High vowel fricativization as an areal feature of the northern Cameroon Grassfields

Matthew Faytak

WOCAL 8, 京都 — August 23, 2015
Overview

High vowel fricativization is an areal or contact feature of the northern Grassfields, which carries implications for Niger-Congo reconstructions

1. What is (not) a fricativized vowel?

2. Where are they (not)?

3. Why is this interesting?
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Fricative vowels

Vowels with a fricative-like supralaryngeal constriction, which may or may not consistently result in audible fricative noise

Not intended to encompass:

- Devoiced or voiceless vowels
  - Smith (2003)
- Pre-/post-aspirated vowels
  - Helgason (2002)
  - Mortensen (2012)
- Articulatory overlap at high speech rate
- Wall noise sources in high vowels
  - Shadle (1990)
Prior mention

Vowels that do fit one or both of the given definitions:

- **Apical vowels** in Chinese
  - Lee (2005)
  - Feng (2007)
  - Lee-Kim (2014)

- **Viby-i, Göteborges-i, etc.** in Swedish
  - Holmberg (1976)
  - Engstrand et al. (2000)
  - Schötz et al. (2011)

- **Fricative vowels** in Bantoid
  - Medjo Mvé (1997)
  - Connell (2007)
Articulatory evidence of constriction

Olson and Meynadier (2015)
Articulatory evidence of constriction
High vowel fricativization (HVF)

Fricative vowels arise from normal high vowels /i u/, often in tandem with raising of the next-lowest vowels

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Cameroon

All non-Bantu Bantoid languages, mapped
Cameroon

All non-Bantu Bantoid languages, mapped
Several branches of Bantoid at issue

Piron (1995); Grollemund (2011)
Genetic grouping

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• “Northern Bantoid”
  • incl. Mambiloid
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- “Northern Bantoid”
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    - Mbam-Nkam

Piron (1995); Grollemund (2011)
Languages with fricativized vowels

Different realizations, varying levels of evidence

- Confirmed, frication
- Confirmed, low-frication
- Centralized, restricted
- Suspected
Confirmed, with frication

Recorded audio evidence, fricative noise
Confirmed, with frication

Recorded audio evidence, fricative noise

- Kom [bkm]
  Labial Coronal
- Noni [nhu]
  Hyman (1981)
- Limbum [lmp]
  Labial
- Len [mcu]
  Connell (2007)
  Labial Coronal
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Limbum [lmp]  Labial
Confirmed, little to no frication

No fricative noise but supralaryngeal constriction

- Medumba [byv]
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  Olson and Meynadier (2015)
- Babanki [bbk]
- Oku [oku]
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Olson and Meynadier (2015)
Centralized vowels, restricted

Non-peripheral vowels after fricatives or affricates (sometimes /ɲ/)
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Non-peripheral vowels after fricatives or affricates (sometimes /ɲ/)

- Aghem [agq]
- Front
- Back
- Isu [isu]
- Back vs. [u]
- Oku [oku]
- Lamnso’ [lns]
Centralized vowels, restricted

Non-peripheral vowels after fricatives or affricates (sometimes /ŋ/)

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Suspected

Suggestions from other researchers (see acknowledgements section)

- Several langs. in Beboid and Lower Fungom area
  Labial, Fang
  Labial, Mbuk
- Dzodinka [add]
- Bantu A70 [bum, [ewo]
- Ekajuk [eka]
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Defining the core area

Centered in northern Grassfields, in Beboid, Lower Fungom, Ring Road area

- Mostly north of the Ring Road; possible extension further north to or past Nigeria
- Spatial pattern suggestive of gravity model, change radiating from centers to other centers
- But do we have reason to think this is not genetic?

Trudgill (1974)
Defining the core area

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- Spatial pattern suggestive of gravity model, change radiating from centers to other centers [Trudgill (1974)]
- But do we have reason to think this is not genetic?
HVF is geographically restricted

Languages of several genetic subgroups, but only in N. Grassfields

- Bantoid
  - Dakoid
  - Mambiloid
  - Tikar
  - Southern Bantoid
- Non-Bantu
  - Jarawan
- Tivoid
  - Beboid
  - Ekoid-Mbe, Nyang
- Grassfields

Schadeberg (2003)
HVF is geographically restricted

Languages of several genetic subgroups, but only in N. Grassfields

Piron (1995)
HVF is recent

Recency: HVF post-dates several language and subgroup-specific sound changes, e.g. Kom simplification of VV sequences and labial dissimilation

<table>
<thead>
<tr>
<th>PCR</th>
<th>Kom</th>
<th>PKom</th>
<th>Oku</th>
<th>Bum</th>
</tr>
</thead>
<tbody>
<tr>
<td>*-ua</td>
<td>-v/-w</td>
<td>*-u</td>
<td>-uo</td>
<td>-u</td>
</tr>
<tr>
<td>*jua to hear</td>
<td>ʒv</td>
<td>ʒu</td>
<td>juo</td>
<td>ju</td>
</tr>
<tr>
<td>*tua to spit</td>
<td>tʃv</td>
<td>tʃu</td>
<td>tuo</td>
<td>tʃu</td>
</tr>
<tr>
<td>*kua to die</td>
<td>kv</td>
<td>ku</td>
<td>kuo</td>
<td>kpu</td>
</tr>
<tr>
<td>*fua to burn</td>
<td>fu</td>
<td>fu</td>
<td>fuo</td>
<td>—</td>
</tr>
<tr>
<td>*bua dog</td>
<td>bu</td>
<td>bu</td>
<td>buo</td>
<td>bu</td>
</tr>
</tbody>
</table>

Hyman and Jisa (1978)
Case: Limbum /u/ \sim /v/

More fricativization the closer to core area

Fiore (1987); Fransen (1995)
High vowel fricativization is an areal or contact feature of the northern Grassfields, which carries implications for Niger-Congo reconstructions.

1. What is (not) a fricativized vowel?

2. Where are they (not)?

3. Why is this interesting?
I suggest that the original occurrence was a distinct but related reinforcement of old Bantoid category contrasts

- I do not claim HVF is a retention of some reconstructible vowel quality, since it most likely areal and recent
- I do claim: precursor to several well-known sound changes can be pinpointed
  - High vowel “fricativization”
  - Bantu “Spirantization”
  - Bamileke “aspiration”
Deg. 1 and deg. 2 vowels

A potentially unstable contrast in ancestor of Bantoid: “degree 1” and “degree 2” high vowels. To avoid merger . . .

Schadeberg (1994)

\[
\begin{array}{cccc}
\ast i & \ast u & \ast i & \ast u \\
\ast l & \ast u & \ast l & \ast u \\
\downarrow & \downarrow & \downarrow & \downarrow \\
S_i, S_u & h_i, h_u & F_i, F_u & F_i, F_u \\
i, u & i, u & i, u & i, u \\
\text{Bantu Spir.} & \text{Aspiration} & \text{Centralization} & \text{HVF}
\end{array}
\]
Reflexes of Deg. 1 vowels

The important part: what happens to the highest vowel suggests noise or constriction as a common precursor or intermediary stage.

\[ CV^X \rightarrow CV^X \text{ (stable?)} \]

\[ CV^X \rightarrow CX \text{ (HVF)} \]

\[ CV^X \rightarrow CXV \text{ (shift V \rightarrow C)} \]
Reflexes of Deg. 1 vowels

The important part: what happens to the highest vowel suggests noise or constriction as a common precursor or intermediary stage.

- CV (merger)
- CV* (stable?)
- CX (HVF)
- CXV (shift V → C)
Reflexes of Deg. 1 vowels

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$\text{CV}^X \rightarrow \text{CV}^X$ (merger)

$\text{CV}^X \rightarrow \text{CV}^X$ (stable?)

$\text{CX}^X$ (HVF)

$\text{CX}^X \rightarrow \text{CV}^X$ (shift V $\rightarrow$ C)
Conclusions

Re fricativized vowels:

- Fricativized vowels are interesting and potentially informative
- Strong presence in N. Grassfields
- There might be more (the /i ʉ/ problem)
- One of several possible reactions to Deg. 1 and Deg. 2 vowels

Re linguistic areas:

- Detailed case study → broader area
- Cameroon “gap”?
These slides can be found at goo.gl/XFDcFP

Thanks to

Larry Hyman and Jeff Good

Pius Tamanji † and Philip Ngessimo Mutaka for their assistance and sponsorship in Cameroon

Séraphine Dougophe, Andrienne Magakou, Mathias Nembo, Emmanuel Mucho Chiabi, and Robert Ngwainbi for invaluable logistical help

and Katie Franich, Jack Merrill, Ken Olson, Bruce Wlebe, and Jesse Lovegren for discussion or field recordings

どうもありがとうございます
Deg. 1 and deg. 2 vowels: it’s complicated

A potentially unstable contrast in ancestor of Bantoid: “degree 1” and “degree 2” high vowels. To avoid merger . . .

Schadeberg (1994)

Bantu Spir. Aspiration Centralization HVF

???
## Appendix: Language sources

<table>
<thead>
<tr>
<th>Language</th>
<th>ISO</th>
<th>Source</th>
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<tbody>
<tr>
<td>Ekajuk</td>
<td>[eka]</td>
<td>Crabb (1965)</td>
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<tr>
<td>Dzodinka</td>
<td>[add]</td>
<td>Bruce Wiebe, p.c.</td>
</tr>
<tr>
<td>Ewondo</td>
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<td>Redden (1979)</td>
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<td>Fang (Cam.)</td>
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