Twentieth Century Sound Change in Zenzontepec and Tataltepec Chatino

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Goals of this talk

Show direct evidence of presumed sound changes in two Chatino lgs

Date these changes to early 20th C.
Structure of this talk

Introduction to the Chatino lgs.
The processes of monosyllabification
The rise of Zenzontepec Chatino’s /hC/ clusters
The lowering of *e in Tataltepec Chatino
Conclusion
A brief introduction to the Chatino languages
The Chatino languages

- Zapotecan
  - Zapotec (many lgs.)
  - Chatino
    - Teojomulco (†)
    - Core Chatino subgroup
      - Zenzontepec
      - Coastal subgroup
        - Tataltepec
        - Eastern

4 attested lgs., 3 extant
- Zenzontepec (ZC)
- Tataltepec (TC)
- Eastern (EC)

(Boas 1913; Campbell 2013; Sullivant In press; Mechling 1912; Kaufman 2006)
The Chatino languages

Zenzontepec Chatino
~ 8000 speakers
Various ages
12+ communities
3 very similar dialects
- Main core dialect
- 2 peripheral dialects
(Campbell 2014)

Tataltepec Chatino
~ 500 speakers
Mostly over age 30
One community
No known dialect variation
(Sullivant 2015a)
The processes of monosyllabification
Proto-Zapotecan had disyllabic roots
C- or CV- prefixes
Enclitics
But most modern lgs. have words smaller than CV-CVCV
(Kaufman 1997)
Monosyllabification

Reduction and deletion of unstressed V

Different prosodic patterns

Zapotec lgs. stress first syllable of roots
Chatino lgs. stress second syllable
| *ketse | *kw-e:ylla | *tjo?wa | PZ |
| gedʒ | bæl: | ro? | MZ |
| ktʃi | knãH | t?wa | QEC |
| ‘town’ | ‘snake’ | ‘mouth’ |

MZ = Mitla Z (Stubblefield & Stubblefield 1994)
QEC = Quiahije EC (Cruz et al. 2010)
Monosyllabification

V loss can be directly seen in Valley Zapotec lgs.

*ti'o?wa
<tóhuá>
roʔ
‘mouth’

PZ
CZ (1578)
MZ (1994)

CZ = Colonial Valley Zapotec (Córdoba 1578)
The rise of ZC consonant clusters
ZC’s /hC/ clusters

Proto-Chatino had few consonant clusters medial *ʔn, *ʔw, *ʔj
initial *nt, *nk, *nkʷ

ZC has many word-initial /hC/ clusters
ZC’s /hC/ clusters

(Campbell 2014:181)

/hC/ < loss of a penult (=unstressed) *i or *u under certain circumstances

\[ C_1 V_1 C_2 V_2 > hC_2 V_2 \text{ iff.} \]

\[ C_1 \in \{ t, k, s \}, \quad V_1 \in \{ i, u \}, \quad C_2 \in \{ n \}, \quad V_2 \neq V_1 \]
ZC’s /hC/ clusters

Could have occurred anytime after ZC-Coastal split (~600-1000 ya)

But not present in the earliest ZC data.

(Campbell 2013)
**ZC’s /hC/ clusters**

<table>
<thead>
<tr>
<th></th>
<th>PC</th>
<th>Belmar</th>
<th>U&amp;L</th>
<th>C.</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘child’</td>
<td>*sineʔ</td>
<td>*&lt;shiñe&gt;</td>
<td>*hnĩʔ</td>
<td>*hnîʔ</td>
</tr>
<tr>
<td>‘chile’</td>
<td>*kìnáʔ</td>
<td>*&lt;quiña&gt;</td>
<td>*hñãʔ</td>
<td>*hñáʔ</td>
</tr>
<tr>
<td>‘cold’</td>
<td>*tilaʔ</td>
<td>*&lt;quilia&gt;</td>
<td>*hl̃aʔ</td>
<td>*hl̃aʔ</td>
</tr>
</tbody>
</table>

(Belmar 1902; Upson & Longacre 1965; Campbell 2014)
ZC’s /hC/ clusters

Belmar’s ZC is likely the ancestor of modern ZC, therefore...

\[ C_1 V_1 C_2 V_2 > hC_2 V_2 \] between 1902-1963 (when Upson and Longacre collected ZC data for their paper).
The lowering of penult *e in TC
The unlabeled language in Belmar (1902) can be shown to be TC based on a number of diagnostic criteria.
### TC’s *e lowering

<table>
<thead>
<tr>
<th>TC or EC</th>
<th>TC only</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC *ts, *s &gt; tʃ, ʃ /i_</td>
<td>*C[+<em>cor] &gt; Ci /e</em>; *kj &gt; tʃ</td>
</tr>
<tr>
<td>/n-/ on ‘spider’</td>
<td>/nkwa-/, /ntʃ-/, /k-/ prefixes on ‘make’</td>
</tr>
<tr>
<td>*ta+loɔ = ‘face’</td>
<td>/ntʃ-/, /ntʃ-/, /tʃ/- prefixes on By verbs</td>
</tr>
<tr>
<td>/ʃi-/ CAUS on ‘leave’</td>
<td>/soʔo/ = ‘hen’; /ntʃeʔe/ = ‘rooster’</td>
</tr>
<tr>
<td>*-ahaʔ = ‘sleep’</td>
<td>/santtu/ = ‘doll’, /trisʔeʔ/ = ‘guts’</td>
</tr>
<tr>
<td>*-kùnáʔ = ‘get lost’</td>
<td>Mid vowel in ‘light’</td>
</tr>
<tr>
<td>Spanish ‘fiscal’ &gt; /ʃkali/</td>
<td>‘cat’ &lt; Mixtec /ʃjumi/</td>
</tr>
<tr>
<td>/=ma/ 2PL pron.</td>
<td>(Campbell 2013, Sullivant 2015b)</td>
</tr>
</tbody>
</table>
One sound change presumed for TC’s historical development is the lowering of penult
(=unstressed) PC *e /_C*V[^high] after TC-EC split.

(Campbell 2013)

However, the data show change was incomplete until ca. 1970.
## TC’s *e* lowering

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>‘tooth’</td>
<td>&lt;leya&gt;</td>
<td>leʔja</td>
<td>laʔja</td>
<td>laʔja</td>
</tr>
<tr>
<td>‘fish’</td>
<td>&lt;kuellia&gt;</td>
<td>kwalja</td>
<td>kwalja</td>
<td>kwalja</td>
</tr>
<tr>
<td>‘hawk’</td>
<td>&lt;kueya&gt;</td>
<td>kwajja</td>
<td>kwajja</td>
<td>kwajà</td>
</tr>
<tr>
<td>‘blood’</td>
<td>&lt;tañi&gt;</td>
<td>tanji</td>
<td>tanji</td>
<td>tanji</td>
</tr>
</tbody>
</table>

(Belmar 1902; Upson & Longacre 1965; Pride & Pride 1970; Sullivant 2015a)
## TC’s *e lowering

### All *e > a candidates in U&L

<table>
<thead>
<tr>
<th>*e &gt; e [cor]__</th>
<th>*leʔja</th>
<th>leʔja</th>
<th>‘tooth’</th>
</tr>
</thead>
<tbody>
<tr>
<td>*telà</td>
<td>tel[ja]</td>
<td></td>
<td>‘night’</td>
</tr>
<tr>
<td>*kʷejáʔ</td>
<td>kʷaijaʔ</td>
<td></td>
<td>‘fly’</td>
</tr>
<tr>
<td>*kʷela</td>
<td>kʷail[ja]</td>
<td></td>
<td>‘fish’</td>
</tr>
<tr>
<td>*kʷená</td>
<td>kʷain[ja]</td>
<td></td>
<td>‘snake’</td>
</tr>
<tr>
<td>*kʷeʔna</td>
<td>kʷaʔn[ja]</td>
<td></td>
<td>‘caiman’</td>
</tr>
<tr>
<td>*kʷeʔjà</td>
<td>kʷaʔja</td>
<td></td>
<td>‘hawk’</td>
</tr>
<tr>
<td>*tênè</td>
<td>tanj[i]</td>
<td></td>
<td>‘blood’</td>
</tr>
</tbody>
</table>
TC’s *e lowering

TC’s *e > a change may have been incipient in 1902,
was in progress in 1960,
and was complete by 1970
Conclusions

In two Chatino lgs, posited sound changes have been confirmed by historical sources.

\[ C_1 V_1 C_2 V_2 > hC_2 V_2 \text{ in ZC} \]
\[ *e > a/_CV_{[-\text{high}]} \text{ in TC} \]

Changes occurred rather quickly and recently
Conclusions

Sound change can happen quickly
Today’s CV Chatino topolects could have been CVCV in recent past
Need for speaker metadata


Sullivant, J. Ryan. 2015a. The phonology and inflectional morphology of Ch'áknyá, Tataltepec de Valdés Chatino, a Zapotecan language. Doctoral Dissertation, University of Texas at Austin.

