CLAUSE STRUCTURE AND WORD ORDER IN KWA

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1. Introduction
The discussion is based on the Gbe languages, a subgroup of Kwa. 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. tó ‘country’  c. tò ‘to align’
    tò ‘father’  tò ‘river’  tò ‘to sew’
    kàn ‘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/mó.

(2) a. Kirí ó bükù mú okokò [Abidji]
   Kere v+Neg ask Neg banana
   ‘Kere did not ask for the banana’

b. Kirí ó kpókpó mú okokó
   Kere v+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.
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).

- 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).

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

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

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).

\[
\begin{align*}
C1 & > C2 > C3 > C4 > C5 > C6 \\
\text{generally already anymore always completely well}
\end{align*}
\]

(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).

\[
\begin{align*}
C1 & > C2 \& [\text{Verb}] < C6 < C5 < C4 < C3 \\
\text{matetika efa} \& [\text{Verb}] \text{ tsara} \text{ tanteraka} \text{ foana intsony} \\
\text{generally already well completely always anymore}
\end{align*}
\]

(12) 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).

\[
\begin{align*}
\text{[FP [FPC3 intsony [FP [FPC4 foana [FP [FPC5 tanteraka [FP [FPC6 tsara [VP manasa lamba ]]]]]]]]]}
\end{align*}
\]

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 do you wonder [CP why John will invite t_i t_j]]
    b. *[CP Why do you wonder [CP whom John will invite t_i t_j]]
(17) \[CP \text{Awù ěhè} \text{ wè à dò ná mi} \ [CP \text{dò Súrù} \text{ wè tj tò tì bò hên-ẹi glé}]]

You told me that SÚRU sewed THIS CLOTH and damaged it.

(18) a. \[\begin{align*}
\alpha & \quad \gamma \\
\beta & \quad \beta + \gamma + \alpha
\end{align*}\]

(19) a. K attracts F if F is the closest feature that can enter into a checking relation with a sublabel of K.

b. The operation seeks to raise just F. Whatever “extra baggage” is required for convergence involves

(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 móto cè [Perfective]

b. Súrù ná kù móto cè [Future]

(23) Súrù nò kù móto cè [Habitual]

(24) a. Súrù tò móto cè kù [Progressive; Gungbe]

b. Súrù qò móto cè kù wè [Progressive; Fongbe]
(25) a. Súrù tò mótò cè nà kù ` [Prospective; Gungbe] 
   b. Súrù dqó mótò cè nà kù wè [Prospective, Fongbe] 
   Suru Prog car 1sg-Poss Prosp drive NR
   ‘Suru is about to drive my car’

Tense and aspect markers may co-occur in the order tense-habitual-progressive-prospective.
(25) c. Âsú étñn ná nò tò nú nà dqù ` lé 
   husband 3sg-Poss Fut Hab Prog thing Prosp eat NR on the moment 
   bò é ná fɔn bò tɔn 
   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 nò tò nú nà dqù ` 
   Suru Neg Fut Hab Prog thing Prosp eat NR
   ‘Suru will not be about to eat’

b. Súrù má ná sò nò tò nú nà dqù ` 
   Suru Neg Fut again Hab Prog thing Prosp eat NR
   ‘Suru will not be about to eat again’


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 Mood₁ drive car 1sg-Poss come here
   ‘Suru should drive my car here’

b. Súrù dqó ná kù mótò cè wá fí [Strong deontic] 
   Suru Mood₂ Prep drive car 1sg-Poss come here
   ‘Suru must drive my car here’

c. Súrù sigán kù mótò cè wá fí [(Prob)ability] 
   Suru Mood₂ drive car 1sg-Poss come here
   ‘Suru can/may drive my car here’

Mood₁ precedes negation, while Mood₂ follow (i.e., occurs between future tense and habitual aspect.
(29) a. Súrù ní má kù mótò cè wá fí bló [Weak deontic] 
   Suru Mood₁ Neg drive car 1sg-Poss come here Neg
   ‘Suru should not drive my car here’

b. ??Súrù má ná dqó ná kù mótò cè wá fí [Weak deontic] 
   Suru Neg Fut Mood₂ Prep drive car 1sg-Poss come here
   ‘Suru must not drive my car here’

c. Súrù má ná sigán kù mótò cè wá fí [Weak deontic] 
   Suru Neg Fut Mood₂ 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 mótó cè wá fí [Weak deontic]

Suru Mood Fut drive car 1sg-Poss come here

2.3. The middle-field adverbs

(31) a. Súrù bí xò mè bléún
Suru enter room in quickly
‘Suru entered the room quickly’

b. Bléún wè Súrù bí xò mè quickly Foc Suru enter room in
‘Suru entered the room QUICKLY’

(32) a. Súrù sò bí xò mè bléún
Suru again enter room in quickly
‘Suru entered the room again quickly’

b. *Só wè Súrù bí xò mè bléún againFoc Suru enter room in quickly

Similarly, aspect markers cannot undergo movement.

(32) c. *Nó wè Súrù dà lési
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’; tè ‘even’; sò ‘again’; gbé ‘at least’; gbô ‘reluctantly’.

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

(34) Súrù kà / kò / tè / sà / sò / gbé / gbô /
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 tè, which in turn precedes kò.

(35) a. Súrù kà tè dà lési
Suru willingly even cook rice
‘Suru willingly even cooked rice’

b. Súrù tè kò dà lési
Suru even already cook rice
‘Suru even already cooked rice’

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

(36) a. Súrù kò sá dà lési
Suru already nevertheless cook rice
‘Suru already nevertheless cooked rice’

b. Súrù kò gbô dà lési
Suru nevertheless reluctantly cook rice
‘Suru nevertheless reluctantly cooked rice’
3. Gbò precedes só, which in turn precedes gbé.

(37) a. Súrù gbò só dà lési
   ‘Suru reluctantly again cooked rice’
   Suru reluctantly again cook rice
b. Súrù só gbé dà lési
   ‘Suru again at least cooked rice’
   Suru again at least cook rice

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


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

(39) a. Súrù wè ná nò kló àgbán
    Suru Foc Fut Hab wash dish
    ‘Suru will habitually wash the dishes’

b. Kló (wè) Súrù ná nò kló àgbán
    wash Foc Suru Fut Hab wash dish
    ‘Suru will habitually WASH the dishes’

c. *Kló (wè) Súrù ná nò --- 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. *Kló (wè) Súrù má ná nò kló àgbán
    wash Foc Suru Neg Fut Hab wash dish
    ‘Suru will not habitually WASH the dishes’

b. Súrù wè má ná nò kló 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 kló àgbán
    Suru wash dish
    ‘Suru washed the dishes’

b. Súrù nyón Yèti
    Suru know Yeti
    ‘Suru knows Yeti’
2.5. A theory of verb-movement in a poorly inflected language

How is aspect licensed in (42)?

(42) a. Súrù  ná nõ kl5 ágbán
   Suru  Fut  Hab  wash  dish
   ‘Suru will habitually wash the dishes’
   b. Súrù  kl5  ágbán
      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).


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 Asp² due to aspect licensing (i.e., -imperfective feature is uninterpretable and must be eliminated before spell-out). V-movement to Agr⁵ and Asp⁵ always holds in VO constructions, but subsequent verb movement may proceed on to the higher Asp⁵ depending on whether the latter is filled by the habitual marker nõ or not.

(44)   [AgrsP  [NegP  [TP[±future]  [AspP1[±habitual]]  [AspP2[±imperfective]]  V]  [AgroP  O  [VP  tj tj ]]])

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. Kõfì  dũ-na  mɔlu  kɔsqagbe  Ewegbe
    Kofi  eat-Hab  rice  Sunday
    ‘Kofi eats rice on Sundays’
   b. Kõfì  dũ-na  nù  súgbɔ  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. *Kòfì a-qù-na mòlu kòsiṣagbe Ewegbe  
Kofi Pot-eat-Hab rice Sunday  
‘Kofi will habitually eat rice on Sundays’  
b. *Kòfì lá ṣù-na nú sùgbọ Gengbe  
Kofi Fut eat-Hab thing a lot  
‘Kofi will habitually eat a lot’  
c. *Kòfì ná ná ṣù lèsi sègbè Gungbe  
Kofi Fut Hab eat rice sunday  
‘Kofi will habitually eat rice on Sundays [i.e., from now one….]’

(47) a. [FP [AspP1[Habitual] nò [AspP2 [VP V ]]]] Gungbe  

b. [FP [AspP1[Habitual] V-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. Kọjó tò [DP mòtò] kù  
Kojo Prog car drive-NR  
‘Kojo is driving a car’  

b. Kọjó tò [DP mòtò] nà kù  
Kojo Prog car Prosp drive-NR  
‘Kojo is about to drive a car’  

c. Kọjó yì [DP mòtò] kù gbé  
Kojo go car drive Purpose  
‘Kofi went to drive a car [i.e., in order to]’  

d. Kọjó jè [DP mòtò] kù jí  
Kojo begin car drive Part[on]  
‘Kojo starts driving a car’
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] wè Kɔjɔ tɔ kù kù
   car Foc Kojo Prog drive.drive-NR
   ‘Kojo is driving A CAR’
   Progressive

b. [DP Mótò] wè Kɔjɔ 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] wè Kɔjɔ jè kùkù jì
   car Foc Kojo begin drive.drive Part[on]
   ‘Kojo starts driving A CAR’
   ‘Control V₁’

e. [DP Mótò] wè Kɔjɔ gbé 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. Asibá tò [dàwè dë mí yr5] dîn
   Asiba Prog man that 1pl invite search-NR
   ‘Asiba is looking for the man that we invited’

b. Asibá tò àxì mè yì
   Asiba Prog market P[IN] go-NR
   ‘Asiba is going the market’

c. Asibá tò dëdë zòn
   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. Asibá tò lësì dë dëdë
   Asiba Prog rice eat slowly-NR
   ‘Asiba is eating rice slowly’

b. *Asibá tò dëdë dë lësì
   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 kplön hän Kɔjɔ
   Kofi teach song Kojo
   ‘Suru taught Kojo a song’

b. Súrù kplön Kɔjɔ hän
   Suru teach Kojo song
   ‘Suru taught Kojo a song’
c. Súrù tò hàn kplónn K̀jó
   Suru Prog song teach Kojo- NR
   ‘Suru is teaching Kojo a song’

d. *Súrù tò K̀jó kplónn hàn
   Suru Prog Kojo teach song- NR

When the theme is wh-extracted, the goal precedes the verb.
(53) a. Hàn wè Súrù tò K̀jó kplónn
    Song Foc Suru Prog Kojo teach- NR
    ‘Suru is teaching Kojo A SONG’

b. *Hàn wè Súrù tò kplónn K̀jó
   Song Foc Suru Prog teach Kojo- NR

c. ??Hàn wè Súrù tò kpíkplónn K̀jó
   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 ǹ tò ǹ qù–i
    Suru Fut Hab Prog Prosp eat- 3sg-NR
    ‘Suru will be habitually about to eat it’

b. Súrù ná ǹ tò qù–i
    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. …. [AsP3 [AsP°3 nà [AgroP [Agr° V+Cl [VP t v t_cl ]]]]
   b. …. [AsP3 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. Sin l̀ sà
    water Det pour
    ‘The water poured’

b. Sin l̀ tò sìsà
    water Det Prog pour.pour-NR
    ‘The water is pouring’

c. Sin l̀ tò nà (si)sà
    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 ḍè
Asiba Prog search.search 2sg-NR
‘Asiba is looking for you’

b. Mènùi wè Àsíbá tò díndîn tì?
who Foc Asiba Prog search.search-NR
‘Who is Asiba looking for?’

c. Súrùi wè Àsíbá tò díndîn tì?
Suru Foc Asiba Prog search.search-NR
‘Asiba is looking for Súrù’

(58) a. Súrù tò nà dín wè
Suru Prog Prosp search 2sg-NR
‘Suru is about to look for you’

b. Mènùi wè 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 Oj [Asp° Vı [AgroP t’j [Agr° t’i [VP tı ti tj]]]]]

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°VVı [AgroP [Agr° t’i [VP tı tj]]]]]

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° Vı [VP tı]]]]]

b. [AspP3 Oj [Asp° nà [AgroP [Agr° Vı [VP tı ti]]]]]

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)  
\[
\begin{array}{c}
\text{CP} \\
\text{spec} \\
\text{C'} \\
\text{C° AspP3}
\end{array}
\]

(63)  a. [Xwé] lò house Det ‘The [specific] house’
     b. [dë Ásibá hòn] lò as Assiba flee Det ‘The fact that Assiba fled’
     c. [Ásibá dù nú] à [Fongbe]
         Assiba eat thing QM ‘Did Assiba eat?’

(65)  a. Ásibá tò lési dù Assiba Prog rice eat-NR ‘Assiba is eating rice’
     b. AspP2
        
        \[
        \begin{array}{c}
        \text{spec} \\
        \text{Asp'}2 \\
        \text{Asp°2} \\
        \text{tò} \\
        \text{spec} \\
        \text{C'}
        \end{array}
        \]

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.

13
(66) a. Kojo yi [DP àmì ló] sà gbé
   ‘Kofi left in order to sell the oil’
b. AspP2
   spec Asp'2
   Asp°2 CP[PURPOSE]
   yi
   spec C'
   C°
   gbé
   AspP3
   spec Asp°3 Agr°
   sà_t'
   spec Agr'
   t'
   VP
   V
   DP

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. Sùrù kpl∓n nù djë
suru learn thing draw.draw
‘Suru learn painting’
b. Sùrù zón nù djë Kòjó
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. Àzón wìwà
   work do.do
   ‘The act of working’
b. Kòjó kpl∓n móto kùkù
   Kojo learn work drive.drive
   ‘Kojo learned the act of driving a car’ [i.e. he learned car driving]
c. [Àzán wiwà] má jró mi din
   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] wè jró mi 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) CP
    spec C' Azńj
    AspP3
    C° Asp'3
    spec ec
    Asp°3 AgroP
    wiwà spec Agr'
    i t_j
    Agr° VP
    t_i
    spec V'
    V DP
    t_i t_j

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

(70) a. Mënúi wè Súrù tò kípípän t_i ?
    who Foc Suru Prog look look-NR
    ‘Who is Suru looking at?’

b. Kọjọi wè Súrù tò kípípän t_i
    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. Kikọ-iwé RED-write-letter
    ‘Writing letter (or writing book)’

b. Ìwé -kikọ t_i letter RED-write
    ‘Letter-writing (or book-writing)’

c. *Ìwé -kọ t_i 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 lị], wè yè kplóln tᵢ
   song Det Foc 3pl learn
   ‘They learned THE SONG’

b. [[Hàn ṭê mi jl] lị], wè yè kplóln tᵢ
   song that 1pl sing Det Foc 3pl learn
   ‘They learned THE SONG THAT WE SANG’

c. [Hàn [jijì]], wè yè yi kplóln tᵢ
   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. Yè wá [hàn lị] kplóln gbé
   3pl come song Det learn Purpose
   ‘They came on the purpose to learn the song’

b. Yè wá [[Hàn ṭê mi jl] lị] kplóln gbé
   3pl come song that 1pl sing Det learn Purpose
   ‘They came on the purpose to learn the song that we sang’

c. Yè wá [Hàn [jijì]] kplóln 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. Yè té qô [[xó lị] gò]
   3pl stick Loc word Det \(P_{[AT]}\)
   ‘They kept on talking about the story’

b. Yè té qô [[[xó ṭê mi dọ] lị] gò]
   3pl stick Loc word that 1pl say Det \(P_{[AT]}\)
   ‘They stuck to the words that we said’

c. Yè té qô [[[xó dídọ] 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


(76) a. Súrù ďà àklà dù
    Suru cook biscuit eat
    ‘lit., Suru cooked the biscuit eat’

b. Súrù sá yì
    Suru crawl go
    ‘Suru crawled go’

c. Súrù zé ví cè yì Kútǹù
    Suru take child 1sg-Poss go Cotonou
    ‘Suru took my child go to Cotonou’

   Type 1: V₁ and V₂ transitive

d. Súrù zé kpò xò Kójó
    Suru take stick hit Kojo
    ‘Suru took the stick hit Kojo’

   Type 2: V₁ and V₂ unaccusative

e. Súrù nyàn Kójó yì Kútǹù
    Suru chase Kojo go Cotonou
    (i) ‘Suru chased Kojo go to Cotonou’
    (ii) ‘Suru run after Kojo go Cotonou’

   Type 5: V₁ take and V₂ unaccusative

f. Súrù kplán Kójó yì Kútǹù
    Suru accompany Kojo go Cotonou
    ‘Suru accompanied Kojo to Cotonou’

   Type 6: V₁ accompany and V₂ unaccusative

g. Xè lój zrón yì àtín lój jí
    bird Det fly go tree Det on
    ‘The bird flew to the top of the tree’

   Type 7: V₁ unergative and V₂ 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.

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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 ðà àklà
       Suru cook biscuit
       ‘Suru cooked (a) biscuit’
   b. Súrù ðù àklà
       Suru eat biscuit
       ‘Suru ate (a) biscuit’

2. The series lead to ‘a single event’ reading.
   (78) Súrù kù ví lé yi wéxàmè
       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 àjòt O! l O! hù
       3pl beat thief Det kill
       ‘They beat the thief’
       ‘They beat the thief, as a result, he died [either on spot or maybe a couple of days after]’

3. Single tense
   (81) a. Yé ná n O~ xò àjòt O! l E!
       3pl Fut Hab beat thief Numb Fut Hab kill
       ‘They will habitually beat (the) thieves kill’
   b. Súrù ná n kù ví lé (*ná) (*nà) yi wéxàmè
       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 n O~ zé àkwékwè ðù [Gungbe]
       3sg Hab take banana eat
   b. E-tsà-na akàaqu ðù-nà [Ewegbe]
       3sg-take-Hab banana eat-Hab
       ‘S/he habitually takes banana eat’

5. Single negation (in Gbe).
   (83) Súrù má kù ví lé (*mà) yi wéxàmè
       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 ló kpón
Suru take photo Det look
‘Suru took the picture look’

b. *Súrù zé fótò ló mòn
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 wè zé fótò ló kpón
Suru Foc take photo Det look
‘SURU took the picture look’

b. fótò ló wè Súrù zé kpón
photo Det Foc Suru take look
‘Suru took THE PICTURE look’

c. Étè wè Súrù zé xò ví ló
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 ló kpón
Suru take photo Det look
‘Suru TOOK the picture look’

b. *Kpón Súrù zé fótò ló kpón
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 qū
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 wè Súrù tò zizé qū
biscuit 1sg-Poss Foc Suru Prog take take eat-NR
‘Suru is taking MY BISCUIT eat’

b. Súrù tò hìh qū
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 qū 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-V₁-V₂] is subject to movement operations. In addition, the existence of [O-nà-V₁-V₂] 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

\[
\begin{array}{c}
\text{a.} & \text{VP₁} \\
\text{b.} & \text{VP₁} \\
\end{array}
\]

\[
\begin{array}{c}
\text{VP₁} \\
\text{V₁} \text{ DP} \text{ V₂} \ldots \\
\end{array}
\begin{array}{c}
\text{VP₂} \\
\text{V₂} \ldots \text{ V₁} \text{ DP} \\
\end{array}
\]

2. The VP-shell analysis

\[
\begin{array}{c}
\text{a.} & \text{Sùrù dà lèšì dũ} \\
\text{b.} & \text{vP} \\
\end{array}
\]

\[
\begin{array}{c}
\text{Àsìbá v'} \\
\text{v} \text{ VP₁} \\
\end{array}
\begin{array}{c}
\text{dũ} \text{ v lèšì, V'} \\
\text{V₁} \text{ VP₂} \\
\end{array}
\]

\[
\begin{array}{c}
t\text{dũ} \text{ spec} \text{ pro} \text{ i} \\
\end{array}
\begin{array}{c}
\text{V'} \\
\text{V₂} \text{ dũ} \\
\end{array}
\]

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) Sëtù ná nyà Kòjó yi Kútònù
\text{Setu Fut chase Kojo go Cotonou}
\text{‘Setu will chase Kojo go Cotonou’ [i.e., Setu threatened Kojo, only the latter went to Cotonou]}
\text{‘Setu will run after Kojo go Cotonou’ [i.e., Setu run after Kojo, they both ended up in Cotonou]}

20
2. $V_1$ replicates the aspect markers associated with $V_2$ (in many Kwa languages).

(93) a. e-tso-\textbf{na} akɔdu \textbf{qu-na} [Ewegbe]
3sg-take-Hab banana eat-Hab
‘He habitually takes banana eat’ [i.e. he habitually eats banana]
b. Me-yee adwuma ma-\textbf{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) Àblé à-ta ìkò à-nú-mò à-nútú-vò [fê] à-nòtò-mò à-mebe
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’

\textbf{Observe:} body associated with the verb \textit{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 ëhèn rhié yè òkhuaé [Edo]
Ozo kill fish take Loc basket
‘Ozo killed the fish and put it in the basket’
b. Ozó gbé-lé ëhèn vió yè òkhuaé
Ozo kill-Pl fish take-P l Loc basket
‘Ozo killed the fishes and put them in the basket’

\textbf{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 VP$_2$ to [spec AspP], due to the EPP. The ‘shared object’ is the subject of the predicate denoted by $V_2$ (Kayne 1984; Hoekstra 1988) \Rightarrow 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\textdegree, 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 $V_1$ [CP$_1$ [AspP Object [Asp\textdegree $V_2$ [AgroP t$_{object}$ [Agr\textdegree t$_2$ [VP$_2$ t$_{v2}$ t$_{object}$]]]]]]]

\textbf{Conclusion:} the Kwa languages manifest object shift due to the EPP-licensing.

\textbf{Observe:} this analysis predicts that the canonical subject may originate from VP$_2$ or be introduced by $V_1$ under the higher Asp\textdegree.

\textbf{Resultative:}

(97) [AspP Sétu [AspP tSétu [Asp\textdegree nyàñ [CP$_1$ [AspP Kòjó [Asp\textdegree yi [AgroP tKòjó [Agr\textdegree t$_{yi}$ [VP$_2$ tKòjó [V$_2$ t$_{yi}$ Kùtùnù]]]]]]]]]
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.

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

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.

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 V₂ or ná is pro. Instead they suggest that the gap in series is a trace (presumably an NP-trace).

Concluding remarks on the Kwa series

1. Under this analysis, the gap to the right of V₂ is an NP-trace (i.e., the trace of the complement that has moved to [spec AspP]) but not pro (or PRO).
2. V₁ 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 V₁ belongs to a smaller class than V₂

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 pigghi 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. V₁ 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. V₁ 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 pigghi a pigghi 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 (CP₁) \(\rightarrow\) C₁ may host the preposition-like complementizer or the coordinating conjunction (Kayne 1994, 2000, 2001). S V₁-(XP)-V₂ in Kwa versus S V₁-Prep/Conj-V₂-(XP) in Germanic reduces to EPP licensing and language specificities as to whether CP₁ has a PF manifestation. In Romance/Germanic series, the lexical verb merges under V₂ with the direct object merged as its internal argument. V₂ 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 V₂ that has raised to Asp°) 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 V₂). The prepositional complementizer (or a conjunction) merges in C₁ to encode the left periphery. CP₁ then merges as the complement of the motion verb V₁ that merges under a higher aspect head. The agreement on V₂ percolates on to C₁° and can therefore be copied on V₁. This copy mechanism could be responsible for the (defective) single tense, mood, aspect specifications in verbs in series (Cardinaletti & Giusti 2001).

(116) a. [AspP V₁ [CP₁ a [AspP Expl [Asp° V₂ agr [AgroP Obj [Agro° t₂ [VP₂ t₂ t_object]]]]]]]
b. [AspP V₁ [CP₁ and [AspP Expl [Asp° V₂Ø [AgroP Obj [Agro° t₂ [VP₂ t₂ 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 C₁ 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
 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 water Part pot in
‘I am pouring water into the pot’ [Hoan, Collins 2002:1]

(120) $\begin{array}{c}
\text{vP} \\
\downarrow \\
\text{v' FP} \\
\downarrow \\
\text{pour v DP F'} \\
\downarrow \\
\text{put in v F DP V'} \\
\downarrow \\
\text{pour 1 DP V' VP1} \\
\downarrow \\
\text{pot in 2 PRO1 V2 PP} \\
\end{array}$

$\begin{array}{c}
\text{1} \\
\downarrow \\
\text{t1 v2 tput in} \\
\downarrow \\
\text{pot in} \\
\end{array}$

**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 $C_1^\circ$ as a support to an otherwise empty $C_1$. $C_1$ 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 [Hoan, Collins 2002:1]
   ‘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 $V_2$+$\circ$ [AspP $\text{Exp} [\text{Asp}^{\circ} t_v^{\circ}$+$\circ$ $\text{Agr}_P \text{O} \text{[Agr}^{\circ} t_v [VP2 t_v t_{\text{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 V₂ to subsequently move to C₁.

(122) \[
\begin{array}{l}
\text{AspP} V₁ \attice \text{CP₁} V₂+Ø \attice \text{AspP} O \attice \text{AgroP} t₂ \attice \text{XP} \langle \text{adjunct} \rangle
\end{array}
\]

4. More on CP₁: the VP-edge

Working hypothesis: CP₁ 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 CP₁ manifests some parallels with the main CP layer?
2. Is CP₁ a (strong) phase?

5.1. Topic within CP₁

Pervious discussion shows that V₁-O-V₂ and V₁-V₂-O structures in Kwa and Khoisan languages are derived as follows:

(123)

a. O-V-V ⇒ O…V-V…V…to where O moves to [spec CP] and V moves to Asp due to aspect licensing, gets reduplicated (and maybe subsequently moves to to C₁ as an instance of V-to-C movement).

b. V₁-O-V₂ ⇒ V₁…O…V₂…to where V₁ introduces the small clause, O is in specAspP, and V₂ moves to Asp due to aspect licensing.

c. V₁-V₂-O ⇒ V₁…V₂…O…V₂…to where V₂ moves past O to C₁ 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 CP₁] on a part with V-to-Asp and V-to-C₁ 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 CP₁] 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. Kíko-ìwé
   RED-write-letter
   ‘Writing letter (or writing book)’

b. Ìwé-kíko t₁
   letter RED-write
   ‘Letter-writing (or book-writing)’

There may be a topic-related projection within CP₁, Belletti (2002, 2003).

5.2. Focus within CP₁

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

(125)

a. Fil á mò zí kí-bé án ‘sóm [Aghem (Bantu)]
   Friends SM Past eat fufu in farm
   ‘The friends ate fufu in the farm’

b. S….Aux….Preverb particle….Verb….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).
Working hypothesis: The clause involves a topic/focus articulation in the periphery of the VP (i.e., CP) and a higher C-system in the left periphery of the clause.

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 [\text{top under no circumstances}] [\text{should}] one start one’s own business
b. Credo che [\text{top a Gianni}], [\text{Foc QUESTO}], [\text{top domani}], gli dovremmo dire
   ‘I believe that to Gianni, THIS, tomorrow we should say’
c. Sue se preguntó que [\text{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
   ‘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 qué 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


(133) a. Ùn sè dɔ òàn lophon la yà Kòfì hù i
   1sg hear that snake Det Top Kofi kill 3sg
   ‘I heard that, as for the snake, Kofi killed it?’

b. Ùn sè dɔ òàn lophon la wè Kòfì hù
   1sg hear that snake Det Foc Kofi kill
   ‘I heard that Kofi killed THE SNAKE’

c. Ùn kànbí dɔ òàn lophon la wè Kòfì hù?
   1sg ask that what Foc Kofi kill
   ‘I asked what did Kofi kill?’

d. Ùn dɔ dɔ òàn Asibá ní òàn lophon la
   1sg say that Asiba Inj cook meat Det
   ‘I said that Asiba should cook the meat’

e. Ùn dɔ dɔ òàn lophon la yà
   1sg say that meat Det Top
   Kòfì wè Asibá ní òàn-è 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 dɔ “that” and the subject.

6.1.1 Injunctive ní as the expression of Fin°

(134) a. Kòfì ní má ji hàn blô
   Kofi Neg sing song Neg-Part
   ‘Kofi should not sing (a song) anymore’

b. Kòfì má sigàn jì hàn
   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. Ásíbá jró dq mi ní nɔ wá
   Asiba want that 1pl Inj Hab come
   ‘Asiba wants us to habitually come’

b. *Ásíbá jró dq mi nɔ wá
   Asiba want that 1pl Hab come

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

(136) a. Ní hwênénú yà, Kòfí wè yé yr,  
   Conj at that time Top Kofi Foc 3pl call,
   bè Ásíbá má ná wá  
   then Asiba Neg Fut come
   ‘If, at that time, they invited KOFI, then Asiba would not have come’

b. Ùn dq dq län ló yà Ásíbá wè ni dq-è  
   1sg say that meat Det Top Asiba Foc Inj cook- 3sg
   ‘As for the meat, I said that Asiba should cook it’

c. Ún kànbiñí ni Kòfí xɔ wémà l5?  
   1sg ask Conj Kofi buy book Det
   ‘I asked if KOFI bought the book’

d. Ún kànbiñí dq mènù wè xɔ wémà l5?  
   1sg ask that who Foc buy book Det
   ‘I asked who bought the book’

e. *Ún kànbiñí dq ni mènù wè xɔ wémà l5?  
   1sg ask that if who Foc buy book Det

Sentence-initial ni 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 ni manifests Force° as the expression of the clausal type, while sentence-internal ni encodes Fin° as the expression of finiteness and/or mood specification.3

(137) a. Ní Kòfí ná nɔ tò áyihu dà hwèl hwèl-kpóñu,  
   If Kofi Fut Hab Prog game play every time-NR,
   mi má sigán wà àzɔn l5  
   1pl Neg can do work Det
   ‘If Kofi keeps playing around every time, we cannot do the work’

b. *Ásíbá ní ná nɔ tò àzɔn l5 wà  
   Asiba Inj Fut Hab Prog work Det do-NR

c. Ásíbá ní nɔ tò àzɔn l5 wà  
   Asiba Inj Hab Prog work Det do-NR
   ‘Asiba should be doing the work’

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

(138) ForceP[ni [+[conditional, +tense, +aspect]] > (TopP) > (Focus) > FinP[ni [+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 \[\text{spec FinP}\] to check the strong EPP features of Fin° (Cardinaletti 1997, Aboh 2004a).

(139) \[\text{[ForceP} \text{[FinP Kòfí]} \text{[Fin° ni [IP t₁ má nò tón blò]]]}

Kofi Inj Neg Hab go-out anymore

‘Kofi shouldn’t go out anymore’

In this framework, \[\text{[spec FinP}\] represents the “subject of the predication” and is not case-related.

(140) a. \[\text{...[dò yɔ̃ kpɔ̀ lè nà hòn yi mɔ̀n iyà yëtɔ́n] ní}

...that children Numb Fut flee go see mother 3pl-Poss ní-type₂

mà kpáçá dó wè kpálikpáli blò. Mè d̩ɔ̃ kpɔ̀ mà sin

Neg surprise at 2sg-Acc at all not Person one Neg sit

yà ehè 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 xo cè sè amón?

Kofi, 2sg Neg Prog word 1sg-Poss hear Neg-Insistence

Ùn dɔ̀ ɗɔ̀ [(b̩ɛ̀) sɔ̀ːn ɔtǐn ɛ̀hè ɡə̀ jɛ̀ xɔ̀ lɔ̀ kpá dɔ̀n]

1sg say that start from tree Dem body reach house Det side there

nì nyìn xwìxwà hwècò má ɡ̩ dɔ̀ sɔ̀ːn ɔz̩mè

nì-type₂ 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 dìkè ná [nù dɔ̀ dìn-dìn gànàgànà]

2sg-Neg allow Prep thing under search-search shamelessly

nì gbà xwé nà wè blò

nì-type₂ 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 \[\text{[spec FinP}\] is “a semantic property: their being a subject of predicate.” (Cardinaletti 1997: 55).

6.1.2. \textit{Wè as the expression of Foc°}

(141) a. Ùn sè dɔ̀ dàn lò wè Kòfí hù

1sg hear that snake Det Foc Kofi kill

‘I heard that Kofi killed THE SNAKE’

b. Ùn kànbí dɔ̀ étè wè Kòfí hù?

1sg ask that what Foc Kofi kill

‘I asked what did Kofi kill?’

c. Kòfí wè ùn sè dɔ̀ è hù dàn lò

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. Bléùn wè Kòfí dù lán lò

quickly Foc Kofi eat meat Det

‘Kofi quickly ate the meat’
b. *Kofi was young when he started school

c. 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. *Un sè də wə Kɔfì hù dàŋ lɔ
   1sg hear that Foc Kofi kill snake Det

b. *Un kànbì də wə Kɔfì hù étə?
   1sg ask that Foc Kofi kill what

c. *Un sè də dàŋ lɔ, sɔ, wə Kɔfì hù
   1sg hear that snake Det yesterday Foc Kofi kill

d. *Un kànbì də étə sɔ, wə Kɔfì hù?
   1sg ask that what tomorrow Foc Kofi kill

e. *… də dàŋ lɔ wə Kɔfì wə hù
   that snake Det Foc Kofi Foc kill

f. *… də étə wə mənù wə hù?
   that what Foc who Foc kill

g. *… də dàŋ lɔ wə mənù wə hù
   that snake Det Foc who Foc kill

Following Cinque (1990), Brody (1990), Lasnik & Stowell (1991), Ndayiragije (1993), Puskás (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 FMs in Gungbe.

(144)  [ForceP də [FocP XP[+f/+wh]j [Foc° wə [FinP t j ]]]]

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

(145)  a. Hi lɔj wə Sèná sè də Rèmíì wə t j zé t j
   knife Det Foc Sena hear that Remi Foc take
   ‘Sena hear that REMI took THE KNIFE’

b. Étəj wə Sèná sè də mənù wə t j zé t j?
   what Foc Sena hear that who Foc take
   ‘What did you hear that who took’?


Argument versus adjunct asymmetry.

(146)  a. [Sɔ̀] wə Sèná sè də [hɪ lɔj] wə Rèmí xə t j
   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. [Sò] wè Sènà sè ðò Rèmì xò hì lò
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,

(147) [ForceP ðò [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. *Dù ʊn sè ðò yè ðò błęðì lò
    eat 1sg hear that 3pl eat bread Det
b. ʊn sè ðò ðò yè ðò błęðì lò
    1sg hear that eat 3pl eat bread Det
    ‘I heard that they ATE the bread’
c. Dù Kòfì mǎ ðò lèsi lò
    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. ʊn sè ðò dàn lò yà Kòfì hù ì
    1sg hear that snake Det Top Kofi kill 3sg
    ‘I heard that, as for the snake, Kofi killed it’
b. *Yà Kòfì hù dàn lò
    Top Kofi kill snake Det
    ‘As for the snake, Kofi killed it’
c. *Gòlù lò yà sègbá lò yà Kòfì zè-è ðò è- mè
gold Det Top box Det Top Kofi put-3sg Loc 3sg in
    d. ʊn sè ðò [dàn lò] yà [Kòfì] wè hù ì
    1sg hear that snake Det Top Kofi wè hù ì
    ‘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. Ûn ḍɔ̀ ṭó [lési ƚj], ̀ya ̀Kòfì ḍa-ɛ̀
1sg say that rice Det Top Kofi cook-3sg
‘I said that as for the rice, Kofi cooked it’
b. *Ûn ḍɔ̀ ṭó [lési ƚj], ̀ya ̀Kòfì ɗà tì
1sg say that rice Det Top Kofi cook
‘As for the rice, Kofi cooked it’

2. Topics involve DPs essentially.
(152) a. Xɔ̀ lès yà ̀Kòfì bió ɛ mè
room Det Top Kofi enter 3sg in
‘As for the room, Kofi entered it’
b. *Xɔ̀ lès mè yà ̀Kòfì bió ɛ
room Det in Top Kofi enter 3sg
‘I said that Kofi cooked it’

3. Unlike in focus/wh constructions, certain bare quantificational expressions such as, nú lè kpó “everything” and nú ɖé “something” resist topicalization.
(153) a. *Nú lè kpó yà ̀Kòfì sigán xɔ̀ yè
thing Num all Top Kofi can buy 3sg
‘Kofi can buy EVERYTHING’
b. Nú lè kpó wè ̀Kòfì sigán xɔ̀
thing Num all Foc Kofi can buy
‘What is it that Kofi can buy it all’?

c. Nú té lè kpó wè ̀Kòfì sigán xɔ̀?
thing which Num all Foc Kofi can buy
‘Kofi can buy EVERYTHING’

4. The Gungbe topics precede focus.
(154) …dàn lèsì yà ̀Kòfì [mà ɬró mì]
that snake Det Top Kofi Inj go Europe Neg please 1sg
‘That Kofi should go to Europe, I didn’t like’
b. *Kòfì yà ̀Kòfì [ɛ ní yi yòvòtò̀mè] mà ɬró mi
Kofi Top 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.
(Kòfì ní yì yòvòtòmè] mà ɬró mi
KofiInj go Europe Neg please 1sg
‘That Kofi should go to Europe, I didn’t like’

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. *Kòfì yà ân sè ḍọ̀ mó tô lèsì yà ɛ xɔ̀-ɛ̀
Kofi Top 3sg hear that car Det Top 3sg buy-3sg
‘As for Kofi, I heard that, as for the car, he bought it’
b. Hị ƚj wè Sèná sè ḍọ̀ Rèmì wè lì, zé ɬʃ
c. Mó tô lèsì yà ân sè ḍọ̀ Kòfì xɔ̀-ɛ̀
kniFe Det Foc Sena hear that Remi Foc take
‘As for the car, I heard that Kofi bought it’
‘Sena hear that REMI took THE KNIFE’
c. Mó tô lèsì yà ân sè ḍọ̀ Kòfì 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°…q3 [TopP dàn l5i [Top° yà [FocP Kofi k [Foc° wê [FinP t5 hù 1i]]]]]]

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. Kofi xɔ motto
   Kofi buy car
   ‘Kofi bought a car’
   b. Kofi xɔ motto?
   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) […][IntP FinP, [Inter° …[FinP t5]]]}

The question marker and the complementizer may co-occur. ForceP whose head hosts the complementizer q3 “that” precedes the interrogative projection, InterP.

(161) Ìn kànbì ðɔ Kofi ðù nù?
   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 (wê-yà) contrary to the fixed order (yà-wê) in example (158).

(162) a. Ìn kànbì ðɔ Kofi ðù lési wê?
   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. Ìn kànbì ðɔ Kofi ðù lési yà?
   1sg ask that Kofi eat rice Top-Inter
   ‘I ask whether Kofi ate rice [as planned/mentioned]?’
This alternation is interpreted as an effect of snowballing movement.

(163)  

\[ \text{[\text{ForceP [\text{Force}° \text{∂O} \text{∂O} \text{InterP [\text{Inter}° \text{TopP [\text{Top}° \text{yà [\text{FocP [\text{Foc}° \text{wè [\text{FinP Kòfí ní xɔ mótoù wè yà]}}]}}]}}]}}]}} \]

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.  

\[ \text{[\text{ForceP [\text{Force}° \text{∂O} \text{∂O} \text{InterP [\text{Inter}° \text{TopP [\text{Top}° \text{yà [\text{FocP [\text{Foc}° \text{wè [\text{FinP XP ]]]]}}]}}]}}]}} \]

b.  

Lèsi \ lò \ yà \ Kòfí \ qù \ i \ wè ?

rice \ Det \ Top \ Kofi \ eat \ 3sg \ Foc-QM

‘As for the rice did KOFI EAT IT’?

c.  

Kòfí \ wè \ qù \ lèsi \ 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) lò that surfaces in sentence-final position and indicates that the Event that is being referred to is pre-established in discourse.

(165)  

a.  

\[ \text{[\text{∂O} \text{∂O} \text{Kòfí ní hòn lò wè yà]}} \]

1sg \ say \ that \ Kofi \ Inj \ flee \ DetCL \ Foc \ Top-Inter

‘As I said that Kofi should run away?’

b.  

\[ \text{[\text{∂O} \text{∂O} \text{Kòfí gbè lò], zón bò nyèsù gbè tàù]}} \]

1sg \ say \ as \ Kofi \ refuse \ DetCL \ 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)  

\[ \text{[\text{∂O} \text{∂O} \text{Kòfí ní hòn lò wè yà]}} \]

1sg \ say \ that \ Kofi \ Inj \ flee \ DetCL \ 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.
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.