CLAUSE STRUCTURE AND WORD ORDER IN KWA

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1. Introduction

The discussion is based on be the Gbe languages, a subgroup of Kwa.[1] The empirical data is taken from Gungbe as representative of Kwa, but note that there may be significant variations both within the Gbe group and across the Kwa languages.

1.1. Lexical versus syntactic tones

These languages use phonemes and tones/tonemes in word formation process: tones operate on morphological and syntactic levels (e.g., lexical versus syntactic tones).

1.1.1 Lexical tones

Gungbe manifests three tone distinctions High, Mid and Low.

(1)	a.	tó	'ear'	b.	tō	'country'	c.	tò	'to align'
		tɔ́	'father'		tɔ̄	'river'		tɔ̀	'to sew'
		kán	'to take a piece'		kan	'rope'		kàn	'to write'

Either we assume three independent tones, or Mid is a derived tone (i.e., lowered High or raised Low), (e.g., Capo 1991).

1.1.2. Syntactic tones

Tones can encode inflectional or discourse properties, that is, I- or C-type specifications. Consider the Abidji (Kwa spoken in Ivory Coast) data in (2). (Mboua 1999). Negation is encoded by a bi-partite morpheme: a pre-verbal floating high tone (attached to a support vowel) and a post-verbal particle mú/mώ.

(2) a. Kìrî **ó** búkù mṵ̀ òkókò [Abidji]
Kere *ʋ*+Neg ask Neg banana
'Kere did not ask for the banana'
b. Kìrî **ώ** kpώkpɔ́ mώ̀ òkókò
Kere *ʋ*+Neg beg Neg banana
'Kere did not beg for the banana'

Abidji and French are typologically similar.

(3) Kere **ne** demande **pas** la banane
Kere Neg ask Neg the banana
'Kere is not asking for the banana'

- Distributed Morphology: the floating high tone in Abidji, and the French particle *ne* function as phonological expressions (or vocabulary items) that are inserted in the corresponding syntactic node.

- Traditional analysis: floating syntactic tones are vestiges of (functional) morphemes that have been partially deleted as the language evolves (e.g., the Gungbe sentence-final low tone for encoding yes-no questions).

[1] Kwa languages (which belong to the Niger-Congo branch) are spoken in West Africa in several countries between Liberia and Nigeria. This class discusses data from the Gbe sub-group, mainly. This group is spoken in the Southern part of Nigeria, Benin, Togo and Ghana.

(4) a. Súrù ɖù **wɛ̀lí**
Suru eat sweet.potato
'Suru ate sweet potatoes'

b. Súrù ɖù **wɛ̀lî** ?
Suru eat sweet.potato-Inter
'Did Suru eat sweet potatoes'?

Fongbe (a closely related language) manifests a full morpheme.

(5) a. Súrù ɖù wɛ̀lí
Suru eat sweet.potato
'Suru ate sweet potatoes'

b. Súrù ɖù wɛ̀lí **à** ?
Suru eat sweet.potato Inter
'Did Suru eat sweet potatoes?'

1.2. General properties of the clause

1.2.1. Inflectional morphology

Most Kwa languages lack inflectional morphology (i.e., in the sense of Indo-European languages).

- Lexical DPs don't show case morphology, even though certain pronouns do (as in English).

(6) a. Àsé wlé àjàkà
cat catch mouse
'A cat caught a mouse'

b. Àjàkà wlé àsé
mouse catch cat
'A mouse caught a cat'

c. **Ùn** nyàn àvú lɔ́
1sg-Nom chase dog Det
'I chased the dog'

d. Àvú lɔ́ nyàn **mì** / *ùn
dog Det chase 1sg-Acc 1sg-Nom
'The dog chased me'

- There is no overt gender specification on the head noun or pronouns (7a), but certain common nouns and person names are specified for gender (7b).

(7) a. É wlé mì
3sg catch 1sg-Acc
'S/he caught me'

b. tɔ́ = father [+masculine]; nɔ̀ = mother [+feminine], Kòfi [male name], Àsíbá [female name]

- There is no subject-verb agreement, and verbs manifests one basic form only.

(8) a. Ùn **nyàn** yé yì bɔ̀ yé nyàn mì lɛ́kɔ̀ wá
1sg chase 3pl go and 3pl chase 1sg return come
'I chased them away and they chased me back'

b. $Ùn_i$ jró [$_{CP}$ ná [$_{IP}$ PRO_i **nyàn** yé tɔ́n]]
1sg want Prep chase 3pl get.out
'I want to chase them out'

1.2.2. Expressions of I and C

Gbe languages resort to the use of free morphemes to encode both inflectional and discourse properties.

(9) a. Súrù **má** **ná** **nɔ̀** gbá xwé
Suru Neg Fut Hab build house
'Suru will not habitually build a house'

b. Súrù **yà** xɔ́ kɛ́ɖɛ́ **wɛ̀** é nɔ̀ ɖɔ̀ !
Suru Top word only Foc 3sg Hab say
'As for Suru, he only talks!'

Some concluding remarks:

Gbe languages show even less inflectional morphology than English, and could be seen as weak INFL languages (Vikner 1997). According to a framework, which assumes a direct correlation between the strength of the verbal inflectional morphology and V-to-I movement, these languages should show no verb movement. Alternatively, I assume that there need not be a direct correlation between verb

movement and verbal inflectional morphology (Ackema 2001). V-to-I movement is a syntactic operation contingent on the licensing of verbs for tense, aspect or mood that must apply for the derivation not to crash. Languages differ as to how V-to-I applies (i.e., long versus short movement, V/VP versus snowballing movement).

1.2.2. The case of Malagasy

Consider Cinque's (1999) adverb hierarchy in (10) and illustrated in (11).

(10) C1 > C2 > C3 > C4 > C5 > C6
generally already anymore always completely well

(11) a. Pierre fait toujours bien ses devoirs.
b. Peter always does his homework well

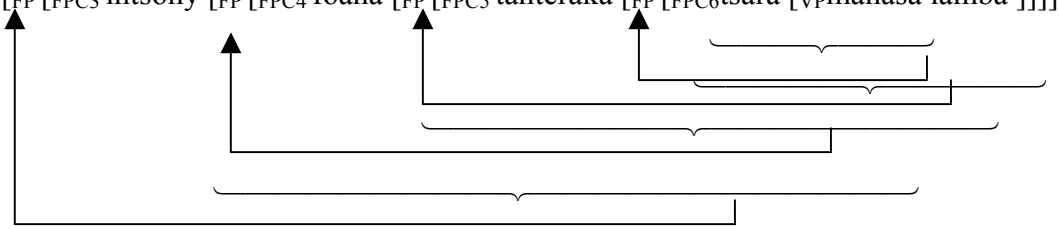
V-to-I movement: the verb moves past certain middle field adverbs in strong INFL languages (e.g., French) but not in weak INFL languages (e.g., English) where V-to-I holds at LF (Pollock 1989, Vikner 1997, Zwart 1997). This analysis fails to capture the Malagasy data (Pearson 2000).

(12) C1 > C2 [Verb] < C6 < C5 < C4 < C3
matetika efa [Verb] tsara tanteraka foana intsony
generally already well completely always anymore

(13) a. Manasa lamba [tsara tanteraka] Rakoto
wash clothes well completely Rakoto
'Rakoto completely washes clothes well'
b. Manasa lamba [tanteraka foana] Rakoto
wash clothes completely always Rakoto
'Rakoto always washes clothes completely'
c. Tsy manasa lamba [foana intsony] Rakoto
Neg wash clothes always anymore Rakoto
'Rakoto doesn't always wash clothes anymore'

Overt (INFL-driven) verb movement past the post-nominal adverbs is impossible in Malagasy, but successive generalized pied-piping (GPP) applies to the VP, leading to snowballing movement (SBM) (Pearson 2000, Aboh 2004a).

(14) $[_{FP}\,[_{FPC3}$ intsony $[_{FP}\,[_{FPC4}$ foana $[_{FP}\,[_{FPC5}$ tanteraka $[_{FP}\,[_{FPC6}$tsara $[_{VP}$manasa lamba]]]]]]]]]



SBM in Malagasy parallels with partial V-to-I movement in Italian, where the verb moves past the lower adverbs (Cinque 1999). The two languages differ because, in the Malagasy roll-up structure, the strong features of the attracting INFL head are checked in the specifier of that head by a phrase that contains the goal (i.e., the verb). In Italian, however, the goal itself raises and adjoins to the probe.

1.2.3. Notes on the typology of movement

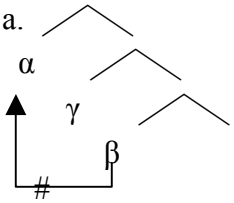
Classical GB (or certain versions of minimalism) assumes the typology in (15).

(15) a. XP-movement (spec-to-spec, sensitive to subjacency and/or relativized minimality, see 15-16)
b. X-movement (head to head adjunction, sensitive to strong minimality, see 18)

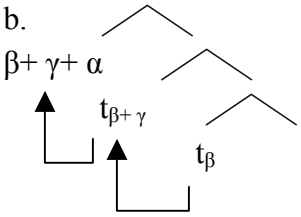
(16) a. ??$[_{CP}$ Whom$_i$ do you wonder $[_{CP}$ why$_j$ John will invite t_i t_j]]
b. *$[_{CP}$ Why$_j$ do you wonder $[_{CP}$ whom$_i$ John will invite t_i t_j]]

(17) [$_{CP}$ **Àwù éhè**$_i$ wè à ɖɔ̀ ná mì [$_{CP}$ ɖɔ̀ **Súrù**$_j$ wè t$_j$ tɔ̀ t$_i$ bò hèn-ɛ$_i$ glé]]
cloth Dem Foc 2sg tell Prep 1sg that Suru Foc sew and take-3sg damage
'You told me that SURU sewed THIS CLOTH and damaged it'

(18) a.



b.



Assuming movement is last resort, i.e., "triggered by the satisfaction of certain quasi-morphological requirements of heads (Rizzi 1997: 287)" ➔ movement is contingent to the licensing of a head, where movement is defined in terms of *Attract* as in (19) Chomsky (1995).

(19) a. K *attracts* F if F is the closest feature that can enter into a checking relation with a sublabel of K (Chomsky 1995: 297).
b. The operation seeks to raise just F. Whatever "extra baggage" is required for convergence involves a king of "generalized pied-piping." In an optimal theory, […] bare output conditions should determine just what is carried along, if anything, when F is raised (Chomsky 1995: 262)

(20) a. K raises (or rolls up) to F (classical case of head movement)
b. KP raises cyclically to [spec FP] (leaving gaps/resumptive elements in spec positions)
c. KP rolls up to [spec FP] (snowball: movement raises successive bigger chunks)

According to this view, the relevant question is not whether head movement belongs to syntax or to PF, but what conditions determine whether Attract will take the form of (20a), (20b), or (20c). Related questions are:

(21) a. To what extent is GPP a free process? If not, how is it constrained? (Ura 2001, Aboh 2004b)
b. Is the nature of the target/goal relevant to the type of movement? (Aboh 2004a)

2. The I-system and the derivation of VO sequences

Gbe languages use distinct free morphemes to encode inflectional specifications.

2.1 Tense and aspect specifications

(22) a. Súrù kù mótò cè [Perfective]
Suru drive car 1sg-Poss
'Suru drove my car'
b. Súrù **ná** kù mótò cè [Future]
Suru Fut drive car 1sg-Poss
'Suru will drive my car'

(23) Súrù **nɔ̀** kù mótò cè [Habitual]
Suru Hab drive car 1sg-Poss
'Suru habitually drives my car'

(24) a. Súrù tò mótò cè kù ` [Progressive; Gungbe]
b. Súrù ɖò mótò cè kù wɛ̀ [Progressive; Fongbe]
Suru Prog car 1sg-Poss drive NR
'Suru is driving my car'

(25) a. Súrù tò mótò cè nà kù ` [Prospective; Gungbe]
b. Súrù ɖò mótò cè nà kù wὲ [Prospective, Fongbe]
Suru Prog car 1sg-Poss Prosp drive NR
'Suru is about to drive my car'

Tense and aspect marker may co-occur in the order tense-habitual-progressive-prospective.

(25) c. Àsú étɔ̀n ná nɔ̀ tò nú nà ɖù ` lé
husband 3sg-Poss Fut Hab Prog thing Prosp eat NR on the moment
bɔ̀ é ná fɔ́n bò tɔ́n
coord 3sg Fut stand coord leave
'Just at the moment her husband sets to eat, she will stand and walk out'

Tense and aspect markers must follow negation. Negation and tense precede middle field adverbs, which in turn precede the series of aspect markers.

(26) a. Súrù má ná nɔ̀ tò nú nà ɖù `
Suru Neg Fut Hab Prog thing Prosp eat NR
'Suru will not be about to eat'

b. Súrù má ná sɔ́ nɔ̀ tò nú nà ɖù `
Suru Neg Fut again Hab Prog thing Prosp eat NR
'Suru will not be about to eat again'

(27) Subject > Negation$_{[má]}$ > Tense$_{[ná]}$ > Adverb$_{[sɔ́]}$> Aspect$_{[nɔ̀: Habitual]}$ > Aspect$_{[tò: Progressive]}$ > Object > Aspect $_{[ná: Prospective]}$ Verb> Nominalizer

Observe: Kwa languages manifest VO versus OV asymmetry that is sensitive to aspect licensing (e.g., progressive OV versus future, habitual, perfective VO in Gungbe).

2.2. The expression of modality

(28) a. Súrù ní kù mótò cè wá fí [Weak deontic]
Suru Mood$_1$ drive car 1sg-Poss come here
'Suru should drive my car here'

b. Súrù ɖó ná kù mótò cè wá fí [Strong deontic]
Suru Mood$_2$ Prep drive car 1sg-Poss come here
'Suru must drive my car here'

c. Súrù sìgán kù mótò cè wá fí [(Prob)ability]
Suru Mood$_2$ drive car 1sg-Poss come here
'Suru can/may drive my car here'

Mood$_1$ precedes negation, while Mood$_2$ follow (i.e., occurs between future tense and habitual aspect.

(29) a. Súrù ní má kù mótò cè wá fí bló [Weak deontic]
Suru Mood$_1$ Neg drive car 1sg-Poss come here Neg
'Suru should not drive my car here'

b. ??Súrù má ná ɖó ná kù mótò cè wá fí [Weak deontic]
Suru Neg Fut Mood$_2$ Prep drive car 1sg-Poss come here
'Suru must not drive my car here'

c. Súrù má ná sìgán kù mótò cè wá fí [Weak deontic]
Suru Neg Fut Mood$_2$ drive car 1sg-Poss come here
'Suru will not be able to drive my car here

Tense and modality tend to exclude each other.

(30) *Súrù ní ná kù mótò cè wá fí [Weak deontic]
Suru Mood$_1$ Fut drive car 1sg-Poss come here

2.3. The middle-field adverbs

(31) a. Súrù bíɔ́ xɔ̀ mɛ̀ **bléún**
Suru enter room in quickly
'Suru entered the room quickly'

b. **Bléún** wɛ̀ Súrù bíɔ́ xɔ̀ mɛ̀
quickly Foc Suru enter room in
'Suru entered the room QUICKLY'

(32) a. Súrù **sɔ́** bíɔ́ xɔ̀ mɛ̀ bléún
Suru again enter room in quickly
'Suru entered the room again quickly'

b. ***Sɔ́** wɛ̀ Súrù bíɔ́ xɔ̀ mɛ̀ bléún
again Foc Suru enter room in quickly

Similarly, aspect markers cannot undergo movement.

(32) c. *Nɔ̀ wɛ̀ Súrù ɖà lɛ́sì
habitual Foc Suru cook rice
'Suru HABITUALLY cooked rice'

Adverbs that occur to the right edge form an open class, but the middle field adverbs form a closed class, a property typical of functional items.

(33) kò 'already'; kà 'willingly'; sá 'nevertheless'; tɛ̀'even'; sɔ́ 'again'; gbɛ́ 'at least'; gbɔ̀ 'reluctantly'.

Adverbs in (33) occur between the tense marker *ná* and the strong deontic mood *ɖó-ná* (i.e., the highest modal above the aspect markers).

(34) Súrù kà / kò / tɛ̀ / sá / sɔ́/ gbɛ́/ gbɔ̀ / ɖó-ná ɖà lɛ́sì
Suru willingly/already/even/nevertheless/again/at least/reluctantly/ have to cook rice
'Asiba willingly/already/even/nevertheless/again/at least/reluctantly/ have to cook rice'

Middle field adverbs do not compete for the same position because they obey a fixed hierarchy.

1. Kà precedes tɛ̀, which in turn precedes kò.

(35) a. Súrù kà tɛ̀ ɖà lɛ́sì
Suru willingly even cook rice
'Suru willingly even cooked rice'

b. Súrù tɛ̀ kò ɖà lɛ́sì
Suru even already cook rice
'Suru even already cooked rice'

2. Kò precedes sá, which in turn precedes gbɔ̀.

(36) a. Súrù kò sá ɖà lɛ́sì
Suru already nevertheless cook rice
'Suru already nevertheless cooked rice'

b. Súrù kò gbɔ̀ ɖà lɛ́sì
Suru nevertheless reluctantly cook rice
'Suru nevertheless reluctantly cooked rice'

3. Gbɔ̀ precedes sɔ́, which in turn precedes gbɛ́.

(37) a. Súrù gbɔ̀ sɔ́ ɖà lɛ́sì
Suru reluctantly again cook rice
'Suru reluctantly again cooked rice'

b. Súrù sɔ́ gbɛ́ ɖà lɛ́sì
Suru again at least cook rice
'Suru again at least cooked rice'

Put together, the discussed data suggest the sequencing in (38).

(38) [Subject] > Mood[ní, deontic] > Negation[má] > Tense[ná, future] > Adverb[kà, willingly] > Adverb[tè, even] > Adverb[kò, already] > Adverb[sá, nevertheless] > Adverb[gbɔ̀, reluctantly] > Adverb[sɔ́, again] > Adverb[gbɛ́, at least] > Mood[ɖó-ná, must] > Mood[sìgán, can] > Aspect[nɔ̀, Habitual] > Aspect[tò, Progressive] > Verb > [Object] > Nominalizer

Adverbs that occur in the middle field are functional elements that head their own projections (Stewart 1997, 1998).

(39) a. Súrù wɛ̀ ná nɔ̀ klɔ́ àgbán
Suru Foc Fut Hab wash dish
'SURU will habitually wash the dishes'

b. Klɔ́ (wɛ̀) Súrù ná nɔ̀ klɔ́ àgbán
wash Foc Suru Fut Hab wash dish
'Suru will habitually WASH the dishes'

c. *Klɔ́ (wɛ̀) Súrù ná nɔ̀ --- àgbán
wash Foc Suru Fut Hab dish
'Suru will habitually WASH the dishes'

Similarly, verb focusing is sensitive to negation while phrasal focusing is not.

(40) a. *Klɔ́ (wɛ̀) Súrù má ná nɔ̀ klɔ́ àgbán
wash Foc Suru Neg Fut Hab wash dish
'Suru will not habitually WASH the dishes'

b. Súrù wɛ̀ má ná nɔ̀ klɔ́ àgbán
Suru Foc Neg Fut Hab wash dish
'SURU will not habitually wash the dishes'

2.4. Eventive versus stative verbs

In simple SVO sentences with no overt tense or aspect marker, dynamic or eventive verbs are assigned perfective aspect by default. Stative verbs are interpreted as expressing present state.

(41) a. Súrù klɔ́ àgbán
Suru wash dish
'Suru washed the dishes'

b. Súrù nyɔ́n Yɛ́tì
Suru know Yeti
'Suru knows Yeti'

c. Đé mí tò kpɛ́ví, ùn nyɔ́n Yɛ́tì tàùn,
that time be small 1sg know Yet very.much
àmɔ́n dìn xɔ́ étɔ̀n xúgán mì
but now word 3sg-Poss surpass 1sg-Acc
'As we were young, I knew Yeti very well (i.e., I could predict her behavior), but as for now, her doings reflect more than I used to know (i.e., she has changed to the point that I can't predict anything about her')

2.5. A theory of verb-movement in a poorly inflected language

How is aspect licensed in (42)?

(42) a. Súrù ná nɔ̀ klɔ́ àgbán
Suru Fut Hab wash dish
'Suru will habitually wash the dishes'

b. Súrù klɔ́ àgbán
Suru wash dish
'Suru washed the dishes'

Dynamic verbs and state verbs have the same syntax. The Gbe languages do not include a morphologically null aspect marker that encodes [past] or [perfective] aspect. Instead, the verb is assigned perfective aspect by default as a result of V-movement to the highest aspect head. The VO versus OV asymmetry reduces to the licensing of aspect features such as [habitual] and [imperfective], as described in (43) (cf. Pollock 1989, Belletti 1990, Chomsky 1995, Haegeman 1995, Zanuttini 1997, Cinque 1999, Aboh 2004a.).

(43) AgrsP > NegP > $TP_{[\pm future]}$ > …. $AspP1_{[\pm habitual]}$ > $AspP2_{[-imperfective]}$ > AgroP > VP …

The verb must move to the relevant aspect head to check the relevant aspect features, and DPs must move to their respective case position. In VO sequences the verb ends up in a position higher than the position where the object is licensed for case, but it follows the tense and aspect markers because these are free morphemes that cannot be attached to (in Gungbe). They block verb movement outside the aspect domain. These positions are, however, accessible for verb movement when they are negatively set (i.e., the null counterparts of the aspect markers are considered affixes). SVO ➔ O moves to [spec AgroP] for case, V moves to Asp°2 (via Agro) due to aspect licensing (i.e., -imperfective feature is uninterpretable and must be eliminated before spell-out). V-movement to Agr° and Asp°2 always holds in VO constructions, but subsequent verb movement may proceed on to the higher Asp°1 depending on whether the latter is filled by the habitual marker *nɔ̀* or not.

(44) $[_{AgrsP}\ [_{NegP}\ [_{TP[\pm future]}\ [_{AspP1[\pm habitual]}\ [_{AspP2[-imperfective]}\ V_j\ [_{AgroP}\ O_i\ [_{VP}\ t_j\ t_i\ ]]]]]]]$

Data from Gengbe and Ewegbe, where the habitual marker appears to be an affix confirm the existence of verb movement in the Gbe languages.

(45) a. Kòfí ɖù-na mɔlu kɔsiɖagbe Ewegbe
Kofi eat-Hab rice Sunday
'Kofi eats rice on Sundays'

b. Kòfí ɖù-na nú sùgbɔ̌ Gengbe
Kofi eat-Hab thing a lot
'Kofi eats a lot'

Tense and aspect markers do not co-occur in Ewegbe and Gengbe, unlike in Gungbe and Fongbe.

(46) a. *Kòfí a-ɖù-na mɔlu kɔsiɖagbe Ewegbe
Kofi Pot-eat-Hab rice Sunday
'Kofi will habitually eat rice on Sundays'

b. *Kòfí lá ɖù-na nú sùgbɔ̌ Gengbe
Kofi Fut eat-Hab thing a lot
'Kofi will habitually eat a lot'

c. *Kòfí ná nɔ̀ ɖù lɛ́sì sɛ̀gbè Gungbe
Kofi Fut Hab eat rice sunday
'Kofi will habitually eat rice on Sundays [i.e., from now one….]'

(47) a. $[_{FP}\ [_{AspP1[Habitual]}\ nɔ̀\ [_{AspP2}\ [_{VP}\ V\ ]]]]]$ Gungbe

b. $[_{FP}\ [_{AspP1[Habitual]}\ V\text{-na}\ [_{AspP2}\ t'_{v}\ [_{VP}\ t_{v}\ ]]]]]$ Ewegbe/Gengbe

Remarks:

1. The fact that there may be mood projections between the tense phrase and the aspect phrase could be additional evidence that in Ewegbe the verb always moves higher than the aspect articulation (say to some mood head position), while in Gungbe such position is available only if all intervening aspect positions are not morphologically realized.
2. Default perfective reading derives from verb movement to check off the negatively set Infl- nodes, as the latter cannot survive at PF.
3. Strong inflection is not necessarily manifested through inflectional ending on the verb. Strong inflection refers to strong abstract features under I that need to be checked before spell out. This requirement is achieved either by first merge: a (free) morpheme is inserted (e.g. aspect markers) or verb movement.

2.5. The derivation of OV sequences

Assuming previous discussion, what blocks verb movement past the object in OV structures?

2.5.1. Notes on OV sequences

OV sequences arise in various constructions: imperfective/progressive (48a), in prospective (48b), in purpose (48c); and in constructions involving some aspectual control verbs like *start* (48d) and *begin* (48e) (cf. Fabb 1992a, b, Manfredi 1997, Aboh 2004a, d).

(48) a. Kɔ̀jó tò $[_{DP}$ mótò] kǔ
Kojo Prog car drive-NR
'Kojo is driving a car' Progressive

b. Kɔ̀jó tò $[_{DP}$ mótò] nà kǔ
Kojo Prog car Prosp drive-NR
'Kojo is about to drive a car' Prospective

c. Kɔ̀jó yì $[_{DP}$ mótò] kù gbé
Kojo go car drive Purpose
'Kofi went to drive a car [i.e., in order to]' Purpose

d. Kɔ̀jó jɛ̀ $[_{DP}$ mótò] kù jí
Kojo begin car drive Part[on]
'Kojo starts driving a car' 'Control V_1'

e. Kɔ̀jó gbɛ́ [DP mótò] kù
Kojo refuse car drive
'Kojo refused to drive a car' 'Control V_2'

These sentences seem to involve the same underlying structure because they show similar properties (e.g., verb reduplication), (Fabb 1992, Kinyalolo 1992, Awoyale 1997, Manfredi 1997, Aboh 2004a, d).

(49) a. [DP Mótò] wɛ̀ Kɔ̀jó tò kù kǔ
car Foc Kojo Prog drive.drive-NR
'Kojo is driving A CAR' Progressive

b. [DP Mótò] wɛ̀ Kɔ̀jó yì kùkù gbé
car Foc Kojo go drive.drive Purpose
'Kofi went to drive A CAR [i.e., in order to]' Purpose

d. [DP Mótò] wɛ̀ Kɔ̀jó jɛ̀ kùkù jí
car Foc Kojo begin drive.drive Part[on]
'Kojo starts driving A CAR' 'Control V_1'

e. [DP Mótò] wɛ̀ Kɔ̀jó gbɛ́ kùkù
car Foc Kojo refuse drive.drive
'Kojo refused to drive A CAR'

2.5.2. The I-system of the small clause

OV sequences involve a structure whereby the aspect marker or aspectual control verb selects for a small clause that has its own I-system and C-system.

1. The preverbal object position is not case-related.

(50) a. Àsíbá tò [dáwè ɖɛ̂ mí yrɔ́] dîn
Asiba Prog man that 1pl invite search-NR
'Asiba is looking for the man that we invited'

b. Àsíbá tò àxì mɛ̀ yǐ
Asiba Prog market $P_{[IN]}$ go-NR
'Asiba is going the market'

c. Àsíbá tò dɛ́dɛ̀ zɔ̀n
Asiba Prog slowly walk-NR
'Asiba is walking slowly'

The shifted object and the reduplicated adverb target the same position in OV sequences.

(51) a. Àsíbá tò lɛ́sì ɖù dɛ́dɛ̀
Asiba Prog rice eat slowly-NR
'Asiba is eating rice slowly'

b. *Àsíbá tò dɛ́dɛ̀ ɖù lɛ́sì
Kofi Prog slowly eat rice-NR

2. Double object constructions, which allow for both theme-goal and goal-theme orders, only manifest theme-goal order in OV sequences. Yet, when the theme is extracted, the goal precedes the verb.

(52) a. Súrù kplɔ́n hán Kɔ̀jó
Kofi teach song Kojo
'Suru taught Kojo a song'

b. Súrù kplɔ́n Kɔ̀jó hán
Suru teach Kojo song
'Suru taught Kojo a song'

c. Súrù tò hàn kplɔ́n Kɔ̀jô
Suru Prog song teach Kojo- NR
'Suru is teaching Kojo a song'
d. *Súrù tò Kɔ̀jó kplɔ́n hằn
Suru Prog Kojo teach song- NR

When the theme is wh-extracted, the goal precedes the verb.

(53) a. Hàn wɛ̀ Súrù tò Kɔ̀jó kplɔ̂n
Song Foc Suru Prog Kojo teach- NR
'Suru is teaching Kojo A SONG'
b. *Hàn wɛ̀ Súrù tò kplɔ́n Kɔ̀jô
Song Foc Suru Prog teach Kojo- NR
c. ??Hàn wɛ̀ Súrù tò kpíkplɔ́n Kɔ̀jô
Song Foc Kofi Prog RED-teach Kojo- NR
'Kofi is teaching Kojo A SONG'

3. Object clitics are right adjacent to the verb both in prospective and progressive constructions.

(54) a. Súrù ná nɔ̀ tò nà ɖù-ĩ
Suru Fut Hab Prog Prosp eat- 3sg-NR
'Suru will be habitually about to eat it'
b. Súrù ná nɔ̀ tò ɖùɖù-ĩ
Suru Fut Hab Prog eat.eat-3sg-NR
'Suru will be habitually eating it'

Granting that object clitics are licensed under Agr°, V-CL derives from verb movement to Agr° where it adjoins to the clitic ➔ accusative case is licensed in a derived position to the right of the prospective marker ➔ AspP3 > AgroP > VP. Case-assigned DPs preceding the prospective marker check case in [spec AgroP] before moving to [spec AspP3].

(55) a. ….[$_{AspP3}$ [$_{Asp°3}$ nà [$_{AgroP}$ [$_{Agr°}$ V+Cl [$_{VP}$ t_v t_{cl}]]]
b. ….[$_{AspP3}$ DP [$_{Asp°3}$ nà [$_{AgroP}$ t'_{DP} [$_{Agr°}$ V [$_{VP}$ t_v t_{DP}]]]

Observe: object shift is determined by other principles of the Grammar than case licensing. In absence of object shift, the verb reduplicates.

1. Intransitive verbs require verb reduplication. The latter is blocked by insertion of the aspect marker *nà*.

(56) a. Sìn lɔ́ sà
water Det pour
'The water poured'
b. Sìn lɔ́ tò sìsằ
water Det Prog pour.pour-NR
'The water is pouring'
c. Sìn lɔ́ tò nà (sì)sằ
water Det Prog Prosp pour.pour-NR
'The water is about to pour'

2. Cliticization or wh-movement triggers verb reduplication. The intervening prospective aspect marker blocks this process.

(57) a. Àsíbá tò díndín ɛ̀
Asiba Prog search.search 2sg-NR
'Asiba is looking for you'
b. Mɛ́nù$_i$ wɛ̀ Àsíbá tò díndîn t_i ?
who Foc Asiba Prog search.search-NR
'Who is Asiba looking for?'
c. Súrù$_i$ wɛ̀ Àsíbá tò díndîn t_i ?
Suru Foc Asiba Prog search.search-NR
'Asiba is looking for Súrù'

(58) a. Súrù tò nà dín wɛ̀
Súrù Prog Prosp search 2sg-NR
'Suru is about to look for you'
b. Mɛ́nù$_i$ wɛ̀ Súrù tò nà dîn
who Foc Asiba Prog Prosp search-NR
'Who is Suru about to look for?'

Observe:

1. Verb reduplication is a syntactic process that depends on the surface constituent string.
2. Verb reduplication, object shift and prospective aspect seem to satisfy the same requirement: null expletive licensing.

In OV sequences, the progressive marker or the aspectual verb selects for a small clause whose INFL-system, headed by Asp°, encodes the features [± prospective]. When the aspect head, Asp°, is marked as [+prospective] it hosts the prospective marker and when it is specified as [-prospective] it is available for verb movement. [spec AspP3] represents the subject position of the small clause. Under the EPP, this position must be filled in overt syntax. This requirement is met by moving the argument to [spec AspP3]. The preposed category raises to [spec AspP3] to check off the strong EPP features of Asp°3 (cf. Chomsky 1995, 1999).

(59) $[_{AspP3}\ O_j\ [_{Asp°}\ V_i\ [_{AgroP}\ t'_j\ [_{Agr°}\ t'_i\ [_{VP}\ t_i\ t_j\ ]]]]]$

In the absence of a relevant maximal projection, a null expletive is inserted in [spec AspP3] that is licensed by the reduplicated verb.

(60) $[_{AspP3}$ Expl $[_{Asp°}\ VV_i\ [_{AgroP}\ [_{Agr°}\ t'_i\ [_{VP}\ t_i\ ]]]]]$

The prospective aspect merges in Asp°3. Subsequent verb movement (as well as verb reduplication) is blocked. Transitive verbs require object shift, but intransitive verbs require first merge of a null expletive. The latter is licensed either under verb reduplication or first merge of an aspect marker.

(61) a. $[_{AspP3}$ Expl $[_{Asp°}$ nà $[_{AgroP}\ [_{Agr°}\ V_i\ [_{VP}\ t_i\ ]]]]]$
b. $[_{AspP3}\ O_j\ [_{Asp°}$ nà $[_{AgroP}\ t'_j\ [_{Agr°}\ V_i\ [_{VP}\ t_i\ t_j\ ]]]]]$

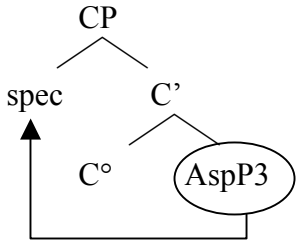
Concluding remarks

The reduplicated verb and the prospective aspect marker are mutually exclusive because they merge in Asp°3 and share some inflectional strength. They can license a null expletive in [spec AspP3] when no relevant category is available that could be raised to [spec AspP3]. Null expletive licensing is a last resort phenomenon. So is verb reduplication, a strategy contingent on to a [-prospective] Asp°3.

2.5.3. The C-system of the embedded small clause

OV sequences involve a sentence-final particle or low tone. These elements occur to the right edge as Gbe left peripheral morphemes that force movement of their complement to their specifier position as represented in (62).

(62)



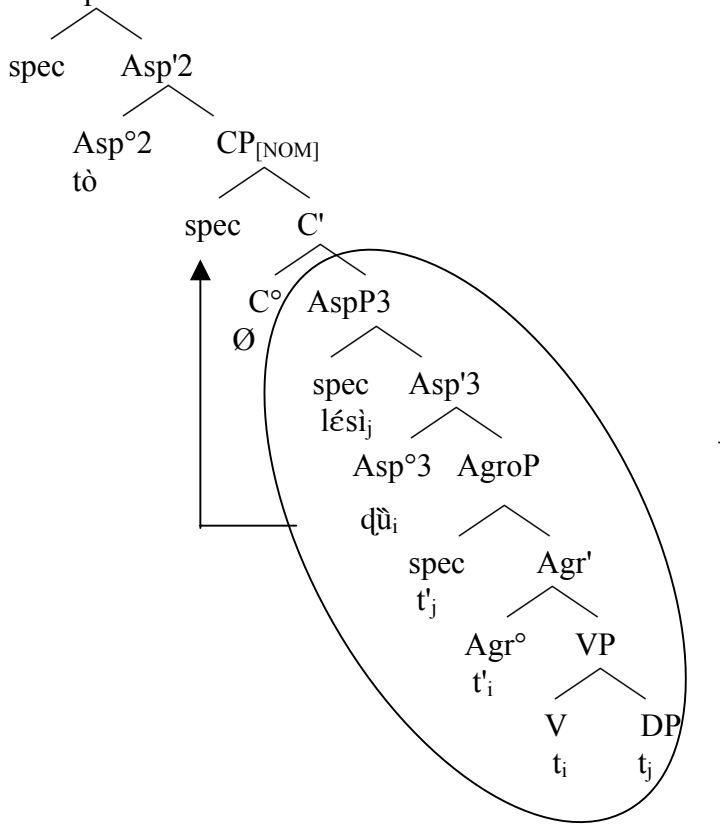
(63) a. [Xwé] lɔ́
house Det
'The$_{[specific]}$ house'

b. [ɖé Àsibá hɔ̀n] lɔ́
as Assiba flee Det
'The fact that Assiba fled'

c. [Àsíbá ɖù nú] à [Fongbe]
Assiba eat thing QM
'Did Assiba eat?'

(65) a. Àsíbá tò lɛ́sì ɖù̀
Assiba Prog rice eat-NR
'Assiba is eating rice'

b.

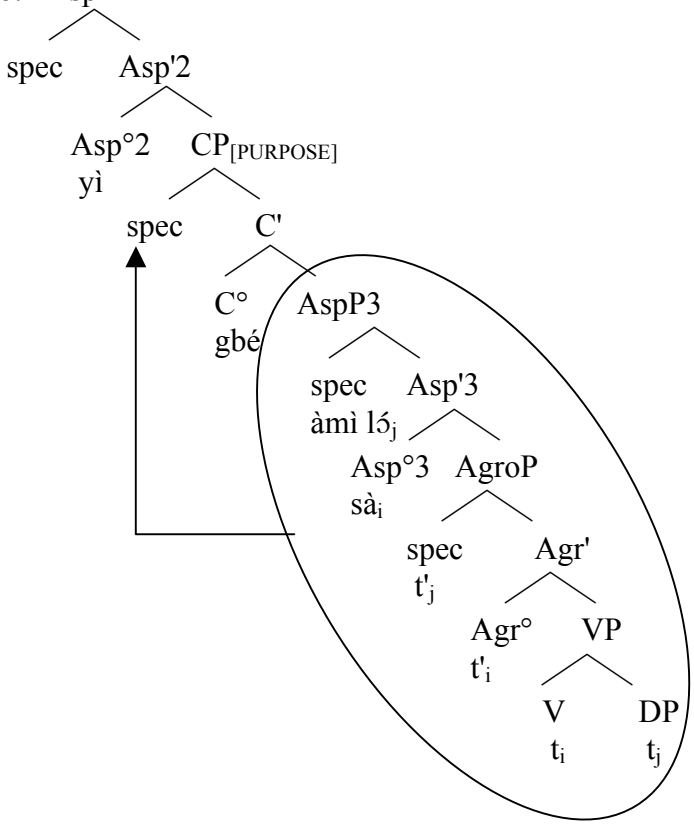


Observe:

1. The object raises to the subject position of the small clause to satisfy the EPP.
2. AspP3 moves to [spec CP] to satisfy the spec-head configuration that sanctions the nominalizer head realized by the sentence-final low tone in Gungbe.

(66) a. Kɔ̀jó yì [DP àmì lɔ́] sà gbé
Kojo go oil Det sell Purpose
'Kofi left in order to sell the oil'

b. AspP2



3. SOVV and SOV sequences as expressions of the small clause

OV sequences require an aspect marker, or an aspect verb that selects for the embedded small clause. However, the Gbe languages manifest other instances of pre-verbal object constructions for which it is not immediately clear whether there is an aspect verb that introduces an embedded small clause.

(67) a. Súrù kplɔ́n nú **ɖìɖé**
Suru learn thing draw.draw
'Suru learn painting'

b. Súrù **zɔ́n** nú **ɖè** Kɔ̀jó
Suru order thing draw Kojo
'Suru order Kojo a drawing [lit., to draw a thing]'

3.1. OVV sequences

OVV sequences are introduced by a class of verbs including *begin*, *start*, *refuse*, *learn*, *take*, *hold*, etc.

The proposed analysis suggests that object movement to [spec AspP3] and verb reduplication represent two expressions of the same principle: they satisfy the EPP. Reduplication and object shift therefore appear to be in complementary distribution. How then to account for OVV sequences?

(68) a. Àzɔ́n wìwà
work do.do
'The act of working'

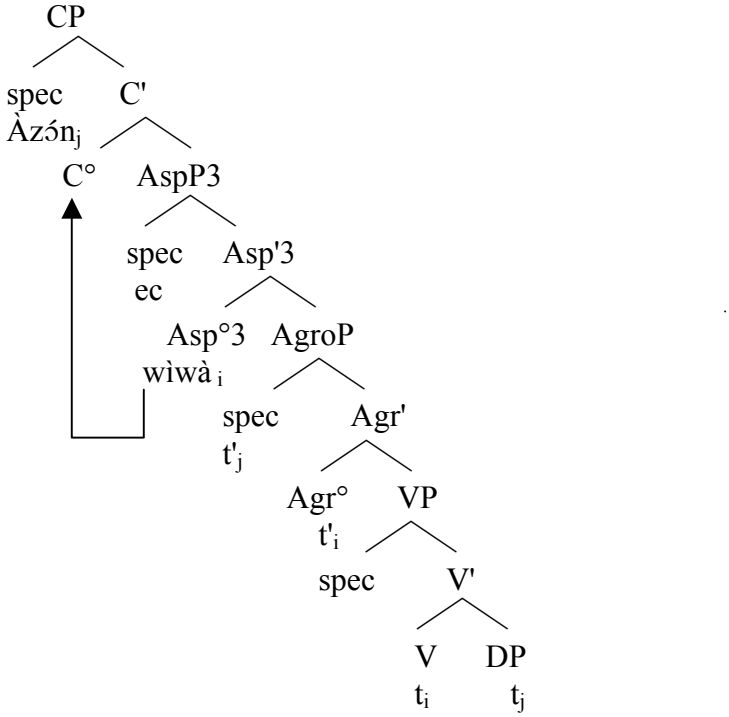
b. Kɔ̀jó kplɔ́n mótò kùkù
Kojo learn work drive.drive
'Kojo learned the act of driving a car' [i.e. he learned car driving]

c. [Àzɔ́n wìwà] má jró mì dìn
work do.do Neg please 1sg Now
'Working does not please me now [i.e. I don't want to work now]'

d. [Mótò kùkù] wɛ̀ jró mì tàù
car drive.drive Foc please 1sg very.much
'I really want to be DRIVING A CAR'

In OVV sequences, the shifted object subsequently moves to [spec CP] of the small clause where it enters in spec-head relationship with the head C° (e.g., to encode the theme-activity articulation). A null expletive is merged in [spec AspP3] licensed by the reduplicated verb. Absence of an overt marker in C in these sequences could be regarded as evidence for subsequent movement of the reduplicated verb to C.

(69)



Observe: Object preposing in OVV sequences is similar to wh-extraction in OV sequences, where the verb reduplicates too.

(70) a. Mɛ́nùi wɛ̀ Súrù tò kpíkpɔ̂n ti ?
who Foc Suru Prog look.look-NR
'Who is Suru looking at?'

b. Kɔ̀jói wɛ̀ Súrù tò kpíkpɔ̂n ti
Kojo Foc Asiba Prog search-search-NR
'Suru is looking at KOJO'

Observe: An EPP position cannot be an escape hatch for wh-extraction.

1. The Yoruba case: Yoruba has both OVV, VVO sequences (cf. Awolaye 1997).

(71) a. Kíkọ-ìwé
RED-write-letter
'Writing letter (or writing book)'

b. Ìwéi -kíkọ ti
letter RED-write
'Letter-writing (or book-writing)'

c. *Ìwéi -kọ ti
letter write

(71a): the object raises to [spec AgroP] to check its case features. In (71b) however, the object moves to [spec CP]. In these cases, [spec AspP3] contains a null expletive that is licensed by the reduplicated verb.

2. OVV sequences can be focused.

(72) a. [Hàn lɔ́]$_i$ wɛ̀ yɛ́ kplɔ́n t_i
song Det Foc 3pl learn
'They learned THE SONG'

b. [[Hàn ɖɛ̂ mí jì] lɔ́]$_I$ wɛ̀ yɛ́ kplɔ́n t_i
song that 1pl sing Det Foc 3pl learn
'They learned THE SONG THAT WE SANG'

c. [Hàn [jìjì]]$_i$ wɛ̀ yɛ́ yì kplɔ́n t_i
song RED-sing Foc 3pl go learn
'They left to learn SINGING'

3. OVV sequences may surface in the preverbal position typical of OV constructions

(73) a. Yé wá [hàn lɔ́] kplɔ́n gbé
3pl come song Det learn Purpose
'They came on the purpose to learn the song'

b. Yé wá [[Hàn ɖɛ̂ mí jì] lɔ́] kplɔ́n gbé
3pl come song that 1pl sing Det learn Purpose
'They came on the purpose to learn the song that we sang'

c. Yé wá [Hàn [jìjì]] kplɔ́n gbé
3pl come song sing.sing learn Purpose
'They came on the purpose to learn the act of singing,
(i.e they came to learn singing)'

4. OVV sequences occur as complement of certain postnominal morphemes.

(74) a. Yé tɛ́ ɖó [[xó lɔ́] gò]
3pl stick Loc word Det $P_{[AT]}$
'They kept on talking about the story'

b. Yé tɛ́ ɖó [[[xó ɖɛ̂ mí ɖɔ̀] lɔ́] gò]
3pl stick Loc word that 1pl say Det $P_{[AT]}$
'They stuck to the words that we said'

c. Yé tɛ́ ɖó [[xó ɖìɖɔ̀] gò]
3pl stick Loc word say.say $P_{[AT]}$
'They stuck to the act of talking (i.e. they kept on talking)'

Concluding remarks

OV constructions involve an embedded small clause, which has its own C and I-systems. The object moves to the subject position of the small clause (i.e. [spec AspP3]) to satisfy the EPP. When no overt material is available to raise to [spec AspP3], a null expletive is merged that is licensed by the reduplicated verb or by the prospective aspect marker. This analysis extends to OVV contexts where we show that the preposed object occurs in the left periphery of the small clause, i.e. [spec CP]. A major conclusion we reach here is that verb reduplication, in OV/OVV sequences, is a last resort phenomenon contingent on the presence of a null expletive in [spec AspP3] (cf. Aboh 2004d).

3.2. Serial verb constructions as OV sequences

(75) *single clauses involving a series of finite verbs. The verbs often share a common argument and are not introduced by any overt marker of conjunction or subordination* (cf. Ansre 1966, Bamgbose 1974, Sebba 1987, Baker 1989, Manfredi 1991, Déchaine 1993, Tossa 1993, 1994, Da Cruz 1993, 1997, Collins 1997, Stewart 1998, etc).

(76) a. Súrù ɖà àklà ɖù
Suru cook biscuit eat
'lit., Suru cooked the biscuit eat'[2] **Type1: V_1 and V_2 transitive**

b. Súrù sá yì
Suru crawl go
'Suru crawled go' **Type2: V_1 and V_2 unaccusative**

c. Súrù zé ví cè yì Kútɔ́nù
Suru take child 1sg-Poss go Cotonou
'Suru took my child go to Cotonou' **Type 3: V_1 take and V_2 unaccusative (change of location)**

d. Súrù zé kpò xò Kɔ́jó
Suru take stick hit Kojo
'Suru took the stick hit Kojo' **Type 4: V_1 take and V_2 transitive (instrumental)**

e. Súrù nyàn Kɔ́jó yì Kútɔ́nù
Suru chase Kojo go Cotonou
(i) 'Suru chased Kojo go Cotonou'
(ii)'Suru run after Kojo go Cotonou' **Type 5: V_1 chase and V_2 unaccusative**

f. Súrù kplán Kɔ́jó yì Kútɔ́nù
Suru accompany Kojo go Cotonou
'Suru accompanied Kojo to Cotonou' **Type 6: V_1 accompany and V_2 unaccusative**

g. Xɛ̀ lɔ́ zrɔ́n yì àtín lɔ́ jí
bird Det fly go tree Det on
'The bird flew to the top of the tree' **Type 7: V_1 unergative and V_2 unaccusative**

Observe:

1. Type 1: involves double transitive SVCs. In addition to the canonical subject, both verbs share a unique internal argument.
2. Type 2: involves two unaccusative verbs. The canonical subject also corresponds to the internal argument of both verbs.
3. Type 3 is a 'take serial verb construction' that encodes change of location. The shared (internal) argument is understood as the subject of the second verb and undergoes change of location.
4. Type 4 is an instrumental serial verb construction. The shared argument is understood as the instrument of the second verb.
5. Type 5 is ambiguous. In the first interpretation, only Kojo undergoes change of location. This type of SVC is discussed in Collins (1997) as resultative serial verb constructions. In the second interpretation, both Setu and Kojo undergo change of location. Put differently, both the canonical subject and the object of the first verb are understood as subject of the second verb. This interpretation relates to type 6.
6. Type 6 the canonical subject and the shared argument are understood as subject of the second verb.
7. Type 7 involves an unergative verb followed by an unaccusative verb, a fact which suggests that there is no internal argument sharing here.

[2] I keep to literal translation, hoping this would help understand the semantics and syntax of these constructions.

Observe: serial verb constructions do not form a homogeneous class, and may not require the same analysis.

3.2.1. On some general properties of SVCs in Gbe

1. Verbs in a series are lexical verbs (not auxiliaries).

(77) a. Súrù ɖà àklà
Suru cook biscuit
'Suru cooked (a) biscuit'

b. Súrù ɖù àklà
Suru eat biscuit
'Suru ate (a) biscuit'

2. The series lead to 'a single event' reading.

(78) Súrù kù ví lɛ́ yì wéxɔ̀mɛ̀
Suru drive child Numb go school
'Suru drove the children go to school'
*'Suru drove the children and (they) went to school'

The 'single event' reading could be just one side of a more complex phenomenon.

(79) Yé xò àjòtɔ́ lɔ́ hù
3pl beat thief Det kill
'They beat the thief kill'
'They beat the thief, as a result, he died [either on spot or maybe a couple of days after]'

(80) a. Àán, bɔ̀ é kú trólóló wɛ̀ ?
Ah, and 3sg die immediately Foc-Inter
'So did he died on the spot?' [i.e. the beating and killing/dying took place simultaneously].

b. Èhéò, yé zé-è yì dòtó-xwé bɔ̀ é kú àzán àtɔ̀n-tɔ́ étɔ̀n
No 3pl take-3sg go doctor.house and 3sg die there third day
'No they took him to the hospital and he died there three days after'

3. Single tense

(81) a. Yé ná nɔ̀ xò àjòtɔ́ lɛ́ (*ná) (*nɔ̀) hù
3pl Fut Hab beat thief Numb Fut Hab kill
'They will habitually beat (the) thieves kill'

b. Súrù ná nɔ̀ kù ví lɛ́ (*ná) (*nɔ̀) yì wéxɔ̀mɛ̀
Suru Fut Hab drive child Numb Fut Hab go school
'Suru will habitually drive the children to school'

4. Aspect (unlike tense, aspect may be doubly marked, as a language specific property).

(82) a. É nɔ̀ zé àkwékwè ɖù [Gungbe]
3sg Hab take banana eat

b. E-tsɔ́-na akɔɖu ɖu-nà [Ewegbe]
3sg-take-Hab banana eat-Hab
'S/he habitually takes banana eat'

5. Single negation (in Gbe).

(83) Súrù má kù ví lɛ́ (*má) yì wéxɔ̀mɛ̀
Suru Neg drive child Numb Neg go school
'Suru did not habitually drive the children to school'

6. Series may be lexically constrained.

(84) a. Súrù zé fótò lɔ́ kpɔ́n
Suru take photo Det look
'Suru took the picture look'

b. *Súrù zé fótò lɔ́ mɔ̀n
Suru take photo Det look
'Setu took the picture see'

7. Wh-extraction: All arguments and adjuncts in the series can be wh-extracted.

(85) a. Súrù wɛ̀ zé fótò lɔ́ kpɔ́n
Suru Foc take photo Det look
'SURU took the picture look'

b. fótò lɔ́ wɛ̀ Súrù zé kpɔ́n
photo Det Foc Suru take look
'Suru took THE PICTURE look'

c. Étɛ́ wɛ̀ Súrù zé xò ví lɔ́
What Foc Suru take hit child Det
'What did Suru hit the child with?'

➔ Series are not island for phrasal extraction.

8. In series with no progressive marker or aspectual verb, only the first verb can be focused.

(86) a. **Zé** Súrù **zé** fótò lɔ́ kpɔ́n
take Suru take photo Det look
'Suru TOOK the picture look'

b. ***Kpɔ́n** Súrù zé fótò lɔ́ **kpɔ́n**
look Suru take photo Det look

In series involving the progressive marker or some aspectual verbs, the object must precede the two verbs in the series (87).

(87) Súrù tò àklà cè zé ɖù
Suru Prog biscuit 1sg-Poss take eat-NR
'Suru is taking my biscuit eat'

If no phrase precedes the verb, then the first verb reduplicates.

(88) a. Àklà cè wɛ̀ Súrù tò zízé ɖù
biscuit 1sg-Poss Foc Suru Prog take.take eat-NR
'Suru is taking MY BISCUIT eat'

b. Súrù tò hìhɔ̀n tɔ̃n
Suru Prog flee.flee go-out- NR
'Suru is running out'

When verbal focusing arises, the sequence containing the internal argument, the prospective aspect maker as well as the verbs in the series must be moved to sentence-initial position.

(89) Àklà cè zé ɖù Súrù tè
biscuit 1sg-Poss take eat-NR Suru Prog
'Suru is taking MY BISCUIT eat'

Observe: That the verbs in the series must follow the preposed internal argument and the prospective marker suggest that they belong to the small clause typically selected by the progressive marker or else by some aspectual verbs in Gbe. This is further supported by the fact that the sequence [O-nà-V_1-V_2] is subject to movement operations. In addition, the existence of [O-nà-V_1-V_2] sequences in series indicates that these constructions probably involve more articulate structure than it is assumed traditionally.

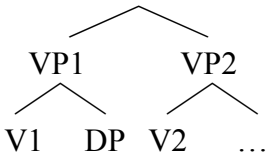
3.2.2 The analysis of series

Current analyses: series involve one canonical subject only, the internal argument may be shared by the verbs, there is only one expression of certain I-type features (e.g. tense, negation), aspect may be realized on each verb, there is no subordinating or coordinating conjunction, the verbs in the series can occur in isolation as main predicates, series manifest single event reading.

3.2.2.1. Previous analyses

1. Adjunction (right or left): serial verb constructions involve VP-adjunction, that is, VP_2 modifies VP_1 (cf. Déchaine 1993, 1997, Da-Cruz 1993, 1997, Tossa 1994, Veenstra 1996).

(90) a.



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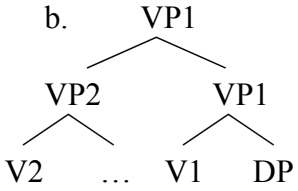
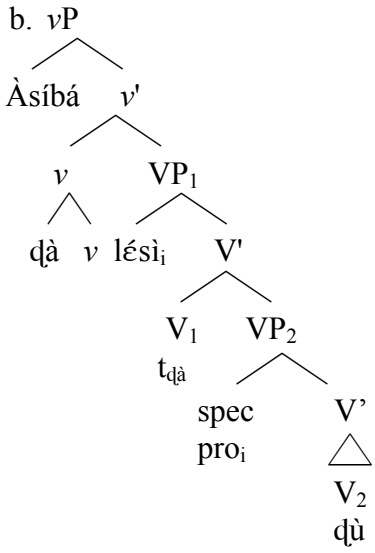


2. The VP-shell analysis

Builds on Baker's (1989) analysis which regards argument sharing as a condition on serialization (Larson 1991, Collins 1997, 2002, Stewart 1998).

(91) a. Súrù ɖà lɛ́sì ɖù
Suru cook rice eat
'Suru cooked rice eat'

b.



3.2.2.2. Some empirical facts against the VP-shell analysis

1. Sentences such as (92) are ambiguous depending on the interpretation of the internal argument.

(92) Sɛ́tù ná nyàn Kɔ̀jó yì Kútɔ̀nù
Setu Fut chase Kojo go Cotonou
'Setu will chase Kojo go Cotonou' [i.e., Setu threatened Kojo, only the latter went to Cotonou]
'Setu will run after Kojo go Cotonou' [i.e., Setu run after Kojo, they both ended up in Cotonou]

2. V_1 replicates the aspect markers associated with V_2 (in many Kwa languages).

(93) a. e-tso-**na** akɔɖu ɖu-**na** [Ewegbe]
3sg-take-Hab banana eat-Hab
'He habitually takes banana eat' [i.e. he habitually eats banana]

b. Me-**yɛɛ** adwuma ma-**ma** Amma [Akan]
1sg-do-Perf work 1sg-give-Perf Amma
'I have worked for Amma'

3. Some other Kwa languages (e.g., Abouré) allow negative concord in the series.

(94) Àblɛ́ **à**-ta ăkɔ **à**-ŋú-mɔ̀ **à**-nútù-vò [fɛ̀] **à**-nɷ̀tɷ̀-mɷ̀ **à**-mɛbɛ
Able Neg-catch chiken Neg-kill Neg-remove body Neg-grill Neg-slice
'Able didn't catch kill remove the feathers grill slice the chicken'

Observe: *body* associated with the verb ***remove*** only, a counter-argument for argument sharing.

4. In certain Kwa languages, the two verbs agree with the shared object.

(95) a. Ozó gbé éhèn rhié yè òkhuaé [Edo]
Ozo kill fish take Loc basket
'Ozo killed the fish and put it in the basket'

b. Ozó gbé-lé éhèn vió yè òkhuaé
Ozo kill-Pl fish take-Pl Loc basket
'Ozo killed the fishes and put them in the basket'

Conclusion: the verbs in the series may show INFL features (e.g., aspect, negation, number) because they are associated with some INFL-related projections (i.e., as their extended projections).

3.2.3. The proposed analysis

V_1 and V_2 are not embedded in a VP-shell. The internal argument originates from VP_2 inside the small clause, but has moved past V_2 to [spec AspP], due to the EPP. The 'shared object' is the subject of the predicate denoted by V_2 (Kayne 1984; Hoekstra 1988) ➔ argument sharing is a surface effect resulting from object shift. The lexical verb merges under V_2 with the direct object merged as its internal argument to form VP_2. The latter merges with Agro to form AgroP. The verb moves to Agro and the object raises to [spec AgroP] due to case reasons. AgroP merges with Asp to form AspP. Under aspect licensing and the EPP, V_2 raises to Asp to check its aspect features, while its object moves to [spec AspP] to check the strong EPP feature under Asp°, hence O V_2 order in (96). AspP merges with C_1 to form CP_1 the left periphery of the small clause. But C_1 has no phonological content in the Kwa languages. Finally, CP_1 merges as the complement of the higher light verb V_1, which first merges under Asp, to form a higher AspP, hence the V_1 O V_2 as shown in (96).

(96) $[_{AspP}\ V_1\ [_{CP1}\ [_{AspP}\ O_{bject}\ [_{Asp°}\ V_2\ [_{AgroP}\ t_{object}\ [_{Agr°}\ t_{v2}\ [_{VP2}\ t_{v2}\ t_{object}\ ]]]]]]]$

Conclusion: the Kwa languages manifest object shift due to the EPP-licensing.

Observe: this analysis predicts that the canonical subject may originate from VP_2 or be introduced by V_1 under the higher Asp°.

Resultative:

(97) $[_{AgrP}$ Sɛ́tù $[_{AspP}\ t_{Sétù}\ [_{Asp°}$ nyàn $[_{CP1}\ [_{AspP}$ Kɔ̀jó $[_{Asp°}$ yì $[_{AgroP}\ t_{Kɔ̀jó}\ [_{Agr°}\ t_{yì}\ [_{VP2}\ t_{Kɔ̀jó}\ [_{V2}\ t_{yì}$ Kútɔ̀nù$]]]]]]]]]]$

(98) Instrumental:
[$_{AgrP}$Sétù [$_{AspP}$ $t_{Sétù}$ [$_{Asp°}$ zé [$_{CP1}$ [$_{AspP}$ kpò [$_{Asp°}$ xò [$_{AgroP}$ [$_{Agr°}$ $t_{xò}$ [$_{vP}$ $t_{Sétù}$ [$_{vP}$ $t_{kpò}$ [$_{VP2}$ $t_{xò}$ $t_{Kòjó}$]]]]]]]]]]

Observe: Pure EPP features should be dissociated from EPP/Case(agreement) features.

The Fongbe instrument series support this analysis (Da Cruz 1997) *ná* cannot be followed by an overt complement, unlike *nú*.

(99) Kɔ̀kú sà mɔ̌tò ɔ́ nú/*ná Àsíbá [Fongbe]
Koku sell car Det to/for Asiba
'Koku sold the car to/for Asiba'

In the focused sentence (100), however, the form *ná* must be realized, while *nú* is prohibited.

(100) Àsíbá wɛ̀ Kɔ̀kú sà mɔ̌tò ɔ́ ná/(*nú) [Fongbe]
who Foc Koku sell car Det to/for
'To/for whom did Koku sell the car?'

Conclusion: *nú* must be realized as *ná* when movement has taken place.

Ná/*nú* alternation occurs in instrument verb series, which require the benefactive or instrument preposition *ná*, but exclude its counterpart *nú*.

(101) Kɔ̀kú sɔ́ jìví ɔ́ sɛ́n wɔ̀xúxú ɔ́ *(ná) [Fongbe]
Koku take knife Det cut bread Det with
'Koku cut the bread with the knife'

Observe: if *nú*/*ná* alternation signals movement, then these data are problematic for an analysis of SVCs that assumes that the gap to the right of V_2 or *ná* is *pro*. Instead they suggest that the gap in series is a trace (presumably an NP-trace).

(102) Consecutive: the subject and the object originate from VP_2.
[$_{AgrP}$ Sétù [$_{AspP}$ $t_{Sétù}$ [$_{Asp°}$ ɖà [$_{CP1}$ [$_{AspP}$ lɛ́sì [$_{Asp°}$ ɖù [$_{AgroP}$ $t_{lésì}$ [$_{Agr°}$ $t_{ɖù}$ [$_{VP2}$ $t_{Sétù}$ [$_{V2}$ $t_{ɖù}$ $t_{lésì}$]]]]]]]]]

Concluding remarks on the Kwa series

1. Under this analysis, the gap to the right of V_2 is an NP-trace (i.e., the trace of the complement that has moved to [spec AspP]) but not *pro* (or PRO).
2. V_1 is not a full lexical verb. It is a light verb that merges with the small clause as its complement, but may introduce an external argument. This analysis is corroborated by the following 'take SVCs' where it clearly appears that the verb *take* is not acting as a full lexical verb. This would mean that V_1 belongs to a smaller class than V_2

(103) a. Sɛ́tù zé àwájìjɛ̀ yí yè
Setu take joy receive 3sg
'Setu received them with joy'[i.e. Setu welcomed them]
b. Sɛ́tù zé xó ɖɔ̀ kaka bɔ̀ àyí hɔ́n
Setu take word say until that earth rise
'Setu spoke until sunrise'

Additional support comes from 'take' series in Akan (Campbell 1992).

(104) a. Kofi de Yaw kɔɔ Kumase
Kofi take Yaw go Kumase
'Kofi took Yaw to Kumase'
b. Kofi kɔɔ Kumase
Kofi go Kumase
'Kofi went to Kumase'
c. *Kofi de Yaw
Kofi take Yaw
'Kofi took Yaw'

3.4. Verb series or complex predicates in Romance and Germanic

Consider the following Marsalese and American English sentences Cardinaletti & Giusti (2000).

(105) a. I go and buy bread
b. I go eat

(106) Vaju a pigghiu u pani
[I] go-1sg to fetch-1sg the bread
'I go to fetch bread'

Observe: in (105), the verbs are inflected and share the same agreement features. These constructions manifest various properties that differentiate them from infinitival constructions where the second verb occurs in a CP-clause (see Cardinaletti & Giusti 2000).

1. V_1 cannot project its arguments nor can it be combined with adjuncts

(107) a. Va (*agghiri a casa) a mangia (*agghiri a casa)
[he] go-3sg (*toward to home) to eat-3sg (*toward to home)
b. *Peppe va a mangia c'a machina
Peppe go-3sg to eat-3sg by car

(108) a. ??I go all the way there and eat
b. *I go all the way there eat / * I go eat all the way there
c. They go and eat by car /* They go eat by car

2. V_1 can only occur in some morphologically 'unmarked' or defective form. In Marsalese, first and second person plural are prohibited.

(109) a. Vai a pigghi u pani
[you] go-2sg to fetch-2sg the bread
'go fetch the bread'
b. *Iti a pigghiati u pani
[you] go-2pl to fetch-2pl the bread

The American English constructions do not manifest third person singular agreement.

(110) a. *John goes visit Harry every afternoon
b. John will go visit Harry tomorrow

Both languages allow for only the unmarked base form: indicative present and imperative forms are allowed, while past indicative, imperfect indicative and subjunctive are prohibited.

(112) *Li a pigghiai u pani
[I] go-Past-1sg to fetch-Past-1sg the bread

(113) *John has gone visit Harry already

3. As often suggested for Kwa, the sequence [motion verb- lexical verb] triggers a 'single event' reading.

(114) a. Vaju a accattu a cicorcia gnignornu, (*ma unn'a trovu mai)
[I] go-1sg to fetch-1sg the chicory every day but not it find-1sg never
b. They go buy vegetables every day, (*but there never are any vegetables)

Here, the event of going and that of purchasing must coincide, negation of a single verb is excluded.

4. Obligatory clitic climbing in Marselese: the clitic pronoun must occur on the motion verb, only.

(115) a. *Vaju a pigghiulu
[I] go-1sg to fetch-1sg-it
b. U vaju a pigghiu
[I] it go-1sg to fetch-1sg
'I go to fetch it'

Conclusion: these properties are strong evidence that the Marsalese and American English constructions are SVCs, even though:

1. Romance and Germanic series involve a preposition-like element (i.e., a in Marsalese) or a coordinating conjunction (i.e. and in American English),
2. These series do not manifest object sharing.

3.4.1. Germanic and Romance series as the expression of the small clause

Assuming that the embedded small clause has its own left periphery (CP_1) ➔ C_1 may host he preposition-like complementizer or the coordinating conjunction (Kayne 1994, 2000, 2001). S V_1-(XP)-V_2 in Kwa versus S V_1-Prep/Conj-V_2-(XP) in Germanic reduces to EPP licensing and language specificities as to whether CP_1 has a PF manifestation. In Romance/Germanic series, the lexical verb merges under V_2 with the direct object merged as its internal argument. V_2 raises to Asp to check its aspect features. Object raises to [spec AgroP] to check case features, but it cannot raise to [spec AspP] to check the strong EPP-feature under Asp° (i.e., Romance/Germanic lack object shift of the Kwa-type). Instead, a null expletive that is licensed under spec-head agreement (i.e., with V_2 that has raised to Aspº) is inserted in [spec AspP] to check the EPP (Homlberg 2000, Aboh 2004a). Rich inflection renders the null expletive visible in Romance (e.g., agreement morpheme on V_2). The prepositional complementizer (or a conjunction) merges in C_1 to encode the left periphery. CP_1 then merges as the complement of the motion verb V_1 that merges under a higher aspect head. The agreement on V_2 percolates on to C_1° and can therefore be copied on V_1. This copy mechanism could be responsible for the (defective) single tense, mood, aspect specifications in verbs in series (Cardinaletti & Giusti 2001).

(116) a. $[_{AspP}\ V_1\ [_{CP1}\ \textit{a}\ [_{AspP}$ Expl $[_{Asp°}\ V_{2+agr}\ [_{AgroP}\ O_{bject}\ [_{Agr°}\ t_{v2}\ \ [_{VP2}\ t_{v2}\ t_{oject}]]]]]]]$
b. $[_{AspP}\ V_1\ [[_{CP1}\ \textit{and}\ [_{AspP}$ Expl $[_{Asp°}\ V_{2+Ø}\ [_{AgroP}\ O_{bject}\ [_{Agr°}\ t_{v2}\ \ [_{VP2}\ t_{v2}\ t_{object}]]]]]]]$

(117) **Generalization**: The EPP triggers
a. Object shift in Kwa
b. Null expletive licensing under spec-head agreement in Romance and Germanic.

3.4.2 An extension to verbal compounds and complex predicates in Kwa, Germanic and Khoisan

Where C_1 has no PF manifestation, the verb may move to C.

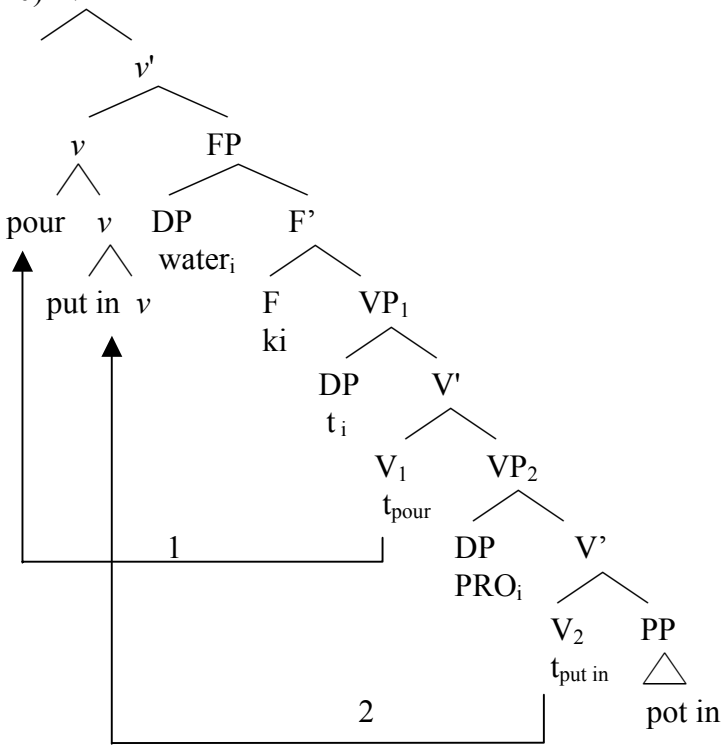
(118) a. Obi **kwa-da**-ra Eze
Obi push-fall-rV Eze
'Obi pushed Eze down'
b. They **go visit** the dentist every year

c. Ma a- **q‖hu** **|'o** djo ki kx'u na
1sg Prog pour put.in water Part pot in
'I am pouring water into the pot' [ǂHoan, Collins 2002:1]

Verb series and verbal compounds involve the same underlying structure: V_1-V_2-O derives from leftward V_2-movement past the intervening object in V_1-O-V_2 sequences, Collins (2002). This explains why verbal compounds and verb series show certain similarities (e.g., single tense/aspect).

(119) *Ma a- q‖hu a- |'o djo ki kx'u na
1sg Prog pour Prog put.in Prog water Part pot in

(120) *v*P



Questions: Why should multiple verb movement proceed this way? What triggers multiple verb movement to little *v* in V_1-V_2-compound languages as opposed to single movement of V_1 to little *v* in V_1-O-V_2 languages?

Alternatively, Khoisan and Germanic languages pattern alike: V_2 merges within the small clause with the direct object as its internal argument. The object moves to [spec AgroP] to check its case features and a null expletive merges in [spec AspP] to check the EPP features. V_2 raises to Asp° and subsequently to C_1° as a support to an otherwise empty CP_1. CP_1 then merges as the complement of V_1 that merges under a higher Asp (121d). In Khoisan (121e) V-to-C_1 movement may lead to *ko*/*ki* support as opposed to a verbal trace in the Germanic languages.

(121) a. They go visit the dentist every year [American English, Jaegli & Hyams 1993:319]
b. Ma a- q‖hu |'o djo ki kx'u na [ǂHoan, Collins 2002:1]
1sg Prog pour put.in water Part pot in
'I am pouring water into the pot'
c. Mi m ku tcaq |'u **-a** g!u **ko** kom n!ang
1sg Emph Prog pour put.in Trans water Part cup in
'I am pouring the water into the cup' [Ju|'hoan , Collins 20002]
d. [$_{AspP}$ V_1 [[$_{CP1}$ $V_{2+Ø}$ [$_{AspP}$ Expl [$_{Asp°}$ $t_{v2+Ø}$ [$_{AgroP}$ O [$_{Agr°}$ t_{v2} [$_{VP2}$ t_{v2} t_{object} XP$_{[adjunct]}$]]]]]]]

e. [$_{AspP}$ V_1 [[$_{CP1}$ $V_{2+Ø}$ [$_{AspP}$ Expl [$_{Asp°}$ $t_{v2+Ø}$ [$_{AgroP}$ O [$_{Agr°}$ **ko/ki** [$_{VP2}$ t_{v2} t_{object} $XP_{[adjunct]}$]]]]]]]

Kwa: Igbo has object shift (Manfredi 1997) ➔ Igbo-type languages check the EPP feature under Asp by object shift. Gungbe-type and Igbo-type languages differ in that the latter allow for V_2 to subsequently move to C_1°.

(122) [$_{AspP}$ V_1 [[$_{CP1}$ $V_{2+Ø}$ [$_{AspP}$ O_{bject} [$_{Asp°}$ $t_{v2+Ø}$ [$_{AgroP}$ t_{bject} [$_{Agr°}$ t_{v2} [$_{VP2}$ t_{v2} t_{object}]]]]]]]

4. More on CP_1: the VP-edge

Working hypothesis: CP_1 represents the edge of the minimal proposition that a lexical head (that is, a head of predicate) may require. This proposition may have some INFL-related positions as well as C-type positions, but lacks tense and mood specifications, which can only be activated in a higher domain. Two issues arise:

1. Empirical issue: Does CP_1 manifests some parallels with the main CP layer?
2. Is CP_1 a (strong) phase?

5.1. Topic within CP_1

Pervious discussion shows that V_1-O-V_2 and V_1-V_2-O structures in Kwa and Khoisan languages are derived as follows:

(123) a. O-V-V ➔ O…V-V… …t_V …t_o where O moves to [spec CP] and V moves to Asp due to aspect licensing, gets reduplicated (and maybe subsequently moves to to C_1 as an instance of V-to-C movement).

b. V_1-O-V_2 ➔ V_1…O…V_2 …t_o…where V_1 introduces the small clause, O is in specAspP, and V_2 moves to Asp due to aspect licensing.

c. V_1- V_2 -O ➔ V_1…V_2…O…t_{V2} …t_o where V_2 moves past O to C_1 as an instance of V-to-C movement.

Observe : These derivations indicate that the embedded small clause or predicative structure involves both A-movement to [spec AspP] as in (123b) and A-bar movement to [spec CP_1] on a part with V-to-Asp and V-to-C_1 movements as in (123a) and (123c). This can be regarded as a parallel between the C and I domains of the main and embedded predicate structures.

- OVV sequences: object movement to [spec CP_1] is motivated by the need to satisfy a topic-like feature associated with the theme-activity articulation similar to the topic-comment articulation.

(124) a. Kíkọ-ìwé
RED-write-letter
'Writing letter (or writing book)'

b. Ìwé$_i$-kíkọ t_i
letter RED-write
'Letter-writing (or book-writing)'

There may be a topic-related projection within CP_1, Belletti (2002, 2003).

5.2. Focus within CP_1

The main focus position in Aghem is right adjacent to the verb.

(125) a. Fil á mɔ̀ zi kí-bɛ́ án 'sóm [Aghem (Bantu)]
Friends SM Past eat fufu in farm
'The friends ate fufu in the farm'

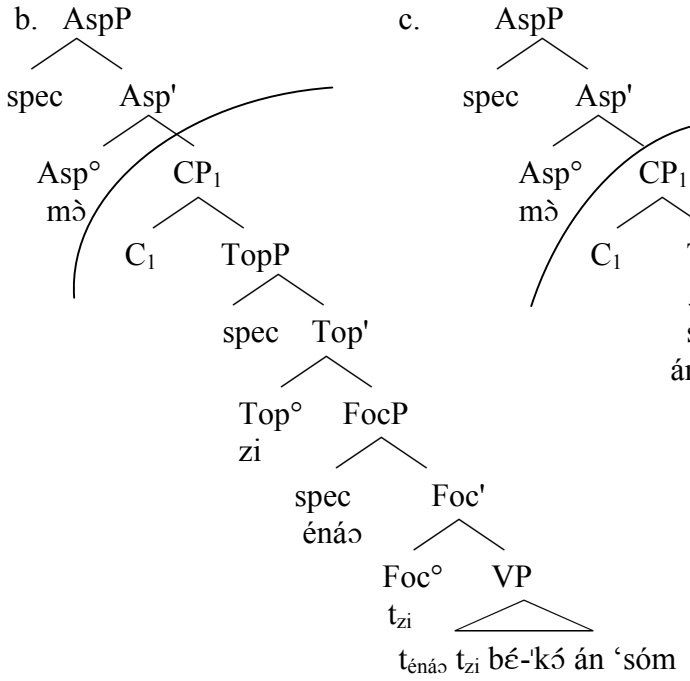
b. S….Aux…Preverb particle….Verb….(Focus)….Object….Adjunct

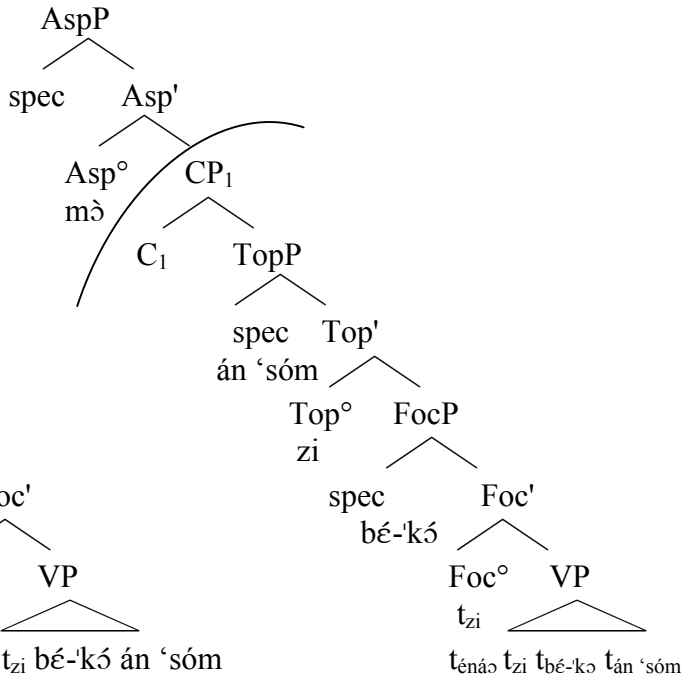
Observe: subject focus (126a) involves an expletive in the canonical subject position and the associate subject occurs post-verbally in the focus position. Object focusing forces the subject to occur in the canonical position, but the adjunct must precede the verb (maybe in an IP-internal topic-like position).

(126) a. Á mɔ̀ zi énáɔ bɛ́-ˈkɔ́ án ‘sóm
Expl Past eat Inah fufu in farm
‘INAH ate fufu in the farm’
b. Énáɔ mɔ̀ án ‘sóm zi bɛ́-ˈkɔ́
Inah Past in farm eat fufu
‘Inah ate FUFU in the farm’

Working hypothesis: The clause involves a topic/focus articulation in the periphery of the VP (i.e., CP_1) and a higher C-system in the left periphery of the clause.

(127) a. [ForceP [Force [TopP [Top [FocP [Foc [FinP [Fin …. [TopP [Top [FocP [Foc [AspP [VP…]]]]]]]
C-system I-system C1-system

b.


c.


2. Consequence for the phase theory: only C, in the clause, and D, in the nominal domain, are strong phases ➔ *v* cannot be a strong phase. This view requires a rethinking of the phase theory, but it does dissolve the paradox of having peripheral elements (e.g., C, D), and argument introducers (e.g., *v*) as strong phases with no explanation for such choice. Under this working hypothesis:

(128) strong phases (i.e., C and D) relate to the discourse-syntax interface and only intervene at peripheries.

6. The C-system in Gbe and (Kwa)

Assuming that the Gbe languages are of the type SVO, the previous chapters account for word order variation within and across these languages in terms of an interaction between verb movement due to aspect licensing and object movement due to case licensing or the satisfaction of pure EPP-features. This analysis mainly concerns the inflection domain. The following sections discuss the C-layer and see how recent development in comparative syntax may help describe the Gbe (Kwa) facts (Cinque 1990, Brody 1990, Rizzi 1990, 1996, 1997, Culicover 1992, McCloskey 1992, Suñer 1993, Aboh 2003, 2004a, b).

(129) a. She thinks that [Top under no circumstances] [should] one start one’s own business
b. Credo che [Top a Gianni], [Foc QUESTO], [Top domani], gli dovremmo dire
‘I believe that to Gianni, THIS, tomorrow we should say’
c. Sue se preguntó que [Wh cuántas charlas] planeaban los estudiantes
‘Sue wondered how many talks the students were planning’

d. Kérdeztem hogy [$_{Top}$ Peter] [$_{Wh}$ mit] adott a gyereknek
ask-1Sgn-pass that Peter-NR what-Acc give Sgn-PAS the child-DAT
'I asked what Peter gave to the child'

(130) [$_{ForceP}$ ... [$_{TopP*}$ ... [$_{FocP}$... [$_{TopP*}$ ... [$_{FinP}$... [$_{IP}$.....]]]]]] (Rizzi 1997)

Alternative analyses assume multiple specifiers (Chomsky 1995), or CP recursion (McCloskey 1992, Suñer 1993).

(131) a. Bri sabía cuántas charlas planeaban los estudiantes
'Bri knew how many talks the students were planning'
b. Sue se preguntó que cuántas charlas planeaban los estudiantes
'Sue wondered how many talks the students were planning'

Distinct verbs select distinct C-types.

(132) a. [$_{VP}$ saber [$_{CP[+wh]}$ [$_{C°}$ [$_{IP}$…]]]]
b. [$_{VP}$ preguntar [$_{CP1}$ [$_{C°1}$ que [$_{CP2[+wh]}$ [$_{C°2}$ [$_{IP}$…]]]]]]

6.1. On the CP-markers that occur to the left

The Gungbe manifests: Comp > Topic-[TM] > Focus-[FM] > Mood-[IM].

(133) a. Ùn sè ɖɔ̀ dàn lɔ́ **yà** Kòfí hù ì
1sg hear that snake Det Top Kofi kill 3sg
'I heard that, as for the snake, Kofi killed it?'
b. Ùn sè ɖɔ̀ dàn lɔ́ **wɛ̀** Kòfí hù
1sg hear that snake Det Foc Kofi kill
'I heard that Kofi killed THE SNAKE'
c. Ùn kànbíɔ́ ɖɔ̀ étɛ̀ **wɛ̀** Kòfí hù ?
1sg ask that what Foc Kofi kill
'I asked what did Kofi kill'?
d. Ùn ɖɔ̀ ɖɔ̀ Àsíbá **ní** ɖà làn lɔ́
1sg say that Asiba Inj cook meat Det
'I said that Asiba should cook the meat'
e. Ùn ɖɔ̀ ɖɔ̀ làn lɔ́ **yà**
1sg say that meat Det Top
Kòfí **wɛ̀** Àsíbá **ní** ɖà-ɛ̀ ná
KofiFoc Asiba Inj cook-3sg for
'I said that, as for the meat Asiba should cook it for KOFI'

Observe: C-type markers express distinct positions in the space between the complementizer *ɖɔ̀* "that" and the subject.

6.1.1 Injunctive ní as the expression of Fin°

(134) a Kòfí **ní** má jì hàn blô [weak deontic/injunctive]
Kofi Inj Neg sing song Neg-Part
'Kofi should not sing (a song) anymore'
b. Kòfí má **sìgán** jì hàn [probability]
Kofi Neg can sing song
'Kofi cannot sing (a song)'

Post-negative modals (i.e., I-type elements) merge in a mood projection between the tense and aspect.
Question: What is the structural position of the weak deontic mood marker *ní*.

Working hypothesis: negation delimits the frontier between C and I: markers that precede negation belong to the C-system, while those that follow belong to the I-system.

(135) a. Àsíbá jró ɖɔ̀ mí ní nɔ̀ wá
Asiba want that 1pl Inj Hab come
'Asiba wants us to habitually come'
b. *Àsíbá jró ɖɔ̀ mí nɔ̀ wá
Asiba want that 1pl Hab come

There are two instances of *ní* in Gungbe (and other Gbe languages).

(136) a. **Ní** hwɛ̌nɛ́nú yà, Kòfí wɛ̀ yé yrɔ́,
Conj at that time Top Kofi Foc 3pl call,
bé Àsíbá má ná wá
then Asiba Neg Fut come
'If, at that time, they invited KOFI, then Asiba would not have come'
b. Ùn ɖɔ̀ ɖɔ̀ làn lɔ́ **yà** Àsíbá **wɛ̀** **ní** ɖà-ɛ̀
1sg say that meat Det Top Asiba Foc Inj cook- 3sg
'As for the meat, I said that Asiba should cook it'
c. Ùn kànbíɔ́ ní Kòfí xɔ̀ wémà lɔ́?
1sg ask Conj Kofi buy book Det
'I asked if Kofi bought the book'
d. Ùn kànbíɔ́ ɖɔ̀ mɛ́nù wɛ̀ xɔ̀ wémà lɔ́?
1sg ask that who Foc buy book Det
'I asked who bought the book'
e. *Ùn kànbíɔ́ ɖɔ̀ ní mɛ́nù wɛ̀ xɔ̀ wémà lɔ́?
1sg ask that if who Foc buy book Det

Sentence-initial *ní* is a complementizer-like element comparable to English *if* that expresses conditional or else interrogative force in embedded yes-no questions. The C-system encodes at least two kinds of mood information. Granting that these two information are the expressions of distinct functional heads, Force° and Fin° (Rizzi 1997), sentence-initial *ní* manifests Force° as the expression of the clausal type, while sentence-internal *ní* encodes Fin° as the expression of finiteness and/or mood specification.[3]

(137) a. Ní Kòfí ná nɔ̀ tò àyìhú dà hwèlɛ́kpónù̀,
If Kofi Fut Hab Prog game play every time-NR,
mí má sìgán wà àzɔ́n lɔ́
1pl Neg can do work Det
'If Kofi keeps playing around every time, we cannot do the work'
b. *Àsíbá ní ná nɔ̀ tò àzɔ́n lɔ́ wà̀
Asiba Inj Fut Hab Prog work Det do-NR
c. Àsíbá ní nɔ̀ tò àzɔ́n lɔ́ wà̀
Asiba Inj Hab Prog work Det do-NR
'Asiba should be doing the work'

Possible interpretation: being clausal type, the conditional marker *ní* selects for tensed clauses, while the weak mood marker *ní* selects for tenseless, yet aspectually determined, clauses.

(138) ForceP[*ní*, [+conditional, +tense, +aspect]]> (TopP) > (Focus) > FinP[*ní* [+injunctive, -tense, + aspect]]

[3] But see Pollock (1997) and Cinque (1999) where it is proposed that the highest projection of the inflection system is a Mood Phrase.

Question: Why must the subject precede the injunctive or weak deontic mood marker? Because the subject must raise to [spec FinP] to check the strong EPP features of Fin° (Cardinaletti 1997, Aboh 2004a).

(139) [$_{ForceP}$ [$_{FinP}$ Kòfí$_i$ [$_{Fin°}$ ní [$_{IP}$ t$_i$ má nɔ̀ tɔ́n blô]]]]
Kofi Inj Neg Hab go-out anymore
'Kofi shouldn't go out anymore'

In this framework, [spec FinP] represents the "subject of the predication" and is not case-related.

(140) a. …[ɖɔ̀ yɔ̀kpɔ́ lɛ́ ná hɔ̀n yì mɔ̀n íyà yétɔ́n] **ní**
…that children Numb Fut flee go see mother 3pl-Poss ní-type$_2$
má kpácá dó wè kpálíkpálí blô. Mè ɖòkpó má sín
Neg surprise at 2sg-Acc at all not Person one Neg sit
yà éhè kɔ̀n
suffering Dem side
'That the children would run to see their mother should not surprise you. No one will stand this misery/suffering'.

b. Kòfí, à má tò xó cè sè amɔ́n ?
Kofi, 2sg Neg Prog word 1sg-Poss hear Neg-Insistence
Ùn ɖɔ̀ ɖɔ̀ [(bɛ́) sɔ́n àtín éhè gò jè xɔ̀ lɔ́ kpá dɔ̌n]
1sg say that start from tree Dem body reach house Det side there
ní nyín xwìxwà hwɛ́có má gɔ̀ sɔ́n àzɔ́mɛ̀
ní-type$_2$ become cleared-up before 1sg return Prep work
'Kofi, you are not listening to me are you? I said that from this tree up to the fence there should clear up before I come back from work.'

c. Má ɖìké ná [nú dó dín-dín gànàgànà]
2sg-Neg allow Prep thing under search-search shamelessly
ní gbà xwé ná wè blô
ní-type$_2$ break house Prep 2sg-Acc not
'Litt. Do not allow [searching the cause of things unreservedly] break your household' [i.e., don't let curiosity break your household].'

The unifying property of phrases that occur in [spec FinP] is "a semantic property: their being a subject of predicate." (Cardinaletti 1997: 55).

6.1.2. Wɛ̀ as the expression of Foc°

(141) a. Ùn sè ɖɔ̀ dàn lɔ́ **wɛ̀** Kòfí hù
1sg hear that snake Det Foc Kofi kill
'I heard that Kofi killed THE SNAKE'

b. Ùn kànbíɔ́ ɖɔ̀ étɛ̀ **wɛ̀** Kòfí hù ?
1sg ask that what Foc Kofi kill
'I asked what did Kofi kill?'

c. Kòfí **wɛ̀** ùn sè ɖɔ̀ é hù dàn lɔ́
Kofi Foc 1sg hear that 3sg kill snake Det
'I heard that KOFI killed the snake'

Any category can be focused in Gungbe.

(142) a. Bléún wɛ̀ Kòfí ɖù làn lɔ́
quickly Foc Kofi eat meat Det
'Kofi quickly ate the meat'

b. Kpèví wɛ̀ Kòfí tè bò ɖó bé wéxɔ̀mè
young/small Foc Kofi be and Loc start school
'Kofi was young when he started school'

c. Đù Kòfí ɖù làn lɔ́
eat Kofi eat meat Det
'Kofi ATE the meat'

6.1.2.1 Some properties of focus/wh-constructions

In situ strategy is disallowed (143a-b), no element intervenes between the fronted phrase and the focus head (143c-d), multiple foci are excluded (143e-g).

(143) a. *Ùn sè ɖɔ̀ wɛ̀ Kòfí hù dàn lɔ́
1sg hear that Foc Kofi kill snake Det

b. *Ùn kànbíɔ́ ɖɔ̀ wɛ̀ Kòfí hù été ?
1sg ask that Foc Kofi kill what

c. *Ùn sè ɖɔ̀ dàn lɔ́, sɔ̀, wɛ̀ Kòfí hù
1sg hear that snake Det yesterday Foc Kofi kill

d. *Ùn kànbíɔ́ ɖɔ̀ été sɔ̀, wɛ̀ Kòfí hù ?
1sg ask that what tomorrow Foc Kofi kill

e. *…..ɖɔ̀ dàn lɔ́ wɛ̀ Kòfí wɛ̀ hù
that snake Det Foc Kofi Foc kill

f. *…..ɖɔ̀ été wɛ̀ mɛ́nù wɛ̀ hù ?
that what Foc who Foc kill

g. *…..ɖɔ̀ dàn lɔ́ wɛ̀ mɛ́nù wɛ̀ hù
that snake Det Foc who Foc kill

Following Cinque (1990), Brody (1990), Lasnik & Stowell (1991), Ndayiragije (1993), Puskàs (1996), Rizzi (1996), Aboh (2004a, b) and subsequent work, I assume that focus/wh-constructions are quantificational: the focus/wh-operator A'-binds a variable in the IP-internal position. The focus/wh-categories surface in the specifier position of a focus projection (FocP) that projects between ForceP and FinP. The focus/wh-phrase moves to [spec FocP] to check the features [focus, wh…] under Foc°. The features under Foc° are realized at PF by the FM *wɛ̀* in Gungbe.

(144) $[_{ForceP}$ ɖɔ̀ $[_{FocP}$ $XP_{[+f/+wh]i}$ $[_{Foc°}$ wɛ̀ $[_{FinP}$ t_i]]]]

[spec ForceP], but not [spec FocP] is an escape hatch for long extraction.

(145) a. Hĭ $lɔ́_j$ wɛ̀ Sɛ́ná sè ɖɔ̀ Rɛ̀mí$_i$ wɛ̀ t_i zé t_j
knife Det Foc Sena hear that Remi Foc take
'Sena hear that REMI took THE KNIFE'

b. Été$_j$ wɛ̀ Sɛ́ná sè ɖɔ̀ mɛ́nù$_i$ wɛ̀ t_i zé t_j ?
what Foc Sena hear that who Foc take
'What did you here that who took'?

c. $[_{FocP}$ $XP_{[+f/+wh]j}$ wɛ $[_{FinP}$ Sɛ́ná sè $[_{ForceP}$ t'$_j$ ɖɔ̀ $[_{FocP}$ $YP_{[+f/+wh]I}$ wɛ̀ $[_{FinP}$ t_i zé t_j]]]]]

Argument versus adjunct asymmetry.

(146) a. $[Sɔ̀]_j$ wɛ̀ Sɛ́ná sè ɖɔ̀ [hĭ $lɔ́]_i$ wɛ̀ Rɛ̀mí xɔ̀ t_i
yesterday Foc Sena hear that knife Det Foc Remi buy
'*Sena heard that Remi bought THE KNIFE YESTERDAY'
'Sena heard YESTERDAY that Remi bought THE KNIFE'

b. [Sɔ̀]$_j$ wɛ̀ Sɛ́ná sè ɖɔ̀ Rɛ̀mí xɔ̀ hĭ lɔ́$_i$
yesterday Foc Sena hear that Remi buy knife Det
'Sena heard YESTERDAY that Remi bought the knife'
'Sena heard that Remi bought the knife YESTERDAY'

Adjuncts are not referential and their traces are subject to antecedent-government or some strong minimality constraint. Arguments on the other hand bear a referential index that may allow long construal (marginally) even in the case of an intervening category that may trigger minimality (Rizzi 1990, 2001, Aboh 2004a, b).

Verb focusing such as (142c) are treated as instances of verb movement to adjoin to the focus head Foc° to check its focus features. A copy is left in the IP-internal position as last resort (i.e., to circumvent a violation of the head movement constraint or some of its variant) (Koopman 1984, Rizzi 1990, 2001, Chomsky 1995, Collins 1996, Aboh 2003, 2004a, b)
(147) [$_{ForceP}$ ɖɔ̀ [$_{FocP}$ [$_{Foc°}$ V$_{[+f]i}$ [$_{FinP}$ V$_i$]]]]

Verb resumption is descriptively similar to that of resumptive pronouns in subject extraction.
(148) The man that John told me that *(he) came to the party very late

Verb focusing is derived by movement.
(149) a. *Ðù ùn sè ɖɔ̀ yé ɖù blɛ́ɖì lɔ́
eat 1sg hear that 3pl eat bread Det
b. Ùn sè ɖɔ̀ ɖù yé ɖù blɛ́ɖì lɔ́
1sg hear that eat 3pl eat bread Det
'I heard that they ATE the bread'
c. Ðù Kòfĭ má ɖù lɛ́sì lɔ́
eat Kofi Neg eat rice Det
*'Kofi didn't EAT the rice'
'Kofi didn't simply eat the rice, he ATE it greedily'

6.1.3. Yà as the expression of Top°

Topic and focus/wh-constructions are similar: topic involves movement of the topic to a pre-subject position immediately to the left of the TM *yà*, 150a). No topic in situ is allowed and multiple topics are prohibited (150b-c). Topic precedes focus/wh-phrases (150d).
(150) a. Ùn sè ɖɔ̀ dàn lɔ́ yà Kòfĭ hù ì
1sg hear that snake Det Top Kofi kill 3sg
'I heard that, as for the snake, Kofi killed it'
b. *Yà Kòfĭ hù dàn lɔ́
Top Kofi kill snake Det
'As for the snake, Kofi killed it'
c. *Gólù lɔ́ yà àgbá lɔ́ yà Kòfĭ zé-è ɖó é- mɛ̀
gold Det Top box Det Top Kofi put-3sg Loc 3sg in
d. Ùn sè ɖɔ̀ [dàn lɔ́] **yà** [Kòfĭ] wɛ̀ hù ì
1sg hear that snake Det Top Kofi Foc kill 3sg
'I heard that, as for the snake, KOFI killed it'

61.3.1. Distinguishing properties of topic constructions
1. A gap is illicit in the extraction site: the topic A'-binds a resumptive weak pronoun inside IP.

(151) a. Ùn ɖɔ̀ ɖɔ̀ [lɛ́sì lɔ́]$_i$ yà Kòfí ɖà-ɛ̀$_i$
1sg say that rice Det Top Kofi cook-3sg
'I said that as for the rice, Kofi cooked it'
b. *Ùn ɖɔ̀ ɖɔ̀ [lɛ́sì lɔ́]$_i$ yà Kòfí ɖà t$_i$
1sg say that rice Det Top Kofi cook

2. Topics involve DPs essentially.
(152) a. Xɔ̀ lɔ́ yà Kòfí bíɔ́ é mɛ̀
room Det Top Kofi enter 3sg in
'As for the room, Kofi entered it'
b. *Xɔ̀ lɔ́ mɛ̀ yà Kòfí bíɔ́ é
room Det in Top Kofi enter 3sg

3. Unlike in focus/wh constructions, certain bare quantificational expressions such as, *nú lɛ́ kpó* "everything" and *nú ɖɛ́* "something" resist topicalization.
(153) a. *Nú lɛ́ kpó yà Kòfí sìgán xɔ̀ yé
thing Num all Top Kofi can buy 3sg
b. Nú lɛ́ kpó wɛ̀ Kòfí sìgán xɔ̀
thing Num all Foc Kofi can buy
'Kofi can buy EVERYTHING'
c. Nú tɛ́ lɛ́ kpó wɛ̀ Kòfí sìgán xɔ̀ ?
thing which Num all Foc Kofi can buy
'What is it that Kofi can buy it all'?

4. The Gungbe topics precede focus.
(154) …ɖɔ̀ [dàn lɔ́] **yà** [Kòfí] **wɛ̀** hù ì
that snake Det Top Kofi Foc kill 3sg
'…that, as for the snake, KOFI killed it'

Observe: Properties 1 to 4 suggest that Gungbe topics are not counterparts of clitic left dislocation constructions (CLLD) because they involve a limited set of categories (DPs, and certain PPs), but they are also different from left dislocation (LD) or hanging topics because they are not limited to root contexts and they are sensitive to various island constraints (Cinque 1990, Aboh 2004a).
(155) a. [Kòfí ní yì yòvótòmɛ̀] má jró mì
KofiInj go Europe Neg please 1sg
'That Kofi should go to Europe, I didn't like'
b. *Kòfí yà [é ní yì yòvótòmɛ̀] má jró mì
KofiTop 3sg Inj go Europe Neg please 1sg
'As for Kofi, that he should go to Europe, I didn't like'
c. Ce projet, ceux qui en parlent le plus sont ceux qui en savent le moins.

(156) a. *Kòfí yà ùn sè ɖɔ̀ mótò lɔ́ yà é xɔ̀-ɛ̀
Kofi Top 1sg hear that car Det Top 3sg buy-3sg
'As for Kofi, I heard that, as for the car, he bought it'
b. Hǐ lɔ́$_j$ wɛ̀ Sɛ́ná sè ɖɔ̀ Rɛ̀mǐ$_i$ wɛ̀ t$_i$ zé t$_j$
knife Det Foc Sena hear that Remi Foc take
'Sena hear that REMI took THE KNIFE'
c. Mótò lɔ́ yà ùn sè ɖɔ̀ Kòfí xɔ̀-ɛ̀
car Det Top 1sg hear that Kofi buy-3sg
'As for the car, I heard that Kofi bought it'

Conclusion: Gungbe topics belong to a separate class than CLLD and LD/hanging topics. They are derived by movement to [spec TopP] to check its topic feature against the topic head. Top° hosts the topic marker *yà* as the morphological realization of the feature [topic]. Assuming multiple topic phrases (a la Rizzi), the Gungbe topic constructions target a specific topic phrase within the topic field. There seems to be no recursive topic structure contra Rizzi (1997). The topic field involves discrete topic positions each of which allows for a specific topic phrase. Consider the [LD topic] > [CLLD (topic)] hierarchy.

(157) a. Ah, Giorgio, di libri, sapevo che lui voleva comprane due
'Ah Giorgio, of books, I-knew that he wanted to buy two of them'
b. *Di libri, Giorgio, sapevo che lui voleva comprane due
'Of books, Giorgio, I-knew that he wanted to buy two of them'
c. Di libri, Giorgio, sapevo che voleva comprane due
'Of books, Giorgio, I-knew that he-wanted to buy two of them'

Structure (158) represents the CP-markers that occur to the left in Gungbe (Aboh 2004a).

(158) $[_{Force°}\ldots$ɖɔ̀ $[_{TopP}$ dàn lɔ́$_i$ $[_{Top°}$ yà $[_{FocP}$ Kòfí$_k$ $[_{Foc°}$ wɛ̀ [FinP t_k hù ì$_i$]]]]]]

6.2. On the CP-markers that occur to the right

Certain markers that express illocutionary force or some discourse articulation occur to the right edge.

6.2.1 The sentence-final low tone as the expression of Inter°

(159) a. Kòfí xɔ̀ mótò
Kofi buy car
'Kofi bought a car'

b. Kòfí xɔ̀ mótɔ̀?
Kofi buy car-Inter
'Did Kofi buy a car'?

Assuming that interrogative force is a property of the C-system, I propose that the question marker (i.e., the sentence-final low tone) encodes the feature [interrogative] under a head Inter°, which projects within C and attracts the proposition (i.e., FinP) in its specifier as illustrated in (160).

(160) $[\ldots[_{InterP}$ FinP$_i$ $[_{Inter°}$ $\ldots.[_{FinP}$ t_i]]]

The question marker and the complementizer may co-occur. ForceP whose head hosts the complementizer *ɖɔ̀* "that" precedes the interrogative projection, InterP.

(161) Ùn kànbíɔ́ ɖɔ̀ Kòfí ɖù nû ?
1sg ask that Kofi eat thing-Inter
'I asked whether Kofi ate?'

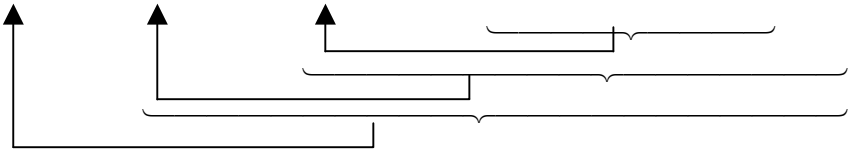
When the topic and focus markers are involved in yes-no questions, they may occur sentence-finally where they manifest the mirror image (wè-yà) contrary to the fixed order (yà-wɛ̀) in example (158).

(162) a. Ùn kànbíɔ́ ɖɔ̀ Kòfí ɖù lɛ́sì wɛ̀ ?
1sg ask that Kofi eat rice Foc-Inter
'I asked whether KOFI ATE RICE [e.g. he shouldn't do so because he is taking medicine]?'
b. Ùn kànbíɔ́ ɖɔ̀ Kòfí ɖù lɛ́sì yà ?
1sg ask that Kofi eat rice Top-Inter
'I ask whether Kofi ate rice [as planned/mentioned]'?

c. Ùn kànbíɔ́ ɖɔ̀ Kòfí ní xɔ̀ mótò wɛ̀ yà ?
1sg ask that Kofi Inj buy car Foc Top-Inter
'I asked whether KOFI SHOULD BUY A CAR [as planned/mentioned]'?

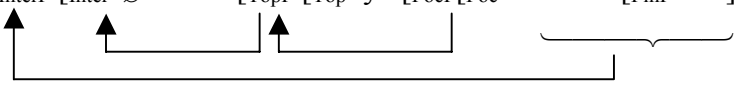
This alternation is interpreted as an effect of snowballing movement.

(163) [ForceP [Force°ɖɔ̀ [InterP [Inter° ∅ [TopP [Top° **yà** [FocP [Foc° **wɛ̀** [FinP Kòfí ní xɔ̀ mótò]]]]]]]]]



Alternative (164a) is possible at first sight, but it fails to predict sequences such as (164b-c) where one of these elements occurs to the right periphery, while the other occurs to the left periphery.

(164) a. [ForceP [Force° ɖɔ̀ [InterP [Inter° ∅ [TopP [Top° yà [FocP[Foc° wɛ̀ [FinP XP]]]]]]]]]



b. Lɛ́sì lɔ́ yà Kòfí ɖù ì wɛ̀ ?
rice Det Top Kofi eat 3sg Foc-QM
'As for the rice did KOFI EAT IT'?

c. Kòfí wɛ̀ ɖù lɛ́sì yà
Kofi Foc eat rice Top-QM
'Did KOFI eat rice'?

6.2.2. The clausal determiner as expression of specificity (SpfP)

Gungbe displays a clausal determiner (CD) lɔ́ that surfaces in sentence-final position and indicates that the Event that is being referred to is pre-established in discourse.

(165) a. Ùn ɖɔ̀ [ɖě Kòfí gbɛ́], nyɛ̀sú gbɛ́ gá
1sg say as Kofi refuse myself refuse also
'I said that as Kofi refused, I myself refused'

b. Ùn ɖɔ̀ [ɖě Kòfí gbɛ́ lɔ́], zɔ́n bɔ̀ nyɛ̀sú gbɛ́ tàù
1sg say as Kofi refuse Det_{cl} make Coord myself refuse very
'I said that as the (aforementioned) fact that Kofi refused [i.e. he is not supposed to do so] made me refuse too'.

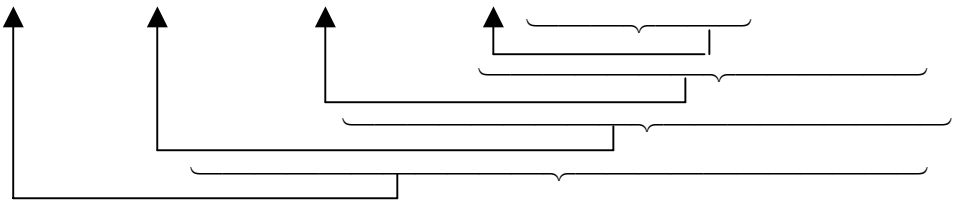
The analysis for yes-no questions extends to constructions involving the clausal determiner as well: Observe, for instance, that the Gungbe CP-markers occur sentence-finally in the fixed order IM>CD>FM>TM>QM, that is, the mirror image of the fixed order in (163).

(166) Ðě ùn ɖɔ̀ ɖɔ̀ Kòfí ní hɔ̀n **lɔ́** **wɛ̀** **yà** ?
as 1sg say that Kofi Inj flee Det_{CL} Foc Top-Inter
'As I said that Kofi should run away?'

Under snowballing movement, the clausal determiner realizes a position (Spf°) in the space between FocP and FinP. Spf° encodes the clausal features [specific] and whose specifier, [spec SpfP], hosts the whole proposition.

(167)

[ForceP[Force° ɖɔ̀ [InterP[Inter°∅[TopP [Top° yà [FocP [Foc° wɛ̀ [SpfP [Spf° lɔ́ [FinP XP [Fin° ní [tXP]]]]]]]]]]]]



Observe: CP-markers occur to the left or right depending on their scope properties. The Gungbe left peripheral markers that express specificity and interrogative necessarily have scope over the proposition, or say the predicate, which is therefore attracted into their specifiers. On the other hand, the topic and focus markers surface to the left when they have narrow scope over a constituent within the clause. In this case, the constituent is attracted to the relevant specifier position. Similarly, these markers occur to the right when they have wide scope over the proposition, which is therefore fronted to the relevant specifier position.

7. Concluding remarks

The discussion in previous sections shows that the Gbe languages can be characterized as follows:

- They manifest free morphemes that encode inflectional specifications (e.g., negation, tense, mood, aspect), and head distinct projections within the I-system.
- They manifest free morphemes that encode C-type specifications (topic, focus, interrogative, mood, specificity) that head distinct projections within C and whose spec host fronted elements.
- VO versus OV variation derives from the interaction of verb movement (due to aspect licensing), object movement (due to case reason), and EPP-licensing.
- C-type elements may precede or follow their complements depending on their scope-properties. The markers that surface to the left have scope over a phrase that is attracted from inside the proposition. The markers that occur to the right have scope over the complement that is pied-piped to the relevant spec position.