

Focus and word order in Tangale (West Chadic)

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Main point of the talk

In the SVO-language Tangale, the subject inverts when questioned or focused.

We argue that this is motivated by a moraic focus-marker on the subject that needs to suffix to something: [[-μ]-who came?] -> [came-μ who?]

1. Background on Tangale

West-Chadic (Afro-Asiatic) language, spoken in Gombe State in North-Eastern Nigeria.
 Estimated 130.000 speakers (1995), Dialects: Billiri, Kaltungo, **Shongom**, Ture



Literature on the language:

- Jungraithmayr 1991: a dictionary and overview of the morphology
- Kenstowicz 1987: an analysis of the phrasal phonology and of the syntax of wh-phrases
- Kenstowicz & Kidda 1987: analysis of the tonal system
- Kidda 1993: a description and analysis of the phonology with some suggestions on syntax
- Tuller 1992, Zimmermann 2006, Hartmann and Zimmermann 2007: analyses of focus in Tangale

- *Phonology*

(1) Vowels (each short and long): i ɨ u ʊ e ɛ o ɔ a (V: +ATR, □: -ATR; a: -ATR)
 ATR-harmony left-to-right; [a] unaffected, triggers [-ATR]-harmony to its right

(2) Consonants

- | | |
|-----------------------------|--------------------------------------|
| plosives: p, t, k; b, d, g; | (labialized:) tw, kw; bw, dw, gw |
| glottalized plosives: □, □; | (labialized:) □w, □w |
| nasals: m, n, ŋ; | prenasalized stops: mb, nd, n , (ŋg) |
| fricatives: s, š, z, ž; | (labialized:) sw, zw, šw, žw |
| liquids: l, r; | (labialized:) rw |
| semivowels: w, y, yw | laryngeal: h, (□) |

(3) Tones: H, L, with spreading and lowering (Kenstowicz & Kidda 1987, Kidda 1993)

(4) Syllable structure: maximally CVVC

- *Unmarked word order*

| | | | | | | |
|-----|--|--------|-------|----------|-----------|-----------|
| (5) | SU | V | DO | IO | LOC | TEMP |
| | Lak | paduḡ | landa | sum tijo | ta luḡmɔ | ɔnɔ |
| | Laku | bought | dress | for Tijo | at market | yesterday |
| | <i>'Laku bought a dress for Tijo at the market yesterday.'</i> | | | | | |

- 'Classical' morphology

(6) *Derivation, reduplication and compounding*

- one prefix (*anan-*, 'one who does X'), one suffix (*-o*, deverbal nouns)
- reduplication of A, V, N to modulate intensity and for some other functions
- extensive compounding

(7) *Inflection*

- aspect-inflection on the finite verb (no tense-inflection)
- number agreement with objects of V_{TR} , gender agreement with subjects of some V_{ITR}
- no case inflection; definite suffix [-i]: *landa-i* dress-DEF

- 'Phrasal morphology'

(8) *Negation*: [-m] suffixes to words and to sentences

lak sa-g ar-**m** (Kidda 1993: 26)
 Laku eat-PERF soup-NEG
 'Laku did not eat soup.'

(9) *relative marker / modifying linker [-m]*: (Noun -m)(... phon. words
 [[-m] Adj/Rel-clause] syntax

[mu-**m** sa-g sanə-i] waj-go (Kidda 1993: 33)
 man-REL eat-PERF food-DEF leave-PERF
 'The man who ate the food left.'

2. Subject inversion in question formation and focus

- *Basic patterns*

(10) *Subject questions*

| | | | | |
|----|-----------|-------|-----------|---------------|
| | SU | V | SU | |
| a. | SU V: | malay | mudgo | 'Malay died.' |
| b. | * whSU V: | * noŋ | mudgo | 'Who died?' |
| c. | √ V whSU: | | mudgo noŋ | 'Who died?' |

(11) *Subject focus: inversion not licensed by wide focus orthetic sentence*

| | | | | |
|----|-----------------------------------|-------|----------|---------------|
| | | | V | |
| a. | [SU V] _{FOC} (neutral) | malay | mudgo | 'Malay died.' |
| | | cf. # | mudug/go | malay |
| b. | V [SU] _{FOC} [Who died?] | # | malay | mudgo |
| | | | mudgo | malay |

→ Kenstowicz (1987): *wh*-movement into a right-peripheral clause position.

→ Problem with non-subject *wh*-expressions: *no change in word order preferences* (cf. Kidda 1993, Hartmann and Zimmermann 2007)

(12) *Without wh-phrases: direct object > PP-object*

| | | | | | | | | | | |
|----|------|--------|-------|----------------------------------|--|----|--------|----------|------------|-------|
| a. | SU | V | DO | PP | | b. | SU | V | PP | DO |
| | laku | padug | landa | [tom tijo] | | | * laku | padug/go | [tom tijo] | landa |
| | Laku | bought | dress | from Tijo | | | Laku | bought | from Tijo | dress |
| | | | | 'Laku bought a dress from Tijo.' | | | | | | |

(13) *Same with wh-phrase: direct object > PP-object*

- | | | | |
|----|----------------------------------|----|---------------------------------------|
| a. | SU V [DO] _{WH} PP | b. | SU V PP [DO] _{WH} |
| | lakü padgø <u>nan</u> [tøm tiju] | | * lakü padug/gø [tøm tiju] <u>nan</u> |
| | Laku bought what from Tijo | | Laku bought from Tijo what |
| | ‘What did Laku buy from Tijo?’ | | |

→ *Unexpected: b. should be the preferred outcome if wh-movement to right periphery.*

(14) *Without wh-phrases: direct object > temp.adverb*

- | | | | |
|----|----------------------------------|----|-----------------------------|
| a. | SU V DO temp | b. | SU V temp DO |
| | lakü padug landa ɔnø | | * lakü padug/gø ɔnø landa |
| | Laku bought dress yesterday | | Laku bought yesterday dress |
| | ‘Laku bought a dress yesterday.’ | | |

(15) *Same with wh-phrase: direct object > temp.adverb*

- | | | | |
|----|--------------------------------|----|--------------------------------|
| a. | SU V [DO] _{WH} temp | b. | SU V temp [DO] _{WH} |
| | lakü padgø <u>nan</u> ɔnø | | * lakü padug/gø ɔnø <u>nan</u> |
| | Laku bought what yesterday | | Laku bought yesterday what |
| | ‘What did Laku buy yesterday?’ | | |

→ *Unexpected, as above.*

→ *It seems that phrases other than the subject are not displaced when questioned.*

• *Problems with inverted subjects*

i. *Inverted subject cannot intervene between V and DO (cf. also Tuller 1992):*

- | | | | |
|---------|-------------------------|----|-----------------------------|
| (16) a. | V DO [SU] _{WH} | b. | V [SU] _{WH} DO |
| | padug landa <u>non</u> | | * padug/gø <u>non</u> landa |
| | bought dress who | | bought who dress |

ii. *Inverted wh-subject occurs **before or after** [PP-object] (cf. also Tuller 1992)*

- | | | | |
|---------|-----------------------------------|----|-----------------------------------|
| (17) a. | V DO [SU] _{WH} PP | b. | V DO PP [SU] _{WH} |
| | padug landa <u>non</u> [tøm tiju] | | padug landa [tøm tiju] <u>non</u> |
| | bought dress who from Tijo | | bought dress from Tijo who |
| | ‘Who bought a dress from Tijo?’ | | (same) |

iii. *Inverted wh-subject: not after temporal adjunct (see also Tuller 1992: ex. 4b)*

- | | | | |
|---------|---------------------------|----|---------------------------|
| (18) a. | V [SU] _{WH} temp | b. | V temp [SU] _{WH} |
| | mudgø <u>non</u> ɔnø | | ?? mɔdug/gø ɔnø non |
| | died who yesterday | | died yesterday who |
| | ‘Who died yesterday?’ | | (same) |

→ *Again unexpected if subject inversion = wh-movement to the right periphery*

3. *Subject inversion ≠ cleft-like structure: differences*

i. *Exhaustivity with ki 'only'+FOC, cleft and free relative/pseudocleft*

- (19) Sp1: *ponuk polašara non?*
 ‘Who knows English?’

- Sp2: a. p̄onuk polašaara ki laku. *ki = only: ‘Only Laku knows English.’*
b. **a laku-m** p̄onuk polašaara *cleft: ‘It’s Laku who knows English’*
c. **mu-m** p̄onuk polashara ŋ laku *free relative/pseudocleft: ‘The one who knows English is Laku.’*
Sp2: # tiju p̄onjin polašaara takin. *CONTRADICTION to any of the preceding. ‘Tiju knows English, too.’*

ii. *No exhaustivity with subject inversion !*

(20) Sp1: p̄onuk polašaara non?
‘Who knows English?’

Sp2: p̄onuk polašaara laku.
knows English Laku *‘Laku knows English.’*

Sp2: √ tiju p̄onjin polašaara takin. *NO CONTRADICTION*
‘Tiju knows English, too.’

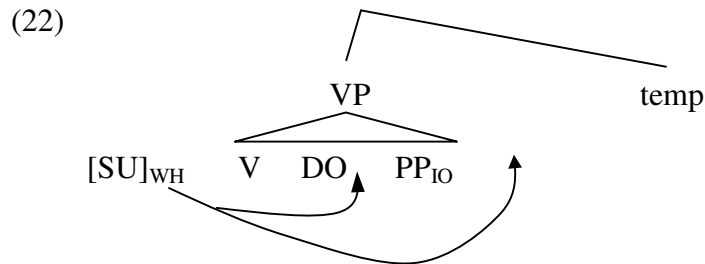
iii. *Supporting evidence: preposition stranding with clefted PPs ≠ focused PPs*

(21) a. **mu-m** laku padunḡon landa **t̄om-ei** a **tiju**
person-REL Laku bought-VENT dress from-3SG COP Tiju
‘The one whom Laku bought the dress from is Tiju.’

b. laku padunḡon landa n **t̄om tiju**
Laku bought-VENT dress PRT from Tiju
‘Laku bought the dress FROM TIJU.’

4. An alternative perspective on subject inversion

- *Subject inversion is a more local postposing of the subject*



Trigger: for some reason [SU]_{WH} is not allowed in initial position → must be postposed

Interesting additional restrictions:

- [SU]_{WH} cannot be postposed to the right further than the right edge of VP
→ [SU]_{WH} cannot follow temporal adverbs (*more on this below*):
- V and DO must remain adjacent → subject cannot intervene here
→ Adjacency of V and DO seems to be related to case (cf. Tuller 1992):

(23) √ [V [SU]_{WH} object-clause]

- a. yimbei non [ka laku paduḡ landa]
b. yimbei [ka laku paduḡ landa] non
think who PRT Laku bought dress who
‘Who thinks that Laku bought a dress?’

>>> Why Inversion?

>>> The account we develop in the following sees this in the domain of phrasal morphology.

5. In preparation of the account: Morphological focus marking in Guruntum

Focus in Guruntum (West Chadic) is consistently marked by a morphological focus marker *a*, which precedes the focus constituent (Hartmann & Zimmermann, to appear). If the preceding element is a verb, the *a*-marker cliticizes onto the verb phonologically and takes over the tone of the elided final vowel.

- (24) (...) **á wh-phrase** (...) (...) **á focus** (...)
- a. **à kwá** bà wúm kwálingálá-ì? **à fúrmáyò** bà wúm kwálingálá
 FOC who PROG chew colanut-DEF FOC Fulani PROG chew colanut
 'WHO is chewing the colanut?' 'THE FULANI is chewing colanut.'
- b. tí yáb-à **káã** ngwái? tí yáb-à **gyùurí** ngwái
 3SG sell-FOC what out 3SG sell-FOC millet out
 'What did he sell?' 'He sold (the) millet.'
- c. tí bà wúr má-ì **à kwá?** tí bà wúr má-ì **à báa-sì**
 3SG PROG bring water-DEF FOC who 3SG PROG bring water-DEF FOC father-his
 'TO WHOM is he bringing the water?' 'He is bringing the water TO HIS DAD.'

→ Morphological focus marking also in *Mupun* (Frajzyngier 1993), *Lele* (Frajzyngier 2001)

6. The Account: The focus marker {[$-\mu$]/[$-n$]} in Tangale

Suggested trigger of subject inversion:

- i. {[$-\mu$]/[$-n$]}: an empty mora that is sometimes spelled out as [$-n$]
 wh-/focus is marked by {[$-\mu$]/[$-n$]}, preceding the questioned/focused constituent.
- ii. {[$-\mu$]/[$-n$]} is a suffix. Its morphological requirements demand a preceding constituent.

- (25) [$-\mu$] non m̀d̩gɔ → m̀d̩gɔ[$-\mu$]-non
 who died died who

- When PPs and adjuncts are questioned or focused, they are preceded by [$-n$]
 (this observation has gone unnoticed in the literature so far)

i. [$-n$] suffix preceding [PP]_{WH} & wh-temp

- (26) a. laku pad̩g {landa tɔm tiju } cf. tɔm tiju 'from Tiju'
 b. {landa-**n** tɔm **non** } n tɔm non 'from whom?'

Laku bought dress from Tiju / from **who**

- (27) a. laku nab̩k takada-**n dimin** da mana
 Laku read book when in house

- b. laku nab̩k takada da mana-**n dimin**
 Laku read book in house when

'When did Laku read a book in the house?'

ii. [-n] likewise marks focus on PPs and adjuncts

- (28) a. (neutral) [lakɯ paduŋ landa(*-n) ta kasuwa]_{FOC}
 b. [Where did Laku buy a dress?] lakɯ paduŋ landa*(-n) [ta kasuwa]_{FOC}
 Laku bought dress at market
 'Laku bought a dress at the market.'

iii. Optionally, [-n] even appears with focused objects and inverted subjects

- (29) a. (neutral) [lakɯ pad-ɯŋ(*-gɔ-n) landa]_{FOC}
 b. [What did Laku buy?] lakɯ pad-ɯŋ/-gɔ-n [landa]_{FOC}
 Laku bought dress
 'Laku bought a dress.'

- (30) [Who bought a dress?] paduŋ landa(-n) [lakɯ]_{FOC}
 bought dress Laku
 'Laku bought a dress.'

• Evidence for [-μ] in the absence of [-n] (with reference to Kenstowicz 1987)

(31) Vowel Elision (VE):

- i. A stem-final vowel deletes before a suffix.
 ii. A word-final vowel deletes before another word in the same p-phrase.

- (32) a. ayaba 'banana' b. ayab-nɔ 'banana-my'

(33) u-Epenthesis (Kidida 1993):

[u/ʉ] is epenthesized into C-clusters if they don't fit into the syllable structure.

- (34) mal-gɔ 'beat-PERF' $\xrightarrow{\text{VE}}$ mal-g $\xrightarrow{\text{epenthesis}}$ mal-ɯŋ

- (35) a. mal-gɔ beat-PERF b. mal-ɯŋ kay beat-PERF Kay

→ Expected Vowel Elision fails in position preceding question word (or wh-phrase)

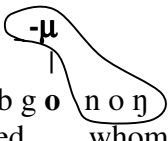
- (36) a. malay wa padɛ 'Malay will buy (it).'
 b. malay wa pad yalam 'Malay will buy oil.' VE before DO
 c. malay wa padɛ naŋ 'What will Malay buy?' no VE before wh-DO

- (37) a. kay dobgo 'Kay called.'
 b. kay dobug malay 'Kay called Malay.' VE before DO
 c. kay dobgo noŋ 'Who did Kay call?' no VE before wh-DO

→ Kenstowicz's (1987) conclusion:

Supports account in terms of rightward movement: no VE because separate p-phrase.

→ *Our analysis:*
Independent reason for lack of VE: the [-μ] ‘carries’ the vowel, saves it from deletion

(38) 
d o b g o n o ŋ
called whom

=> Morphological focus marker is sometimes spelled out as [-n], sometimes indirectly visible in blocking VE.

- *Placement of temporal adverb vs. temporal wh-phrase*

(39) *Temporal adjunct [oŋo] in final or initial position*

a. laku paduḡ landa toḡ tiju oŋo b. oŋo laku paduḡ landa toḡ tiju
Laku bought dress from Tiju yesterday yesterday Laku bought dress from Tiju
‘Laku bought a dress from Tiju yesterday.’ (same)

(40) *Temporal adjunct wh-word [dimin] not in initial position*

a. laku paduḡ landa toḡ tiju-n [dimin] b. *(n) [dimin] laku paduḡ landa toḡ tiju
Laku bought dress from Tiju when when Laku bought dress from Tiju
‘When did Laku buy a dress from Tiju?’

7. The locality of inversion

- *Three puzzles*

i. *Puzzle I: Embedded question for embedded subject → the subject still inverts*

(41) a. ŋaj-m majei ka [paduḡ landa noŋ]
b. ... * noŋ paduḡ landa
Ŋgai-PROG ask PRT who bought dress who
‘Ŋgai is-asking who bought a dress.’

Q: Why isn't inversion superfluous in the presence of a preceding complementizer?

ii. *Puzzle II: Adverb preceding wh-subject in preverbal position*

(42) a. Adv SU V DO ‘Yesterday Laku bought a dress.’
oŋo laku paduḡ landa
b. oŋo paduḡ landa noŋ ‘Who bought a dress yesterday?’
c. * oŋo noŋ paduḡ landa

Q: Why isn't inversion superfluous in the presence of a preceding adverb?

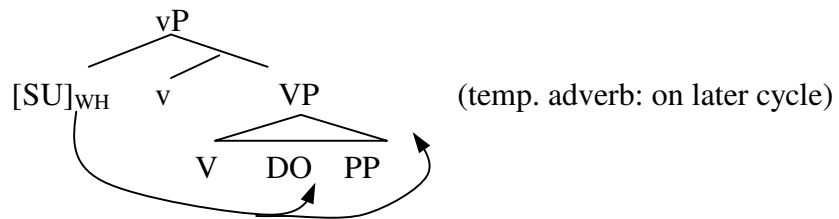
iii. *Puzzle III: Inverted wh-subject not after temporal adjunct*

(43) a. V [SU]_{WH} temp b. V temp [SU]_{WH}
muḡgo noŋ oŋo ?? muḡgo/go oŋo noŋ
died who yesterday died yesterday who
‘Who died yesterday?’ (same)

Q: Why does inversion stop at the right edge of VP?

- *A Hypothesis: vP and CP are cyclic nodes for inversion* (perhaps related to the notion of phase in Chomsky 2005)

(44) vP-cycle:



- focus-marker on subject must find a host within the vP-cycle → local subject inversion
- explains why preceding material outside of vP does not help.
- explains why inversion cannot go any further to the right than the right edge of VP.

(45) *Puzzle I:* ηaj-m majej̩ [CP ka [vP non paduḡ landa]] cf. (41a)

(46) *Puzzle II:* [CP ɔnɔ [vP non paduḡ landa]] cf. (42a)

(47) *Puzzle III:* [CP [vP non mudgo] ɔnɔ] cf. (43a)

Conclusion

- The focused/questioned subject inverts within the VP. This does not trigger exhaustivity.
- Our analysis: a cyclic process, triggered by phrasal morphology: a focus marker that must suffix to something.
- Focused elements other than the subject satisfy the suffix-requirement without reordering.

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