**Main Claim**
Tonal overwriting can be captured in a strictly concatenative approach by tonal circumsfixes 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

**Base**

- Hausa Imperatives (Newman 2000:262-263)
  - Stem tone is replaced by LH-tone of the (0) affix:
    - **H**: Imperative
    - **HL**: Base
    - **HL-H**: Overwriting and Non-Overwriting
    - **HL-H-T**: Tonal Overwriting

- **Overwriting vs. Non-Overwriting**
  - By Containment lexical tones never fully deassociate, hence τ → 0 enforces association of floating tones
  - Contexts for tonal edges, (Jurgec 2011) but also countercyclic overwriting to tonal edges, (Inkelas 2014)

- **Non-Overwriting in Hausa Verbal-Noun Formation**
  - Cyclic Overwriting by Positional Faithfulness to Edges
  - If peripheral tones are protected by positional faithfulness constraints, outer affixes overwrite inner affixes:
    - **Max τ₁**: Assign * to every initial morphological tone in a PWord which is not phonetically realized
    - **Max τ₂**: Assign * to every final morphological tone in a PWord which is not phonetically realized
  - **(3) Imperative (Ventive (Verb))**

- **Cyclic Overwriting**
  - Outer construction (imperative LH) overwrites inner one (ventive H):
    - nán-nêmô: "search and bring!"
    - nêmmâ: o: IMPERATIVE 'search and bring!'
  - (cf. Jurgec 2010 on Edgemost Faithfulness)

### A Circumsfix Analysis of Tonal Overwriting in Hausa

- **Theoretical Background**
  - **Assumptions** (Inkelas 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

- **Overwriting vs. Non-Overwriting**
  - Tonal pre-/suffixes ⇒ contours (or local overwriting)
  - Circumsfixes ⇒ full overwriting due to **Contiguity**

- **Constraints**
  - Assign * to every tone which is not dominated by a syllable
  - Assign * to every tone which intervenes between two autotomophemic tones

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

<table>
<thead>
<tr>
<th>Stem</th>
<th>Vowel Tone</th>
<th>Syllable Tone</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>CVC/H</td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td>CVC/L</td>
<td></td>
</tr>
<tr>
<td>FIN L</td>
<td>H</td>
<td>L F</td>
</tr>
<tr>
<td>T/6 S</td>
<td>H</td>
<td>L F</td>
</tr>
<tr>
<td>PL</td>
<td>H</td>
<td>L F</td>
</tr>
<tr>
<td>NF</td>
<td>H</td>
<td>L F</td>
</tr>
</tbody>
</table>

**Dinka: NoSkp outranks Positional Faithfulness**

### Globally Anticyclic Overwriting: Dinka:

**Input:** = c.

- **NoSkp** outranks **τ**
- Max | *! *
- NoSkp: Assign * to every unassociated tone which intervenes between two tones associated to the same TB

**Constraints:**

- Assign * to every initial morphological tone in a PWord which is not phonetically realized
- Assign * to every final morphological tone in a PWord which is not phonetically realized

### Locally Anticyclic Overwriting: Gà

**Tense/Aspect Tone overwrites Agreement**

- **Habitual**
  - Present
  - Perfective
  - Simple Past

**Gà: Directionality outranks Edge Faithfulness**

**References**

- Inkelas, Sharon (2014), 'Morphological stratification in Dinka: On the alignment of overt and unmarked agreement,' Harvard University, Undergraduate thesis.