When long distance dependencies are actually short: The case of Mabia languages

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1 Introduction

- In Mabia languages (formerly Gur, Northern Ghana), clause-bound A'-movement shows morphosyntactic reflexes.
- In this talk, we show that these reflexes are absent in the lower clauses of long distance (LD) A'-dependencies. The reflexes only show up in the matrix clause.
- We argue that this follows from the general absence of long-distance movement in Mabia languages.
- We propose that the extracted XP is base-generated at the phase edge of the embedded clause and that it moves clause-internally to the main clause periphery.

1.1 Outline

- **Section 2** introduces the data that lead to the observation that there is no long-distance A'-movement in Mabia languages. Evidence comes from focus marking, imperfective marking, and verbal morphology.
- **Section 3** presents a sketch of an analysis of the data.
- **Section 4** discusses further issues: the typology of long-distance movement as well as long-distance movement of adverbs.
- **Section 5** concludes.

1.2 Background on the Mabia languages

General background:

- The Mabia languages (Niger-Congo) are spoken in the Sahelian and Savanna regions of West Africa, namely in Burkina Faso, southern Mali, northeastern Ivory Coast, **the northern halves of Ghana** and Togo, northwestern Benin, and southwestern Niger. Additionally, a single Mabia language, Baatonum, is spoken in the extreme northwest of Nigeria.
- There are about 70 languages belonging to this group.
- In this talk we focus on data from three Mabia languages:
  - **Dagbani** (1,160,000 speakers, north-east Ghana)
  - **Farefari** (1 million speakers, central-north Ghana), particularly the standard dialect **Gurene**
  - **Sisaali** (250,000 speakers, north-west Ghana), particularly the dialect **Pasaali**
- Each of these languages consists of dialects that differ mainly in lexical material, including lexemes and functional markers.
- The data presented in this talk are representative in their constructions for all dialects of the specific languages, however, in all cases they are concretely taken out of one dialect of the language.[1]

Linguistic Background (not necessarily relevant for the talk):

- Mabia languages are consistently SVO and allow only little variation in word order.
- Grammatical categories, such as TAM, negation, voice etc. are mostly marked by independent preverbal particles even though a considerate number of stem alternations and suffixes can also be found in some languages.
- All Mabia languages are tone languages. In the data below, we choose to not indicate the tone, as, at this point, we have not fully processed all the tonal information. Importantly, tone is lexical. To our knowledge, there are no instances where tone interacts with the syntactic structure.
- Some Mabia languages like Likpakpaanl have a noun class system as also known from Bantu languages. However, mostly, the noun class distinction is minimal to non-existent.
- Mabia languages use serial verb constructions productively.

[1] For example, the Sisaali data are all taken from the Pasaali-Sisaali dialect. But the standard dialect Tumulung-Sisaali behaves identical with respect to the discussed properties.

1.3 Literature about (the syntax of) the languages

- **Dagbani**: Olawsky (1999); Hudu (2009); Issah (2013); Inusah (2017); Issah (2018, 2020); Bodomo et al. (2020); Issah and Acheampong (2021)
- **Gurene**: Schaefer (1975); Kropp-Dakubu (1991, 1996); Nsoh (1997); Kropp-Dakubu (2000, 2003a,b); Kropp Dakubu (2005); Atintono (2006, 2011, 2013); Bodomo et al. (2020)
- **Sisaali**: Blass (1989a,b, 1990); Samuel Fembeti (1999); Moran (2006); Mustapha (2018)

2 Data

2.1 Focus Marking

- Mabia languages mark focus with verbal particles and by position. As far as we know, in all the Mabia languages there is an in-situ focus strategy as well as an ex-situ focus strategy.
- In-situ and ex-situ focus differ in their position in the clause, but in some languages also by the particle used for marking the focus.
- With ex-situ focus, the focused constituent is typically marked by a focus marker in the local left periphery.
- As for Dagbani and Gurene, subject focus comes with a special marker *n* that is used if the focus movement is clause-internally, cf. (1), (2).[2]

(1) Adam **n** tum.
Adam **FOC** work.PFV
'ADAM worked.' *(Dagbani)*

(2) Abdul yɛli-ya [ni Dede **n** kɔrigi noo maa].
Abdul say.PFV-YA C Dede **FOC** slaughter.PFV fowl DET
'Abdul said that DEDE slaughtered a fowl.' *(Dagbani)*

- With long-distance subject focus, however, the local subject focus marker does not appear in the local clause, cf. (3).
- Instead, the focused subject is marked by the non-subject focus marker *ka* in the matrix clause.
- This is the same marker as the ex-situ focus marker for non-subjects, cf. (4).

[2] If not indicated otherwise, the data were elicited during fieldwork at the University of Education Winneba, Ajumako Campus in July/August 2022. We are grateful to our language consultants Anthionette Kuukye, Carlos Fatawu Wiela (Dagaare); John Naporo Napari, Abdul Bachi Salifu (Dagbani); Daniel Asom Akolgo, Theresa Anamolga Salma (Gurene); Samboh Adda, Fidelis Addah (Kasem); Samuel Asetanga, Lawrence Sando (Kusaal); Eric Gajah, Thomas Jagri (Likpakpaanl); Irene Basimagan Dumah, Ndongowira Luri (Sisaali); and Samuel Alhassan Issah for organizing the contacts to the speakers.

- Additionally, a resumptive pronoun appears in the subject's base position, cf. (3). This resumptive pronoun is not present if a non-subject is moved, cf. (5).

(3) Dede **ka** Abdul yɛli [ni ***(o)** kɔrigi noo maa].
Dede **FOC** Abdul say.PFV C **3SG** slaughter.PFV fowl DET
'DEDE, Abdul said slaughtered the fowl.' *(Dagbani)*

(4) Noo **ka** Adam kɔrigi-r-a.
fowl **FOC** Adam slaughter-IPFV-A
'Adam is slaughtering a FOWL.' *(Dagbani)*

(5) Noo **ka** Peter yɛli ni John kɔrigi-ya / **(*o)**.
fowl **FOC** Peter say COMP John slaughter-PFV **3SG**
'Fowl, Peter said that John slaughtered.' *(Dagbani)*

2.1.1 No movement in the embedded clause

- These observations are easily compatible with the assumption that LD focus movement does not involve focus movement in the embedded clause.
- However, the data are not conclusive since they are also compatible with standard successive-cyclic movement, assuming that only the matrix sentence bears a focus projection.

2.1.2 Movement in the matrix clause

- Dagbani (as most Mabia languages) has two focalization strategies: in-situ focus and ex-situ focus.
- Both strategies come with their own markers, see (6).
- In long-distance A'-dependencies, we see the ex-situ marker in the matrix clause that is used with local ex-situ object focus.
- Again, this by itself is not conclusive. It might be that the focus is (always) base-generated in the left periphery. However, it is fully compatible with the assumption that there is movement in the matrix clause.

(6) a. Adam kɔrigi **la** noo.
Adam slaughter.PFV **FOC** fowl
'Adam slaughtered a fowl.'
b. Noo **ka** Adam kɔrigi (*la).
fowl **FOC** Adam slaughter.PFV FOC
'Adam slaughtered a FOWL.' *(Dagbani)*

(7) Dede **ka** Abdul yɛli [ni **o** kɔrigi noo maa].
Dede **FOC** Abdul say.PFV COMP **3SG** slaughter.PFV fowl DET
'DEDE, Abdul said slaughtered the fowl.' *(Dagbani)*

2.2 YA-Marking

- Sentence-final perfective verbs in the out-of-focus form need a verbal extension *(y)a* in Dagbani and Gurene.[3]
- With focus movement – no matter if the subject or the object is focused – the marker is obligatorily absent, as illustrated in the contrast in (8-a)–(9-a) vs. (8-b)–(9-b).

(8) a. Adam tum-***(ya)**.
Adam work.PFV-**YA**
'Adam worked.'
b. Adam n tum-**(*ya)**.
Adam FOC work.PFV-**YA**
'ADAM worked.' *(Dagbani)*

(9) a. Adam tum ***(ya)**
Adam work.PFV **YA**
'Adam worked.'
b. Adam (n) tum **(*ya)**.
Adam FOC work.PFV **YA**
'Adam worked.' *(Gurene)*

- Also, the marker does not appear with transitive clauses when an object follows the verb and prevents the verb from being sentence-final, (10-a) and (11-a).
- Even if the object moves away, (10-b) and (11-b), resulting in a sentence-final verb, *-ya* does not occur, as if the trace of the object counts for sentence-finality.

(10) a. Adam kɔrigi-**(*ya)** (la) noo.
Adam slaughter.PFV-**YA** DET fowl
'Adam slaughtered fowl.'
b. Bo$_i$ ka Adam kɔrigi-**(*ya)** t_i?
what FOC Adam slaughter.PFV-**YA**
'What did Adam slaughter?' *(Dagbani)*

[3] Hartmann (2022) argues that the imperfective sentence-final marker *-a* is the same element as the perfective sentence-final-*(y)a* in Dagbani. Note that *-a*, unlike *-(y)a*, occurs sentence-finally independent of subject movement. Hartmann (2022) argues that this is due to additional structure of the imperfective marking. The issue is not discussed here further because it is orthogonal to the present argument.

(11) a. Adam kõregɛ-**(*ya)** nua.
Adam slaughter.PFV-**YA** fowl
'Adam slaughtered fowl.'
b. Beni$_i$ *(ti) Adam kõregɛ-**(*ya)** t_i?
what FOC Adam slaughter.PFV-**YA**
'What did Adam slaughter?' *(Gurene)*

- Interestingly, the marker does occur with otherwise transitive verbs if the object is dropped, see (12) and (13).

(12) a. N di-***(ya)**.
1SG eat.PFV-**YA**
'I ate.'
b. N di-**(*ya)** (la) sakolo.
1SG eat.PFV-**YA** FOC fufu
'I ate fufu.' *(Dagbani)*

(13) a. Ma di ***(ya)**.
1SG eat.PFV **YA**
'I ate.'
b. Ma di **(*ya)** la sagekɔra.
1SG eat.PFV **YA** DET fufu
'I ate the fufu.' *(Gurene)*

- More generally, the marker is not just absent with focus movement but in general with all A'-dependencies (e.g. wh-movement in (14) and (15), relativization in (16), negation in (17), and even in coordination in (18)), even if the verb is sentence-final prior to movement because the dependency involves the subject, see (14)-(15).

(14) ŋuni n tum-**(*ya)**?
who FOC work.PFV-**YA**
'Who worked?' *(Dagbani)*

(15) Ani (n) tum **(*ya)**?
who FOC work.PFV **YA**
'Who worked?' *(Gurene)*

(16) a. tiŋa shɛli n ni yu-**(*ya)**
land DET 1SG C love.PFV-**YA**
'a country I loved'
b. bi-puɣim-bila so ŋun duɣi-**(*ya)**
child-FEM-DIM DET 3SG cook.PFV-**YA**
'a girl that cooked' *(Dagbani)*

(17) Adam zaam **ka** tuum **(*ya)**.
Adam yesterday NEG work **YA**
'Adam did not work yesterday.' *(Gurene)*

(18) Mma yeli-***(ya)** ka Bɛneeti chaŋ-**(*ya)**.
Mma talk.PFV-**YA** and Bɛneeti walk.PFV-**YA**
'Mma talked, and Beneeti walked.' *(Dagbani)*

2.2.1 No movement in the embedded clause

- Interestingly, the marker is obligatory again in the embedded clause of LD interrogatives, (19) (Issah 2020: 96), (20), and (21-a).
- This strongly indicates that there is no A'-movement in the embedded clause.

(19) Bu **ŋuni** ka bihi maa yeli [ni bɛ sa ku-***(ya)**]?
goat which FOC children DEF say-PFV C 3PL PST kill.PFV-**YA**
'Which goat do the children say they killed yesterday?' *(Dagbani)*

(20) **Beni** ti Ama soke ti John kõregɛ ***(ya)** *(la)[4].
what FOC Ama ask C John slaughter **YA** LA
'What did Ama ask that John slaughtered.' *(Gurene)*

- Note that *ya* cannot occur if there is local movement in the embedded clause, see (21-a).
- This shows that *ya* is not per se obligatory in embedded clauses.

(21) a. **Ani** ti fu tĩ'isɛ ti a tum ***(ya)**?
who FOC 2SG think COMP 3SG work **YA**
'Who did you think worked?'
b. Fu tĩ'isɛ ti **ani** n tum **(*ya)**?
2SG think that who FOC work **YA**
'Who did you think worked?' *(Gurene)*

2.2.2 Movement in the matrix clause

- Whether there is movement in the matrix clause is hard to tell because the matrix verb does not appear sentence finally.
- Still, in some complex examples, the speakers allowed the marker *-ya* following the embedding verb *yele* ("say") or *bɔhi* ("ask"). This is true for Dagbani, but not for Gurene.

[4]For some reason, the marker *la* does not count for the sentence-finality of *ya*. We are still unsure of what *la* marks in this specific construction: *la* can mark in-situ focus in Gurene, but is also used as a specificity/definiteness marker for nouns and it occurs at the end of relative clauses. Pending further investigations, we have to leave this issue unsolved at the moment.

- Whether or not this is the same particle requires further testing.
- Still, we couldn't find any occurrence of the marker together with cross-clausal A'-dependencies.

(22) a. Abdul **yɛli-ya** [ni Dede n kɔrigi noo maa].
Abdul **say.PFV-YA** C Dede FOC slaughter.PFV fowl DET
'Abdul said that DEDE slaughtered a fowl.'
b. Ama **bɔhi-ya** [bɔ ka John korigi]?
Ama **ask.PFV-YA** what FOC John slaughter
'Ama asked what John slaughtered.' *(Dagbani)*

(23) a. **Yuni** ka Ama **bɔhi** [ni o korigi nɔɔ maa].
who FOC Ama **ask** COMP 3SG slaughter fowl DET
'Who did Ama ask slaughtered the fowl?'
b. **John** ka Peter **yɛli** [ni korigi nɔɔ].
John FOC Peter **say** COMP slaughter fowl
'John, Peter said slaughtered fowl.' *(Dagbani)*

2.3 Imperfective Marking

- In some Mabia languages, the imperfective marker shows an allomorphy with respect to A'-movement: If an object or low adjunct has been moved to the left-periphery, a different marker shows up then with no A'-movement or A'-movement of the subject (see also Himmelreich and Mursell prep).
- Starting with Gurene (Atintono 2013), the language marks imperfective aspect with the verbal suffix *-(r)i*, see (24).
- This changes to *-(r)a* with a trace of A'-movement in its c-command domain, see (26)–(27).
- Similarly, in Sisaali, the imperfective marker changes from *aa* (see (25)) to *ki* when a non-subject is A'-moved, see (28)–(29).

(24) Atiŋa bɔ'ɔ-**ri**/*-ra la Ania dukɔ.
Atiŋa give-**IPFV** LA Ania pot
'Atiŋa is giving Ania a pot.' *(Gurene)*

(25) Adama **aa** kpʊ gyimii rɛ.
Adama **IPFV** kill fowl FOC
'Adama is slaughtering a fowl.' *(Sisaali)*

(26) a. Ani$_i$ ti Atiŋa bo'o-**ra**/*-ri t_i dukɔ?
who FOC Atiŋa give-**IPFV** pot
'Whom was Atiŋa giving a pot?'
b. Ani n kõrege-**ri** nua.
who FOC slaughter-**IPFV** fowl
'Who is slaughtering fowl?' *(Gurene)*

(27) a. Bɛsa ti Adam mɛ-**ta** yire?
where FOC Adam build-**IPFV** house?
'Where is Adam building a house?'
b. Adam mɛ-**ti** yire la batiŋa.
Adam build-**IPFV** house LA village
'Adam is building a house in the village.' *(Gurene)*

(28) a. Puŋ bee$_i$ rɛ galee hu **ki** kpʊ t_i?
animal which FOC cat DEF **IPFV** kill
'Which animal is the cat killing?'
b. Puŋ bee$_i$ rɛ t_i **aa** kpʊ galee hu?
animal which FOC **IPFV** kill cat DEF
'Which animal is killing the cat?' *(Sisaali)*

(29) a. Lee rɛ Luri **ki** piŋ?
where FOC Luri **IPFV** SLEEP
'Where is Luri sleeping?'
b. Luri **aa** piŋ doo ʊ diya tiyaŋ nɛ
Luri **IPFV** lie sleep 3SG house room FOC
'Luri is sleeping in his room.'
c. ʊ diya tiyaŋ nɛ, Luri **ki** pɪŋ
3SG house room FOC Luri **IPFV** lie
'Luri is sleeping in his room.' *(Sisaali)*

2.3.1 No movement in the embedded clause

- In cases of apparent long-distance A'-movement, the lower verb still shows the *-(r)i* or *aa* form respectively, indicating that no A'-trace is present (30)–(31).[5]

(30) Beni ti Ama soke [ti John kõrege-**ri**/*-ra ya]?
what FOC Ama ask COMP John slaughter-**IPFV** YA
'What did Ama ask that John is slaughtering?' *(Gurene)*

[5]Note that in example (30), there is also the sentence-final *ya* again that is incompatible with movement. See section 2.2.1 for more details.

(31) Bekiŋ nɛ ɪ fa baa di John fa **aa**/*ki kpʊ?
what FOC 2SG PST say COMP John PST **IPFV** kill
'What did you say that John was slaughtering?' *(Sisaali)*

- Note that if fronting takes place inside the embedded clause, the embedded verb shows the expected change from *-(r)i/aa* to *-(r)a/ki*, see (32)–(32).
- Again, this shows that the marking does not depend on difference between matrix and embedded clause.

(32) Ama n soke [ti beni ti John kõrege-**ra**].
Ama FOC ask COMP what FOC John slaughter-**IPFV**
'Ama asked what John is slaughtering.' *(Gurene)*

2.3.2 Movement in the matrix clause

- The matrix clause patterns with movement: If the embedding verb is in the imperfective, it is marked by *-(r)a/ki* if movement crosses the verb.
- If there is no movement, the expected non-movement imperfective marker *-(r)i/aa* shows.

(33) Bekɪŋ$_i$ nɛ ɪ fa **ki**/*aa liisi t_i [ni John fa **aa** kpua]?
what FOC 2SG PST **IPFV** think COMP John PST **IPFV** kill
'What were you thinking that John was slaughtering?' *(Sisaali)*

- Note that if there is no movement across the matrix verb, the non-movement imperfective form shows up.

(34) Ama soke-**ri** la sɛla ti John kõrege-**ra** la (yele).
Ama ask-**IPFV** LA something C John slaughter-**IPFV** LA YEL
'Ama is asking what John is slaughtering.' *(Gurene)*

2.4 Further evidence against long-distance A'-movement

2.4.1 Multiple clause embeddings

- Given the patterns of the imperfective markers shown above, we can test what happens with multiple embeddings.
- Both in Gurene and Sisaali we see that only the highest clause can show the movement imperfective marker.

(35) Beni ti fu tĩ'ise-**ra** [ti a tĩ'ise-**ri** [ti John
what FOC 2SG think-**IPFV** COMP 3SG think-**IPFV** COMP John
kõrege-**ri**]]?
slaughter-**IPFV**
'What are you thinking that she is thinking that John is slaughtering?' *(Gurene)*

(36) Bekɪŋ nɛ ɪ fa **kɪ** liisi [nɪ ʊ fa **aa** liisi [dɪ John fa
what FOC 2SG PST **IPFV** think COMP 3SG PST **IPFV** think COMP John PST
aa kɔrɪkɪ]]?
IPFV slaughter
'What were you thinking that she was thinking that John was slaughtering?'
(Sisaali)

2.4.2 No island violations

- An island in the embedded clause does not produce a violation.

(37) **Beni**$_i$ ti fu ti'ise-ra [$_{CP}$ ti Mary nyɛ [**RelC** buda-sɛka n kɔrigɛ
what FOC 2SG think-IPFV COMP Mary saw man-REL FOC slaughter
$-_i$ la]].
DET
Intended: 'What did you think that Mary saw the man that slaughtered?' *(Gurene)*

(38) **Bekɪŋ**$_i$ nɛ ɪ fa liisi [$_{CP}$ nɪ Maria naa [**RelC** baal hʊ aa
what FOC 2SG PST think COMP Maria see.PST man DET PST
kɔrɪkɔ $-_i$]]?[6]
slaughter.PST
Intended: 'What did you think that Maria saw the man that slaughtered?' *(Sisaali)*

- However, in simple clauses, extraction out of relative clauses is not allowed, see (39-a)–(40-a). Instead, a complement clause construction must be used (39-b)–(40-b).
- Also, a relative clause in the matrix clause of a complex sentence induces an island violation (41-a). To express the meaning, a clause juxtaposition must be used (41-b).

(39) a. ***Bekɪŋ**$_i$ nɛ Maria naa [**RelC** baal hʊ aa kɔrɪkɔ $-_i$]?
what FOC Maria see man DET PST slaughter.PST
Intended: 'What did Maria see the man that slaughtered?'
b. **Bekɪŋ**$_i$ nɛ Maria naa [$_{CP}$ dɪ baal hʊ aa kɔrɪkɔ $-_i$]?
what FOC Maria see COMP man DET PST slaughter.PST
'What did Maria see that the man slaughtered?' *(Sisaali)*

[6] Note that the *aa* marker in this example is a low tone *aa* which marks pst tense. The imperfective marker *aa* bears a high tone.

(40) a. *[**Beni**] ti Mary nyɛ [$_{\boxed{\text{RelC}}}$ la buda-sɛka n kɔ̃regɛ [$_{\boxed{-_i}}$]]?
what FOC Mary see DET man-REL FOC slaughter.PFV
Intended: 'What did Mary see the man that slaughtered?'

b. [**Beni**] ti Mary nyɛ (ni) [$_{\text{CP}}$ ti budaa la kɔ̃regɛ [$_{\boxed{-_i}}$] la]?
what FOC Mary see PST COMP man DET slaughter.PFV LA
'What did Mary see that the man slaughtered?' *(Gurene)*

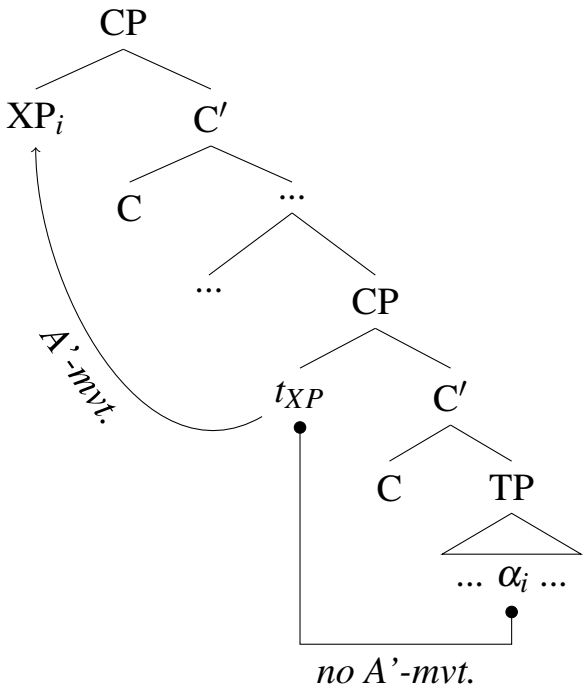
(41) a. *[**Bekɪŋ**$_i$] nɛ [$_{\boxed{\text{RelC}}}$ baal hʊ aa kɔrɪkɔ [$_{\boxed{-_i}}$] liisi [$_{\text{CP}}$ ni Maria
what FOC man DET PST slaughter.PST think COMP Maria
saa dɪa]?
built house
Intended: 'What did the man that slaughtered think that Maria built a house.'

b. [**Bekɪŋ**$_i$] nɛ baal hʊ aa kɔrɪkɪ [$_{\boxed{-_i}}$], ʊ rɛ liisa nɪ Maria
what FOC man DET PST slaughter.PFV 3SG FOC think COMP Maria
saa dɪa?
built house
'What did the man slaughter, the one that thinks that Maria built a house.'
(Sisaali)

3 Towards an analysis

- Given the data in section 2, we assume that all cases of apparent LD movement discussed above do not involve movement in the embedded clauses at all.
- However, we assume that there is movement in the matrix clause.
- Concretely, we assume that the wh/focal elements are merged in the edge of the embedded CP and move from there into the left periphery of the matrix clause.
- Additionally, we assume that the embedded clause contains a null element (α) in the respective argument position of the embedded clause.
- This element is bound by the XP in Spec,CP of the embedded clause, thereby identifying the XP as the argument of the embedded clause.

(42)

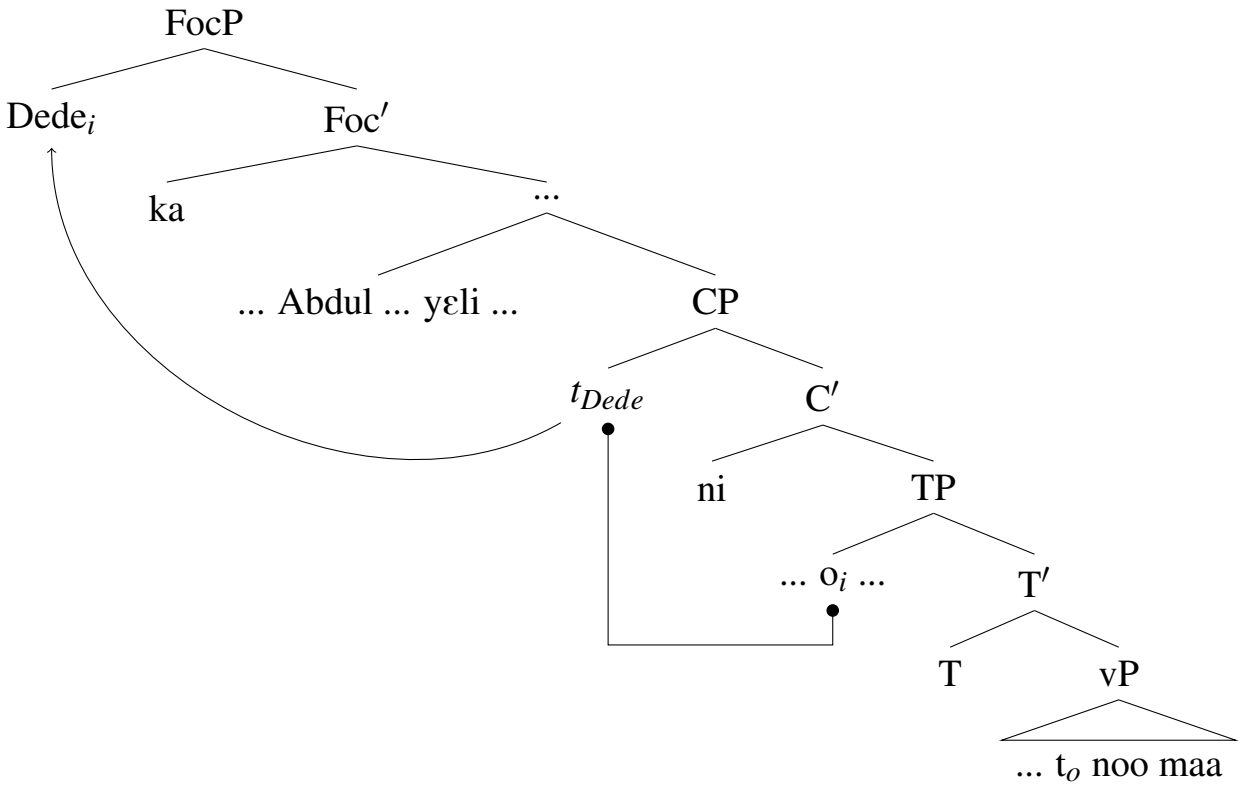


3.1 Derivation of focus marking

- The focused subject is merged at the edge of the embedded CP.
- From this position it binds a pronoun in the subject position.
- Note that in the case of focusing the subject, the x needs to be pronounced (probably due to an active EPP in the language, see Acheampong (2022)).

(43) Dede **ka** Abdul yɛli [ni **o** kɔrigi noo maa].
Dede **FOC** Abdul say.PFV C **3SG** slaughter.PFV fowl DET
'DEDE, Abdul said slaughtered the fowl.' *(Dagbani)*

(44)



3.2 Derivation of YA-marking

- Remember that *ya* occurs with otherwise transitive verbs when the object has been dropped, see (45) and (46).

(45) N di-***(ya)**.
1SG eat.PFV-**YA**
'I ate.' *(Dagbani)*

(46) Ma di ***(ya)**.
1SG eat.PFV **YA**
'I have eaten.' *(Gurene)*

- Object pro-drop is an option in the language in general, independent of perfective marking.

(47) a. A: M bi nya-ri sima maa.
1SG NEG see-IPFV groundnut DEF
'A: I cannot find the groundnuts.'
b. B: Beneeti di-r-**a**!
Beneeti eat-IPFV-**YA**
'B: Beneeti is eating (them)!' *(Dagbani)*

- Thus, there must be a difference between traces and null *pro* that counts for the distribution of *-ya*.

- If the verb is in the same clause as an A'-operator, *-ya* is not allowed.
- If there is no operator in the clause (that is no A'-process), *-ya* is allowed.
- For the case of cross-clausal A'-dependencies this suggests that the place holder α in the embedded clause is not a trace, but closer (or identical) in its properties to a dropped pronoun *pro*.

(48) Bù ŋùní kà bíhí máa yèlí [nì bɛ́ sà kú-***(ya)**]?
goat which FOC children DEF say-PFV C 3PL PST kill.PFV-**YA**
'Which goat do the children say they killed yesterday?' *(Dagbani)*

(49) [$_{CP}$ which goat$_i$ children say [$_{CP}$ t$_i$ that they **kill-*ya* α_i**]]

(50) [$_{CP}$ ... I ... [$_{VP}$ **eat-*ya pro***]]

3.3 Derivation of imperfective marking

- The general rule for A'-imperfective is that if an A'-movement crosses the imperfective head, the form of the imperfective marker changes.

(51) a. Puŋ bee$_i$ rɛ galee hu **ki** kpʊ t_i?
animal which FOC cat DEF **IPFV** kill
'Which animal is the cat killing?'
b. Puŋ bee$_i$ rɛ t_i **aa** kpʊ galee hu?
animal which FOC **IPFV** kill cat DEF
'Which animal is killing the cat?' *(Sisaali)*

(52) a. [$_{CP}$ which animal$_i$ the cat [$_{Asp}$ **ki** [$_{VP}$ kill t$_i$]]]
b. [$_{CP}$ which animal$_i$ t$_i$ [$_{Asp}$ **aa** [$_{VP}$ kill the cat]]]

- This fits exactly the analysis where movement is missing in the embedded clause.
- As shown in (53), the movement of *what* only crosses the highest imperfective head, but not the lower ones.

(53) Bekɪŋ$_i$ nɛ ɪ fa **ki**/*aa liisi t_i [ni John fa **aa** kpua]?
what FOC 2SG PST **IPFV** think COMP John PST **IPFV** kill
'What were you thinking that John was slaughtering?' *(Sisaali)*

(54) [$_{CP}$ what$_i$ you [$_{Asp}$ **ki** [$_{VP}$ think [$_{CP}$ t$_i$ that John [$_{Asp}$ **aa** [$_{VP}$ kpua α_i]]]]]]

3.4 Lack of an A'-dependency in the embedded clause

- As argued above, the data show no signs that there is an A'-movement dependency in the embedded clause between the highly base-generated XP and the placeholder α. But what about non-movement A'-dependencies?
- Data from negation like (55) highly suggest that the rule for *-ya* marking is incompatible with all A'-dependencies.
- Similarly, data from coordination show that the absence of *-ya* marking does not necessarily correlate with (typical) movement.

(55) Adam zaam **ka** tuum **(*ya)**.
Adam yesterday NEG work **YA**
'Adam did not work yesterday.' *(Gurene)*

(56) Mma yeli-***(ya)** ka Bɛneeti chaŋ-**(*ya)**.
Mma talk.PFV-**YA** and Bɛneeti walk.PFV-**YA**
'Mma talked, and Beneeti walked.' *(Dagbani)*

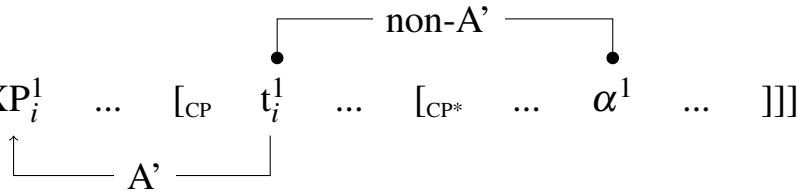
- Unless there is evidence that negation and coordination is derived via movement (of a negative operator or some coordinating operator), this means that the relationship between the XP and α must be an A-dependency, even though it can span multiple clauses.
- We are not aware of approaches to simple negation or coordination that involve movement. Instead, (sentential) negation is standardly derived via a base-generated operator, often assumed to be in a negation phrase (see for example Zeijlstra (2004); De Clercq (2013)).[7]
- Still, despite the lack of movement, negative sentences show parallels to interrogative sentences, see e.g. Haegeman (1995).
- As for coordination, it is even less clear how that should involve movement.[8] Standardly this is done via a base-generated coordination phrase, see e.g. Munn (1993) et seq.
- How is it possible to unify the non-A'-morphological marking with the (potential) long-distance property of A'-dependencies?
- One potential way out would be to allude to the difference between features, rather than structural positions (see e.g. Urk (2015); Himmelreich (2017)).[9]

[7] There are, however, approaches to Neg-raising that assume movement. For references, see Crowley (2019). This is a separate issue from the simple negation under discussion.

[8] Unless coordination is more comparable to a clause chaining construction. In this case the theory of Weisser (2015) might apply.

[9] We would like to point out that there is a vast amount of literature on the distinction between A- and A'-dependencies, particularly movement. For some references we refer the reader to more recent papers by Keine (2018); Safir (2019) and references cited therein.

- By this logic, since the dependency between XP and α involves argument-related features, such as a binding index, it would not count as an A'-dependency. This is schematized in (57).[10]

(57)


4 Further issues

4.1 Cross-clausal movement dependencies

- As it seems, the Mabia languages present a different language type when it comes to cross-clausal movement dependencies.
- The table in (58) illustrates the four logically possible types.
- Based on typical movement tests such as island violations, cross-over violations or reconstruction, one can determine whether a language has movement or not.

(58)

		Mvt. in lower clause	Mvt. in matrix clause
Type I:	English, German, ...	✓	✓
Type II:	Berber, ...	✗	✗
Type III:	**Mabia languages**	✗	✓
Type IV:	???	✓	✗

- In movement languages like German, there are signs of movement both in embedded and matrix clauses, which provides a basis for (successive-cyclic) long-distance movement.
- (59) illustrates that there is long-distance movement in German, using with the island tests.

(59) a. **Wen**$_i$ glaubst du [$_{CP}$ dass Maria $\mathbf{t}_i$ einladen wird]?
who believe you that Maria invite will
'Who do you believe that Maria will invite?'

b. * **Wen**$_i$ glaubst du [$_{CP}$ dass Maria den Mann [$_{RelC}$ der $\mathbf{t}_i$ einladen wird] gesehen hat]?
who believe you that Maria the man who invite will seen has
Intended: 'Who do you believe that Maria saw the man who invited?'

[10] Note that the CP* in (57) should mean that there can be arbitrarily many CP boundaries in between the base position of the XP and α. This arbitrariness includes no CP boundaries.

c. *$\boxed{\textbf{Wen}_i}$ glaubt der Mann [$_{\text{RelC}}$ der $\boxed{\textbf{t}_i}$ einladen wird] [$_{\text{CP}}$ dass Maria ein Haus kaufen möchte].
who believe the man who invite will that Maria a house buy would.like
Intended: 'Who does the man who will invite believe that Maria would like to buy a house?' *(German)*

- In languages like Berber, movement seems to be absent even in local clauses.
- Again, this can be shown with island tests, see (60).[11]

(60) *Berber* (Elouazizi (2005: 126))

a. sqssa-n [ma y-wʃa Jamal lktab i w-arba]
ask.PERF-3PL.MAASC whether 3SG.MASC-give.PERF J. book to CS-boy
'They asked whether Jamal gave the book to the boy.'

b. $\boxed{\textbf{man lktab}_2}$ ixef sqssa-n [$\boxed{\text{wh-Isl}}$ ma D Jamal_1 i *(θ) y-wʃi-n t_1 $\boxed{\textbf{t}_2}$ i w-arba]]
which book about ask.PERF-3PL.MASC whether COP Jamal who it PRT-give.PERF-PRT to CS-boy
'Which book did they wonder whether it is Jamal who gave it to the boy?'

- On the other hand, the Mabia languages seem to provide quite some evidence for a language type where there is movement only in the highest clause, but where there is no long-distance movement.
- One open question is whether the fourth type exists, that only allows movement in the embedded clause (similar to Chomsky (1986)'s analysis of parasitic gaps).
- This option should be excluded in theories of successive-cyclic movement that are based on the assumption that intermediate steps of movement depend on there being a final movement step (see e.g. Chomsky 2008; Müller 2011; Abels 2012 among many others).

Some final remarks:

- Note that the typology in (60) does not mean the same as the typology of movement reflexes discussed in Georgi (2014, 2017).
- While the distribution of imperfective marking might be reanalyzed as the presence or absence of morphological reflexes, the distribution of the *ya*-marker shows that there is really no movement dependency in the embedded clause.
- Further the island data support a non-movement analysis.

[11] Another language that fails some island tests according to the literature, is Korean. However, the situation there seems to be more complicated, see e.g. Na and Huck (1993); Lee (1998).

4.2 Cross-clausal fronting of adverbs

- The readings of all the complex examples tell us that the moved XP in the matrix clause is interpreted as the argument of the embedded verb.
- Similarly, moved adverbs in the matrix clause can be interpreted in the embedded clause, see (61)–(62).
- If the assumption that there is no long-distance movement is correct, the analysis predicts the same derivation for adverbs as for arguments.
- The question is whether the dependency between a base-generated adverb XP and its corresponding interpretation site α in the embedded clause can count as an A-dependency.

(61) **Dɪya** rɛ Peter **baa** dɪ John **kpʊ** gyimii hu.
yesterday FOC Peter **say** COMP John **kill** fowl DEF
'Peter said that John killed the fowl yesterday.'/
'Peter said yesterday that John killed the fowl.' *(Sisaali)*

(62) **San-kani** ti Atiŋa **soke** ti Ania **kɔregɛ** (ni) nua (la)?
time-which FOC Atiŋa **ask** COMP Ani **slaughter** NI fowl DET
'When did Atiŋa ask that Ania slaughtered fowl?'
(ok: time of asking/ok: time of slaughtering) *(Gurene)*

- Possibly, it is enough for the embedded interpretation if the adverb is merged in the left periphery of the embedded clause.
- The theory would predict however that the embedded interpretation is out with further levels of embedding. This requires further testing.

(63) **When** FOC Peter **said** that Mary **thought** that John **slaughtered** a fowl?
(ok: time of saying, ?ok: time of thinking, *ok: time of slaughtering)

5 Conclusion

- Despite its appearance at first glance, a closer look reveals that the Mabia languages lack long distance extraction.
- This is indicated by various morphological diagnostics.
- We believe that this pattern suggests the necessity of a deeper investigation as to whether the Mabia languages have proper clausal embedding in the first place.

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