    c.   Kofi me no tsi ku o
          K. NEG. drink water die NEG.
          'Kofi did not die by drinking water'

50a. Kofi ƒo devia si
       Kofi beat child-the flee
       'Kofi beat the child and fled'

    b.   Ameka Kofi ƒo si?
          Person-which K. beat flee
          'Who did Kofi beat and fled'

    c.   Kofi me-ƒo devia si o
          K. NEG-beat child-the flee
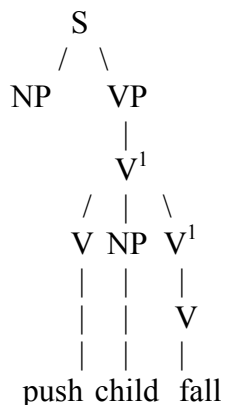   'Kofi did not beat the child and flee'

I, therefore, conclude that all the examples in 45-47 above are also true SVCs in Ewe.

    One other problem has to do with subject-sharing by the verbs in the SVC. As noted earlier, SVCs have the characteristic of having the same subject. While this is true for Ewe, Baker (1989) reports something different for Yoruba. In the following example (taken from Baker 1989: 529):

51.   Olu ti omo na a subu
      Olu push child the fall
      'Olu pushed the child down'

This example is accounted for by Baker's model as far as object-sharing is concerned (i.e. the V2 theta-marks the NP between it and the V1). But instead of the two verbs sharing the subject "Olu", the object of the first verb becomes the subject of V2. "Fall" takes "child" as NP within its second V-bar projection as its only argument (it is unaccusative).

12.

```
                        S
                       / \
                    NP     VP
                           |
                           V¹
                          / | \
                         V NP  V¹
                         |  |   |
                         |  |   V
                         |  |   |
                       push child fall
```

(Ag.;Th) (Th) (Baker 1989: 530)

Baker suggests that this structure has two consequences for the intransitive V2:
(a) V2 must be lexically capable of assigning an internal theta role;
(b) its theta role must be assigned to the object of V1 rather than to the subject of V1.

From this example, Baker predicts that only an unaccusative type of intransitive verb can follow a transitive or unaccusative in a true SVC (i.e. V2 must always be unaccusative if it is intransitive). This prediction is proved wrong by example (50a) above, where the V2 "flee" is unergative and has only an external argument.

In the Ewe example in (46) which is similar to the Yoruba example in (51), the V2 does not theta-mark the NP object of V1, and the sentence has only one interpretation (i.e. Kofi pushed the child and Kofi fell down, not the boy, as in the Yoruba example). In the Ewe example, therefore, the subject-sharing phenomenon is preserved. For an Ewe equivalent to the Yoruba example in (51) (with the interpretation given by Baker), a pronominal third person singular coindexed with the object NP will have to precede the V2, as in the example below.

53.   Kofi tutu đevia wò dze anyi
       K. push child the 3sg. fall down
       'Kofi pushed the child down'[4]

So we see examples in which no object-sharing takes place but the sentences are true SVCs. I, therefore, propose that all SVCs, whether object-sharing or non-object-sharing, and whether they denote single events or multiple events should be

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[4]   There seems to be a pragmatic issue here. The pronominal third person that distinguishes the two semtences in (51) and (53) is always coreferential with the immediately preceding NP. It is the subject of the embedded clause and, being a pronominal, it should be free in its governing category. The antecedent of this pronominal is the object of the matrix verb, which is outside the GC of the pronominal.

regarded as true SVCs. This claim rejects the distinction drawn between true SVCs and "covert co-ordination".

One other problematic type of SVC for Baker is the one involving an unergative and an unaccusative. An example is (47) repeated below.

54. Xevia dzò dzó
     bird the fly go
     'The bird flew away'

As Baker noted in a footnote, this particular type of SVC raises a problem for the theta-criterion. "Bird" receives theta-roles in two different positions: one as a subject of "fly" and one as the object of "go". It has been observed that the same structural position can receive more than one theta-role. But the case under examination involves two different structural positions, external argument position of "fly" and internal argument position of "go". In a structure involving only an unaccusative, the base-generated object which is in a non-case assigning position has to move to subject position to receive NOMINATIVE case in order to satisfy the case-filter.
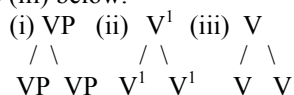
55. [bird [V go t]]

But when this verb "go" is combined with the unergative "fly", a problem arises. The subject position is filled by the external argument of the unergative. How do we account for the theta-role assignment by the unaccusative verb?
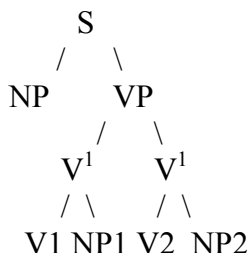
4. AN ALTERNATIVE ANALYSIS

In the preceding section, I have tried to unearth the various problems some Ewe SVCs pose for the framework of Baker (1989). In this section, I will make an alternative proposal in an attempt to address those problems raised in the preceding section. I propose for SVCs a structure in which the double-headed VP splits into two nonmaximal V^1s.[5] I follow Baker (1989) and Lefebvre (1991) in having a double-headed VP. But I differ in the way the VP is projected in the tree.

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[5] This structure may look like a coordinate one. But it may be argued that a true co-ordinate structure should be one in which the mother category and the daughters bear the same bar level as in (i) to (iii) below.

(i) VP   (ii) V^1 (iii) V
   / \   / \   / \
  VP VP V^1 V^1 V   V

In the structure being proposed, the two verbs are immediately dominated by a non-maximal V^1 and the two are dominated by a maximal VP. This position is, however, open to further discussion.

56.
```
                    S
                  /   \
               NP      VP
                      /  \
                   V¹     V¹
                   / \    / \
                 V1 NP1 V2  NP2
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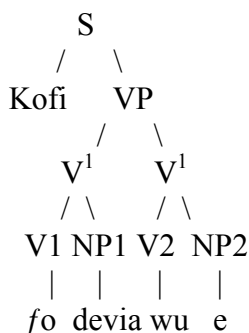
I also propose that in SVCs involving object-sharing, there should be a null object for V2 coindexed with the NP object of V1. We noted earlier that in SVCs where the V1 takes an additional (PP) argument, the V2 is not able to theta-mark this argument thus violating the Projection Principle under Baker's proposal. This suggests that the object (argument) sharing phenomenon should be projected in a different way than Baker suggested. Applying a typical example like (57a), we shall have the structure in (57b).

57a. Kofi ƒo devia wu
K. beat child the kill
'Kofi beat the child to death'

b.
```
                    S
                  /   \
              Kofi     VP
                      /  \
                   V¹     V¹
                   / \    / \
                 V1 NP1 V2  NP2
                 |   |   |   |
                ƒo devia wu  e
```

My proposal, I believe, would avoid the three major problems of Baker's proposal, namely:
(i) the inability of V2 to theta-mark a PP argument of V1 even though the argument position satisfies the condition for theta-marking proposed by Baker;
(ii) non-sharing of NP between V1 and V2 in some SVCs;
(iii) the problem of the "fly go" type.
      In my proposal, the V2 would not have to theta-mark the object of V1, since V2 would have its own object position projected. This solves the second problem automatically; that is the verbs do not have to share NP objects. Concerning the "fly go" type, my proposal does not involve movement of the internal argument of V2 to subject position as is normally proposed for unaccusatives, since that position would already be filled by the external argument of V1. So the internal argument position of V2 is projected as an empty category co-referential with the

subject of the sentence. In (57a), the object of V2 is understood. It is, therefore natural to assume that there is an empty category in the object position of V2. The question then arises as to what type of empty category the null object is. It is assumed that there are four types of empty categories, on the basis of the two binary features [+ - anaphor] and [+ - pronominal] (c.f. Chomsky 1982).

58. (a) PRO: [+ anaphor, + pronominal]
    (b) pro: [- anaphor, + pronominal]
    (c) WH-trace: [- anaphor, - pronominal]
    (d) NP-trace: [+ anaphor, - pronominal]

PRO is ruled out as a probable candidate. PRO is said to be ungoverned at S-structure. The object position in (57b) is governed by the verb, since that position must be case-marked. NP-trace is also not a possible candidate because NP-movement involves movement from a theta-position to a theta-bar position. The null object in (57b) is in a theta position, and its antecedent is also in a theta position. Therefore, it cannot be NP-trace. However, the null object under discussion seems to share a property with NP-traces. An NP-trace is subject to Principle A of the Binding Theory which says that an anaphor must be bound in its governing category. The governing category for the null object in (62b) is the entire clause, and the null object is coindexed with an NP within its governing category. So in a way, the null object has something in common with an NP-trace, i.e. they both occur in A-positions. But they differ in their case-marking properties.[6] WH-trace is also ruled out because it must be bound by an antecedent in an A-bar position. In the examples under discussion, there is no A-bar binder for the trace. This leaves us with *pro*. Supposing we assume at this stage that the null object is *pro*. This raises two questions:

(a) What are the conditions that formally license the *pro* (i.e. how is *pro* licensed)?

(b) How is the content of *pro* determined or recovered?

To answer these questions, let us look at the proposal by Rizzi (1986) in which he proposes that *pro* is subject to two requirements, formulated in what is termed the "pro-drop parameter".

59. *The pro-drop parameter*

    (a) *pro* is governed by X^0
    (b) Let X be the licensing head of an occurrence of *pro*;

---

6   This issue will be taken up again later in this section.

then *pro* has the grammatical specification of the features on X coindexed with it.

Condition (a) can be satisfied in (57b); the object position is licensed by the verb "wu" (kill). The problem is with condition (b). In Italian, a typical pro-drop language, the content of :hp1.pro:ehp1. in subject position is recoverable from the rich morphology of the verb (i.e. from strong agreement features). But for *pro* in object position, he suggests something different. Rizzi (1986) draws a distinction between English and Italian in the way null objects are licensed. He claims that an occurrence of *pro* in a verb-governed position is allowed in Italian but not in English. He argues that in Italian, the understood object is syntactically "active" in that it can act as a controller, as a binder, and as a subject of predication for adjunct and small clauses, whereas the null object in English appears to be syntactically "inert" in the same environment (p. 502). Compare the following sentences from English and Italian.

60a. This leads people [PRO to conclude what follows].

  b. *This leads [PRO to conclude what follows]

61a. Questo conduce la gente alla seguente conclusione

  b. Questo conduce -- alla seguente conclusione.
      (Rizzi 1986: 503)

In (60b), we find that we cannot delete the object controller, whereas in (61b) we can. This suggests that in object-control structures in English, the object NP controller must be overtly represented. Ewe follows English in this respect. Consider the following.

62a. Esia nana amewo susuna be nuwuwua ɖo
      This make-HAB. people think-HAB. thet end-the arrive
      'This makes people think that the end is near'

  b. * Esia nana ---- susuna be nuwuwua ɖo

In (62b) the object cannot be deleted. Rizzi (1986) also points out that in Italian, argument small clauses selected by causative verbs can take null subjects having the same interpretive and formal properties as the null objects.

63a. Questa musica rende [-- allegri]
      This music renders -- happy [+pl]

  b. Certe medicine rendono [-- piu intelligenti/calmi]
      Certain drugs render --- more intelligent/calm [+pl]

The English glosses in (63) are ungrammatical. The missing null object in the Italian examples must be present in the English glosses to be grammatical in English. Ewe behaves just like English in this respect too.

64a. Atike aɖe-wo wōa [ame drōzii]
       medicine INDEF.-pl make person weak
       'Some drugs make people weak'

  b. * Atike aɖewo wōa --- drōzii
       'Some drugs make weak'

(64b) is ungrammatical because of the missing small clause subject. Evidence adduced so far points to the fact that the null object being proposed for Ewe SVC may not be *pro*. In fact the discussion so far suggests that there is no structural NP position. But as has been pointed out, the failure of Baker's model to satisfy the Projection Principle suggest that the object sharing phenomenon should be projected in a different way. One plausible way is to project an empty NP object for V2 and this NP will be co-indexed with the NP object of V1. Moreover, *pro* as a pronominal must be free in its governing category (i.e. it is subject to Principle B of the Binding Theory). The null object being proposed here is quite different, in that it is co-indexed with an NP within its governing category. It will also be shown that this null object is bound by the NP object of V1.
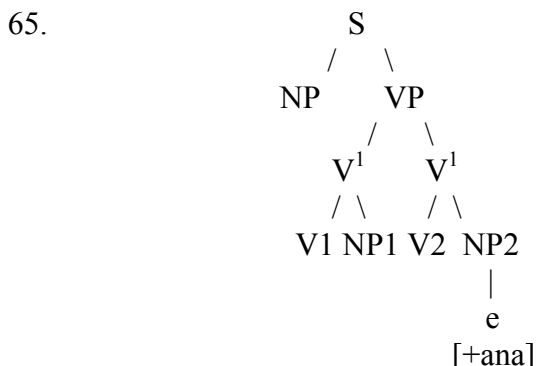
Raposo (1986) proposed for European Portuguese that the empty category in object position is a variable.[7] According to Principle C of the binding theory (Chomsky 1982), a variable, like other referring expressions, cannot be coreferential with a c-commanding nominal occurring in an argument position. This is because variables, like other referring expressions cannot be A-bound. Pronominals, on the other hand, are not subject to Principle C and can, therefore, be coreferential with a c-commanding argument (as long as these arguments do not occur in the governing category (GC) of the pronominal. This rules out the null object being a variable and brings us back to a point mentioned earlier.[8]

We noted earlier that the null object being proposed shares a characteristic with NP traces but it cannot be NP-trace because it is in a case-marked position. The shared characteristic is that the null object is bound in its governing category (i.e. it has as its antecedent, an argument in its GC). This position satisfies the condition for an anaphor. I, therefore, propose that the null object in the Ewe SVC structure in (57b) is an "empty anaphor" (c.f. Saxon 1989, 1990; Chung, 1989).

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[7]   Reported in Cole, 1987: 597.

[8]   It may be possible to say that the null object is a variable left by an empty operator. But assuming that an operator moves only into [Spec, CP], the issue will be where to locate the operator in the tree in (57b) fro example. Carstens, (1988) is reported to have taken on this issue (cited in Baker, 1989).

We will have a base-generated NP "empty anaphor" coreferential with the NP object of V1. This gives us the structure in (65).

65.
```
                      S
                    /   \
                 NP      VP
                       /  \
                     V¹    V¹
                    / \   / \
                 V1 NP1 V2  NP2
                             |
                             e
                          [+ana]
```

Since this empty category is an anaphor, it must obey Principle A of the binding theory. We shall now explore the conditions on this binding principle and see how far the structure in (65) fits into it.

66. Binding Theory

Principle A

An anaphor must be bound in its governing category.

67. *A-binding*

α binds β if

(i) α is in an A-position;
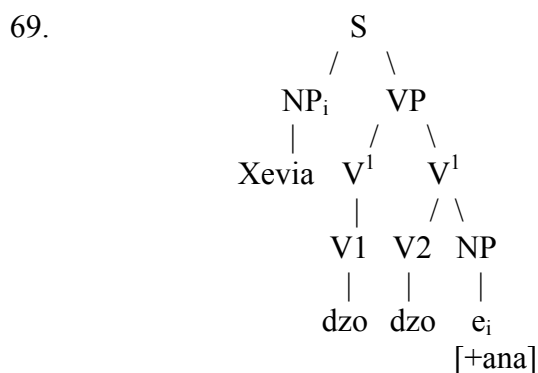
(ii) α c-commands β;

(iii) α and β are co-indexed.

(66) involves two notions, "binding" and "governing category". (67) outlines the conditions for binding. The first is that ∀ must be in an A-position. In (65), the NP binder is in an A-position. The second condition is that ∀ must c-command ∃. Here, I will adopt the revised version of c-command which is also known as m-command, and which is stated in Sells (1985: 39) as follows:

68. *C-command (revised definition)*

α c-commands β iff every maximal projection dominating α also dominates β

Under this interpretation of c-command, the governing category of the empty anaphor being proposed will be the entire clause. This empty anaphor will be bound by the NP which is within the GC, thus satisfying Principle A in (66).

Now let us consider the other problematic type of SVC (i.e. the one involving unergative and unaccusative verbs). Just as has been proposed above, I shall propose the same base-generated "empty anaphor" for the argument of V2.

69.

```
                    S
                  /   \
               NPᵢ    VP
                |    /   \
             Xevia  V¹    V¹
                    |    / \
                   V1  V2  NP
                    |   |   |
                   dzo dzo  eᵢ
                          [+ana]
```

As noted earlier, the only argument of the V2 is internal, and if this verb occurs alone in a structure, then the D-structure argument moves to subject position to receive NOMINATIVE case. But here it is combined with an unergative, whose only argument is external. Therefore, when these two verbs combine, the subject position is already filled by the external argument of the V1 and, therefore, the object of V2 cannot move there to receive case. So it must be empty and, since it is coreferential with the subject, it must be an anaphor. Its GC is the entire clause. The subject "bird" m-commands the empty anaphor and they are co-indexed.

One question that needs to be addressed is whether the empty anaphor, *ana*, needs case. To answer this question, I will say that *ana*, being the object of a transitive verb, must be case-marked. The position is governed and theta-marked and, therefore, nothing prevents the empty anaphor from receiving case. Moreover, WH-traces and *pro* are case-marked. So we can say that the empty anaphor is case-marked. The case on the empty anaphor will make the theta position visible and allow the predicate to assign its theta role.[9]

5. CONCLUSION

I have been discussing Ewe serial verbal constructions within a framework suggested by Baker (1989). It has been noted that the Ewe data pose certain

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[9]   Case-assignment for the empty anaphor in (69) is, however, problematic. It may be possible to propose that the empty anaphor in (69) is case-marked, with the case realized on its antecedent. This is yet to be further explored.

problems for Baker's framework, especially with respect to the Projection Principle and the notion of object-sharing. The idea of a true and non-true SVCs has been rejected (at least for Ewe). An alternative proposal has been made for handling SVCs in Ewe. This is a proposal in which the notion of "empty anaphor" is being introduced, after the attempt to explore the possibility of the null object being projected as any of the four types of empty category has failed. This proposal has to be tested with other SVC languages to prove its universality. Moreover, the notion of empty anaphor or little *ana* (c.f. Saxon 1989, 1990), is quite new and needs to be further researched into.

Despite the extensive work done on SVCs in the past twenty years, there are still more questions than answers. The issue of what constitutes a true SVC is not clear. Also pertinent is the question of what constitutes a main verb in SVCs. Should there even be a main verb and a subordinate one? What principles determine the order of verbs in SVCs? These and other questions need to be addressed in future researches.

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