

Main Claim

Tonal overwriting can be captured in a strictly concatenative approach by tonal circumfixes that result in overwriting to ensure morphophonological contiguity. This predicts cyclic overwriting (Inkelas 2014) triggered by positional faithfulness to tonal edges, (Jurgec 2011) but also countercyclic overwriting where inner affixes block effects of outer affixes.

Tonal Overwriting

Hausa Imperatives (Newman 2000:262-263)

Stem tone is replaced by LH-tone of the (Ø) affix :

| Base | Imperative |
|----------------------------|-----------------------------|
| H kwà:ná 'spend the night' | LHkwà:ná 'spend the night!' |
| HL tá:jí 'get up' | LHtà:jí 'get up!' |
| HLHkàràntá: 'read' | LHkàràntá: 'read!' |

Base Tone → **LH**

Tonal Overwriting as an Argument for Construction Phonology (Inkelas 2014)

- Tonal Overwriting is affix-specific → requires construction-specific phonologies
- Tonal Overwriting mirrors morphological cycles (outer constructions systematically overwrite inner ones) → requires cyclic morphological domains for phonology (Construction Phonology ≈ Cophonologies ≈ Sign-based Morphology)

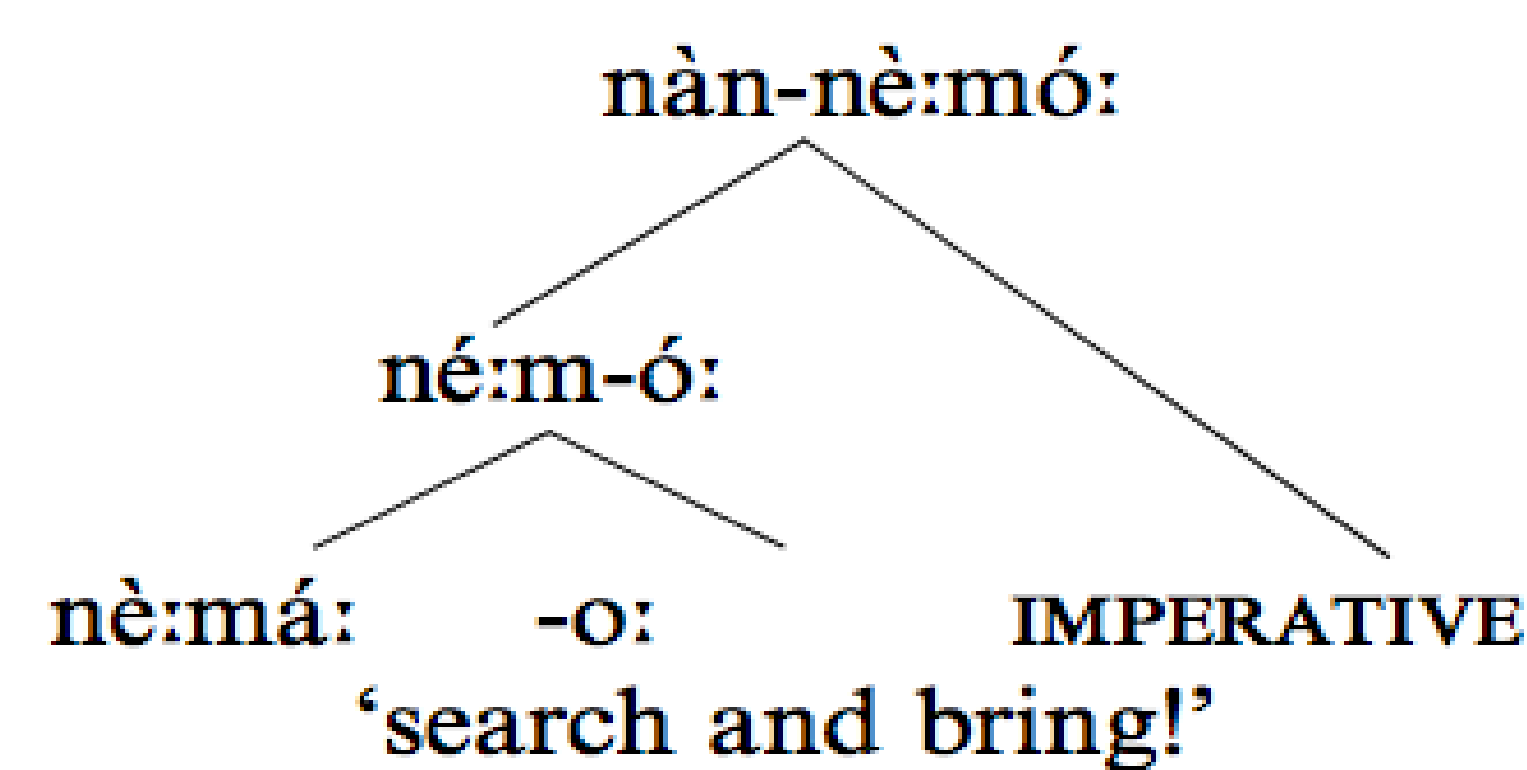
1 Overwriting is affix-specific

Non-overwriting in Hausa Verbal-Noun Formation:

| Verb | Verbal Noun |
|-----------------|------------------------------------|
| a. HL búgà: | HL-H búgà:wá: 'beat' |
| b. HLH kàràntá: | HLHL-H kàràntá:wá: 'read' |
| c. H sánàr̃ | HHL-H sánàr̃-wá: 'inform' |
| d. HL cê: | HL-H cêwá: 'say' (Newman 2000:705) |

2 Overwriting is Cyclic:

Outer construction (imperative LH) overwrites inner one (ventive H):



(Imperative ⊗ (Ventive ⊗ (Verb))) (Inkelas and Zoll 2007:147)

A Circumfix Analysis of Tonal Overwriting in Hausa

1 Theoretical Background

Assumptions (Trommer 2011)

- **Colored Containment:** Underlying material cannot be literally deleted, but might just be marked as phonetically invisible.
- **Doubling:** Clones of standard markedness constraints may be triggered by overt and phonetically unrealized material

Constraints:

- τ
 \downarrow
 σ Assign * to every tone which is not dominated by a syllable
- CONTIGUITY Assign * to every tone which intervenes between two tautomorphic tones
- $MAX |$ Assign * to every morphological association line which is not phonetically realized

2 Overwriting vs. Non-Overwriting

- By Containment lexical tones never fully deassociate, hence $\tau \rightarrow \sigma$ enforces association of floating tones
- Tonal pre-/suffixes ⇒ contours (or local overwriting)
- Circumfixes ⇒ full overwriting due to CONTIGUITY.

(1) *Non-Overwriting in Verbal Noun Formation (Suffix)*

| Input: = c. | τ \downarrow σ | <u>CONT</u> _{τ} | $MAX $ |
|-----------------|------------------------------------|--|---------|
| a. ka ran ta wa | | | |
| b. ka ran ta wa | | | *! |
| c. ka ran ta wa | | *! | |

(2) *Overwriting in the Imperative (Circumfix)*

| Input: = c. | τ \downarrow σ | <u>CONT</u> _{τ} | $MAX $ |
|--------------|------------------------------------|--|---------|
| a. ka ran ta | | | *** |
| b. ka ran ta | | *! | ** |
| c. ka ran ta | | *!* | |

3 Cyclic Overwriting by Positional Faithfulness to Edges

If peripheral tones are protected by positional faithfulness constraints, outer affixes overwrite inner affixes:

- $MAX |_{\tau}$ Assign * to every initial morphological tone in a PWord which is not phonetically realized
- $MAX |_{\tau}$ Assign * to every final morphological tone in a PWord which is not phonetically realized

(cf. Jurgec 2010 on Edgemost Faithfulness)

(3) *Imperative ⊗ (Ventive ⊗ (Verb))*

| Input: = c. | $MAX _{\tau}$ | $MAX _{\tau}$ | <u>CONT</u> _{τ} | τ \downarrow σ | $MAX $ |
|----------------|----------------|----------------|--|------------------------------------|---------|
| a. ne: ma: -oo | | | | | * *** |
| b. ne: ma: -oo | *! | * | | ** | ** |
| c. ne: ma: -oo | *! | * | | *** | |

Anticyclic Overwriting (Zimmermann and Trommer 2015)

- The sign-based approach predicts that overwriting is always cyclic:
- Outer constructions should always overwrite inner constructions
- Two types of counterexamples from Dinka and Gã

Globally Anticyclic Overwriting: Dinka:

Stem-Level Tone in Dinka (Andersen 1995, Trommer 2011)

| a. | CVC/H | | | | b. | CVC/L | | | |
|------|-------|------|----|-----|------|-------|------|----|-----|
| | Ø | CF/B | CP | BAP | | Ø | CF/B | CP | BAP |
| FIN | L | H | L | F | FIN | L | F | L | F |
| 1/3S | L | H | L | F | 1/3S | L | F | L | F |
| PL | H | H | L | F | PL | H | F | L | F |
| NF | F | H | L | F | NF | L | F | L | F |

Dinka: NoSKIP outranks Positional Faithfulness

| Input: = c. | NoSKIP | τ \downarrow σ | $MAX $ |
|--------------|--------|------------------------------------|---------|
| a. H L H L H | | | ** * |
| b. H L H L H | *! | ** | * |
| c. H L H L H | | ***!* | |

NoSKIP: Assign * to every unassociated tone which intervenes between two tones associated to the same TBU

Locally Anticyclic Overwriting: Gã

Tense/Aspect is structurally inside of Agreement:

| | |
|------------------------|--|
| mí-n-cha 'I'm digging' | mí-lchá-a 'I dig habitually' |
| 1Sg- Prog -dig | 1Sg- Hab -dig- Hab |
| e-baá-cha 'I will dig' | é-llá 'he has sung' |
| 3Sg- Fut -dig | 3Sg- PERF -sing (Paster 2000:8, Paster 2003:32) |

Tense/Aspect Tone overwrites Agreement (Paster 2003:28-30):

| Habitual | Perfective | Simple Past |
|-----------------------|-----------------|--------------------|
| (Underlying H/L-Tone) | (Grammatical H) | (Grammatical L) |
| 1Sg mí-llá-a | mí-cha | mi-dú |
| 2Sg o-lá-a ('sing') | ó-cha ('dig') | o-dú ('cultivate') |

Gã: Directionality outranks Edge Faithfulness

| Input: = c. | *SPREAD RIGHT | τ \downarrow σ | $MAX $ |
|-------------|---------------|------------------------------------|---------|
| a. H L H | | | * |
| b. H L H | *! | | * |
| c. H L H | | *! | |