

Contrastive FOCUS and verb doubling in Mèdúmbà*

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1. Introduction: Aims & Objectives

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

- (1) a. nǎnǎ ná[?] lù[?] á bí
Nana P₆ take FOC knife
'Nana took a KNIFE.' (...and not a pen)
- b. á nyú fè ntʃòg òm
FOC snake P₄ bite me
'A SNAKE bit me.' (... and not a scorpion)
- (2) a. nǎnǎ ná[?] lù[?] bí á lù[?]ù
Nana P₆ take knife FOC take
'Nana TOOK the knife.' (... she did not steal it)
- b. *nǎnǎ ná[?] á lù[?] 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) nǎnǎ ná[?] fá tʃàŋ nǔm Nǎmí
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: *nǔmí né kùlò*
Numi cook plantains
“Numi has cooked plantains.”
 - B: *ngé nǔmí né # (á) bǔlòŋ*
no Numi cook FOC potatoes
“No, Numi has cooked POTATOES.”
- iii. Obligatory focus marking on associate of the exclusive particle *ndà*[?], which excludes alternatives to the focus constituent, cf. (5):
 - (5) *nǔmí kú swèn # (á) ndà[?] bǎnà^{nà} nvú ntónè*
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: nǎnǎ ná[?] fá tʃàŋ nǔm wú (new information: no á-marking)
 Nana P₆ give food to who
 “To whom did Nana give food?”

A: nǎnǎ ná[?] fá tʃàŋ nǔm Nǎmí
 Nana P₆ five food to Nami
 “Nana gave food to Nami.”

b. Q: nǎnǎ ná[?] fá tʃàŋ á nǔm wú (FOCUS: á-marking)
 Nana P₆ give food FOC to who
 “TO WHOM/ WHICH of them did Nana give food?”

A: nǎnǎ ná[?] fá tʃàŋ # (á) nǔm Nǎmí
 Nana P₆ five food FOC to Nami
 “Nana gave food to Nami (and not to Numi)”

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

Presence of á-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: nǔmí né (#á) kùlò
 Numi cook FOC plantains
 “Numi has cooked PLANTAINS.”

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

(8) (#á) nǔmí ná[?] né kùlò mbà mǎ né kùlò
 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 á, 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* S_{FOC}] V O X, cf. (1b), (9ab)

- (9) a. #(*á*) *ŋgámí náʔ sèʔè*
 FOC Ngami P₆ come
 ‘NGAMI came.’ (... and not Numi)
- b. #(*á*) *yí fè nén ntónè*
 FOC she P₄ go market
 ‘SHE went to the market.’ (...and not you)

- Expression of object focus: S V [*á* O_{FOC}] X

- (10) a. *nǎná náʔ sòg á ŋké* [DO]
 Nana P₆ wash FOC dishes
 ‘Nana washed DISHES.’ (...and not clothes)

- b. *nyú fè ntʃòg á m̀*
 snake P₄ bite FOC me
 ‘A snake bit ME.’ (...and not Ngami)

- (11) *nǎná náʔ fá tʃàŋ á nũm Nǎmí* [PO]
 Nana P₆ give food FOC to Nami
 ‘Nana gave food to NAMI’ (...and not to Ngami)

- Expression of adjunct focus: S V O [*á* X_{FOC}]

- (12) a. *nǎná àʔtʃàg né bóŋ dàmŋzú*
 nana F₁+F₃ cook fufu tomorrow
 ‘Nana will cook fufu tomorrow.’

- b. *nǎná àʔtʃàg né bóŋ á dàmŋzú* [TEMP]
 nana F₁+F₃ cook fufu FOC tomorrow
 ‘Nana will cook fufu TOMORROW.’ (... and not later today)

- (13) a. *bù àʔ zú bũ dúʔ*
 they F₀ eat with spoon
 ‘They will eat with a spoon.’

- b. *bù àʔ zú á bũ 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. à bú á ɲǵǎmí náʔ sèʔè
 it is FOC Ngami P₆ come
 ‘It is NGAMI that came.’
- (15) a. à bú *(á) m̀ [z̀ nyú f̀ ntʃòg lá] [direct object]
 it is FOC me that snake P₄ bite DEF
 ‘I am the one that a snake bit.’
- b. à bú *(á) nũm Nǎmí [z̀ nǎná náʔ fá 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. à bú *(á) dàmɲú [z̀ nǎná àʔtʃàg né bán 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-XP_{FOC}

⇒ *Arguments*:

- i. mandatory presence of á-marker in focus-clefts; see above
 ii. positional invariance under focus: no evidence for focus movement

- (16) nǎná náʔ fá tʃàŋ nũm Nǎmí
 Nana P₆ give food to Nami
 ‘Nana gave food to Nami.’
- (17) a. á nǎná náʔ fá tʃàŋ nũm Nǎmí [SUBJ]
 FOC Nana P₆ give food to Nami
 ‘NANA gave food to Nami.’
- b. nǎná náʔ fá tʃàŋ á nũm Nǎmí [PO]
 Nana P₆ give food FOC to Nami
 ‘Nana gave food TO NAMI.’

c. nǎná ná^ʔ fá á tʃàŋ nǔm Nǎmí [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-marker subject to structural and categorical restrictions:
 - i. á-marker must not be inserted within complex DPs/PPs (extended nominal XPs); see (11) and (13) above.
 - ii. c-selection: á-marker 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_{HIGH} & FocP_{LOW} in Medumba

- Collins & Essizewa (2007) provide a cartographic analysis of focus in Kabiye (Gur) in terms of two syntactic focus positions: higher and lower FocP, with lower FocP located at the left vP/VP-boundary (Tuller 1992, Kayne 1998, Belletti 2004, Aboh 2008, a.o.)

(19) [_{FocP} ... [_{TP} T ... [_{FocP} [_{vP/VP}]]]]

- Kabiye (or at least its Kewε-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-ε** má- ní- ʊ sentence-initial FM: lengthening/∅
 Kabiye-FOC 1SG-understand- IMPF
 ‘I understand KABIYE.’

c. *kabiye-ε **na** má- ní- ʊ
 Kabiye-FOC FOC 1SG-understand- IMPF

- iii. *Verb doubling under focus, with verbal copy following the DO*, cf. (20d):

d. ma-**ni-ʊ** kabiye kí **ni-ʊ** ma-a yɔɔd-ʊ kú'
 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) [_{FocP} — [∅_{FOC} [_{IP} V-I [_{FocP} — [na [_{VP} ... <V> ...]]]]]]]

- (22) a. [_{IP} ma [[_I ní-ò] [_{FocP} **kabiye**_{εF} [**na**_{FOC} [_{VP} <ma> <ní> <kabiye>]]]]]] (= 20a; O-focus)
 b. [_{FocP} **kabiye**_{εFOC} [**ε**_{FOC} [_{IP} ma [[_I ní-ò] [_{VP} <ma> <ní> <kabiye>]]]]]] (= 20b; O-focus)
 c. [_{IP} ma- [[_I ní-ò] [_{kiP} [_{VP} <ní-> kabiye<ε>] [kí [_{FocP} ní-ò Foc [_{VP} <ma> <ní kabiye>]]]]]]]] (= 20d; V-focus)

(23) Q: Who understands Kabiye?

- a. **εsɔ́** ní-ò **na** kabiye (S-focus)
 Ezzo understand-IMPF FOC Kabiye
 ‘ESSO understands Kabiye.’ (reply to ‘Who understands Kabiye?’)
 b. [_{IP} **εsɔ́** [[_I ní-ò] [_{FocP} <**εsɔ́**> [**na**_{FOC} [_{VP} <**εsɔ́**> <ní> kabiye]]]]]]]

- Arguments against morphological focus-marking in Kabiye: [XP_{FOC} - na]

- Occurrences of [XP_{FOC} - na] illicit in sentence-initial position; ≠ *Medumba!*
- na*-stranding with subject focus; cf. (23).

- Arguments against syntactic focus licensing in (lower) FocP in Medumba:

- linear order *á* > XP_{FOC}: unexpected if *á* = syntactic Foc-head; cf. (24ab)

- (24) a. *nyú fè ntʃòg [_{FocP} m̀ á] (predicted order)
 snake P₄ bite me FOC
 b. nyú fè ntʃòg á m̀ (actual order)
 snake P₄ bite FOC me
 ‘A snake bit ME.’ (... and not Nami)

- No *á*-stranding with subject focus:

(25) Q: Who cooked plantains?

- A: ***nǎná** ná[?] né **á** kùlò (cf. (23))
 Nana P₆ cook FOC plantains

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

- (26) ***nǎná** ná[?] fá (á) **nũm Nǎmí** tʃàŋ
 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:*

- 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

- á-marked verbal copy: V_{COPY}
 - is lexically identical to the main verb
 - is a nominalized infinitival form
 - can freely interchange syntactic position with post-vP/VP-adjuncts!

- *Core ingredients of analysis:*

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

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

- Nominalised/Infinitival verb copy right-adjoined to vP/VP:

(28) $[[[_{\text{vP/VP}} \text{V O}] \dots] [\acute{\text{a}}- [_{\text{NP}} V_{\text{COPY}}]] \dots]$

- V_{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) $\dots V_{\dots} \quad \acute{\text{a}}- [_{\text{NP}} V_{\emptyset}]$

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

- Lexical categories (N, V) must be valued for semantic and phonological feature content.

- 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

- Only one set of semantic V-features per vP-phase for reasons of interpretability

⇒ deletion of semantic features on V_{FIN} ⇒ *feature transfer*

- V_{FIN} requires phonological content for carrying inflection features of v :

⇒ NO deletion of phonological features on V_{FIN} ⇒ *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 kèb* b. *à kèb á kèbè*
 he cut he cut Foc cut
 ‘He has cut.’ ‘He has CUT (he has not eaten).’

⇒ Focus on verbal predicates in *Mèdúmbò* 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”

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

- (25) a. *nǎnǎ náʔ lùʔ bí á lùʔù*
 Nana P₆ take knife FOC take
 ‘Nana TOOK the knife (she did not steal it).’

- b. **nǎnǎ náʔ lùʔ á lùʔù bí*
 Nana P₆ take FOC take knife

- (26) a. **nǎnǎ náʔ á lùʔù lùʔ bí* (**á*-V_{COPY} > V_{FIN})
 Nana P₆ FOC take take knife

- b. **nǎnǎ á lùʔù náʔ lùʔ bí* (**á*-V_{COPY} > T)
 Nana FOC take P₆ take knife

- c. **nǎnǎ náʔ á lùʔù bí lùʔ* (**á*-V_{COPY} DO > V_{FIN})
 Nana P₆ FOC take knife take

- d. **nǎnǎ náʔ á lùʔ bí (lùʔù)* (no F-marking on V_{FIN})
 Nana P₆ FOC take knife take

- e. **nǎnǎ náʔ lùʔ á bí lùʔù* (no F-marking on DO)
 Nana P₆ take Foc knife take

- iii. V_{FIN} and V_{COPY} must satisfy *lexical identity* ⇒ *syntactic copying*

- (27) a. *nǎnǎ náʔ làb í á làbè* b. *nǎnǎ náʔ vúl í á vúlè*
 Nana P₆ beat him FOC beat Nana P₆ beat him FOC beat
 ‘Nana BEAT him.’ ‘Nana BEAT him.’

- (28) a. **nǎnǎ náʔ làb í á vúlè* b. **nǎnǎ náʔ vúl í á làbè*
 Nana P₆ beat him FOC beat Nana P₆ beat him FOC beat
 intended: ‘Nana BEAT him.’ intended: ‘Nana BEAT him.’

iv. Categorical status of V_{COPY} : [+nominal] (or at least: [-verbal] !)

⇒ V_{COPY} contains a final vowel, making it formally identical to the infinitival form:

- (29) $n\check{a}n\acute{a} \acute{n}\acute{a}^? l\grave{u}^? b\acute{i} \acute{a} l\grave{u}^? \grave{u}$ (30) a. $n\grave{u} l\grave{u}^? \grave{u}$ ‘to take’
 Nana P₆ take knife FOC take b. $n\grave{u} s\grave{o}g\grave{e}$ ‘to wash’
 ‘Nana TOOK the knife.’ c. $n\grave{u} k\grave{e}b\grave{e}$ ‘to cut’

⇒ V_{COPY} accompanied by infinitival marker $n\grave{u}$ (Nganmou 1991: 89) in some environments:

- (31) $n\check{a}n\acute{a} \acute{n}\acute{a}^? l\grave{u}^? b\acute{i} \acute{a} nd\grave{a}^? n\grave{u} l\grave{u}^? \grave{u}$
 Nana P₆ take knife FOC only INF take
 ‘Nana ONLY TOOK a knife.’

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

- (32) a. $y\grave{e}n m\acute{e}n l\grave{i}$ b. $y\grave{e}n n\grave{u} l\grave{a}b l\grave{i}$
 this child here this to beat here
 ‘this child’ ‘this beating’ (this way of beating)
- (33) a. $y\grave{u} m\acute{e}n y\grave{e}n l\acute{a}$ b. $y\grave{u} n\grave{u} z\acute{u} t\grave{f}\grave{a}ŋ y\grave{e}n l\acute{a}$
 your child that there your to eat food that there
 ‘that child of yours’ ‘that your (way of) eating.’

- *Interim Conclusion:*
 \acute{a} -marked V_{COPY} is a non-verbal expression!

⇒ \grave{a} -marking on [-verbal] adverbs possible:

- (34) $n\check{a}n\acute{a} \acute{n}\acute{a}^? zh\acute{u} c\grave{a}ŋ \acute{a} nd\acute{u}nd\acute{u}$, $k\acute{u} b\acute{u} \acute{a} nd\grave{a}^? nd\grave{a}^?$
 Nana P₆ eat food Foc quickly, not be Foc slowly
 ‘Nana ate food QUICKLY, not SLOWLY’

v. Positional restrictions: \acute{a} - V_{COPY} right-adjoined to vP/VP:

- NEG outscopes \acute{a} - V_{COPY} : NEG > V_{COPY}

- (35) $n\check{a}n\acute{a} \acute{n}\acute{a}^? k\grave{u} l\grave{u}^? b\acute{i} \acute{a} l\grave{u}^? \grave{u}$
 Nana P₆ Neg take knife FOC take
 ‘Nana did not TAKE a knife (but did s.th. else with it).’
 NOT: What Nana didn’t do with the knife is TAKING / to take it.’

- Q and C_{REL} > \acute{a} - V_{COPY}

- (36) a. $n\check{a}n\acute{a} \acute{n}\acute{a}^? y\grave{u}^? k\grave{e}n\grave{e} \acute{a} y\grave{u}^? k\acute{i}$
 Nana P₆ crush peanuts FOC crush QM
 ‘Did Nana CRUSH the peanuts?’

- b. ηκέ m̄n l̄i [ts̄è m̄è z̄ùn á z̄ùn lá]
 plates these here RM I buy FOC buy DEF
 ‘These plates that I BOUGHT’

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

- *Interim Conclusion:*
 TP, NegP >> V_{COPY} >> vP/VP

- á-V_{COPY} interchangeable with other postverbal adjuncts, which exhibit flexible word order :

- (37) a. n̄n̄á lú fá t̄jàŋ n̄m N̄mí ηgàb mù[?] d̄z̄ù[?] ηwà[?]nì á f̄á
 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. n̄n̄á lú fá t̄jàŋ n̄m N̄mí d̄z̄ù[?] ηwà[?]nì ηgàb mù[?] á f̄á
 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. n̄n̄á lú fá t̄jàŋ n̄m N̄mí á f̄á d̄z̄ù[?] ηwà[?]nì ηgàb mù[?]
 Nana P₅ give food to Nami FOC give at school week last
 ‘Nana GAVE food to Nami at school last week.’ V_{COPY} > LOC > TEMP
- b. n̄n̄á lú fá t̄jàŋ n̄m N̄mí ηgàb mù[?] á f̄á d̄z̄ù[?] ηwà[?]nì
 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-adjoined 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 b̄ě á b̄ě, à kú f̄óg á f̄ògè
 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:

(40) [TP T V [VP ... [VP OBJ á-V...]]]

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

(41) [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

bìn à[?] nén ntónè n-dù[?] mbàb n-sè[?] yí á sè[?]è
 you F₁ go market take meat come it Foc come
 ‘You will go to the market and BRING the meat.’

b. Causatives: doubling of lower V

nǎná ná[?] g^ɔvǎ ngǎmi zú á zú kù nù á nù
 Nana P₆ make Ngami eat Foc eat not drink Foc drink
 ‘Nana made Ngami EAT, not DRINK’

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...]]]

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

(44) Nǎná ná[?] lù[?] ɲwà[?]nì á lù[?]ù nnèn yí má ndá á nènè
 Nana P₆ take book Foc take go it to house Foc go
 ‘Nana TOOK the book home.’

(45) *Tentative structure for (44)?*

[TP ná[?] V1 [VP OBJ á-V1 [FP V2+F [VP OBJ P-OBJ á-V2]]]]

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

(31) nǎná ná[?] lù[?] bí [á ndà[?] nù lù[?]ù]
 Nana P₆ take knife FOC only INF take
 ‘Nana ONLY TOOK a knife.’

4.3 Structural Analysis: Dummy verb insertion plus feature copying

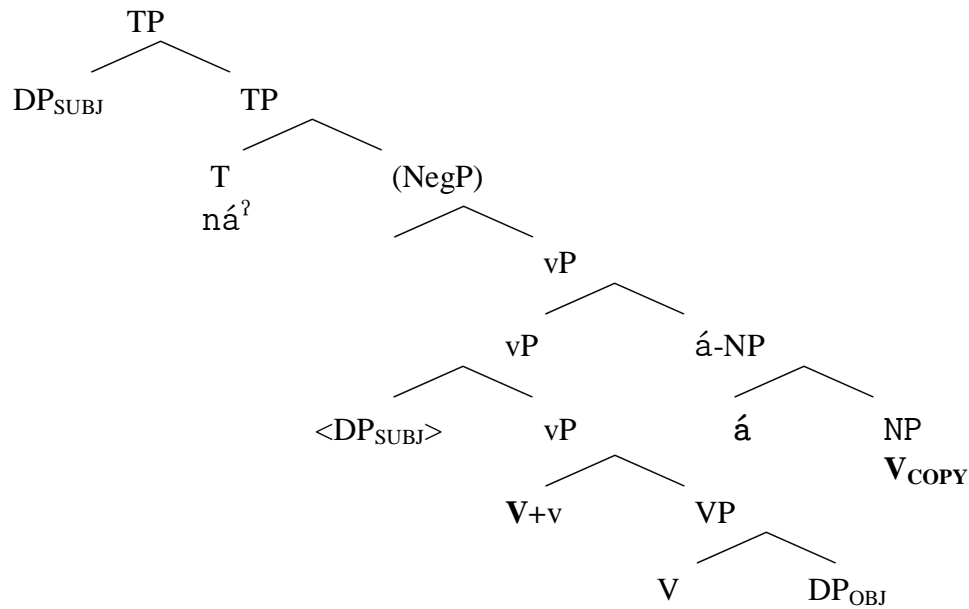
- *Central claim:*

V_{COPY} formed in syntactic derivation NOT by V-movement (\neq Aboh & Dyokanova's 2009 parallel chain formation), but by feature copying of F_{SEM} & F_{PHON} from main verb to a semantically/phonologically empty dummy verb

\Rightarrow Subsequent deletion of F_{SEM} on main verb gives the impression of *feature transfer*.

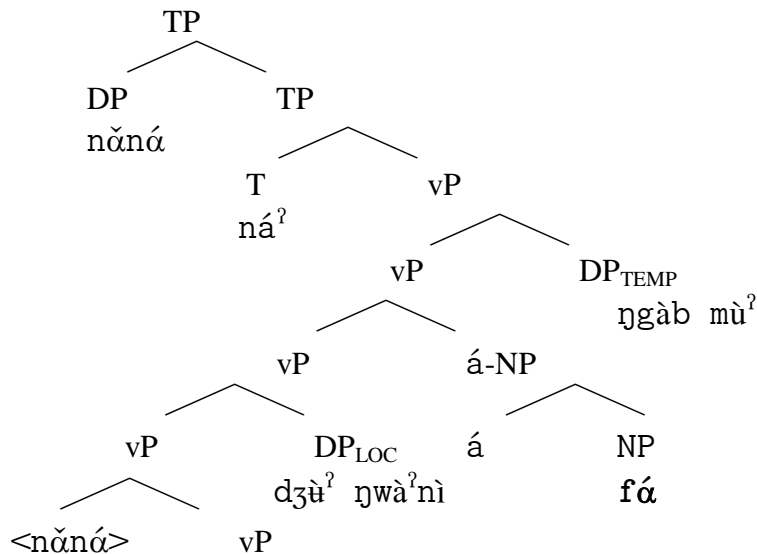
- *Resulting structure: V_{COPY} right-adjoined to vP*

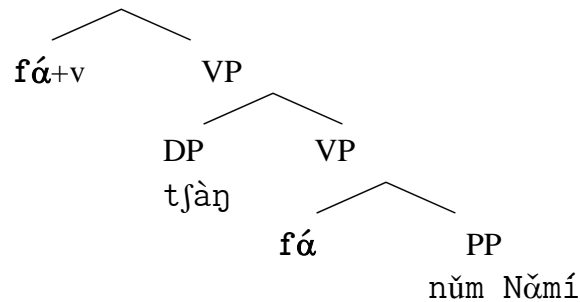
(46) a.



b. nǎná náʔ fá tʃàŋ nǔm Nǎmí dʒùʔ ŋwàʔnì á fá ŋgàb mùʔ
 Nana P₄ give food to Nami at school FOC give week last
 ‘Nana GAVE food to Nami at school last week.’

c.





- *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 ⇒ V_{COPY}
- iii. Dummy V is nominalized/infinitival: (cf. 47iii)
- iv. Main V selected for by v-head: $v+V$ ⇒ V_{FIN}

Q: How does dummy V acquire its PHON/SEM feature content $\Rightarrow V_{COPY}$?

\Rightarrow 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 valued.*

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

\Rightarrow Lexical Vs without fully specified F_{SEM} and/or F_{PHON} (dummy Vs) require feature valuation in the syntax!

\Rightarrow Two ways of valuating F_{SEM} & F_{PHON} on V in the syntax :

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

$[_{VP} v [_{VP} \dots V_{[usem]} \dots]] \Rightarrow [_{VP} V_{[+sem]+v} [_{VP} \dots \langle V \rangle \dots]]$

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

$[[_{VP} v [_{VP} \dots V_{[+sem]}]] [_{NP} \dots V_{[usem]}]] \Rightarrow [[_{VP} v [_{VP} \dots V_{[usem]}]] [_{NP} \dots V_{[+sem]}]]$

(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?

\Rightarrow copying of F_{SEM}/F_{PHON} from V_{main} to V_{dummy}

ii. F_{SEM} can only be interpreted once within a vP-cycle/phase for reasons of interpretability:

\Rightarrow deletion of F_{SEM} on main V (= feature transfer)

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

a. $[_{VP} [_{VP} v [_{VP} V_{[+phi, +phon, +sem]} \dots]] [\acute{a} [_{NP} N^0 V_{[+phi, +phon, usem]}]]]$

\Downarrow

b. $[_{VP} [_{VP} v [_{VP} V_{[+phi, +phon, usem]} \dots]] [\acute{a} [_{NP} N^0 V_{[+phi, +phon, +sem]}]]]$

\Rightarrow 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 :

\Rightarrow Verbal copying in Gungbe $[_{FocP} V \dots [_{TP} V \dots [_{VP} \dots [_{VP} V \dots]]]$

= 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) $[_{VP} V_{DUMMY[usem]+V} [_{VP} \dots V_{[+sem] \dots}]] \Rightarrow [_{VP} V_{DUMMY[+sem]+V} [_{VP} \dots V_{[usem] \dots}]]$

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

\Rightarrow base generation in (53) without feature spreading is fine: *Mary 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 :

i. DummyDo-languages: English, Hausa (Newman 2000, Hartmann & Zimmermann 2007)

(54) Biyà-n hářaaji-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) a. Rírà ni Ajé ra ìwé. b. Òù (%wè) Séná òù bléqì ló
 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) 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) à bù á làb là zè nǎná cwěd gɣù lá
 it be FOC beat that RM Nana PROG do Def
 ‘It is BEATING that Nana does’

ii. *Clefting in negated clauses*

- (58) a. nǎná ná? kù làb í á làbè
 Nana P₆ Neg beat him Foc beat
 ‘Nana did not BEAT him.’
- b. à ná? bù á nù làb là zè nǎná ná? kù gɣù í lá
 It P₆ be FOC to beat that RM Nana P₆ Neg do him Def
 ‘It was BEATING that Nana did not do to him’

- Expression of V-additivity without focus marking: *Due to EXH-interpretation of á?*

- (59) bàg ná? zùn mbàb nfelè
 we P₆ buy meat eat
 intended: ‘We bought the meat and (also) ate it’

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

⇒ 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 the semantic derivation (Collins & Essizewa 2007)

⇒ 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. Đù (%wè) Séná ðù bléqì ló
 cook FM Sena cook bread DET
 ‘Sena COOKED yam.’

- b. [_{FocP} V... [_{TP} V... [_{VP} <V>]]]
-

- Gungbe: Both copies in c-commanding position to the left, no intervening N-structure!
- 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 hen₁ [_{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 [vP **V+V** [vP ...<V>...]] ... [NP á – [NP N **V**]]]

⇒ but licit derivation in terms of sideways 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. nǎnǎ náʔ lùʔ bí á lùʔù
 Nana P₆ take knife FOC take
 ‘Nana TOOK the knife.’ (... she did not steal it)

(64) a. [TP náʔ_{vP} [vP nǎnǎ v [vP lùʔ_[usem] bí]] á lùʔù

b. [[lùʔ_[usem] bí]] = λe. TH(the_knife, e)

c. [[v]] = λP<_{s,t}>.λx.λe.AG(x,e) & P(e) (event identification)

d. [[v lùʔ bí]] = λx.λe. AG(x,e) & TH(the_knife, e)

e. [[nǎnǎ v lùʔ bí]] = λe. AG(nǎnǎ,e) & TH(the_knife, e)

f. [[á lùʔù]] = λe. taking(e); [[á lùʔù]]^F = ALT([[lùʔù]]⁰)

g. $[[n\check{a}n\acute{a} \ v \ l\grave{u}^? \ b\acute{i} \ \acute{a} \ l\grave{u}^? \grave{u}]] = \lambda e. AG(n\check{a}n\acute{a},e) \ \& \ TH(the_knife, e) \ \& \ taking(e);$
 \Downarrow existential closure
 $= 1 \text{ iff } \exists e[AG(n\check{a}n\acute{a},e) \ \& \ TH(the_knife, e) \ \& \ taking(e)];$
 defined iff $\exists C \subseteq \{\lambda e. AG(n\check{a}n\acute{a},e) \ \& \ TH(the_knife, e) \ \& \ e \in ALT([l\grave{u}^? \grave{u}]^0)\}$
 $= 1 \text{ iff there is an activity of taking acted out by Nana on the knife against a contextual background containing salient alternatives to } Nana \text{ taking the knife, such as } Nana \text{ stealing, giving, burning, stabbing with the knife etc.}$

6. Conclusions & Outlook

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

- Focus is consistently marked with a morphological FM *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_{COPY} as focus exponent
- V_{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:

- Categorical restriction of FMs to nominal constituents quite widespread in natural language; cf. Zimmermann (2012).
- 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: Gùrùntùm (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

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