

*Conference on the Languages and Linguistics of Middle and Central America*

---

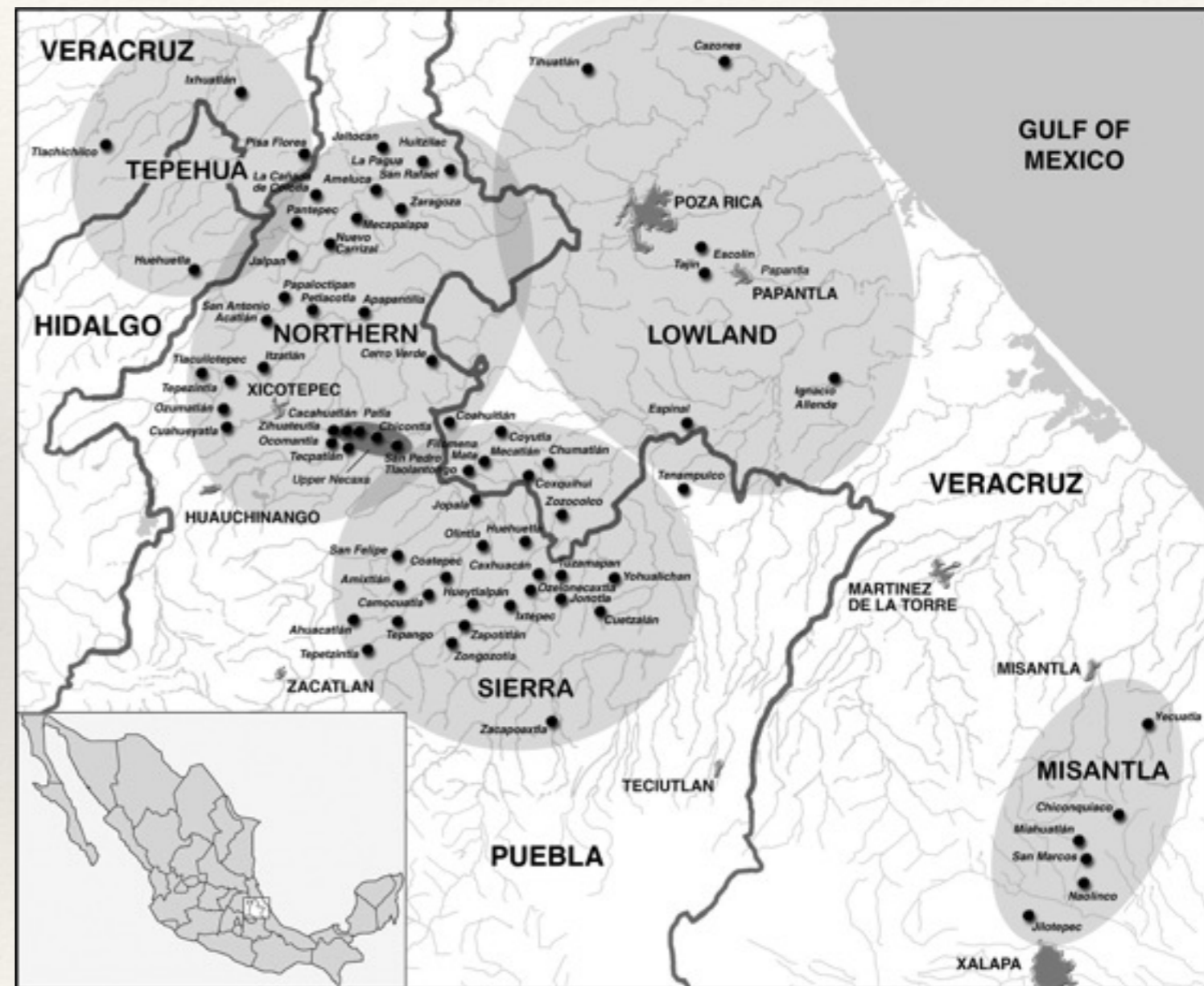
# Totonacan

*David Beck*  
*University of Alberta*

---

# Totonacan family

- ❖ approx. 253,000 speakers
- ❖ divided into two branches: Totonac and Tepehua
- ❖ 3 Tepehua languages:
  - ❖ Pisaflores
  - ❖ Tlachichilco
  - ❖ Huehuetla
- ❖ Totonac has traditionally has 4 divisions
  - ❖ Misantla
  - ❖ Northern
  - ❖ Sierra
  - ❖ Lowland
- ❖ number of languages in divisions is unknown



# Typological profile

- ❖ highly agglutinative or polysynthetic languages

ĩškinkatate:li:šqʔonĩkũtumã:ʔq:nampalá:n

ĩš- kin- ka:- ta- te:- li:- šqʔó -ni -kũtún-mã: -ʔq: -nan -palá -ya: -n  
PAST-1OBJ- PL.OBJ- 3PL.SUB-PATH- INST-pay -BEN -DSD -PROG -TOT -ST.PL -RPT -IMPF -2OBJ

‘They didn’t want to be coming by and paying us all (they owed us) again because of that.’

- ❖ constituent order very flexible, governed by information structure
- ❖ unmarked VS & VO (as per Dryer 1997)
- ❖ nominative / accusative alignment, no nominal cases
- ❖ prefixal numeral classifiers, transnumeral nouns
- ❖ one to no adpositions, body part terms used as locatives
- ❖ body part prefixes used on verbs to express locative and configurational meanings
- ❖ valency regulated by multiple causatives and applicatives
- ❖ agreement with subject and one or two objects

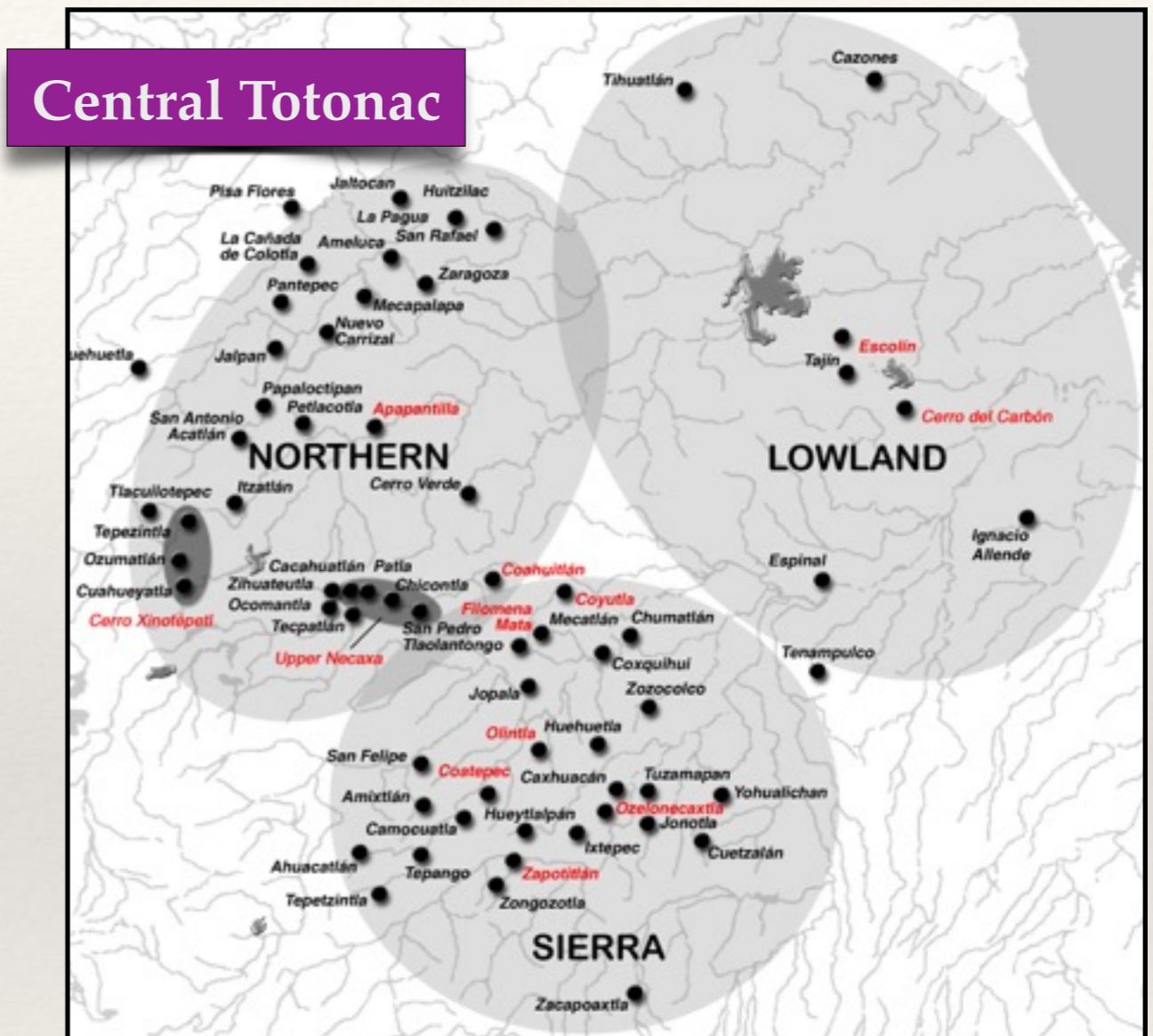
# Current issues

---

- ❖ field has reached the critical mass for the beginning of bitter internecine warfare
  - ❖ there are almost 10 of us
- ❖ currently, there is a lot of discussion around
  - ❖ internal reconstruction
    - ❖ Totonac internal relations
    - ❖ glottalic features in proto-Totonacan
  - ❖ primary and symmetrical objects

# Totonac internal relations

- ❖ Tot is often split into 4 symmetrical groups
- ❖ but division Misantla vs. others is stark
  - ❖ phonological, morphological, lexical evidence
- ❖ Brown et al. (2011) propose Central group
- ❖ within Central, different sources suggest different sub-groupings
  - ❖ Northern-Sierra vs. Lowland (García Rojas 1978)
  - ❖ Northern vs. Lowland-Sierra (Ichon 1969; Davletshin 2008; Brown et al. 2011)
  - ❖ Sierra vs. Northern-Lowland (MacKay & Trechsel, to appear)
- ❖ of these three scenarios, only the latter two seem to be much in play



Northern: Upper Necaxa, Apapantilla, Coahuatlán  
Sierra: Zapotitlán, Coatepec, Coyutla, Olintla, Ozelonacaxtla  
Lowland: Cerro del Carbón, Escolín  
Uncertain: Filomeno Mata, Cerro Xinolatépetl

# Phonological evidence

- ❖ not many regular sound changes to divide up the Central group
- ❖ the back fricative is /h/ in Lowland and Sierra, /x/ or /χ/ in Northern
  - ❖ Papantla may have weak phonological evidence for underlying /x/ (Levy, p.c.)
  - ❖ Coatepec McQuown (1990) and Ozelonacaxtla (Román Lobato 2008) are reported to have both /x/ and /h/
  - ❖ Brown et al. (2011) and Davletshin (2008, 2014) reconstruct \*x and \*h for proto-Totonacan (disputed by MacKay and Trechsel 2013)
- ❖ Northern has **5-vowel** systems, Sierra and Lowland typically have **3-vowel** systems
- ❖ **laryngealized vowels** in Northern occur in all syllable-types
  - ❖ Lowland lacks laryngeals following sonorants and seems to have lost them in many syllables following fricatives
  - ❖ a cluster of languages in the Sierra (Coatepec, Olintla, Huehuetla) appear to have lost laryngealization

# Morphological evidence

- ❖ Sierra is distinguished by 3 features (MacKay & Trechsel, to appear):
  - ❖ suffix *-qqʔ* becomes a generalized plural-participant marker
    - ❖ *-qqʔ* is totalitive/terminative in N, L, **Filomeno Mata**, and **Cerro Xinolatépetl**
    - ❖ *ta-* '3pl.sub', *ka-* 'pl.obj' in these languages
  - ❖ use of compositional 2 > 1 forms (when 1 and/or 2 is plural)
    - ❖ other Totonacan languages use non-compositional syncretic forms
    - ❖ identical syncretic pattern shared by N, L, and **Filomeno Mata**
  - ❖ preserves the /y/ of the imperfective suffix *-yaʔ* in ultimate final position
    - ❖ Zapotitlán *taštúy* 's/he goes out' vs. Upper Necaxa *taštú* 's/he goes out'
    - ❖ suffix completely elided in N, L, **Filomeno Mata**, and **Cerro Xinolatépetl**
- ❖ MacKay & Trechsel use these traits to suggest (not very strongly) a Northern-Papantla grouping
  - ❖ however, equally possible Sierra innovated after the Lowland-Sierra vs Northern split
  - ❖ lexical evidence indicates that these are recent innovations

# Lexical evidence

❖ clearly groups Lowland-Sierra against Northern

❖ some of the isoglosses:

‘water’: Tep, M, N *škarn*, L-S *čučut*

‘leaf’: N (various), L-S *tywarn*

‘negative’: N (various), L-S *ni:*

‘see’: Tep *laqc’in*, N *laqtsín*, L-S *ukšit*

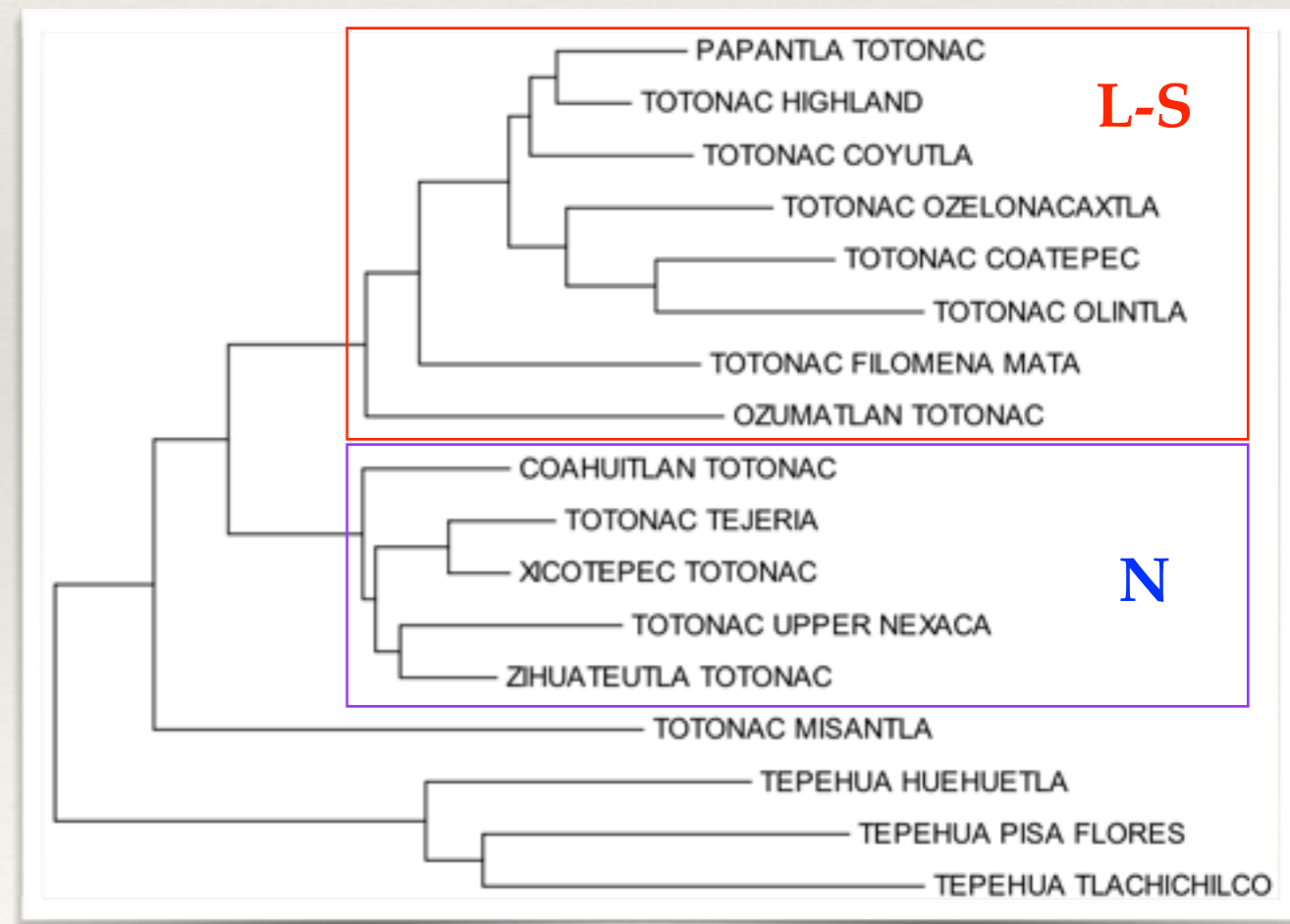
‘ear’: M *qqašqoł*, N *aqašqoł*, L-S *taqa:n*

❖ supported by cognate sets in Kondrak et al. (2007), Brown et al. (2011)

❖ ASJP (Müller et al. 2009) 

❖ essentially, fails to recognize Lowland vs. Sierra split at all

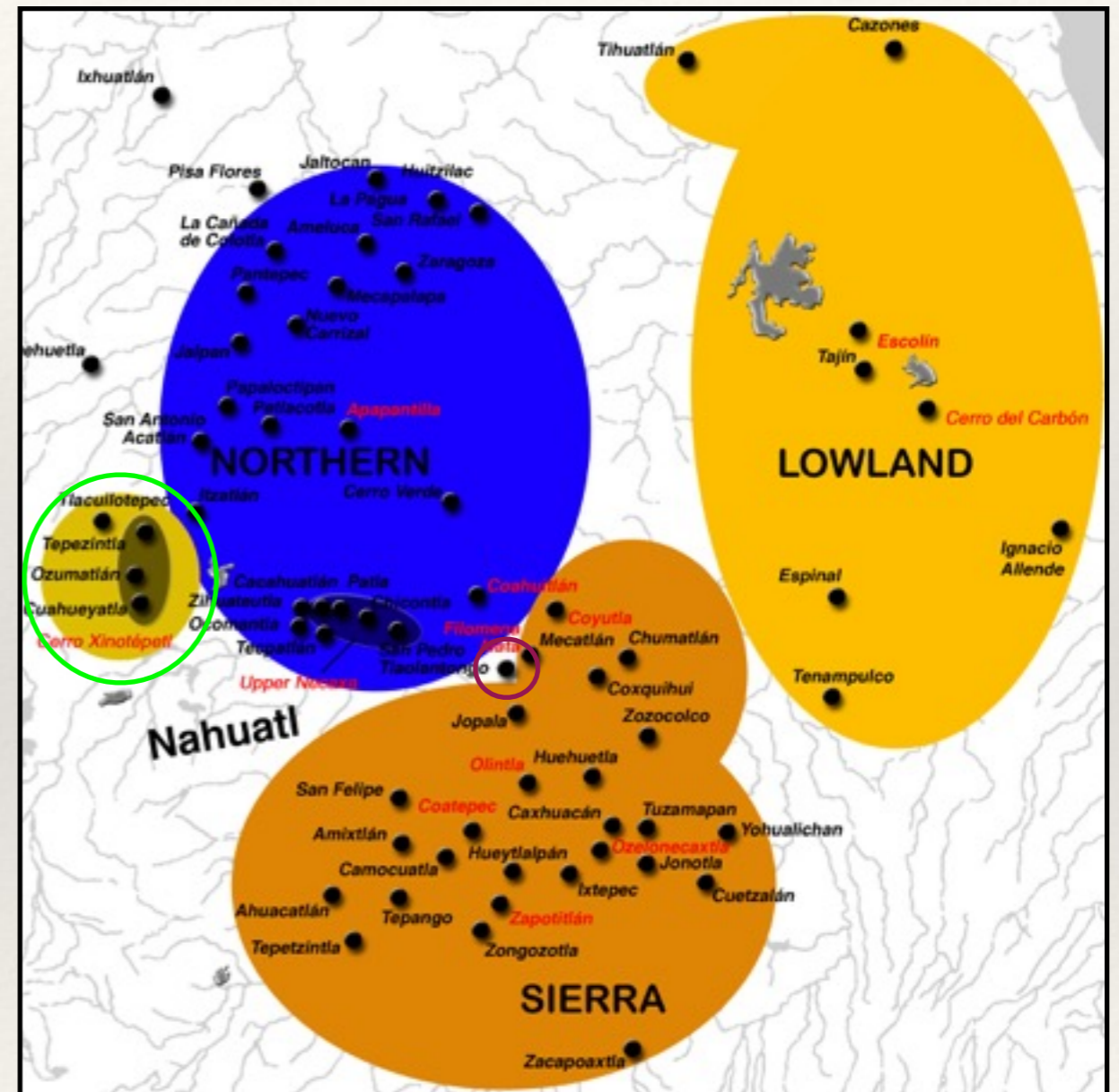
❖ puts Filomeno Mata and Cerro Xinolatépetl (Ozumatlán) with S-L





# Conclusions

- ❖ likely the basic division is N vs. S-L
  - ❖ distinctive morphological features of S are late innovations
  - ❖ happened after Cerro Xinolatépetl was split off from S-L group by Nahuatl (mid- to late-15th Century?)
  - ❖ lexical similarity between S and CX can't be explained by contact
  - ❖ some N features in CX may be due to contact
    - ❖ dorsal back fricative
  - ❖ Filomeno Mata also appears to be morphologically “conservative” but is lexically closer to L-S than to N
    - ❖ may be due to contact (?)



# Glottalic features in pTn

- ❖ the Totonac and Tepehua branches are distinguished by a regular correspondence, Tot  $C\underset{\sim}{V}$  ~ Tep  $C'V$
- ❖ two possible diachronic pathways
  - ❖ pTn  $*C\underset{\sim}{V}$  → Tep  $C'V$
  - ❖ pTn  $*C'V$  → Tot  $C\underset{\sim}{V}$
- ❖ either seems largely consistent with the facts
- ❖ first has been favoured (e.g., Arana Osnaya 1953; Levy 1987; Davletshin 2008; Brown et al. 2011, 2014; Watters 2013)
- ❖ MacKay & Trechsel (2013) have argued for the second

# Glottalic features in Totonac

- ❖  $C\underset{\sim}{V}$  is found throughout the Tot branch, though not in all languages
  - ❖ non-modal phonation
  - ❖ post-vocalic glottal closure
    - ❖ following stops and affricates in Zapotitlán (Aschmann 1946)
  - ❖ pre-vocalic glottal closure
    - ❖ following stops and affricates in Papantla and Upper Necaxa
    - ❖ results in ejective-like stops and affricates in Papantla (Alarcón Montero 2008)
- ❖ across the family,  $C\underset{\sim}{V}$  is found in all syllable types
- ❖ less frequent to varying degrees following voiced segments and fricatives
  - ❖ Northern and Cerro Xinolatépetl have  $C\underset{\sim}{V}$  in all syllable types
  - ❖ in Lowland less frequent after fricatives and never after voiced consonants
  - ❖ Sierra shows variable distribution
    - ❖ Zapotitlán and Coyutla in all syllable types
    - ❖ Olintla, Coatepec, Huehuetla Totonac have lost laryngeals altogether

# Glottalic features in Tepehua

- ❖ C' in Tepehua found in all three varieties
    - ❖ Tlachichilco: p', t', k', (q'), ts', č'
    - ❖ Huehuetla: b, d, k', ts', č'
    - ❖ Pisaflores: b, d, g ~ k', ts', č'
      - ❖ ts'V ~ tṣV, č'V ~ č̣V (MacKay & Trechsel 2008)
  - ❖ C' restricted in distribution
    - ❖ restricted to stops and affricates (T)
    - ❖ C' only found in syllabic onsets
  - ❖ laryngealized vowels also found in some contexts in Tepehua
    - ❖ viz., Pisaflores alternations above; also g̣V ~ k'V ~ ḳV (MacKay & Trechsel 2008)
    - ❖ regressive laryngealization of vowels in second-person subject forms (Watters 1994)
      - ❖ laryngealization also triggers C → C' (MacKay & Trechsel 2008)
- paš- 'bathe' + -ta 'PFV' + -t'iti '2PL.SUB' → ḅaṣ̌ḍạḍiiti (MacKay & Trechsel 2013)

# Competing hypotheses

pTn \*CV̥ → Tep C'V, Tot CV̥

pTn \*C'V → Tot CV̥, Tep C'V

## 1. Diachronic shift

- glottalization moves V → C\_
- **synchronically attested in family**
- V̥ unusual, but common in MA

- glottalization moves C → \_V
- typologically common process
- C' typologically common, V̥ rarer

## 2. Lack of Tep glottalized resonants (R) and fricatives (F)

- R/FV̥ → R'/F' blocked
- **blocking FV̥ → /F' seen in Papantla**

- R' and F' absent in pTn
- F' and R' typologically uncommon

## 3. V̥ in Tot syllables with resonant (R) and fricative (F) onsets

- pTn \*V̥ not restricted
- varies due to family-internal shifts

- 🤪 spontaneous generation of R' and F'
- sporadic process accounts for variation

# Competing hypotheses

pTn \*CV̥ → Tep C'V, Tot CV̥

pTn \*C'V → Tot CV̥, Tep C'V

## 4. Tep C' found in onsets only

- pTn \*V̥C not context for shift

- C'# → C via phonotactic constraint
- C' in coda typologically marked

## 5. Final T' in Tep CVT verbs

- ❖ all roots ending in a stop/affricate (T) surface as CVT'a in the imperfective  
*ktasp'it'a* 'I'm returning'

*tasp'itli* 'he returned' (Kung Smythe 2007)

- due to allomorphy of IMPF suffix:  
-ʔa: / T\_\_, -ya: / elsewhere  
(Watters 1988; Smythe-Kung 2007)

- underlyingly these are CVT' roots
- other coda T' removed by phonotactics
- 😱 all T-final verbs underlyingly CVT'
- 😱 no CVplain-T verbs in the lexicon

# Conclusions?

- ❖ on the balance of things, it seems like the facts support reconstructing pTn \*CV̆
  - ❖ relies on a phonological process synchronically attested in both branches of the family
  - ❖ does not require unexplained spontaneous generation of Tot V̆ in syllables with fricative and resonant onsets
  - ❖ does not require all Tep CVT verb roots to have glottalized codas
- ❖ there are some remaining questions about the nature of the pTn glottalic feature
  - ❖ it seems to behave like a “mobile” suprasegmental feature
  - ❖ it may be linked to “glottalic” vowels as suggested in Brown et al. (2011), or
  - ❖ it may be a genuinely free phonemic element (Davletshin 2014)

# Primary and symmetrical objects

---

- ❖ Totonacan languages have a number of typological features that make sorting out grammatical relations challenging
  - ❖ lack of nominal case
  - ❖ lack of prepositions
  - ❖ valency-increasing morphology that allows up to five objects
- ❖ languages in the family appear to vary as to how this is handled



# Symmetrical objects in Misantla

- ❖ MacKay & Trechsel (2008) argue Misantla is a “symmetrical object language”
  - ❖ all objects of a multi-valent clause can control agreement

ʃwáan kílaalíimáakutuníin (hɔŋkučára)

ʃwaan      **kin-laa**-lii-maa-kutu-ni-**na**      (**hun-kučara**)

Juan      **1OBJ-3PL.OBJ**-INST-CAUS-feed-DAT-**2OBJ**      **DET-spoon**

‘Juan made me feed you with them (the spoons)’

‘Juan made you feed me with them (the spoons)’

‘Juan made him/her feed us with them (the spoons)’

‘Juan made us feed her/him with them (the spoons)’

‘Juan made them feed us with it/them (the spoons)’

‘Juan made us feed them with it/them (the spoons)’      (MacKay & Trechsel 2008: 244)

- ❖ multiple interpretations correspond to agreement with up to three objects in any of three available semantic roles
- ❖ combination of *kin-* ‘1obj’ and *-na* ‘2obj’ can mean:
  - ❖ ‘1pl.obj’
  - ❖ ‘1sg.obj’ ‘2sg.obj’

# Symmetrical objects in Misantla

- ❖ any object can be target of reflexive or reciprocal

kít ʔíklakaswá̃atnikán hómPedro

kit        **ik**-lakaswá̃at-ni-kan        hun-Pedro

I        **1SUB**-shave-DAT-REFL        DET-Pedro

‘I shave myself for Pedro’

‘I shave Pedro for myself’

ʔytún taláalakaswá̃atnikán hómPedro

utun        **ta-laa**-lakaswá̃at-ni-kan        hun-Pedro

they        **PL.SUB**-RCP-shave-DAT-REFL        DET-Pedro

‘they shave each other for Pedro’

‘they shave Pedro for each other’

(MacKay & Trechsel 2008: 248)

- ❖ MacKay & Trechsel argue that no object properties distinguish among the multiple objects of Misantla verbs

# Objects in Upper Necaxa

- ❖ Upper Necaxa distinguishes between primary and secondary objects

- ❖ objects are generally symmetrical with respect to control of agreement

kinkaꞑliꞑꞑtukuyáꞑn čaꞑtín ꞑótni

kin-kaꞑ-liꞑ-ꞑtukú-yaꞑ-*n*

čaꞑ-tin

ꞑótni

**1OBJ-PL.OBJ-INST-stab-IMPF-2OBJ**

CLF:HMN-one

drunk

'A drunk stabs us with it/them.'

'A drunk stabs it/them with us.' (knives speak)

- ❖ agreement with two SAP objects in either semantic role is possible
- ❖ affixes *kin-* '1obj', *kaꞑ-* 'pl.obj', and *-n* '2obj' must be interpreted as a unit '1pl.obj'
  - ❖ rules out other possible interpretations:
    - \*'A drunk stabs me with you<sub>PL</sub>.' or \*'A drunk stabs you<sub>PL</sub> with me.'
    - \*'A drunk stabs us with you<sub>SG</sub>.' or \*'A drunk stabs you<sub>SG</sub> with us.'
    - \*'A drunk stabs us with you<sub>PL</sub>.' or \*'A drunk stabs you<sub>PL</sub> with us.'
- ❖ unlike Misantla, agreement with a third argument is ruled out
- ❖ verbs must agree with SAP arguments, irrespective of semantic role

# Objects in Upper Necaxa

- ❖ any object can be target of reciprocal\*

nalaxšapaniyá:uɯ

na-la:šapa-ni-ya:-ɯ

FUT-RCP-massage-BEN-IMPF-1PL.SUB

‘Let’s massage him / her / them for each other.’

‘Let’s massage each other for him / her / them.’

- ❖ unlike Misantla, no further object agreement is possible
- ❖ the reciprocal suffix seems to block additional objects

\*UNT reflexives are formed differently than in Misantla.

# Objects in Upper Necaxa

- ❖ only *primary* objects are suppressed in the object-suppressive voice

nəkmaški:nín kistán̩kɥ (\*aʔtín regálu)

na-ɨk-maški:-nin kin-stán̩kɥ (\*aʔ-tin regálu)  
FUT-1SG.SUB-give-OBJ.SUPP 1PO-sibling CLF:GEN-one present)

‘I’m going to give my younger sister away (in marriage).’

\*‘I’m going to make gifts / a gift to my younger sister.’

- ❖ the suffix *-nin* suppresses the expression of an object
- ❖ in underived ditransitives, it targets the RECIPIENT or non-THEME
- ❖ UNT is thus a “primary object language” in the sense of Dryer (1986)
- ❖ there is a property pertaining to primary objects that does not pertain to other objects
- ❖ UNT is not a “symmetrical object language”

# Objects in Upper Necaxa

- ❖ testing shows that Upper Necaxa opposes a unique primary object to a repeatable secondary object
  - ❖ primary objects are
    - ❖ objects of monotransitives
    - ❖ non-THEMES of underived ditransitives
    - ❖ CAUSEES in causatives
    - ❖ basic objects in applicative constructions
  - ❖ secondary objects are
    - ❖ THEMES of underived ditransitives
    - ❖ applied objects (UNT applicatives are *non-direct applicatives*—Beck 2009)
- ❖ this shows a split in the family between symmetrical languages (Misantla) and primary-object languages (UNT)
- ❖ the latter group probably includes other Northern languages and Papantla (Levy, n.d.), as well as Tepehua (Jim Watters, p.c.)

# Looking ahead

- ❖ Totonacan studies have gone through a boom in the last decade or so
- ❖ number of theoretical publications and basic documentary sources has grown substantially
- ❖ a number of dissertations / theses have been written, several more are in the works
- ❖ native-speaker linguists in training
- ❖ recent work may be significant for the field of Mesoamerican linguistics
  - ❖ Brown et al. (2011) suggest genetic links between Totonacan and Mixe-Zoque (Totozoquean)
  - ❖ Brown et al. (2014) suggest links between Totozoquean and Chitimacha, a language spoken in the southern U.S.
- ❖ stay tuned for more ...

# References

- Arana Osnaya, E. 1953. Reconstrucción del prototonaco. *Revista Mexicana de Estudios Antropológicos* 23:123–30.
- Aschmann, H. P. 1946. Totonaco phonemes. *IJAL* 12, 34–43.
- Beck, D. (2009). A taxonomy and typology of Lushootseed valency-increasing suffixes. *IJAL* 75, 533–569.
- Brown, C. H., D. Beck, G. Kondrak, J. K. Watters, and S. Wichmann. 2011. Totozoquean. *IJAL* 77, 323–372.
- Brown, C. H., S. Wichmann, and D. Beck. 2014. Chitimacha: A Mesoamerican language in the Lower Mississippi Valley. *IJAL* 80, 425–474.
- Davletshin, A. 2008. Classification of the Totonacan languages. Presented at Problemy izučenij dal'nego rodstva jazykov (k 55-letij C. A. Starostina), Russian State University for the Humanities, Moscow, March 25–28.
- Davletshin, A. 2014. Las vocales finales, los procesos fonéticos finales y mediales en el proto-totonaco-tepehua: un primer acercamiento. Ms., RSUH.
- Dryer, M. S. 1986. Primary objects, secondary objects, and anti-dative. *Language* 62, 808–845.
- Dryer, M. S. 1997. On the six-way word order typology. *Studies in Language* 21, 69–103.
- García Rojas, B. 1978. Dialectología de la zona totonaco-tepehua. Honors thesis, ENAH México.
- Ichon, A. 1969. *La religión de los totonacos de la sierra*. Mexico City: INI.
- Kondrak, G., D. Beck, and P. Dilts. 2007. Creating a comparative dictionary of Totonac-Tepehua. In J. Nerbonne, T. M. Ellison, G. Kondrak (eds.), *Computing and Historical Phonology: Proceedings of the 9<sup>th</sup> Meeting of the ACL Special Interest Group in Computational Morphology and Phonology*, 134–141. Prague: ACL.
- Levy, P. 1987. *Fonología del totonaco de Papantla, Veracruz*. Mexico, City: UNAM.
- MacKay, C. J. 1997. *A Grammar of Misantla Totonac*. Salt Lake City: University of Utah Press.
- MacKay, C. J., and F. R. Trechsel. 2008. Symmetrical Objects in Misantla Totonac. *IJAL* 74: 227–55.
- MacKay, C. J., and F. R. Trechsel. 2013. Proto-totonaco-tepehua— una reconstrucción. Presented at the IV Coloquio Mauricio Swadesh: Debates en torno a la lingüística histórica indomexicana. UNAM, Mexico City, Oct. 16–19.
- MacKay, C. J., and F. R. Trechsel. to appear. Totonac-Tepehua Genetic Relationships. *Amerindia*.
- Müller, A., V. Velupillai, S. Wichmann, C. H. Brown, P. Brown,; E. W. Holman, D. Bakker, O. Belyaev, D. Egorov, R. Mailhammer, A. Grant, and K. Yakpo. 2009. ASJP World Language Tree of Lexical Similarity. Version 2 (April 2009).
- Román Lobato, G. 2008. La junture fonológica en el totonaco de Ozelonacaxtla, Huehuetla, Puebla. MA thesis: CIESAS.
- Smythe Kung, S. 2007. *A descriptive grammar of Huehuetla Tepehua*. Ph.D. dissertation, UT Austin.
- Watters, J. K. 1988. *Topics in Tepehua grammar*. Ph.D. dissertation, UC Berkeley.
- Watters, J. K. 1994. Forma y función en la morfología verbal de segunda persona en tepehua. In C. J. MacKay and V. Vásquez (eds.), *Investigaciones lingüísticas en mesoamerica*, 211–226. Mexico City: UNAM.
- Watters, J. K. 2013. Hacia la historia de la laringización en totonaco-tepehua. Presented at the IV Coloquio Mauricio Swadesh: Debates en torno a la lingüística histórica indomexicana. IIA, UNAM, Mexico City, (October 16–19).



# Thanks

- ❖ to my consultants and colleagues who made this work possible
- ❖ special thanks to Paulette Levy, Jim Watters, and Søren Wichmann
- ❖ thanks also to Gerry Andersen for data on Cerro Xinolatépetl and Devin Moore for data from Coahuilán
- ❖ the usual disclaimers apply

