Contrastive FOCUS and verb doubling in Méèdúmbà

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1. Introduction: Aims & Objectives

The talk provides an in-depth description and analysis of contrastive FOCUS marking in Méèdúmbà (Grassfields Bantu, Cameroon), with particular emphasis on the expression of focus on verbs (2a).

(1) a. nànà ná³ lu³ á bí
   Nana P₆ take FOC knife
   ‘Nana took a KNIFE.’ (…and not a pen)

   b. à nyú ñè ntjòg òm
      FOC snake P₄ bite me
      ‘A SNAKE bit me.’ (… and not a scorpion)

(2) a. nànà ná³ lu³ bí á lu³ù
   Nana P₆ take knife FOC take
   ‘Nana TOOK the knife.’ (… she did not steal it)

   b. *nànà ná³ á lu³ bí
      Nana P₆ FOC take knife

• Aims of the talk:
  i. Description and analysis of focus marking in Medumba as morphological focus marking
  ii. Analysis of verb doubling under focus in terms of syntactic copying/transfer of SEM & PHON-features on a semantically empty dummy verb

• Background information on Medumba

  Medumba is a Grassfields Bantu tone language spoken in Cameroon.
  i. Basic word order is SVOX, where X stands for any adjunct or adverbial expression:

(3) nànà ná³ fá tjàŋ nöm Nàmì
    Nana P₆ give food to Nami
    ‘Nana gave food to Nami.’

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ii. ‘Graded tense’-system (Comrie 1985) with remote tense markers (Cable 2012) and complex clustering of tense/aspect markers in preverbal position (Nganmou 1991, Mucha & Zimmermann, submitted)

iii. Negation marker $kù$ intervenes between T/Asp and V

- **Structure of the talk:**
  - §2: IS-considerations: FOCUS vs New information
  - §3: Morphological focus marking in Medumba: Data and Analysis
  - §4: Verb doubling under focus
  - §5: Semantic interpretation of verb doubling
  - §6: Conclusions & Outlook

2. **IS-considerations: FOCUS vs New**

- **Central Observation:**
  Explicit focus marking with á triggered by presence of salient alternatives in context:
  
  *Focus* (Krifka 2008), *FOCUS* (Selkirk & Katz 2011), *contrastive focus* (Neeleman et al. 2009)

2.1 **Focus marking-inducing contexts** *(Kouankem & Zimmermann, in prep.)*

i. Obligatory focus marking with contrastive focus, cf. (1ab)

ii. Obligatory focus marking with corrective focus, cf. (4):

(4) A: นุ้มิ  naï  kùlò
       Numi  cook  plantains
       “Numi has cooked plantains.”

     B: นงé นุümì  naï  *(ã) บùlòη
        no  Numi  cook  FOC  potatoes
        “No, Numi has cooked POTATOES.”

iii. Obligatory focus marking on associate of the exclusive particle $ndà^{2}$, which excludes alternatives to the focus constituent, cf. (5):

(5) นุümì  kú  swàn  *(ã) นdà^{2} บànànà นvú นtànà
       Numi  PROG  sell  FOC  only  banana  at  market
       “Numi sells only bananas at the market.”
BUT: Only optional focus marking in *wh*-questions and corresponding answers, as these may simply request/provide new information in the absence of an explicit set of alternatives!

(6) a. Q: nänä náʔ fâ tjàŋ nûm wû (new information: no â-marking)
   Nana P₆ give food to who
   “To whom did Nana give food?”
   A: nänä náʔ fâ tjàŋ nûm Nämî
   Nana P₆ five food to Nami
   “Nana gave food to Nami.”

b. Q: nänä náʔ fâ tjàŋ â nûm wû (FOCUS: â-marking)
   Nana P₆ give food FOC to who
   “TO WHOM/WHICH of them did Nana give food?”
   A: nänä náʔ fâ tjàŋ #(â) nûm Nämî
   Nana P₆ five food FOC to Nami
   “Nana gave food to Nami (and not to Numi)”

2.2 Interpretation of â-marking: weak EXH-effects (Kouankem & Zimmermann, in prep.)

Presence of â-marker induces a (weak) exhaustiveness effect, which appears to be on par with exhaustiveness in Hungarian focus constructions (Onéa & Beaver 2011).

i. Lack of entailment in coordinations (Szabolcsi, 1981, É. Kiss, 1998):

(7) CONTEXT: Ngami knows that his sister Numi has cooked plantains AND potatoes. Nana, Ngami’s friend, is hungry and wants to go and eat Ngami’s food with him. He knows that Numi usually does the cooking and wants to know what she has cooked. Ngami answers:

A: nûmî nê (#â)kûlô
   Numi cook FOC plantains
   “Numi has cooked PLANTAINS.”

ii. Infelicity of additive continuations (e.g. Hartmann & Zimmermann 2007c):

(8) (#â) nûmînâʔ nê kûlô mbà mò nê kûlô
   FOC Numi P₆ cook plantains even me cook plantains
   “Numi cooked plantains, I cooked plantains, too.”

3. Morphological Focus Marking in Medumba: Data and Analysis

- Central Observation:

  Focus in Medumba is marked morphologically by the focus marker â, which precedes the focused constituent in its canonical position (*in situ*) – at least with term focus!
3.1 Basic pattern: Structural realisation of term focus

i. Focus-marking in situ:

Term focus is marked by placing the á-marker in front of the focused constituent.

- Expression of subject focus: [á SFOC] V O X, cf. (1b), (9ab)

(9) a. #(á) ñggámi náʔ sèʔè
   FOC Ngami P₆ come
   ‘NGAMI came.’ (… and not Numi)

b. #(á) yí fè nèn nènè
   FOC she P₄ go market
   ‘SHE went to the market.’ (…and not you)

- Expression of object focus: S V [á OFOC] X

(10) a. nànná náʔ sèg á ηké
   Nana P₆ wash FOC dishes
   ‘Nana washed DISHES.’ (…and not clothes)

b. nyú fè ntjèg á mò
   snake P₄ bite FOC me
   ‘A snake bit ME.’ (…and not Ngami)

(11) nànná náʔ fá tjàŋ á nùm Nàní [PO]
   Nana P₆ give food FOC to Nani
   ‘Nana gave food to NAMI’ (…and not to Ngami)

- Expression of adjunct focus: S V O [á XFOC]

(12) a. nànná â²tjàg nè báñ dàmnjú
    nana F₁+F₃ cook fufu tomorrow
    ‘Nana will cook fufu tomorrow.’

b. nànná â²tjàg nè báñ á dàmnjú [TEMP]
    nana F₁+F₃ cook fufu FOC tomorrow
    ‘Nana will cook fufu TOMORROW.’ (… and not later today)

(13) a. bù â² zú bò dúʔ
    they F₀ eat with spoon
    ‘They will eat with a spoon.’

b. bù â² zú á bò dúʔ [INST]
    they F₀ eat FOC with spoon
    They will eat WITH A SPOON.’ (… and not with their hands)

⇒ Structural Constraint on á-marking: FM precedes PP instead of DP/NP in (11) and (13)!
ii. **Clefting:**

Focused constituents can also be realised in sentence-initial position in a cleft-like construction (viz. REL-marker in (15a-c)), *but must also be marked by á*:

(14) a. á bù á ngãmí nák? sèǹè
    it is FOC Ngami P₆ come
    ‘It is NGAMI that came.’

(15) a. á bù *(á) mò [zò nyú fà nʧɔg lá ] [direct object]
    it is FOC me that snake P₄ bite DEF
    ‘I am the one that a snake bit.’

b. á bù *(á) nún Nãmí [zò nǎná nák? fà tʃàŋ lá ] [indirect object]
    it is FOC to Nami that Nana P₆ five food DEF
    ‘It is TO NAMI that Nana gave the food.’

c. á bù *(á) dâmŋů [zò nǎná ǎtʃàŋ nè bǎn lá ] [ADJ_TEMP]
    it is FOC tomorrow that nana F₁+F₃ cook fufu DEF
    ‘It is TOMORROW that Nana will cook fufu.’

⇒ Mandatory presence of á-marker shows that it is the primary means of structural focus marking in Medumba; cf. Hartmann & Zimmermann (2009) on Gùrùntùm (West Chadic).

= mandatory focus accent on focus-clefted constituents in intonation languages

### 3.2 Analysis of focus marking in Medumba

| á-marker | morphological focus marker attached to focused constituents in their canonical position: á-XPFOC |

⇒ **Arguments:**

i. mandatory presence of á-marker in focus-clefts; see above

ii. positional invariance under focus: no evidence for focus movement

(16) nǎná nák? fá tʃàŋ nún Nãmí
    Nana P₆ give food to Nami
    ‘Nana gave food to Nami.’

(17) a. á nǎná nák? fá tʃàŋ nún Nãmí [SUBJ]
    FOC Nana P₆ give food to Nami
    ‘NANA gave food to Nami.’

b. nǎná nák? fá tʃàŋ á nûm Nãmí [PO]
    Nana P₆ give food FOC to Nami
    ‘Nana gave food TO NAMI.’
c. nãnà ná² fá á tʃən núm Nãmì [DO]
   Nana P₆ give FOC food to Nami
   ‘Nana gave FOOD to Nami.’

- No syntactic focus licensing via (higher & lower) FocP; see §3.3.
- Placement of á-markers subject to structural and categorical restrictions:
  i. á-markers must not be inserted within complex DPs/PPs (extended nominal XPs); see (11) and (13) above.
  ii. c-selection: á-markers can only combine with [+nominal] constituents; see discussion of verb focus in §4:

(18) [DP/PP á [DP/PP]FOC ]

3.3 **Arguments against syntactic focus licensing in FocP<sub>HIGH</sub> & FocP<sub>LOW</sub> in Medumba**


(19) [FocP … [TP T … [FocP [vP/VP ]]]]

- Kabiye (or at least its Kɛwɛ-dialect) looks – on the surface – similar to Medumba, warranting a closer look at C&E’s analysis:
  i. morphological FMs, following the focused constituent
  ii. Sentence-initial & postverbal occurrences of focused constituents; cf. (20ab):

(20) Q: What language do you understand?
   a. ma- ní-ʊ kabiye na postverbal FM: na
      1SG-understand- IMPF Kabiye FOC
      ‘I understand KABIYE.’
   b. kabiye-ɛ má- ní-ʊ sentence-initial FM: lengthening/∅
      Kabiye-FOC 1SG-understand- IMPF
      ‘I understand KABIYE.’
   c. *kabiye-ɛ na má- ní-ʊ
      Kabiye-FOC FOC 1SG-understand- IMPF
   d. ma-ní-ʊ kabiye kí ní-ʊ ma- a yɔɔd-ʊ ko’
      1SG-understand-IMPF Kabiye PRT understand-INF 1SG-NEG speak-IMPF it
      ‘I only understand Kabiye. I don’t speak it.'
Formal analysis in C&E (2007):

(21) \[ \text{[FocP __ [ } \Ø \text{Foc} \ [ \text{IP V-I [FocP __ [ na [ VP ... <V> ... ]]}}] ]] \]

(22) a. \[ \text{[IP ma [ [i ni-ʊ] [FocP kabiye} \text{Foc} \ [na [VP <ma> < ni> <kabiye>]]]]] \] (= 20a; O-focus)
b. \[ \text{[FocP kabiye} \text{Foc} \ [ɛ [IP ma [ [i ni-ʊ] [VP <ma> < ni> <kabiye>]]]]] \] (= 20b; O-focus)
c. \[ \text{[IP ma- [ [i ni-ʊ] [kɪp [VP <ni-> kabiye>] [ kɪ [FocP ni-ʊ Foc [VP <ma> <ni kabiye>]]]]] \] (= 20d; V-focus)

(23) Q: Who understands Kabiye?
   a. \[ \text{ɛsɔ́ ni-ʊ na kabiye} \] (S-focus)
      ‘ESSO understands Kabiye.’ (reply to ‘Who understands Kabiye?’)
b. \[ \text{[IP ɛsɔ́} \text{ [ [i ni-ʊ] [FocP <ɛsɔ́> [ na [VP <ɛsɔ́> < ni> kabiye]]]]] \] (actual order)
      ‘A snake bit ME.’ (… and not Nami)

Arguments against morphological focus-marking in Kabiye: [XPFOC - na ]
   i. Occurrences of [XPFOC - na ] illicit in sentence-initial position; \(≠\) Medumba!
   ii. na-stranding with subject focus; cf. (23).

Arguments against syntactic focus licensing in (lower) FocP in Medumba:
   i. linear order \( \acute{a} > \) XPFOC: unexpected if \( \acute{a} = \) syntactic Foc-head; cf. (24ab)

(24) a. \[ \text{nyú fə ntʃ̩og [FocP m̩a \( \acute{a} \) ]} \] (predicted order)
   \text{snake P₄ bite me FOC}
   b. \[ \text{nyú fə ntʃ̩og \( \acute{a} \) m̩a} \] (actual order)
   \text{snakeP₄ bite FOC me}
   ‘A snake bit ME.’ (… and not Nami)

ii. No \( \acute{a} \)-stranding with subject focus:

(25) Q: Who cooked plantains?
   A: \*\[ \text{nəná} \text{ná} \( \acute{a} \) né \( \acute{a} \) kùlò \] (cf. (23))
   \text{Nana P₆ cook FOC plantains}

iii. Fixed word order: focused XP not necessarily immediately postverbal; cf. (17bc) vs (26):

(26) \*\[ \text{nəná} \text{ná} \( \acute{a} \) fə (\( \acute{a} \) nũm Nəmí tʃəŋ} \]
   \text{Nana P₆ give FOC to Nami food}
   Intended: “Nana gave food to NAMI.” (PO-focus)

Conclusion:
Focus not syntactically licensed in FocP_High or FocP_Low in Medumba.
4. Verb doubling under focus

**Central Observations:**

i. Verb focus in Medumba is expressed by means of a verbal copy following vP/VP, which is focus-marked by á:

(27) S V O á-V

ii. á-marked verbal copy: \( V_{\text{COPY}} \)

   a. is lexically identical to the main verb
   b. is a nominalized infinitival form
   c. can freely interchange syntactic position with post-vP/VP-adjuncts!

**Core ingredients of analysis:**

i. Focus marker á is c-selectionally restricted to combine with [-verbal] constituents only

\[ \Rightarrow \text{nominal/ deverbal status of verbal copy: } [\text{NP } N^0 V_{\text{COPY}}] \]

ii. Nominalised/Infinitival verb copy right-adjointed to vP/VP:

(28) \[ [[[vP/VP V O] \ldots ] [\text{á- } [\text{NP } V_{\text{COPY}}]] ] \ldots ] \]

iii. \( V_{\text{COPY}} \) formed in the syntactic derivation by feature copying/transfer of SEM/PHON features from main verb onto semantically and phonologically empty dummy verb \( V_\emptyset \):

(29) \[ \ldots V_{\ldots} \left[\text{á- } [\text{NP } V_\emptyset] \right] \]

\[\left[\alpha_{\text{sem}}, \beta_{\text{phon}}\right]\]

iv. Feature COPY (and subsequent deletion) on \( V_{\text{COPY}} \) and \( V_{\text{FIN}} \) triggered by general well-formedness constraints on the feature content of lexical categories:

   a. Lexical categories (N, V) must be valued for semantic and phonological feature content.
   b. Dummy Vs (and Ns) can acquire SEM/PHON-content in either of two ways:
      - feature copying within the same vP-phase: V-copying languages
      - structural licensing by v/D-heads: DO-insertion languages
   c. Only one set of semantic V-features per vP-phase for reasons of interpretability

\[ \Rightarrow \text{deletion of semantic features on } V_{\text{FIN}} \quad \Rightarrow \text{feature transfer} \]

d. \( V_{\text{FIN}} \) requires phonological content for carrying inflection features of v:

\[ \Rightarrow \text{NO deletion of phonological features on } V_{\text{FIN}} \quad \Rightarrow \text{feature copying} \]
4.1 Data: Structural properties of verb doubling

i. Narrow focus on the verb in Medumba is grammatically expressed with the focus marker á on a postverbal copy of the main verb:

(24) a. à kèèb he cut
    b. à kèèb á kèèbè ‘He has cut.’

⇒ Focus on verbal predicates in Méèdúmba evokes alternatives to the action or event denoted by the verb. By presenting the verbal meaning against the background of focus alternatives, verb focus lays emphasis on the action undertaken, and brings more precision on the action, so as to contrast it with any other action that could be/ have been undertaken:

“What s/he did (with X) was V”

(25) a. ànà nà  lùù lá bi lá lùù Nana P6 take knife FOC take ‘Nana TOOK the knife (she did not steal it).’
    b. *ànà nà  á lùù lá bi lá Nana P6 FOC take knife

(26) a. *ànà nà  lá lùù á lá lùù Nana P6 FOC take knife take
    b. *ànà nà  á lùù lùù á bi lá Nana P6 FOC take knife take

ii. á-marked copy realised to the right of vP/VP, i.e. to the right of DOs, cf. (25ab), (26):  

(27) a. nàhù láb í á lèbè Nana P6 beat him FOC beat
    b. nàhù yùn í á yù Nana P6 beat him FOC beat ‘Nana BEAT him.’

⇒ V_FIN and V_COPY must satisfy lexical identity ⇒ syntactic copying

iii. V_FIN and V_COPY must satisfy lexical identity ⇒ syntactic copying

(28) a. *ànà nà  láb í á yù Nana P6 beat him FOC beat
    b. *ànà nà  yùn í á lèbè Nana P6 beat him FOC beat

intended: ‘Nana BEAT him.’
iv. Categorical status of \( V_{\text{COPY}} \): [+nominal] \( \text{or at least: [-verbal]} \)!

\[ nəɹnə nə ʰ lù ʰ bì ʰ á lù ʰ u \]  
Nana  \( P_6 \) take knife FOC take  
‘Nana TOOK the knife.’

(29) a. nù lù ʰ u ‘to take’

(30) b. nù səɡə ‘to wash’

c. nù kəbə ‘to cut’

\[ \Rightarrow \]

\( V_{\text{COPY}} \) accompanied by infinitival marker \( nù \) (Nganmou 1991: 89) in some environments:

\[ nəɹnə nə ʰ lù ʰ bì ʰ á nə ʰ nù lù ʰ u \]  
Nana  \( P_6 \) take knife FOC only INF take  
‘Nana ONLY TOOK a knife.’

\[ \Rightarrow \]

Infinitival verbs occur in typical NP-positions, e.g. with DEMs and POSSs:

(31) a. yən mən lì  
    ‘this child here’

b. yən nù ləb lì  
    ‘this to beat here’

‘this beating’ (this way of beating)

\[ \Rightarrow \]

Interim Conclusion:

\[ \text{á-marked } V_{\text{COPY}} \text{ is a non-verbal expression!} \]

\[ \Rightarrow \]

\( \text{á-marking on [-verbal] adverbs possible:} \)

(34) nəɹnə nə ʰ zəɬ cəŋ ʰ á ndə ʰ  ndə ʰ  
Nana  \( P_6 \) eat food Foc quickly, not be Foc slowly

‘Nana ate food QUICKLY, not SLOWLY’

\[ \Rightarrow \]

Positional restrictions: \( \text{á-} V_{\text{COPY}} \) right-adjoined to \( \text{vP/VP:} \)

\[ \text{- } \text{NEG outscopes } \text{á-} V_{\text{COPY}} : \text{NEG} > V_{\text{COPY}} \]

(35) nəɹnə nə ʰ kʊ ʰ lù ʰ bì ʰ á lù ʰ u  
Nana  \( P_6 \) Neg take knife FOC take

‘Nana did not TAKE a knife (but did s.th. else with it).’

\[ \text{NOT: What Nana didn’t do with the knife is TAKING / to take it.} \]

\[ \text{- } \text{Q and } C_{\text{REL}} > \text{á-} V_{\text{COPY}} \]

(36) a. nəɹnə nə ʰ yu ʰ  kənə ʰ yu ʰ  kí  
Nana  \( P_6 \) crush peanuts FOC crush QM

‘Did Nana CRUSH the peanuts?’
b. ŋké mën li [ tso mâ ʒùn á ʒùn lá]
plates these here RM I buy FOC buy DEF
‘These plates that I BOUGHT’

⇒ Structural realisation of V-focus NOT a matrix phenomenon!

- á-VCOPY interchangeable with other postverbal adjuncts, which exhibit flexible word order:

(37) a. nañá lu fá tʃàŋ nüm Nämí ngàb mù dʒù ñwà’ni á fá
Nana P₅ give food to Nami week last at school FOC give
‘Nana GAVE food to Nami yesterday at school.’ TEMP > LOC > V_COPY

b. nañá lu fá tʃàŋ nüm Nämí dʒù ñwà’ni ngàb mù á fá
Nana P₅ give food to Nami at school week last FOC give
‘Nana GAVE food to Nami yesterday at school.’ LOC > TEMP > V_COPY

(38) a. nañá lu fá tʃàŋ nüm Nämí á fá dʒù ñwà’ni ngàb mù
Nana P₅ give food to Nami FOC give at school week last
‘Nana GAVE food to Nami at school last week.’ VCOPY > LOC > TEMP

b. nañá lu fá tʃàŋ nüm Nämí ngàb mù á fá dʒù ñwà’ni
Nana P₅ give food to Nami week last FOC give at school
‘Nana GAVE food to Nami last week at school.’ TEMP > V_COPY > LOC

- Conclusions:
  i. á-marked V_COPY is a nominal (infinitival) constituent,
  ii. á-marked V_COPY derived in the syntax
  iii. á-marked V_COPY right-joined to vP/VP, same as other vP/VP-adjuncts

4.2 A tempting alternative: V-movement plus focus marking in base position?
- Basic Idea:
  i. The c-selectional restriction is not against verbal elements per se, but against finite verbs, or
     more generally, against verbs in functional head positions: * á – [F V]

⇒ Doubling also required with predicative adjectives ✓

(39) à bê á bê, à kú fág á fágɔ
it red Foc red it not white Foc white
‘It is RED, not WHITE’
ii. FM á can precede lexical verbs as long as they are in their base position:

\[(TP \ T \ V \ [vP \ ... \ [VP \ OBJ \ á-V\ldots]]\]

iii. Interchangeability with adjuncts due to flexible positioning of V in VP-shell structure (Larson 1988, Haider 2010):

\[ [vP \ ... \ [VP \ ... \ (á-V) \ [ADJ \ (á-V) \ ADJ]]] \]

⇒ Predictions: not borne out!

- no V-doubling with lower lexical verb in serial verb construction (SVC) (Aboh 2009)
- no V-doubling with lexical verbs in causative construction

(42) a. SVC (lower verbs in SVC marked by homorganic nasal consonant): doubling of lower V

\[
\begin{align*}
\text{bín á } & \text{nén ntánnè n-duá } \mbá\text{mb n-seá } \text{yí á } \text{soáá} \\
\text{you F} & \text{go market } \text{take meat } \text{come } \text{it Foc } \text{come} \\
\text{‘You will go to the market and BRING the meat.’}
\end{align*}
\]

b. Causatives: doubling of lower V

\[
\begin{align*}
\text{nnáá } & \text{náá } \text{gvù ngámi } \text{3ú á } \text{3ú kù nù } \text{á nù} \\
\text{Nana } & \text{P6 make Ngami eat Foc eat not drink Foc drink} \\
\text{‘Nana made Ngami EAT, not DRINK’}
\end{align*}
\]

Q: What if the lower verb in SVC and causatives obligatorily moves to some functional projection, too?
This functional projection could be marked by the homorganic nasal in SVC...

(43) \[ [vP \ V1 \ [FP \ n-V2 \ [VP \ OBJ \ á-V2\ldots]]] \]

BUT: V1 in SVC, which is presumably located in a functional position (Aboh 2009), can be focused under doubling, too!

(44) \[
\begin{align*}
\text{nnáá } & \text{náá } \text{luá } \text{njwaá ní } \á \text{ luá á } \text{nnén yí má ndá á } \text{nèná} \\
\text{Nana } & \text{P6 take book Foc take go it to house Foc go} \\
\text{‘Nana TOOLK the book home.’}
\end{align*}
\]

(45) Tentative structure for (44)?

\[
\begin{align*}
\text{[TP náá } & \text{V1 [VP OBJ á-V1 [FP V2+F [VP OBJ P-OBJ á-V2 ]]]]}
\end{align*}
\]

⇒ The problem of infinitival/ nominal shape of á-VCOPY persists: Why is the á-marked VCOPY morpho-syntactically more complex if it is in the base position of the verb?

(31) \[
\begin{align*}
\text{nnáá } & \text{náá } \text{biá [á ndáá nù luá á]} \\
\text{Nana } & \text{P6 take knife FOC only INF take} \\
\text{‘Nana ONLY TOOLK a knife.’}
\end{align*}
\]
4.3 Structural Analysis: Dummy verb insertion plus feature copying

- **Central claim:**
  
  \( V_{\text{COPY}} \) formed in syntactic derivation NOT by V-movement (≠ Aboh & Dyokanova’s 2009 parallel chain formation), but by feature copying of \( F_{\text{SEM}} \) & \( F_{\text{PHON}} \) from main verb to a semantically/phonologically empty dummy verb
  
  \( \Rightarrow \) Subsequent deletion of \( F_{\text{SEM}} \) on main verb gives the impression of feature transfer.

- **Resulting structure:** \( V_{\text{COPY}} \) right-adjointed to \( vP \)

(46) a.  

\[
\begin{array}{c}
TP \\
\downarrow \\
DP_{\text{SUBJ}} \\
\downarrow \\
TP \\
\downarrow \\
T \\
\downarrow \\
n\alpha \ddagger \\
\downarrow \\
vP \\
\downarrow \\
\langle\text{DP}_{\text{SUBJ}}\rangle \\
\downarrow \\
vP \\
\downarrow \\
V+V \\
\downarrow \\
V \\
\downarrow \\
\text{DP}_{\text{OBJ}} \\
\end{array}
\]

b. \( \text{nānā} \)  \( \text{nā}^{\ddagger} \)  \( \text{fǎ} \)  \( \text{tjàŋ} \)  \( \text{nùm} \)  \( \text{Nàmì} \)  \( \text{dʒù}^{\ddagger} \)  \( \text{ŋwà}^{\ddagger} \text{nì} \)  \( \text{á} \)  \( \text{fǎ} \)  \( \text{ŋgàb} \)  \( \text{mü}^{\ddagger} \)  
  
  Nana  \( P_4 \) give food to Nami at school  \( \text{FOC} \) give week last  
  ‘Nana GAVE food to Nami at school last week.’

c.  

\[
\begin{array}{c}
TP \\
\downarrow \\
DP \\
\downarrow \\
n\alpha\ddagger \\
\downarrow \\
vP \\
\downarrow \\
\text{DP}_{\text{TEMP}} \\
\downarrow \\
vP \\
\downarrow \\
vP \\
\downarrow \\
vP \\
\downarrow \\
vP \\
\downarrow \\
vP \\
\downarrow \\
vP \\
\downarrow \\
vP \\
\downarrow \\
vP \\
\downarrow \\
vP \\
\downarrow \\
vP \\
\downarrow \\
vP \\
\downarrow \\
vP \\
\langle n\alpha\ddagger \rangle \\
\downarrow \\
vP \\
\end{array}
\]
Questions:

i. What triggers V-doubling?

ii. What is the syntactic relation between $V_{FIN}$ and $V_{COPY}$?

iii. What is the internal structure of the á-NP?

iv. Why must the lower copy of the main verb be phonologically spelt out?

### Non-violable constraints on grammar-focus interface in Medumba:

(47)

i. Contrastive focus must be marked on focused lexical material.

ii. Contrastive focus in Medumba is morphologically marked by focus marker á.

iii. Focus marker á c-selects for nominal/non-verbal expressions (DP, PP), only.

⇒ Consequences of (47i.-iii.):

(47i) and (47ii): V-focus must be morphologically marked.

(47iii): V-focus cannot be grammatically marked on finite verbs:

(48) Ungrammatical expression of V-focus in Medumba (= Gùrùntùm, H&Z 2009)

*S á -V$_{FIN, F}$ O

⇒ In order to satisfy all three constraints in (39), Medumba resorts to a non-canonical structure in the expression of V-focus: $V$-doubling as a last resort

### Ingredients of the analysis:

i. Numeration must contain FM á (cf. 47i,ii)

ii. FM á cannot combine with $V_{FIN}$, nor with other DP/PP-terms (cf.47iii)

⇒ Insertion of an additional constituent: dummy V focus exponent $\Rightarrow V_{COPY}$

iii. Dummy V is nominalized/infinitival: (cf. 47iii)

iv. Main V selected for by v-head: $v+V \Rightarrow V_{FIN}$
Q: *How does dummy V acquire its PHON/SEM feature content ⇒ V_{COPY}?*

⇒ General principles on feature content of lexical categories & feature spreading

(49) **Constraint on interpretation of lexical categories:**

Semantic and phonological features of lexical categories (N, V) *must be valuated.*

(Lexical Category = arbitrary form/PHON-meaning/SEM pair)

⇒ Lexical Vs without fully specified FSEM and/or FPHON (dummy Vs) require feature valuation in the syntax!

⇒ Two ways of valuating FSEM & FPHON on V in the syntax:

(50) i. **Structural valuation by c-commanding v [+activity DO] after V-to-v movement**

\[ [vP v [VP \ldots V_{[\text{usem}]} \ldots]] \Rightarrow [vP V_{[+\text{sem}]}+v [vP \ldots \langle V\rangle \ldots]] \]

ii. **Feature copying** (in the absence of c-commanding v-head)

\[ [[vP v [VP \ldots V_{[\text{usem}]} ]] [NP \ldots V_{[\text{usem}]} ]] \Rightarrow [[vP v [VP \ldots V_{[\text{usem}]} ]] [NP \ldots V_{[+\text{sem}]} ]] \]

(51) **Constraints on feature copying between lexical verbs:**

i. Two Vs can share semantic and phonological feature content *within the same vP- cycle/phase* (not necessarily subject to c-command!): interface-driven?

⇒ copying of FSEM/FPHON from V_{main} to V_{dummy}

ii. FSEM can only be interpreted once within a vP-cycle/phase for reasons of interpretability:

⇒ deletion of FSEM on main V (= feature transfer)

(52) Feature copying under V-focus in Medumba:

a. \[ [vP [vP v [VP V_{[+phi, +phon, +sem]} \ldots]] [\text{á} [NP N_{0}^{0} V_{[+phi, uphon, usem]}]]] \]

b. \[ [vP [vP v [VP V_{[+phi, +phon, usem]} \ldots]] [\text{á} [NP N_{0}^{0} V_{[+phi, +phon, +sem]}]]] \]

⇒ unvalued semantic feature content on main V in (44b) structurally licensed by c-commanding v: semantic spell out as activity DO; *see section 5*

• **Restrictions on feature copying?**

i. Locality restriction to the same vP-cycle/phase (correctly) blocks the following instantiations of feature spreading:

- no feature spreading between causal core (vP) and the periphery:

⇒ Verbal copying in Gungbe \[ [\text{FocP V} \ldots [\text{TP V} \ldots [vP \ldots [vP V \ldots]]]] \]
= copying plus movement of lower V(P)?

but see Aboh & Dyokanova (2009) on parallel chain formation

- no feature-copying across clausal boundaries

ii. Interpretive restriction to one instance of \( F_{SEM} \) per vP blocks the following configuration:

\[
(53) \quad [vP \ V_{DUMMY}[usem]^+v [vP \ldots V_{+[sem]}\ldots]] \Rightarrow [vP \ V_{DUMMY}[+sem]^+v [vP \ldots V_{[sem]}\ldots]]
\]

\[
\Rightarrow \text{no } V_{LEX} > V_{DUMMY} \text{ within the same clausal vP-core: } *Mary \ \text{ran do/done}
\]

\[
\Rightarrow \text{base generation in (53) without feature spreading is fine: } Mary \ \text{did run}
\]

- Cross-linguistic variation:

Cross-linguistically, languages chose between the two feature valuation strategies in (42i, structural v-licensing) and (42ii. V-copying) in the expression of V-focus, dividing them into subgroups:


\[
(54) \quad \text{Biyà-n hà̃raaji-n (nee) Tankò ya yi.}
\]

paying-of taxes-DET PRT T. 3SG.PERF.REL do

‘It was [pay(ing) the TAXES]/ what Tanko did.’

ii. \( V_{COPY} \)-languages: Medumba, Vata (Koopman 1984), Yoruba (Manfredi 1993), cf. (55a), possibly Gungbe (Aboh & Dyokanova 2009), cf. (55b).

\[
(55) \quad \text{a. Rírà ni Ajé ra iwé. b. Đù (%wè) Séná ðù blédi lo}
\]

buying FM Ajé buy book cook FM Sena cook bread DET

‘Aje BOUGHT a book.’ ‘Sena COOKED yam.’

iii. DummyDO & \( V_{COPY} \) (in vP-external modal domain)? German \( V_{AUX} \)-topicalisation?

\[
(56) \quad \text{a. MÜSSEN tut er das nicht. b. MÜSSEN muss er das nicht.}
\]

must does he that not must must he that not

‘He doesn’t HAVE to do it.’ ‘He doesn’t HAVE to do it.’

\Rightarrow The possibility of extending the analysis to other types of verb copy languages gives it a greater degree of generality, going beyond the mere description and analysis of Medumba.

- Conclusion:

Verb doubling under focus in Medumba receives a principled account given a process of feature copying (and deletion) of \( F_{SEM} \) and \( F_{PHON} \) between lexical categories in a local (and semantically relevant) domain: vP
4.4 Further predictions & a further question

The analysis of V-doubling under focus makes a number of further correct predictions:

- \( V_{COPY} \) is a [+nominal] vP-adjunct, and as such should allow for clefting.

i. Clefting in affirmative clauses:

\[(57) \quad \text{à bù á làb là zò năná cwēd gyù lá}
\]

\[\text{it be FOC beat that RM Nana PROG do Def}
\]

\[\text{‘It is BEATING that Nana does’}\]

ii. Clefting in negated clauses

\[(58)\]

a. \( năná ná^2 \text{ kù làb í á làbè} \)

\[\text{Nana P_6 Neg beat him Foc beat}
\]

\[\text{‘Nana did not BEAT him.’}\]

b. \( à ná^2 \text{ bù á nù làb là zò năná ná^2 kù gyù í lá} \)

\[\text{It P_6 be FOC to beat that RM Nana P_6 Neg do him Def}
\]

\[\text{‘It was BEATING that Nana did not do to him’}\]

- Expression of V-additivity without focus marking: Due to EXH-interpretation of \( á \)?

\[(59)\]

bùg ná^2 \( \text{ zùn mbàb nfèlè} \)

\[\text{we P6 buy meat eat}
\]

\[\text{intended: ‘We bought the meat and (also) ate it’}\]

- Further question: Why must the main verb be spelt out in Medumba?

\[\text{⇒ main verb serves as the phonological host for the abstract inflectional features located in v (and I), which feed the semantic meaning components of activity, agentivity, finiteness into to the semantic derivation (Collins & Essizewa 2007)}\]

\[\text{⇒ main verb (= lower V) functions as a resumptive element saving the feature chain from incurring a violation of the empty category principle (e.g. Koopman & Sportiche 1986, Collins 2004): Lower V is not c-commanded by higher V}\]

4.5 Against other V-movement accounts

- Against parallel V-chains – empirical differences to Gungbe (Aboh & Dyokanova 2009)

\[(60)\]

a. \( ðù (\%wè) Séná ðù blédí lò \]

\[\text{cook FM Sena cook bread DET}
\]

\[\text{‘Sena COOKED yam.’}\]

b. \[\text{[FocP V… [TP V…[VP <V>]]]}\]

i. Gungbe: Both copies in c-commanding position to the left, no intervening N-structure!

ii. Gungbe: Verbal copy formally identical to morphologically finite verb
• Against multiple spell-out of V-movement chain – empirical differences to Nupe (Kandybowicz 2007, 2008)

(61) a. Musa è gi bise gi. [Nupe]
    Musa PROG eat hen eat
    ‘Musa IS eating the hen.’

b. [TP Musa è gi [vP hen l [FocP gi+Foc [...<V>...]]]]

i. Nupe: Verb doubling under polarity/verum focus, not focus on lexical verb meaning
ii. Nupe: Object movement to case-position independently attested: OV, VO-orders
iii. Nupe: Verb reduplication blocked with perfective aspect
iv. Nupe: no morphological focus markers preceding the focused constituent
v. Nupe: No segmental or tonal differences between the two copies
vi. Nupe: No copying of lower verbs in SVC constructions…

• Against rightward movement to the vP-adjunct]
⇒ Illicit chain-relations, no c-command:
(62) [vP [...<V>...] [... [NP á – [NP N V]] ]
⇒ but licit derivation in terms of sidewards movement (Nunes 2001) possible…
(63) [vP [...<V>...] [... [NP á – [NP N V]] ]

5. **Semantic Interpretation of verb doubling**

• Central Claim:

The proposed syntactic structure for verb doubling in terms of vP-adjunction of a nominalized verb can be interpreted in compositional fashion, using a Neo-Davidsonian event semantics (Davidson 1967, Parsons 1990, Kratzer 2000, Champollion 2010, a.o.)

(2) a. nǎná náʔ luʔ́ bí á luʔ́ u
    Nana P6 take knife FOC take
    ‘Nana TOOK the knife.’ (… she did not steal it)

(64) a. [TP náʔ vP [vP nǎná v [vP  luʔ́ [usem] bí ]] á luʔ́ u]

b. [[luʔ́ [usem] bí ]] = λ.e. TH(the_knife, e)
c. [[v]] = λ.P_{≤,p}.λ.x.λ.e.AG(x,e) & P(e) (event identification)
d. [[ v luʔ́ bí ]] = λ.x.λ.e. AG(x,e) & TH(the_knife, e)
e. [[nǎná v luʔ́ bí]] = λ.e. AG(nǎná,e) & TH(the_knife, e)
f. [[á luʔ́ u]] = λ.e. taking(e); [[á luʔ́ u]]^f = ALT([[luʔ́ u]])^f
g. \[\{[\text{nànná v }\text{lù² bì á }\text{lù²ù]}\} = \lambda e. \text{AG(nànná,e)} & \text{TH(\text{the_knife}, e)} & \text{taking(e)};\]

\[\downarrow \text{existential closure}\]

\[= 1 \text{ iff } \exists e[\text{AG(nànná,e)} & \text{TH(\text{the_knife}, e)} & \text{taking(e)}];\]

\[\text{defined iff } \exists C \subseteq \{\lambda e. \text{AG(nànná,e)} & \text{TH(\text{the_knife}, e)} & e \in \text{ALT}(\{[\text{lù²ù]}\})\}\]

\[= 1 \text{ iff there is an activity of taking acted out by Nana on the knife against a contextual background containing salient alternatives to } \text{Nana taking the knife}, \text{ such as Nana stealing, giving, burning, stabbing with the knife etc.}\]

6. Conclusions & Outlook

The investigation of formal focus marking in Medumba has yielded the following results:

- Focus is consistently marked with a morphological FM \(\text{á}\) preceding the focused constituent.
- Focus marker c-selects for nominal/non-verbal constituents only
- This leads to a complication in the case of V-focus \(\Rightarrow\) insertion of \(V\text{COPY}\) as focus exponent
- \(V\text{COPY}\) is formed in the syntactic derivation by means of a process of feature copying between two Vs within the same vP.

Cross-linguistic outlook:

- Marking of V-focus problematic in many languages, leading to a number of ‘repair strategies’:
  i. No marking: Bura, Duwai, Ngizim (all Chadic)
  ii. V-Copying: Medumba, Yoruba (Kwa), Gungbe (Kwa), …
  iii. Shift of FM to adjacent object constituent: Gürüntûm (Hartmann & Zimmermann 2009)
- What looks like a unified process of V-doubling (to postverbal position) across languages may involve different underlying structures: Kabiye vs Nupe vs Medumba

References


Zimmermann, M. & C. Kouankem (in prep.). Contrastive focus and EXH-effects in Medumba. Ms. Université Potsdam & Université de Yaoundé