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How to Find Serial Verbs in English: An RRG Analysis of Phase Verb Constructions

John R. Roberts
SIL International
and Uppsala University Faculty, Sweden

ABSTRACT

Serial verb constructions (SVCs), are found in Creole languages, in the languages of West Africa, Southeast Asia, Amazonia, Oceania, and New Guinea. Protoypical SVCs have the following syntactic and semantic properties according to Kroeger (2004:229-230):

Characteristic properties of SVCs:

a. A prototypical SVC contains two or more morphologically independent verbs within the same clause, neither of which is an auxiliary.
b. There are no conjunctions or other overt markers of subordination or coordination separating the two verbs.
c. The serial verbs belong to a single intonation contour, with no pause separating them.
d. The entire SVC refers to a single (possibly complex) event.
e. A true SVC may contain only one specification for tense, aspect, modality, negation, etc., though these features are sometimes redundantly marked on both verbs.
f. The two verbs in the SVC share at least one semantic argument.
g. Obligatory non-coreference: a true SVC will not contain two overt NPs which refer to the same argument.
h. A prototypical SVC contains only one grammatical subject.

In this paper we examine a set of verbal complexes in English called phase verb constructions (PVCs) in Collins Cobuild English Grammar (1990:184-193) from an RRG perspective and compare them with SVCs. We demonstrate that PVCs have all of the characteristic syntactic and semantic properties of SVCs.

Proposal

In this paper we examine a set of verbal complexes in English called phase verb constructions (PVCs) in *Collins Cobuild English Grammar* (1990:184-193) from an RRG perspective and compare them with serial verb constructions (SVCs). We demonstrate that PVCs have all of the characteristic syntactic and semantic properties of prototypical SVCs.

Serial verb constructions can occur where the shared argument in the verb series is only the subject, as illustrated in (1).

(1) SVCs with same subjects:

a. Yoruba (Trask, 1993) (West Africa)
ó *mú* ìwé *wá*
3sg took book came
'He brought the book.'

b. Cantonese (Matthews and Yip, 1994:143) (S. E. Asia)
bātyùh ngóhdeih *heui tái* hei
rather 1pl go see film
'Let's go and see a film.'

c. Tok Pisin (Verhaar, 1995:100) (Papua New Guinea)
dispela pisin *i-flai* *i-go* na i-no kam bek
this bird fly go and not come back
'This bird flew away and didn't come back.'

d. Seimat (Wozna and Wilson, 2005:54-59) (Austronesian: Pacific)
laha *apuha* *kak* *pax-ai* waliko
3pl meet speak look-TRANS something
'They met, spoke and looked at things.

Serial verb constructions can also occur where the shared argument in the verb series functions as object of the first verb and notional subject of the second linked verb. Examples are given in (2) from the same languages illustrated in (1).

(2) SVCs with different subjects:

a. Yoruba (Bamgbọṣe, 1974; tone not shown) (West Africa)
olu *ti* ɔmɔ naa *šubu*.
Olu push child the fall
'Olu pushed the child down.' (lit. 'Olu pushed the child and it fell.')

b. Cantonese (S. E. Asia)
ngóh *diu* goh bòh *lohk* *heui*
1sg throw CL ball down go
'I threw the ball down.'(lit. 'I threw the ball and it went down.')

c. Tok Pisin (Papua New Guinea)
ol *i-sutim* pik *i-dai*
3pl shoot.TRANS pig die
'They shot the pig dead.' (lit. 'They shot the pig and it died.')

d. Seimat (Wozna and Wilson, 2005:57) (Austronesian: Pacific)
ti ipong nga *tahuni* *ha-paxe*
at night 1sg smoke CAUS-dry
'At night I dried (the pandanus) by smoking it.' (lit. 'At night I smoked the pandanus and caused it to dry.')

Definition

Aikhenvald (2006) says: "A serial verb construction (SVC) is a sequence of verbs which act together as a single predicate, without any overt marker of coordination, subordination, or syntactic dependency of any sort. Serial verb constructions describe what is conceptualized as a single event. They are monoclausal; their intonational properties are the same as those of a monoverbal clause, and they have just one tense, aspect and polarity value. SVCs may also share core and other arguments. Each component of an SVC must be able to occur on its own. Within an SVC, the individual verbs may have same, or different, transitivity values."

In addition

Aikhenvald (2006:1) says SVCs are widespread in Creole languages, in the languages of West Africa, Southeast Asia (Chinese, Thai, Khmer, etc.), Amazonia, Oceania, and New Guinea.

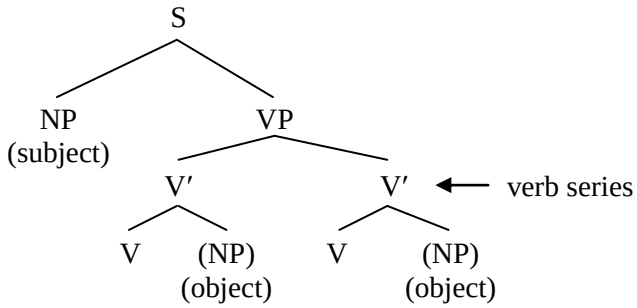
But Dixon (2006) adds that while SVCs are found in perhaps one-third of the languages of the world, there appear to be none in Europe or north or central Asia, and rather few in North America or Australia.

Kroeger (2004:229-230) shows that protoypical SVCs have the following syntactic and semantic properties:

(3) Characteristic properties of SVCs:
- a. A prototypical SVC contains two or more morphologically independent verbs within the same clause, neither of which is an auxiliary.
- b. There are no conjunctions or other overt markers of subordination or coordination separating the two verbs.
- c. The serial verbs belong to a single intonation contour, with no pause separating them.
- d. The entire SVC refers to a single (possibly complex) event.
- e. A true SVC may contain only one specification for tense, aspect, modality, negation, etc., though these features are sometimes redundantly marked on both verbs.
- f. The two verbs in the SVC share at least one semantic argument.
- g. Obligatory non-coreference: a true SVC will not contain two overt NPs which refer to the same argument.
- h. A prototypical SVC contains only one grammatical subject.

In a generative analysis of SVCs the verbs are represented as a series under VP, as illustrated in (4). In essence, generative syntax requires that SVCs be a series of VPs - or rather V's, since this is the only constituent of the sentence available that can be headed by a verb. This analysis also requires that the shared argument be the subject because this is the only core argument that can be external to the VP. However, SVCs readily occur where the object of the first verb functions as the subject of the second verb, as in (2). In this case the generative analysis of SVCs cannot apply.

(4) Generative analysis of SVCs:



Collins Cobuild English Grammar (1990:184-193) (henceforth Cobuild) describes how verbs can be used in a clause in English to talk about two actions or states which are closely linked. They call this structure a 'phase', i.e. a linked sequence of events. Phase verb constructions (PVCs) (from Cobuild) are illustrated in (5) and (6). V_1 is a finite verb which can be fully marked for tense, aspect and modality, and V_2 is a nonfinite verb.

(5) PVCs where both verbs have the same (notional) subject:

a.	Mary *stopped crying*.	[main verb + bare present *-ing* participle]
b.	Sheila *was barred from going* to work.	[main verb + *from*-present participle][1]
c.	James *wants to see* a movie.	[main verb + *to*-infinitive]
d.	Sam *helped run* the tournament.	[main verb + bare infinitive]
e.	Those very close to the blast *risk being burned*.	[main verb + past *-ed* participle]

(6) PVCs where the object of the main verb functions as the (notional) subject of the second verb:

a.	The attendant *stopped* him *falling*.	[main verb + bare present *-ing* participle]
b.	The new law *prevents* people *from smoking* in public places.	[main verb + *from*-present participle]
c.	The government *encourages* people *to pay* their taxes.	[main verb + *to*-infinitive]
d.	He *watched* her *play* tennis.	[main verb + bare infinitive]
e.	Coffee *helped keep* him alert.	[main verb + bare infinitive]

[1] Cobuild does not include the *from*-present participle forms in their set of PVCs.

f. Those people *got burned* by the blast. [main verb + past *-ed* participle]

Characteristic property (3a): A prototypical SVC contains two or more morphologically independent verbs within the same clause, neither of which is an auxiliary.

By morphologically independent Kroeger means that serial verbs are not part of a verbal compound and can occur as full lexical verbs independent of the series. (*personal communication*) Phase verbs are morphologically independent in that they can all occur as independent lexical verbs:

(7)
a.	Mary stopped.	a′.	Mary cried.
b.	Sheila barred the way.	b′.	Sheila went to work.
c.	James wants tan i-phone.	c′.	James saw a movie.
d.	Sam helped Phil.	d′.	Sam ran the tournament.
e.	They risked everything.	e′.	They were burned.

(8)
a.	The attendant stopped the train.	a′.	He fell.
b.	Vaccination prevents disease.	b′.	People smoke in public places.
c.	He encourages people.	c′.	People pay their taxes.
d.	He watched her.	d′.	She played tennis.
e.	Coffee helped him.	e′.	He kept alert.
f.	They got the bus.	f′.	They were burned by the blast.

The V_1 of a PVC is not an auxiliary verb:

(9) a. **Stopped* Mary crying? [PVs do not invert with subject]
b. **Helped* Sam run the tournament?

(10) a. *Mary stopped*n't* crying. [PVs do not take negator contraction]
b. *Sam helped*n't* run the tournament.

Characteristic property (3b): There are no conjunctions or other overt markers of subordination or coordination separating the two verbs.

The V_2 phase verb is not a VP complement of the V_1 phase verb (see Van Valin and LaPolla (1997:469-471) for this analysis of VP complements in English):

(11)
a.	Mary stopped *the car*.	
a′.	*The car* was stopped by Mary.	[NP complement can be passivized]
a″.	It was *the car* that Mary stopped.	[NP complement can be focussed]
b.	Mary stopped *crying*.	[main verb + bare present *-ing* participle]
b′.	**Crying* was stopped by Mary.	[Linked core cannot be passivized]
b″.	*It was *crying* that Mary stopped.	[Linked core cannot be focussed]

(12)
a.	Dave helped *the old lady*.	
a′.	*The old lady* was helped by Dave.	
a″.	It was *the old lady* that Dave helped.	
b.	Sam helped *run the tournament*.	[main verb + bare infinitive]
b′.	**Run the tournament* was helped by Sam.	[Linked core cannot be passivized]
b″.	*It was *run the tournament* that Sam helped.	[Linked core cannot be focussed]

Therefore the conjoining relationship between phase verbs is non-subordinate.

Are *to* and *from* subordinating conjunctions?

Neither the *to*-infinitive nor the *from*-present participle linked cores are subordinate to the main verb. Therefore *to* and *from* cannot be subordinating conjunctions.

(13) a. The new law prevents people *from smoking in public places*.

a′. **From smoking in public places* is prevented people by the new law.
[Linked core cannot be passivized]

a″. *It is *from smoking in public places* that the new law prevents people.
[Linked core cannot be focussed]

(14) b. The government encourages people *to pay their taxes*.

b′. **To pay their taxes* is encouraged people by the government.
[Linked core cannot be passivized]

b″. *It is *to pay their taxes* that the government encourages people.
[Linked core cannot be focussed]

to and *from* cannot be substituted by coordinating conjunctions, as shown in (15), therefore they do not function as coordinating conjunctions.

(15) a. The new law prevents people *from/*and/*but* smoking in public places.
b. The government encourages people *to/*and/*but* pay their taxes.

What is the function of *to* and *from* in PVCs? When *to* or *from* are present the default interpretation is that the linked events do not overlap temporally, i.e. they are sequential. Their absence indicates that the linked events necessarily overlap temporally. (See Van Valin and LaPolla, 1997:472) This is summarized in (16).

(16) a. PVCs with zero marker on linked unit: [+temporal overlap].
b. PVCs with *to*/*from* marker on linked unit: [−temporal overlap]. Cf. (17)-(19).

(17) Verbs that link to a bare infinitive (express perception):

X felt his scalp tingle	(feel ∧ tingle)	[+temporal overlap]
X heard Y sing	(hear ∧ sing)	[+temporal overlap]
X noticed Y arrive	(notice ∧ arrive)	[+temporal overlap]
X watched Y dance	(watch ∧ dance)	[+temporal overlap]

(18) Verbs that link to a *to*-infinitive (express intention/wish or accomplishment):

X agreed *to* go	(agree & go)	[−temporal overlap]
X decided *to* go	(decide & go)	[−temporal overlap]
X volunteered *to* go	(volunteer & go)	[−temporal overlap]
X managed *to* go	(manage & go)	[−temporal overlap]

(19) Verbs that link to a *from*-present participle (express constraint):

X barred Y *from* going	(bar & go)	[−temporal overlap]
X deterred Y *from* going	(deter & go)	[−temporal overlap]
X kept Y *from* going	(keep & go)	[−temporal overlap]
X prevented Y *from* going	(prevent & go)	[−temporal overlap]

Additionally, *from* indicates the linked event did not happen. The logical operator NOT represents the meaning of *from* in (20).

(20) a. Sheila was barred *from* going to work.
a′. [**do′** (Ø, Ø)] CAUSE [NOT (**do′** (Sheila, [**go′** (Sheila) & INGR **be-at′** (work, Sheila)])]

b. James kept Mary *from* waiting.
b′. [**do′** (James, Ø)] CAUSE [NOT **do′** (Mary, [**wait′** (Mary)])]

c. The new law prevents people *from* smoking in public places.
c′. [**do′** (law, Ø)] CAUSE [NOT **be-in′** (public place, (**do′** (people, [**smoke′** (people)])))

d. James stopped Mary *from* crying.
d′. [**do′** (James, Ø)] CAUSE [NOT (**do′** (Mary, [**cry′** (Mary)]))]

Thus the syntactic structure of PVCs is primarily coordinated core conjoining, as shown in (21) and (22). This is a prototypical SVC construction.

(21) PVCs where both verbs have the same (notional) subject:
a. [$_{CL}$ [$_{CORE}$ Mary stopped] [$_{CORE}$ crying]].
b. [$_{CL}$ [$_{CORE}$ Sheila was barred] [$_{CORE}$ from going to work]].
c. [$_{CL}$ [$_{CORE}$ James wants] [$_{CORE}$ to see a movie]].
d. [$_{CL}$ [$_{CORE}$ Sam helped] [$_{CORE}$ run the tournament]].
e. [$_{CL}$ [$_{CORE}$ Those very close to the blast risk] [$_{CORE}$ being burned]].

(22) PVCs where the object of main verb functions as (notional) subject of second verb:
a. [$_{CL}$ [$_{CORE}$ The attendant stopped him] [$_{CORE}$ falling]].
b. [$_{CL}$ [$_{CORE}$ The new law prevents people] [$_{CORE}$ from smoking in public places]].
c. [$_{CL}$ [$_{CORE}$ The government encourages people] [$_{CORE}$ to pay their taxes]].
d. [$_{CL}$ [$_{CORE}$ He watched her] [$_{CORE}$ play tennis]].
e. [$_{CL}$ [$_{CORE}$ Coffee helped] [$_{CORE}$ keep him alert]].
f. [$_{CL}$ [$_{CORE}$ Those people got] [$_{CORE}$ burned by the blast]].

Characteristic property (3c): The serial verbs belong to a single intonation contour, with no pause separating them.

Cobuild (1990:184-193) cites the fact that PVCs have a single intonation contour as one of the identifying features of this construction in English.

Characteristic property (3d): The entire SVC refers to a single (possibly complex) event.

Cobuild (1990:184-193) says that PVCs describe two actions or states which are closely linked. Bohnmeyer and Van Valin (2009) suggest that the notion of 'single event' can be defined in terms of the Macro-Event Property (MEP). The MEP is a property of construction types that can encode the ontological properties of temporal space, such as expressions of location in time, duration and boundaries in time. The MEP applies to constructions that package the parts of an event so tightly as to not permit individual access by temporal expressions, e.g. adverbials, temporal clauses, tenses. Bohnmeyer and Van Valin present cross-linguistic evidence that single core constructions must have the MEP and that multiple core constructions only have the MEP if they are cosubordinate. However, none of the PVCs in (5) and (6) have cosubordinate cores. Instead they have coordinated cores, as illustrated in (21) and (22). Nevertheless, PVCs, as in (5) and (6), are considered to describe single (possibly complex) events because the SVC has only one tense designation. Only the V_1 main verb can be marked for tense; the V_2 is nonfinite. All PVCs except the *from*-present participle form do not allow separate modification by a temporal adverbial, as illustrated in (23). Thus PVCs demonstrate Macro-Event Properties even though they are not cosubordinate.

(23) PVCs and individual temporal modifiers:
a. Mary *stopped* (*yesterday) *crying* (today).
b. Sheila *was barred* (yesterday) *from going* to work (today).
c. James *wants* (*yesterday) *to see* a movie (today).
d. Sam *helped* (*yesterday) *run* the tournament (today).
e. Those very close to the blast *risk* (*yesterday) *being burned* (today).

Also, as with SVCs, the verbs in a PVC can have a specialized function. This is another characteristic of a single event description.

The V_1 (main) verb can set a temporal frame for the V_2 (nonfinite) verb. In (24) the verbs *begin* and *start* express the onset of an event, *continue* and *keep* express the continuation of an event, and *finish* and *stop* express the termination of an event. The semantic representations for the temporal frames are respectively, BECOME for the onset of an event (24a″), CONTINUE for the continuation of an event (24b″), TERMINATE for the termination of an event (24c″). Van Valin (2005:51) suggests that the logical structure of *begin* in this context is BECOME **do′** (x, y), where the logical structure of the complement verb fills the *y* variable slot. This is because *begin* is a full lexical verb in this construction and not an auxiliary verb or operator.

(24) a. Mary *began* crying. [*begin* = onset of event]
a′. Mary *started* crying. [*start* = onset of event]
a″. BECOME **do′** (Mary, [**do′** (Mary, [**cry′** (Mary)])])

b. Mary *continued* crying. [*continue* = continuation of event]
b′. Mary *kept* crying. [*keep* = continuation of event]
b″. CONTINUE **do′** (Mary, [**do′** (Mary, [**cry′** (Mary)])])

c. Mary *finished* crying. [*finish* = termination of event]
c′. Mary *stopped* crying. [*stop* = termination of event]
c″. TERMINATE **do′** (Mary, [**do′** (Mary, [**cry′** (Mary)])])

When this type of main verb is transitive it has a causative meaning:

(25) a. James *started Mary* crying.
a′. [**do′** (James, Ø)] CAUSE [BECOME **do′** (Mary, [**cry′** (Mary)])

b. James *kept Mary* waiting.
b′. [**do′** (James, Ø)] CAUSE [CONTINUE **do′** (Mary, [**wait′** (Mary)])

c. James *stopped Mary* crying.
c′. [**do′** (James, Ø)] CAUSE [TERMINATE **do′** (Mary, [**cry′** (Mary)])

The V_1 can set a spatial frame for the V_2 event:

(26) a. The child *lay* sleeping.
a′. **do′** (child, [**lay′** (child)]) ∧ **do′** (child, [**sleep′** (child)])
b. The teacher *sat* reading.
b′. **do′** (teacher, [**sit′** (teacher)]) ∧ **do′** (teacher, [**read′** (teacher)])
c. The waitress *stood* talking.
c′. **do′** (waitress, [**stand′** (waitress)]) ∧ **do′** (waitress, [**talk′** (waitress)])

The V_2 can modify the meaning of the V_1:

The V_2 can indicate a perfective/imperfective aspect modification of the V_1 event:

In (27a) and (b) the bare infinitives of *scream* and *run* give the meaning that these events are completed within the event frame of the preceding perception verb. Whereas when the present participial forms are used in (27a′) and (b′) the events of ‘scream’ and ‘run’ are not completed within the event frame of the perception verbs.

(27) a. They heard her *scream*. [*hear* = perfective event]
a′. They heard her *screaming*. [*hear* = imperfective event]
a″. **hear′** (they, [**do′** (her, [**scream′** (her)])
b. They saw him *run*. [*see* = perfective event]
b′. They saw him *running*. [*see* = imperfective event]
b″. **see′** (they, [**do′** (him, [**run′** (him)])

The V_2 can indicate the manner in which the V_1 event is performed:

In (28a) and (b) the V_1 motion verb is modified by the V_2, which expresses the manner in which the motion is carried out. The logical structures of (28a′) and (b′) specify two events occurring

concurrently. This is the same as in (26a′,b′,c′). However, in (26) the V_1 specifies the spatial frame of the event and is the modifying verb, whereas in (28) it is the V_2 that specifies this modification of the complex event.

(28) a. The girls came out *running* / came *running* out.
a′. **do′** (girls, [**come′** (girls)]) ∧ **do′** (girls, [**run′** (girls)]) & INGR **be-out′** (girls)
b. Bill entered the room *skipping*.
b′. **do′** (Bill, [**enter′** (Bill, room)]) ∧ **do′** (Bill, [**skip′** (Bill)])

Characteristic property (3e): A true SVC may contain only one specification for tense, aspect, modality, negation, etc., though these features are sometimes redundantly marked on both verbs.

Scope of operators in PVCs:

With regard to the marking of tense, aspect, modality and negation in PVCs, the full range of these categories can only be marked on the V_1 finite verb, as illustrated in (29)-(33). As a clause operator, tense has default scope over both the phase verbs. As nuclear operators, progressive and perfective aspects only have scope over the first verb. Modality operators, such as *must*, and the negation operator are core operators and they may have scope over just the first verb, in which case it is a core coordination nexus, or they may have scope over both the verbs, in which case it is a core cosubordination nexus. Only negation can be marked independently on the V_2 nonfinite verb, as illustrated in (34).

(29) the bare present *-ing* participle:

Mary	stopp*ed* crying.	[past tense]
	is stopp*ing* crying.	[prog aspect]
	has stopp*ed* crying.	[prfv aspect]
	must stop crying.	[modal]
	did*n't* stop crying.	[negation]

(30) the *from*-present participle:

Sheila	*was* prevent*ed* from going to work.	[past tense]
	is be*ing* prevented from going to work.	[prog aspect]
	has be*en* prevented from going to work.	[prfv aspect]
	must be prevented from going to work.	[modal]
	was*n't* prevented from going to work.	[negation]

(31) the *to*-infinitive:

The government	encourage*s* people to pay their taxes.	[present tense]
	is encourag*ing* people to pay their taxes.	[prog aspect]
	has encourag*ed* people to pay their taxes.	[prfv aspect]
	must encourage people to pay their taxes.	[modal]
	did*n't* encourage people to pay their taxes.	[negation]

(32) the bare infinitive:

He	watch*es* her play tennis.	[present tense]
	is watch*ing* her play tennis.	[prog aspect]
	has watch*ed* her play tennis.	[prfv aspect]
	must watch her play tennis.	[modal]
	did*n't* watch her play tennis.	[negation]

(33) the past *-ed* participle:

Those people	*got* burned by the blast.	[past tense]
	are gett*ing* burned by the blast.	[prog aspect]
	have got burned by the blast.	[prfv aspect]
	must have got burned by the blast.	[modal]
	did*n't* get burned by the blast.	[negation]

(34) a. From today he has started not smoking.
b. Cheap booze encourages people to not quit drinking.

Kroeger (2004:230) says one clear indication that the two serialized verbs express a single event is that we cannot negate one verb while asserting the truth of the other. But since verb serialization is prototypically core coordination with arguments shared between the cores, and since negation is a core operator (as well as a nuclear and clause operator) it does not follow that negating one core independently of the other core disqualifies a construction as an SVC.

Kroeger (2004:230) also says that it is generally not possible for the two (or more) verbs in an SVC to have independent marking for tense and aspect. He illustrates this from Akan (35). In (35a) both verbs are marked for past tense and this is a serial verb construction. It is not possible to have one verb marked for past tense and one marked for perfect aspect in an SVC, as shown by (35b). For this coding, a coordinating conjunction must be used, as in (35c). In (35c) the verbs belong to separate clauses.

(35) Akan (Akuapem dialect; Shachter, 1974)

a. me-kɔɔ-e me-baa-e.
I-go-PAST I-come-PAST
'I went and came back.'

b. *me-kɔɔ-e maba.
I-go-PAST I-come-PERF

c. me-kɔɔ-e na maba.
I-go-PAST and I-come-PERF
'I went and I have come back.'

However, there are some issues with the Akan example Kroeger uses to substantiate his claim that it is generally not possible for the two (or more) verbs in an SVC to have independent marking for tense and aspect. Firstly, Christaller (1964:58-59) says that the verb in Akan can be marked for either past tense or perfect, but not both categories. Compare English where tense and perfective aspect can both be marked on the same verb, e.g. *he has gone* [present tense + perfective aspect] vs. *he had gone* [past tense + perfective aspect]. Secondly, Christaller (1964:58-59) calls perfect in Akan a tense and says it indicates an action completed in past time, but whose result is present as a state, or whose consequences extend to the present time. If perfect is a tense category in Akan then it stands to reason that two different tenses cannot be marked on the same clause. Thirdly, aspect is a nuclear operator. As such, aspect has scope over the nucleus and not the core or the clause. In the Barai example, (36), the verb *furi* 'finish' is an aspectual modifier of *ufu* 'cut', but these verbs form an SVC with *numu* 'pile' and *akoe* 'throw.away' because *fu* '3sg' and *vazai* 'grass' are shared arguments for all these verbs. Thus while it is true that verbs in an SVC must all come under the scope of the one tense category, since tense is a clausal operator, it is not necessarily the case that verbs in an SVC cannot be marked independently for an aspectual category.

(36) Barai (Olson, 1981)

Fu	vazai	ufu	furi	numu	akoe.
3sg	grass	cut	finish	pile	throw.away

'He finished cutting, piled and threw away the grass.'

What about the nonfinite forms of the V_2 in the English phase verb constructions, as summarized in (37)? Do they effect the tense, aspect or modality status of the PVC? They do not, since these categories are marked once only on the V_1 main verb. What the V_2 nonfinite forms do effect is the relationship between the events expressed by V_1 and V_2. Examples (27) show that a V_2 bare infinitive gives a perfective meaning to the event described by the V_1 and that a V_2 bare present *-ing* participle gives an imperfective meaning to the event described by the V_1. Examples (17)-(19) show that the V_2 *to*-infinitive and *from*-present participle forms indicate that there is no temporal overlap of the V_2 event with that described by the V_1.

(37) Nonfinite V_2 forms in the PVC:
- a. bare present *-ing* participle
- b. *from*-present participle
- c. *to*-infinitive
- d. bare infinitive
- e. past *-ed* participle

(38) The function of the past *-ed* participle:
- a. the perfective aspect following *have*: *He has called twice today.*
- b. the passive voice following *be*: *Her brother is called John.*
- c. past *-ed* participle clauses: *Called early, he ate a quick breakfast.*

According to Quirk (1985:97) the primary functions of the past *-ed* participle in English are as given in (38). Cobuild (1990:185-186) say that the past *-ed* participle can occur as the nonfinite V_2 in a PVC either with or without *to*. In both cases the V_2 can either have a passive function, as in (39a,c) or a perfective aspect function, as in (39b,d). However, neither of these expressions effect the tense category of the PVC as a unit.

(39) The past *-ed* participle in the PVC:
- a. Those very close to the blast risk *being burned*. [passive voice function]
- b. Neither Rita nor I recalled ever *having seen* her. [perfective aspect function]
- c. She wanted to *be reassurred*. [passive voice function]
- d. They claimed to *have shot down* 22 planes. [perfective aspect function]

Characteristic property (3f): The two verbs in the SVC share at least one semantic argument.

PVCs are either as in (5), where both verbs have the same (notional) subject, or as in (6), where the object of the main verb functions as the (notional) subject of the second verb. This sharing of grammatical arguments is matched in logical structure in various ways, depending on the form of the logical structure.

(5) PVCs where both verbs have the same (notional) subject:
- a. *Mary* stopped crying.
- a′. TERMINATE **do′** (Mary, [**do′** (Mary, [**cry′** (Mary)])])
  (stop)/cry
- b. *Sheila* was barred from going to work.
- b′. [**do′** (Ø, Ø)] CAUSE [NOT (**do′** (Sheila, [**go′** (Sheila) & INGR **be-at′** (work, Sheila)])]
  (bar)/go
- c. *James* wants to see a movie.
- c′. **want′** ($James_i$, [[**do′** (x_i, Ø)] CAUSE [**see′** (x_i, movie)]])
  want *see*
- d. *Sam* helped run the tournament.
- d′. **do′** (Sam_i, [**help′** (Sam_i, Ø]) CAUSE [[**do′** (Sam_i, [**run′** (Sam_i, Ø)]) ∧ [**do′** ($Ø_k$, [**run′** ($Ø_k$, Ø)])] & INGR **exist′** (tournament)]
  help *run*

e. *Those very close to the blast* risk being burned.
e′. [**do′** (those$_i$, Ø)] CAUSE [POSSIBLE [[**do′** (Ø, Ø)] CAUSE [BECOME **burned′** (those$_i$)]]]
risk *burn*

(6) PVCs where the object of the main verb functions as the (notional) subject of the second verb:
a. The attendant stopped *him* falling.
a′. [**do′** (attendant, Ø)] CAUSE [TERMINATE (**fall′** (him))]
(stop)fall

b. The new law prevents *people* from smoking in public places.
b′. [**do′** (law, Ø)] CAUSE [NOT **be-in′** (public place, (**do′** (people, [**smoke′** (people)])))
(prevent)/smoke

c. The government encourages *people* to pay their taxes.
c′. [**do′** (government, [**say′** (government, Ø)])] CAUSE [TERMINATE **do′** (people, [**pay′** (people, their taxes)])]
(encourage)/pay

d. He watched *her* play tennis.
d′. **do′** (he, [**see′** (he, she)]) ∧ **do′** (she, [**play′** (she, tennis)])
watch *play*

e. Coffee helped keep *him* alert.
e′. **do′** (coffee, [**help′** (coffee, him]) CAUSE [CONTINUE (**be-alert′** (him))]
help *keep*

f. *Those people* got burned by the blast.
f′. [INGR **happen′** (blast)] CAUSE [INGR **burned′** (people)]
(got)/burn

Characteristic property (3g): Obligatory non-coreference: a true SVC will not contain two overt NPs which refer to the same argument.

A PVC cannot contain two overt NPs which refer to the same semantic argument.

(40) PVCs where the object of the main verb functions as the (notional) subject of the second verb:
a. He$_i$ *stopped* him$_{*i/k}$ *falling*.
b. They$_i$ *prevented* them$_{*i/k}$ *from smoking* in public places.
c. She$_i$ *encouraged* her$_{*i/k}$ *to pay* their taxes.
d. He$_i$ *watched* him$_{*i/k}$ *play* tennis.
e. Those people$_i$ *got burned* by them$_{*i/k}$.

Characteristic property (3h): A prototypical SVC contains only one grammatical subject.

PVCs in English may only contain one overt grammatical subject.

(5) a. *Mary* stopped (*she) crying.
b. *Sheila* was barred (*she) from going to work.
c. *James* wants (*he) to see a movie.
d. *Sam* helped (*he) run the tournament.
e. *Those very close to the blast* risk (*they) being burned.

(6) a. *The attendant* stopped him (*he) falling.
b. *The new law* prevents people (*they) from smoking in public places.
c. *The government* encourages us (*we) to pay their taxes.
d. *He* watched her (*she) play tennis.
e. *Coffee* helped keep him (*he) alert.
f. *Those people* got (*they) burned by the blast.

Table 1 compares the properties of SVCs as given in (3) with the properties of PVCs described in this section. From this we see that phase verb constructions in English have the same semantic and

syntactic properties as serial verb constructions found in Creole languages, West Africa, mainland Southeast Asia, New Guinea and the Pacific Islands. We can conclude therefore that phase verb constructions in English are a type of serial verb construction.

Table 1: Properties of English phrase verb constructions compared to SVC properties

SVC properties	English PVC properties
A prototypical SVC contains two or more morphologically independent verbs within the same clause, neither of which is an auxiliary.	PVC s are a combination of fully lexical verbs; none of which is an auxiliary, see (9). The first verb in the series is finite and the second nonfinite.
In SVCs there are no conjunctions or other overt markers of subordination or coordination separating the two verbs.	The second nonfinite verb in a PVC is not subordinate to the first verb, see (11)-(12). The *to* in the *to*-infinitive form and the *from* in the *from*-participle form do not indicate a subordinate or coordinate relationship. Instead the presence of *to* and *from* indicate no temporal overlap between the events described by the first and second verbs. Additionally, *from* indicates that the event described by the *from*-participle verb did not occur.
The verbs in an SVC belong to a single intonation contour, with no pause separating them.	The verbs in a PVC belong to a single intonation pattern.
The entire SVC refers to a single (possibly complex) event.	PVC s describe two actions or states which are closely linked. The nonfinite verb may describe the main event and be modified by the preceding finite verb, see (24)-(25) and (26). Vice versa, the finite verb may describe the main event and be modified by the following nonfinite verb, see (28).
A true SVC may contain only one specification for tense, aspect, modality, negation, etc., though these features are sometimes redundantly marked on both verbs.	PVCs comprise finite verb + nonfinite verb. The nonfinite form may be the infinitive or a past *-ed* or present *-ing* participle. Only the finite verb is marked for tense.
The two verbs in the SVC share at least one semantic argument.	PVCs may have a single subject argument shared by both verbs, as in (5), or an object of the first verb interpreted as subject of the second verb, as in (6).
Obligatory non-coreference: a true SVC will not contain two overt NPs which refer to the same argument.	Where a non-reflexive pronoun occurs in a phase verb construction it cannot be coreferential with any other argument in the construction. E.g. in *he stopped teasing him*, *he* and *him* cannot be coreferential.
A prototypical SVC contains only one grammatical subject.	PVCs may only contain one grammatical subject.

Conclusion

The verbal complexes in English called phase verb constructions in *Collins Cobuild English Grammar* (1990:184-193) are undoubtedly serial verb constructions. Contrary to typological predictions, serial verb constructions occur in English.

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