Establishing argument-position-dependent marking as an areal feature of the Macro-Sudan Belt

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Introduction

Introduction

- The Macro-Sudan belt (Figure 1) is a linguistic area in West and Central Africa

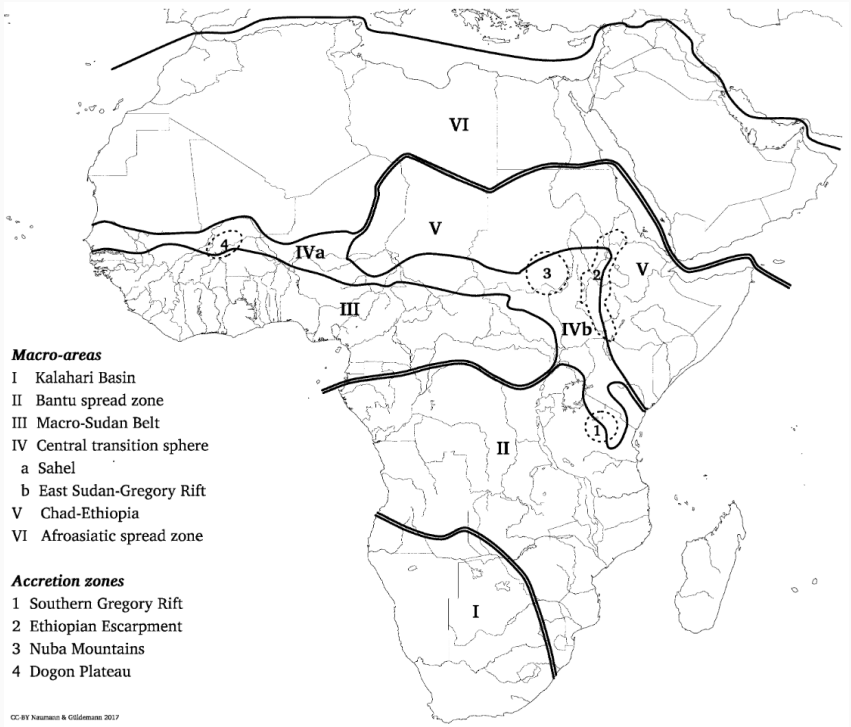

Figure 1: Macro-Sudan belt (III), from Güldemann (2018)

Introduction

- Some linguistic features found in the Macro-Sudan Belt (Güldemann 2007, Rialland 2009, Rolle, Lionnet & Faytak 2020, Güldemann 2018a)
  - ATR harmony
  - logophoricity
  - SAuxOVX word order
  - clause-final negation
  - 3+ tone heights
  - lax question prosody
  - etc.

Introduction

- A number of languages across Africa have marking that flags whether an argument is in its default/canonical position
    - I call this phenomenon *argument-position-dependent marking* (APDM)

Introduction

- A number of languages across Africa have marking that flags whether an argument is in its default/canonical position
    - Two types:
        - Absent type: morphology indicating there is no object (and sometimes oblique arguments) in the default object position
        - Present type: morphology indicating an object is in the default object position.

Introduction

- A number of languages across Africa have marking that flags whether an argument is in its default/canonical position
    - Distinct from marking of familiar morphosyntactic categories like focus, valency case, etc.

Introduction

- This talk
  - Illustrate this phenomenon
    - Contrast present and absent type APDM
  - Present results from a survey of 100 languages in and around the Macro-Sudan belt
    - Show that APDM is concentrated in the Macro-Sudan belt
    - Identify cross-linguistic trends in the formal properties of the marking
    - I show the geographic distributions of said properties
  - Compare the geographic distribution of APDM to other Macro-Sudan Belt effects

Argument-position-dependent marking

Absent type

- **Absent type**: Marking when there is no non-subject argument in the canonical/default object position
- Southern Toussian has absent type APDM
  - SOV word order
  - Verbs realized with lexical tone when preverbal object present

(1) With *wɛ́* 'see'

sú mám wɛ́
Father rat see

'Father saw the rat'

Absent type

- H verbs → L when object not immediately preverbal
    - Intransitive verbs

(2) With *pɔ́* ‘come’

sú **pɔ̀**
father come.APDM

‘Father came’

Absent type

- H verbs → L when object not immediately preverbal
    - Elided objects

(3) With *wɛ́* ‘see’

jé **wɛ̀**
2PL see.APDM

‘You saw [it]’

Absent type

- H verbs → L when object not immediately preverbal
  - Fronted objects

(4) [mám jé] sú **wɛ̀**
rat FOC father see.APDM
'Father saw THE RAT'

Absent type

- H verbs → L when object not immediately preverbal
  - Postposed objects

(5) ádámá **wɛ̀** ㊍sjɛ́bɛ́-lɛ̀
Adama see.APDM medicine-OBL
'Adama saw the medicine'

Absent type

- The marking
  - Is not of intransitivity

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  - It occurs in transitive clauses with fronted or postposed object

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Absent type

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  - Is not an obvious exponent of focus
  - It occurs
    - with broad focus (e.g., in intransitive clauses)
    - narrow focus (e.g., with the fronted objects)
  - It cannot be coerced into occurring in transitive clauses with default word order for semantic or pragmatic reasons
    - Is not, e.g., assertive focus (Hyman & Watters 1984, Marchese 1983)

Absent type

- The marking
  - Appears to flag the absence of an internal argument in the canonical object position

Present type

- **Present type**: marking when the object is in the canonical/default object position
- Found in Laal (isolate; Chad)
  - SVO word order
  - On finite verbs: M verbs → L
  - On gerunds: verbs have segmental suffix

(6) with *tō* 'carry'

náár **tò** kúdál
his.mother carry(M>L) stone

'His mother carried a stone' (Lionnet 2022: p. 261)

Present type

- Not present otherwise
    - With intransitive verbs

(7) jí guān
1SG.F.SBJ dance
‘I dance’ (Lionnet p.c.)

Present type

- Not present otherwise
    - When the object is elided

(8) náár tō
his.mother carry
'His mother carried [it]' (Lionnet 2022: p. 261)

Present type

- Not present otherwise
  - When the object is fronted

(9) tuààr ↗ sárú ↗ mōɲ ↗
chicken LIST tortoise LIST crocodile LIST

[jí ɗāŋ]$_{TOP}$ ɟí ɲāg wó
CON.A ANAPH 1.F eat NEG

‘Chicken, tortoise, crocodile, [all that]$_{TOP}$, I don’t eat’
(Lionnet 2022: p. 263)

Present type

- Not a marker of transitivity

Present type

- Not a marker of transitivity
  - Does not occur when the object is fronted

Present type

- Not an obvious marker of focus

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  - Not attributable to a particular type of focus construction

Present type

- Not an obvious marker of focus
  - Not attributable to a particular type of focus construction
  - Not attributable to semantic or pragmatic factors

Present type

- Instead, indicates that the object is in the canonical object position
- Lionnet (2022) analyzes the marking as reflecting non-extraction of the object

APDM

Table 1: APDM marking for SOV language

	Absent-type	Present-type
Trans	SOV	SOV
	SØV	SØV
	SVO	SVO
	OSV	OSV
Intrans	SV	SV

Survey

Survey

- Questions:
  - How widespread is this phenomenon?
    - Is this a Macro-Sudan Belt phenomenon?
    - What does the distribution inform us about the Macro-Sudan Belt?
  - What cross-linguistic trends in the formal properties of APDM are identifiable?
    - What can this tell us about the diachrony of APDM?

Survey

- Surveyed 100 languages in Africa
  - 68 of 100 were in the Macro-Sudan Belt
- Convenience sample
  - Comprehensive description needed to evaluate whether APDM occurs in the language

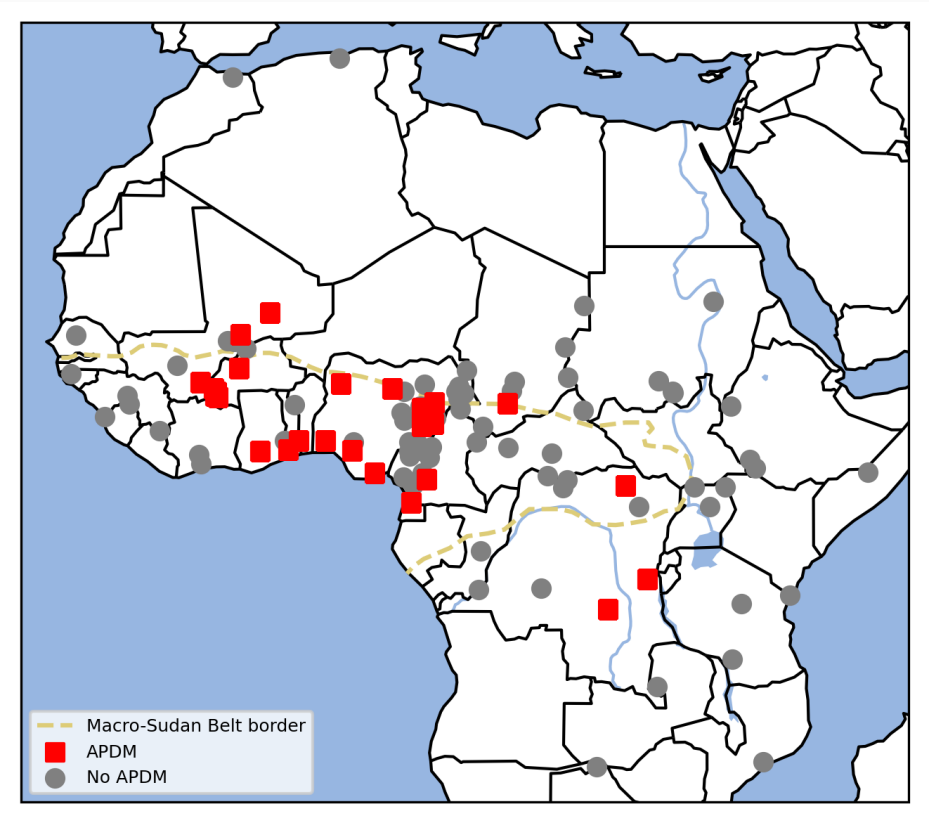

Figure 2: Cases of APDM

Survey

- At a glance
  - 26/100 languages surveyed have APDM
    - 22/68 (32%) of languages in the Macro-Sudan Belt have APDM
    - 4/32 (13%) of languages outside of the Macro-Sudan Belt have APDM

Survey

- At a glance
  - 26/100 languages surveyed have APDM
    - 22/68 (32%) of languages in the Macro-Sudan Belt have APDM
    - 4/32 (13%) of languages outside of the Macro-Sudan Belt have APDM
- Concentrated in
  - Western Burkina Faso and central Mali
  - The Bight of Benin
  - Northeastern Nigeria

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- Concentrated in
  - Western Burkina Faso and central Mali
  - The Bight of Benin
  - Northeastern Nigeria
- Some cases outside of Macro-Sudan Belt
  - South of the Macro-Sudan Belt (Songye and Lega; Bantu languages)
  - Just north of the Macro-Sudan Belt (two Songhay languages)

Introduction

- Found in genetically-diverse and geographically distant languages across West and Central Africa
  - Niger Congo
    - The Toussian languages (“Peripheral Gur”; Wiesmann 2004, Struthers-Young 2025)
    - Senoufo (“Peripheral Gur”; Carlson 1994)
    - Yorùbá (Benue Congo; Déchaine 2001)
    - Asante Twi (Kwa; Kandybowicz 2015)
    - Some Bantu languages, e.g., Songye (Stappers 1964), Lega (Meeussen 1971), etc.

Introduction

- Found in genetically-diverse and geographically distant languages across West and Central Africa
  - Afro-Asiatic
    - Hausa (Chadic; Hayes 1990, Crysmann 2004, 2005)
    - Dera (Chadic; Newman 1974)
  - Isolates
    - Laal (Lionnet 2015, 2022)
  - Nilo-Saharan
    - Songhay (Heath 2007)

Cross-linguistic variation in the formal properties of APDM

Formal properties of the marking

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- APDM is realized in multiple ways
  - With tone (11/26; 42%)
  - Segmental marking (16/26; 62%; Laal counted for both tonal and segmental marking)
    - Prefixes (4/26; 15%)
    - Suffixes (6/26; 23%)
    - Particles (3/26; 12%)
    - Reduplication (3/26; 12%)

Formal properties of the marking

- The verb is typically targeted by the marking (21/26; 81%)
- 3/26; 12% use particles
- In some languages, the marking is nominal (2/26; 8%)
  - Gyeli (Niger Congo; Bantu)
  - Eton (Niger Congo; Bantu)

Formal properties of the marking

- The realization of APDM typically depends on the morphosyntactic context (17/26; 65%—4 indeterminate due to limitations of the description)
  - TAMP dependent
    - Only in progressive clauses in Fon and Ewe (Fabb 1992)
    - Absent with imperatives in Songhay (Heath 2007)
    - Only in simple past tense in Asante Twi (Kandybowicz 2015)
    - Form of APDM marking (tonal association vs downstep) dependent on TAMP marker in Northern Toussian (Struthers-Young 2025)

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    - Form of APDM marking (tonal association vs downstep) dependent on TAMP marker in Northern Toussian (Struthers-Young 2025)
  - Restricted to certain non-finite constructions
    - In auxiliary verb constructions in Eton and Ụt-Ma'in (Niger Congo; Kainji; Paterson p.c.)

Geographic distribution

Formal properties of the marking

- Present vs absent type
  - Present type: 13/26 (50%)
  - Absent type: 13/26 (50%)

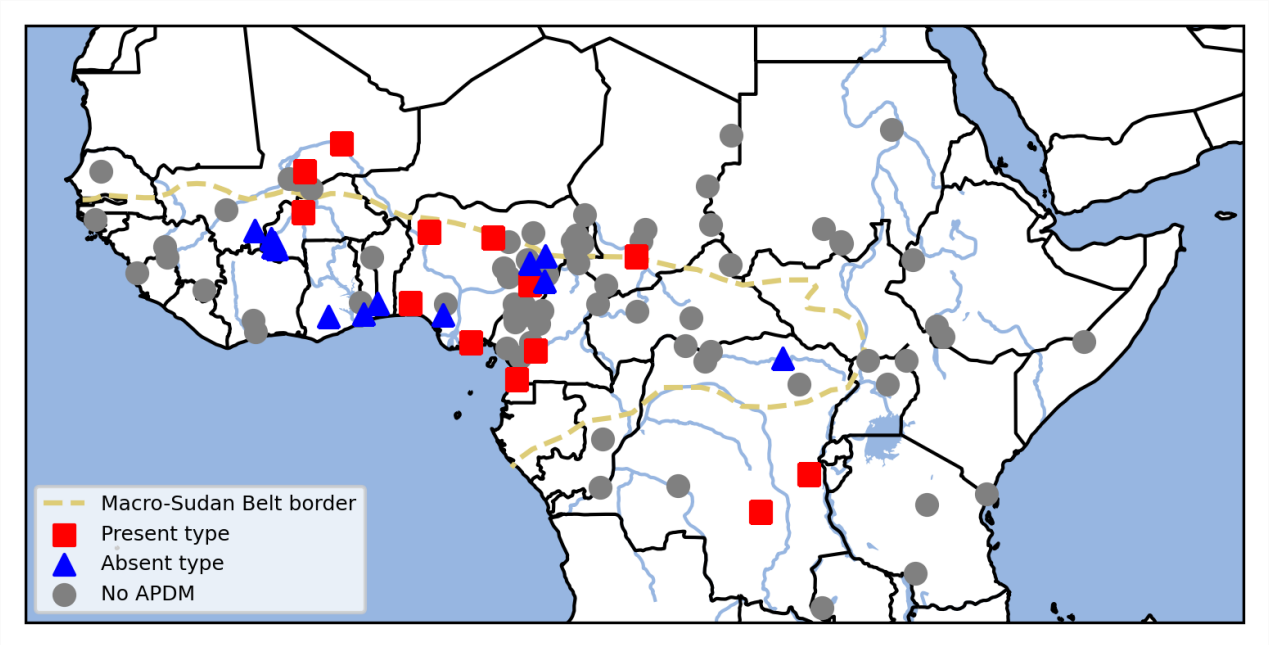

Figure 3: Present or absent type marking

Formal properties of the marking

- Tonal marking
  - Tonal: 11/26 (42%)
  - Segmental 16/26 (62%) (Laal counted for both)

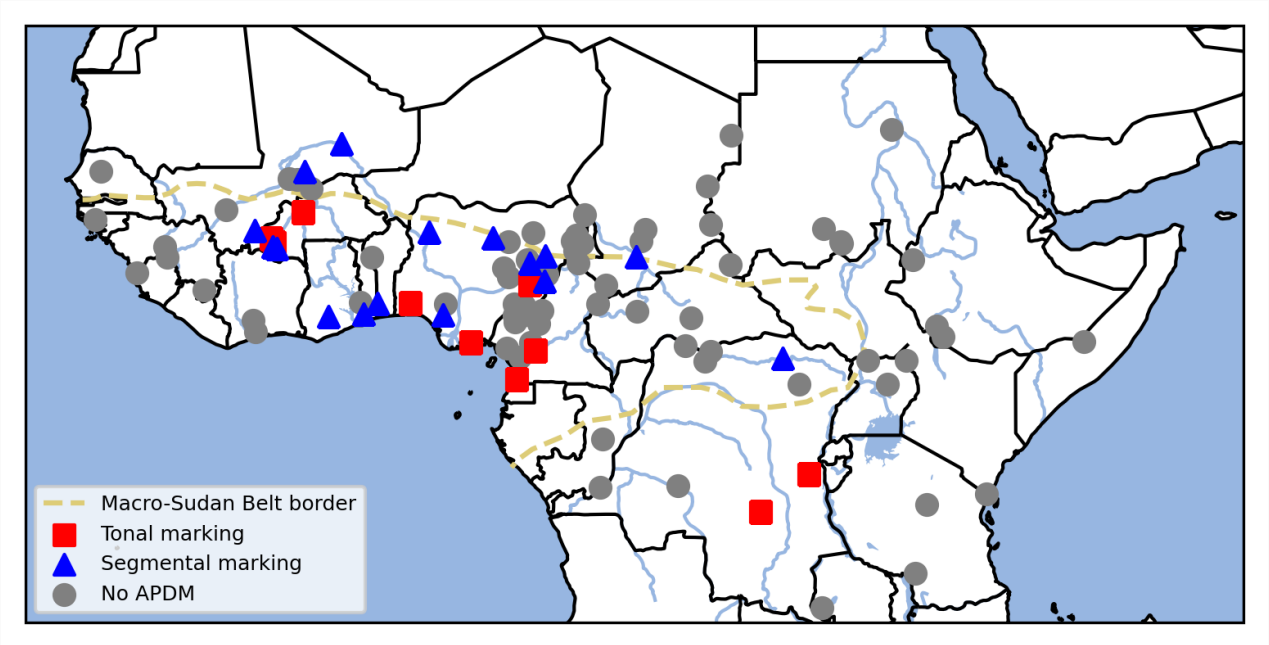

Figure 4: Segmental or tonal marking

Formal properties of the marking

- Subtypes of segmental marking
  - Prefixes (4/26; 15%)
  - Suffixes (6/26; 23%)
  - Particles (3/26; 12%)
  - Reduplication (3/26; 12%)

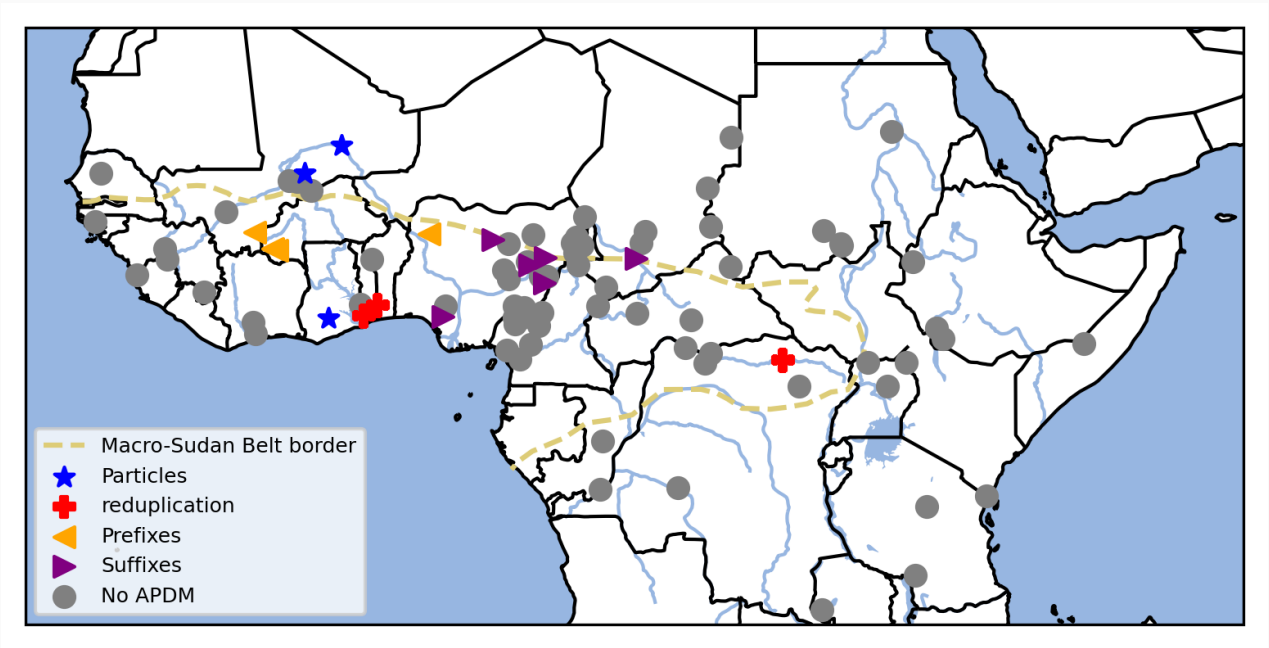

Figure 5: Segmental subtypes

Formal properties of the marking

- When marking is prefixal/suffixal, it always occurs at the juncture between the object and verb
    - Informative of possible diachronic source—discussed more shortly

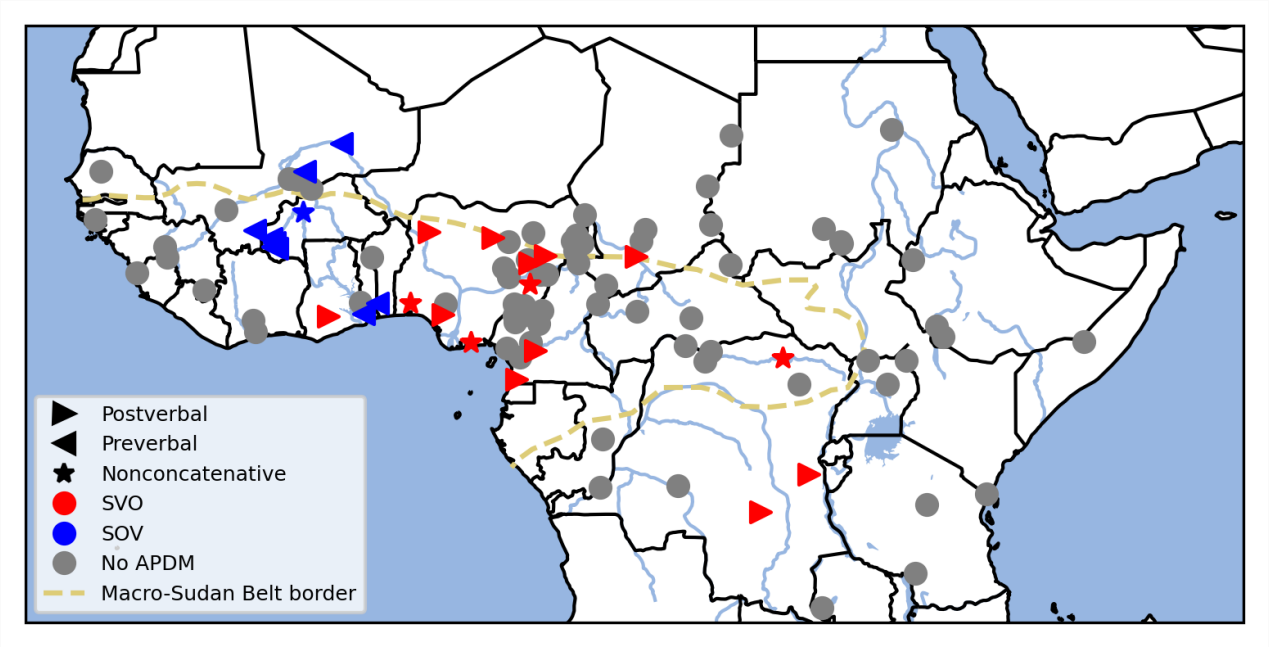

Figure 6: Directionality of marking

Correlations with other Macro-Sudan Belt features

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- Canonical Macro-Sudan Belt features are distributed unevenly across the zone
- Multiple sub-areas

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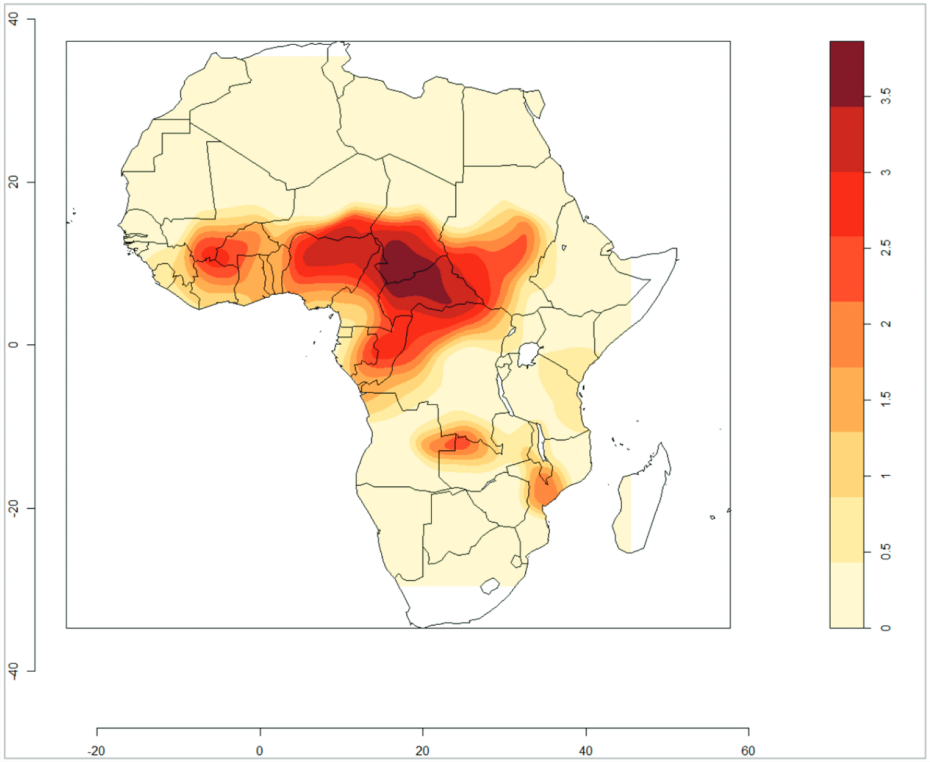
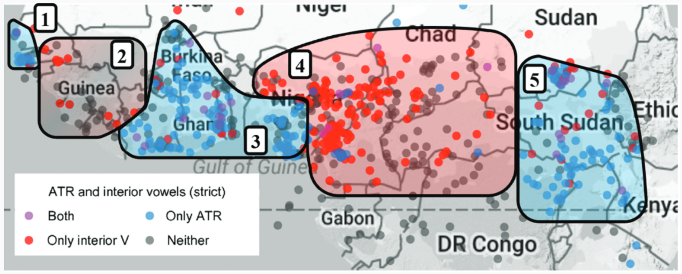
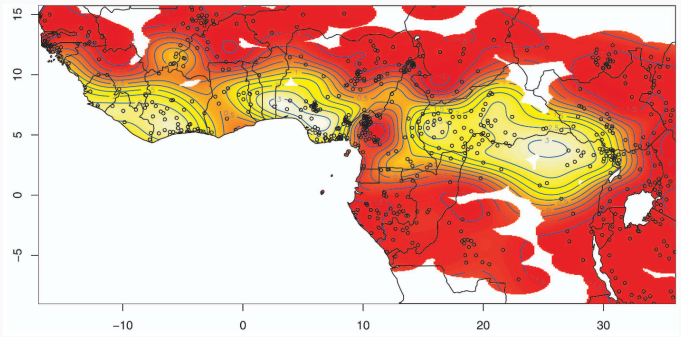


(a) Distribution of clause-final negation (Idiatov 2018)



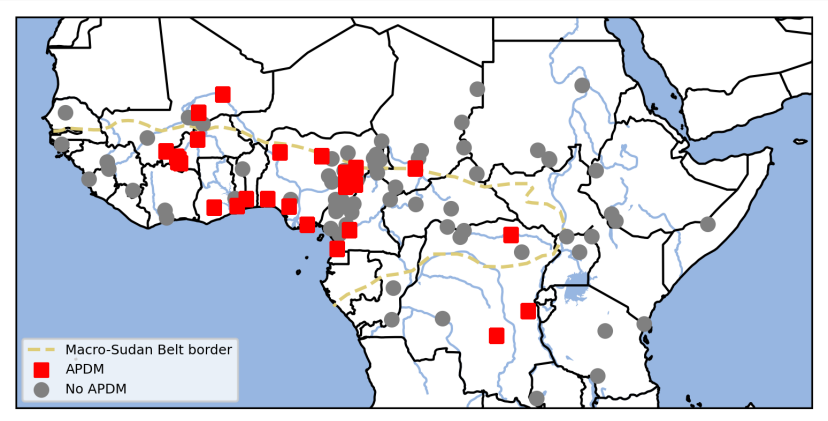
(b) ATR and interior vowel zones (Rolle, Lionnet & Faytak 2020)



(c) Distribution of labial velar stops (Idiatov & Van De Velde 2021)

Correlations with other Macro-Sudan Belt features

- Relative dearth in Eastern Cameroon and Central African Republic—corresponds roughly with the center of the clause-final negation zone



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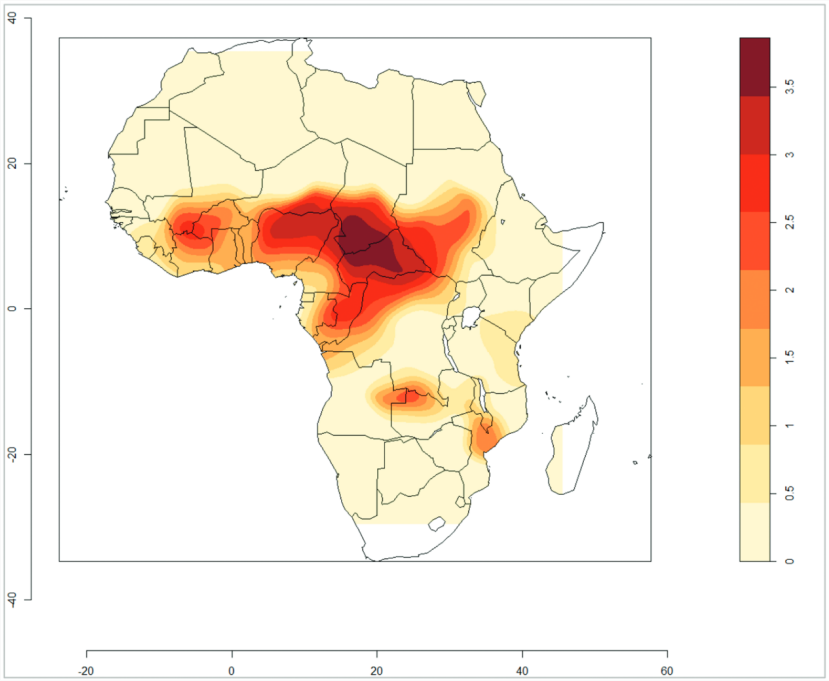

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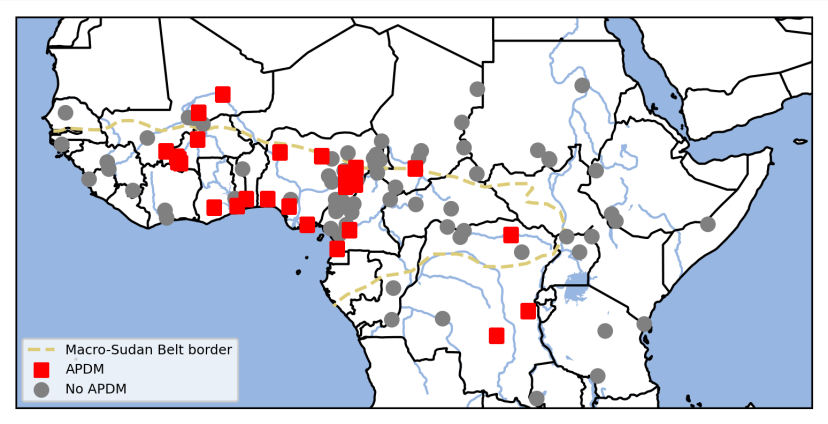
Correlations with other Macro-Sudan Belt features

- Absent throughout the coast from Senegal to Côte d'Ivoire—corresponds roughly to zone with no ATR or interior vowels/westmost labial velar zone



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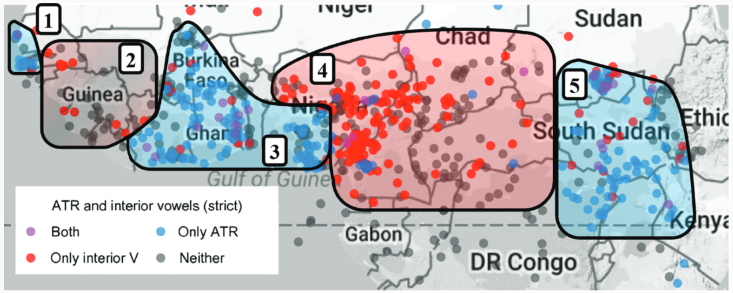

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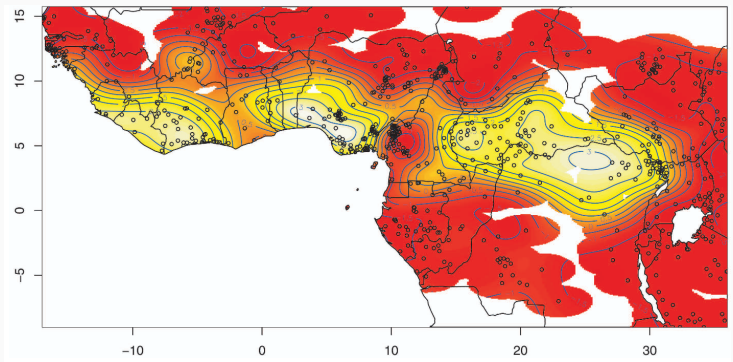

(c) Distribution of labial velar stops (Idiatov & Van De Velde 2021)

Correlations with other Macro-Sudan Belt features

- Overlapping areas of features (or absence of features) supports sub-areas within the Macro-Sudan Belt
  - Central African linguistic area
  - Mande sphere
  - Etc.

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    - Contributes to our understanding of the geographic extent of the area
    - Allows better understanding of sub-areas within the Macro-Sudan Belt
    - Is an avenue through which we can probe questions of contact of languages, people, and cultures; language evolution and history

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    - (in)transitive marking
    - Descriptive linguists working in the area should be aware of the phenomenon lest they mischaracterize a particular structure

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    - Does it reflect a syntax-prosody interaction (Hayes 1990, Déchaine 2001, Kandybowicz 2015)?
    - Or inflectional morphology (Crysmann 2004, 2005, Lionnet 2015, 2022)?
    - A broader understanding of the phenomenon supplies data with which our theories can be honed

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  - As remnants of linking morphology in (formerly) nominal constructions—a hypothesized source of SAuxOVX word order (Nikitina 2011)?
  - From focus or valency marking, reanalyzed as a marker of purely structural position/relations?

Thank you!

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