



Overview of (grammatical) tone in Yucunani Sà'án Sàvĭ

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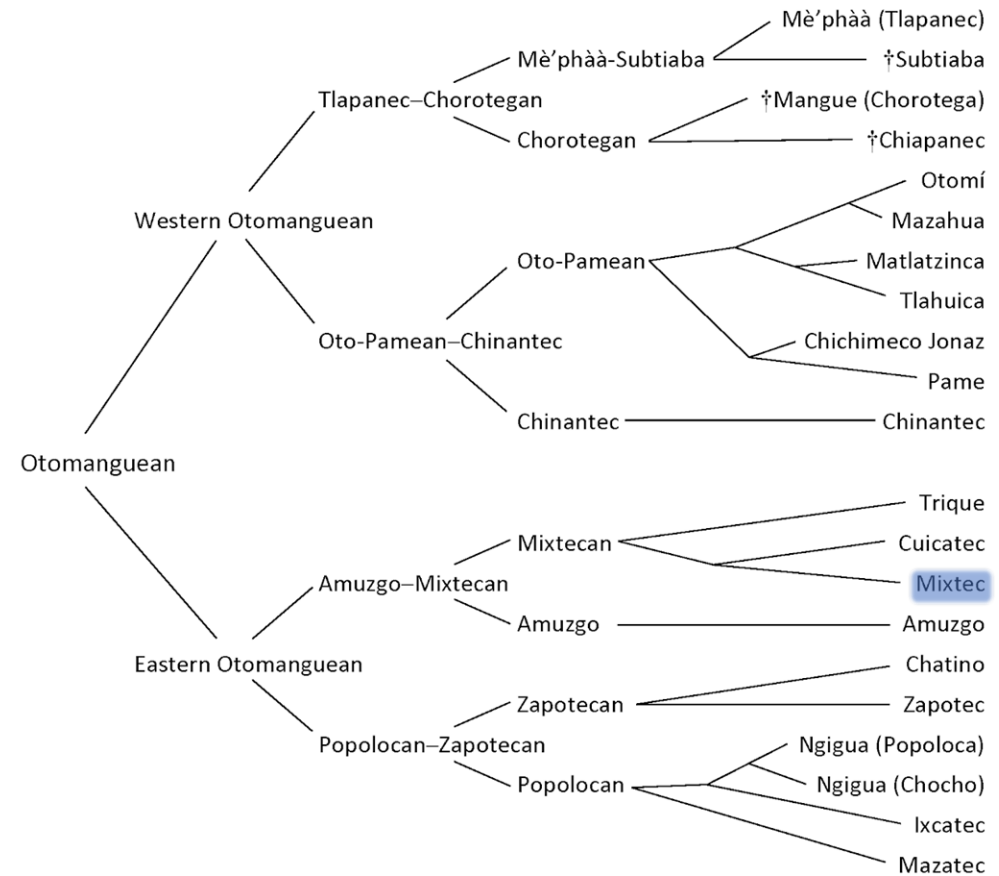
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Yucunani Sà'án Sàvĩ

- Yucunani, San Juan Mixtepec (Oaxaca, Mexico)
- 105 inhabitants
- Approx. 87 speakers (INEGI 2010)


















Campbell 2017: 24














Documenting tone in Yucunani Sà'án Sàvĭ

- Methodology / process
 - Field Methods class UCSB 2019-2020
 - Based on Cruz and Woodbury (2014)
 - Bisyllabic words in cards, put them in provisional groups based on the **tonal melodies**









| Low-Low | Mid-Low | High-Low | Rising-Low | Falling-Low |
|--|--|--|--|--|
| kuìkà ‘comb’ ù'ùn ‘five’ vìxì ‘sweet’  | ñu'ù ‘fire’ xikò ‘smell’ ità ‘flower’  | má'à ‘raccoon’ ntíkà ‘wide’ súkù ‘tall’  | tǐnà ‘dog’ kǔñù ‘meat’ ntǔxì ‘honey’  | xǐñù ‘shiny’  |
| Low-Mid | Mid-Mid | High-Mid | Rising-Mid | Falling-Mid |
| và'a ‘good’ tìka ‘grasshopper’ nchìka ‘wall’  | vichi ‘today’ sava ‘half’ ve'e ‘house’  | í'in ‘sweat bath’ sáta ‘dove’ kuíka ‘rich’  | vǎ'a ‘bad’ xǔ'un ‘money’ tǐchi ‘avocado’  | -- |
| Low-High | Mid-High | High-High | Rising-High | Falling-High |
| sà'án ‘language’ ntsítú ‘full’ chò'ó ‘flea’  | ña'á ‘woman’ yakuá ‘crooked’ yo'ó ‘rope’  | yúyú ‘dew’ yókó ‘hot’ kú'ntú ‘lazy’  | -- | -- |
| Low-Rising | Mid-Rising | High-Rising | Rising-Rising | Falling-Rising |
| nùnǐ ‘corn (grain)’ ñùmǎ ‘wax’ xìkuǎ ‘eyebrow’  | ntuchǐ ‘bean’ saǐn ‘corn cob’ chakǎ ‘fish’  | kánǐ ‘long’ yúchǎ ‘young’ xínǐ ‘hat’  | -- | -- |



| Low-Low | Mid-Low | High-Low | Rising-Low | Falling-Low |
|--|---|---|--|----------------|
| ntàà ‘flat’ ììn ‘nine’ chùùn ‘star’  | ñuù ‘village’ yaà ‘music’ chài ‘chair’  | séè ‘young man’ mpàà ‘co-father’ kuài ‘horse’  | -- | -- |
| Low-Mid | Mid-Mid | High-Mid | Rising-Mid | Falling-Mid |
| vèè ‘heavy’ ntìi ‘death’ kàa ‘metal’  | iin ‘one’ yaa ‘white’ luu ‘small’  | -- | nǐi ‘adult’ nkuǐi ‘fox’  | -- |
| Low-High | Mid-High | High-High | Rising-High | Falling-High |
| -- | ncheé ‘thick’ ntuú ‘day’ saán ‘always’  | máá ‘mother’ íin ‘hail’ xóó ‘a little (bit)’  | -- | -- |
| Low-Rising | Mid-Rising | High-Rising | Rising-Rising | Falling-Rising |
| ìin ‘salt’ ntàá ‘fiber’ yòó ‘moon’  | naǎ ‘dark’ iìn ‘skin’ iǐ ‘husband’  | kuǐi ‘green’ yáǎ ‘tongue’ kuǐin ‘thin’  | -- | -- |



Falling tones?

| Low-Falling | Mid-Falling | High-Falling | Rising-Falling | Falling-Falling |
|--|--|--|--|-----------------|
| -- | isâ ‘day after tomorrow’ vitâ ‘soft’ lesû ‘rabbit’  | kuítâ ‘tired’  | Nköyô ‘Mexico’ Ntǔvâ ‘Oaxaca’ xǔvâ ‘hammock’  | -- |
| Low-Falling | Mid-Falling | High-Falling | Rising-Falling | Falling-Falling |
| kuàâ ‘approx.’  | tsaâ ‘new’ tatàkeên ‘step-father’  | kuíî ‘clear’ kuáâ ‘blind’ kuáân ‘yellow’  | -- | -- |



Paster & Beam de Azcona (2004a, 2004b)

- High
- Mid
- Low *Contour tones (Rising and Falling) analyzed as sequences of level tones

Our suggestion

- High
- Mid
- Low
- Rising
- Falling*



Caveat for linguistic research!

- Asking us to keep repeating words → sometimes overwhelming and difficult to be consistent!
- It's like throwing twenty perfumes at somebody and ask them to recognize one of them!
- Tone comes naturally when we speak, but if you ask us to recognize it, that is NOT the same!
- Also: tone labels may or may not make sense to community members (high, low, rising...?). Some people talk about *voz gruesa* (thick voice; lower pitch) and *voz delgada* (thin voice; higher pitch).



Teaching Yucunani Sà'án Sàvǐ Tone

- Tone melody groups
 - Choose 1 word to represent the group (e.g., group *nùnǐ*)
- Introduction to Tone:
 - Video of 30 words representing 10 groups (3 per group)
- Minimal pairs:
 - Ìn 'salt', iǐn 'skin', iǐ 'husband'
 - You don't want to ask somebody to pass you their husband!

Nùnǐ



Teaching Yucunani Sà'án Sàvĭ Tone

- We need to find ways to teach tone to kids in engaging and entertaining ways!
- Perhaps role play games, like: each kid gets assigned an animal and goes around the room asking others whether they are animal X and saying what animal they are:
 - A: Are you a dog?
 - B: I am a cat!
- Tone may be the difference between: ‘eres un burro’ or ‘soy un burro’



Lúrrú



Need for interdisciplinary work

- We need teamwork for this
 - Community member (and linguists): develop material
 - Teachers / educators: adapt the material
 - There needs to be a dialogue between them to get the best material!!!
- We need to introduce tone early on
 - It is the basis of the language! We use it for many things, like: lexical distinctions, person marking, aspect... without mastering tone, communicating in Mixtec gets extremely tricky.



Yucunani Sà'án Sàvĭ grammatical tone

Person marking

- 1SG*
- 1PL.INCL
- 2SG.NFORM
- 3SG.NFORM
- 3SG.F.FORM

TAM

- Imperfective
- Perfective
- Habitual perfective
- Potential*
- Purposive*
- Imperative

Polarity

- Negative Rising



Yucunani Sà'án Sàvĩ

person marking

Most Mixtec languages have a set of enclitic pronouns which can operate on noun phrases to indicate possession, and on verb phrases to indicate arguments not expressed with a lexical noun phrase.

Among Mixtec languages, Yucunani Sà'án Sàvĩ presents a particularly complex pronominal system:

- Distinguishes different degrees of formality and shows intensive allomorphy
- Use of a pluralizer enclitic *=kue*
- Has distinct sets of agent-like and patient-like enclitics, the latter of which can attach to the post-verbal NP functioning as agent [Handout]

| | | AGENT-LIKE PRONOUNS | |
|-----------------|--------|----------------------|----------------------|
| | | SINGULAR | PLURAL |
| 1 st | EXC | =yù / = ^L | =kue |
| | INCL | — | =kó / = ^H |
| 2 nd | NFORM | =kú / = ^H | =kue-yú |
| | FORM | =ní | =kue-ní |
| 3 rd | | =ì / =à(n) | =kue-yì |
| | INAN | =ñà / =à(n) | =kue-ñà |
| | FORM | — | =nà / =kue-nà |
| | CHILD | =tsi | =kue-tsi |
| | M.FORM | =rà | =kue-rà |
| | F.FORM | =í / =á(n) / =ñá | =kue-ñá |
| | ZOO | =tí | =kue-tí |
| | ROUND | =tí | =kue-tí |
| | TRUNK | =tú | =kue-tú |
| | LIQ | =rá | =kue-rá |
| DEITY | =yà | =kue-yà | |



1st person in Yucunani Sà'án Sàvĭ

1st person singular →

=yù after a low tone (L)

=^L (floating low tone) in other contexts

=^L sometimes realized as a falling tone

1st person inclusive plural →

=kó

Sometimes realized as [yó] or coloring the last vowel, especially /u/

=^H

So far, it only appears in fast speech

1st person exclusive plural → pluralizer (=kue) + =^L

Belmar et al. 2020

Belmar et al. forthcoming

| | | AGENT-LIKE PRONOUNS | | PATIENT-LIKE PRONOUNS | | TOPICALIZED PRONOUNS | |
|-----------------|------|----------------------|----------------------|-----------------------|---------|----------------------|---------|
| | | SINGULAR | PLURAL | SINGULAR | PLURAL | SINGULAR | PLURAL |
| 1 st | EXC | =yù / = ^L | =kuê | =yù | =kuê | meê | meé-kuê |
| | INCL | — | =kó / = ^H | — | =kue-kó | — | meé-kó |



1st person singular

=^L sometimes realized as a falling tone

- H + =^L → F
- R + =^L → F
- M + =^L → Depends on the tonal melody of the phrase

For example,

- M.M + =^L → M.L ‘ve'e’ (*house*) ‘ve'è’ (*my house*)
- L.M + =^L → L.F ‘sè'e’ (*son*) ‘sè'ê’ (*my son*)
- MM + =^L → ML ‘luu’ (*little*) ‘luù’ (*I'm little*)
But: ‘nìkee’ (PFV.*leave*) ‘nìkeê’ (*I left*)

Belmar et al. 2020

Và'a nìkìtsáà-yù. [Elicitation]

và'a nìkìtsà=^{yù}

Good PFV.arrive=1SG

I arrived well (I am fine)



Nìkìtsáà và'â. [Elicitation]

nìkìtsà và'a=^L

PFV.arrive good=1SG

I arrived well (I am fine)



Examples 1a and 1b



1st person singular

Àhă tisaán kuàâ doce á trece kuìà ínkáà-yù tá ntsìtsà'àn-yù ntsìsáchuùn. [Text 3, 01:14]

Àhă tisaán kuàâ doce á trece kuìà ínkáà=yù tá
yes maybe approximately twelve or thirteen year IPFV.have=1SG when

ntsìtsà'àn=yù ntsìsáchuun=L.
HAB.PFV.go=1SG HAB.PFV.work=1SG

‘Yes, maybe I was like twelve or thirteen years old when I went to work.’

Example 2



1st person singular: L vs. F

Vichi kú ntàkanì iin ñàà kuéntù, ñàà ntsintàkani mátsá'nù nùú tá luù. [Text 8, 00:37]²

vichi kú ntàkani=^L iin ñàà kuéntù
today FUT POT.tell=1SG one FILL story

ñàà ntsintàkani mátsá'nu=^L nùú=^L tá luu=^L.
CLAS.THING HAB.PFV.tell grandmother=1SG OBL=1SG when little=1SG

'Today I am going to tell a story, that my grandmother told me when I was little.'

Example 3



1st person exclusive plural

Sana ntsà'àn-kuê ntsítsá'an-kuê ra ñàà, nùú xina ñú'u ntsítsá'an ku ñàà, McDonald's-ka ra ñàà, ntsàtsî iin hamburguesa. [Text 11, 02:06]

Sana ntsà'àn=**ku**=^L ntsítsá'an=**ku**=^L ra ñàà
then PFV.go=PLZ=1SG PFV.eat=PLZ=1SG DISC FILL

nùú xina ñú'u ntsítsá'an=^L ku ñàà
OBL first time PFV.eat=1SG COP FILL

McDonald's=ka ra ñàà
McDonald's=DIST DISC FILL

ntsàtsi=^L iin hamburguesa.
PFV.eat=1SG one hamburger

‘Then we went to eat and where I ate for the first time was there in McDonald’s, I ate a hamburger.’

Example 4



1st person inclusive plural

Cha nikächì lóchì-ka cha ratù ntàà, ka'ún sa'án ra, ñàà ná ntasa'ma-kó sa'mă-kó ra ñàà. [Text 8, 01:52]

cha nikächì lóchì=ka cha ratù ntàà,
and PFV.say vulture=DIST and COND truth

ka'an=kú sa'án ra,
POT.think=2SG.NFORM then DISC

ñàà ná ntasa'ma=kó sa'mă=kó ra ñàà.
FILL IRR POT.change.body=1PL.INCL body=1PL.INCL DISC FILL

‘The vulture said: “if you truly think that let's change our bodies”’.

Example 5



1st person inclusive plural

Sua'a sua'a-ni kú sǎ'á suaà... suaà kú nkòò nùú kú nkò'ǒn ra ñàà. [Text 11, 01:17]

sua'a sua'a=ni kú sǎ'a=^H suaà,
this this=and FUT POT.do=1PL.INCL this.way

suaà kú nkòò nùú kú nkù'ùn=**kó** ra ñàà
this.way FUT POT.exist where FUT POT.go=1PL.INCL DISC FILL

‘This and this we are going to do like this... this is going to be where we go.’

Example 6



*yù'ù – yù - L

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Alternation between =yù and =^L → a process of **segmental erosion** with two different results:

- **substituting** the last tone of the modified element for a **low level tone**
- **substituting** the last tone of the modified element for a **falling tone**.

*yù'ù (Josserand 1983) > =yù > =^L



*yù'ù – yù - L

Belmar et al. 2020

Words that ended with (lexical) low tone:

- *yù'ù > =yù
- =yù (see Paster 2010 ‘homophony avoidance’)
- Possible competition with 3s =ì. In other varieties, =ì indicates the 1s

Ká'nu-kà ve'e meê susaán ve'e meú. [Offered]
ká'nu=kà ve'e **meé=L** susaán ve'e **meé=kú.**
big=more house TOP=1SG more.or.less house TOP=2SG.NFORM
'My house is bigger than your house'.

Example 7



2nd person in Yucunani Sà'án Sàvǐ

2nd person singular non-formal →

=*kú*

Sometimes realized as [yú] or coloring the last vowel

Depending on the tonal melody, it may be realized with a rising tone instead

=^H

If the last vowel is /u/

Belmar et al. forthcoming

| | | AGENT-LIKE PRONOUNS | | PATIENT-LIKE PRONOUNS | | TOPICALIZED PRONOUNS | |
|-----------------|-------|------------------------------|-----------------|-----------------------|-----------------|----------------------|-------------------|
| | | SINGULAR | PLURAL | SINGULAR | PLURAL | SINGULAR | PLURAL |
| 2 nd | NFORM | = <i>kú</i> / = ^H | = <i>kue-yú</i> | = <i>yô</i> | = <i>kue-yú</i> | <i>meú</i> | <i>meé-kue-yú</i> |
| | FORM | = <i>ní</i> | = <i>kue-ní</i> | = <i>ní</i> | = <i>kue-ní</i> | <i>meé-ní</i> | <i>meé-kue-ní</i> |



2nd person singular non-formal

Và'a nchuà'a vídà yéŭ rì meú ra kuě tsíní-ñú'ú sáchuún táná sáchuùn ra ñàà, ne'ŭ ñàà kátsŭ kàchâ. [Text 4, 01:05]

| | | | | | | | |
|----------------------|---------|---------------------|----------------------|-------------------|-------------------|------|------|
| và'a | nchuà'a | vídà | yèè= kú | rì | meé= kú | ra | kuě |
| good | very | life | IPFV.exist=2SG.NFORM | because | TOP=2SG.NFORM | DISC | NEG |
| tsíní-ñú'u= H | | sáchuun= H | | táná | sáchuun= L | ra | ñàà, |
| IPFV.need=2SG.NFORM | | IPFV.work=2SG.NFORM | | like | IPFV.work=1SG | DISC | FILL |
| ne'e= kú | ñàà | kátsí= kú | | kàchi= à | | | |
| PURP.get-2SG.NFORM | thing | PURP.eat=2SG.NFORM | | PFV.say=3SG.NFORM | | | |

‘You have a very good life because you don't have to work like I work to get food, he said.’

Example 8



2nd person singular non-formal

Rì meú ra tíí, ñàà, ntávà ntávú-ni cho'o chiká-ni tsíkú ra né'ũ ñàà kátsũ ra. [Text 8, 01.39]

rì meé=**kú** ra tíí,
because TOP=2SG.NFORM DISC perhaps

ñàà,
FILL

ntávà-ntává=**kú**=ni cho'o chiká=ni tsíka=**kú** ra
RDPL-IPFV.fly=2SG.NFORM=and here there=and IPFV.walk=2SG.NFORM DISC

né'ě=**kú** ñàà kátsí=**kú** ra
IPFV.get=2SG.NFORM thing IPFV.eat=2SG.NFORM DISC

‘Because you fly and fly from here to there and you go to get food.’

Example 9



3rd person in Yucunani Sà'án Sàvĩ

Belmar et al. forthcoming

| | | AGENT-LIKE PRONOUNS | | PATIENT-LIKE PRONOUNS | | TOPICALIZED PRONOUNS | |
|-----------------|--------|---------------------|---------------|-----------------------|---------------|----------------------|---------------------|
| | | SINGULAR | PLURAL | SINGULAR | PLURAL | SINGULAR | PLURAL |
| 3 rd | NFORM | =ì / =à(n) | =kue-yì | =ñà | =kue-yì | mĩ | meé-kue-yì |
| | INAN | =ñà / =à(n) | =kue-ñà | =ñà | =kue-ñà | meé-ñà | meé-kue-ñà |
| | FORM | — | =nà / =kue-nà | — | =nà / =kue-nà | — | meé-kue-nà / meé-nà |
| | CHILD | =tsi | =kue-tsi | =tsi | =kue-tsi | meé-tsi | meé-kue-tsi |
| | M.FORM | =rà | =kue-rà | =rà | =kue-rà | meé-rà | meé-kue-rà |
| | F.FORM | =í / =á(n) / =ñá | =kue-ñá | =ñá | =kue-ñá | meé-ñá | meé-kue-ñá |
| | ZOO | =tí | =kue-tí | =tí | =kue-tí | meé-tí | meé-kue-tí |
| | ROUND | =tí | =kue-tí | =tí | =kue-tí | meé-tí | meé-kue-tí |
| | TRUNK | =tú | =kue-tú | =tú | =kue-tú | meé-tú | meé-kue-tú |
| | LIQ | =rá | =kue-rá | =rá | =kue-rá | meé-rá | meé-kue-rá |
| | DEITY | =yà | =kue-yà | =yà | =kue-yà | meé-yà | meé-kue-yà |



3rd person singular non-formal

3rd person singular non-formal →

=*i*

Often coloring the last vowel, sometimes realized as [î] depending on the tonal melody of the phrase

=*à(n)*

If the word ends with /i/, =*à(n)* is used instead

Belmar et al. forthcoming

| | | AGENT-LIKE PRONOUNS | | PATIENT-LIKE PRONOUNS | | TOPICALIZED PRONOUNS | |
|-----------------|--------|--|-----------------|-----------------------|-----------------|----------------------|-------------------|
| | | SINGULAR | PLURAL | SINGULAR | PLURAL | SINGULAR | PLURAL |
| 3 rd | NFORM | = <i>i</i> / = <i>à(n)</i> | = <i>kue-yi</i> | = <i>ñà</i> | = <i>kue-yi</i> | <i>miî</i> | <i>meé-kue-yi</i> |
| | F.FORM | = <i>i</i> / = <i>á(n)</i> / = <i>ñá</i> | = <i>kue-ñá</i> | = <i>ñá</i> | = <i>kue-ñá</i> | <i>meé-ñá</i> | <i>meé-kue-ñá</i> |



3rd person singular non-formal

Vásù chikuíi í'ní ná kuchú, cha mà chinchíi mà kí'in coronavirus yô. [COVID Guidelines, translation]

Vásù chikuíi í'ní ná kuchí=kú,
even.if water hot IRR PURP.bathe=2SG.NFORM

cha mà chincheé=i mà kí'in coronavirus=yô.
and NEG PURP.help=3SG.NFORM NEG NEG.PURP.grab coronavirus=2SG.NFORM.P

‘Even if you bathed in hot water, this would not prevent you from getting infected with coronavirus.’

Example 10



3rd person singular non-formal

Nikìtsáá-kuê táná snúu-kuê sa'mă táná tá nikìtsái nùú. [Text 3, 03:58]

nìkìtsáá=kue=^L táná snúu-kue=^L sa'mă tána tá
PFV.start=PLZ=1SG like IPFV.CAUS.get.down=PLZ=1SG clothes like when

nìkìtsáá=ⁱ nùú.
PFV.start=3SG.NFORM there

‘We started like taking the clothes down like when they arrived there’.

Example 11



3rd person singular feminine formal

3rd person feminine formal →

=*í*

Often coloring the last vowel, sometimes realized as [ĩ] depending on the tonal melody of the verb

=*á(n)*

If the word ends with /i/, =*á(n)* is used instead

=*ñá*

Possession in nominal phrases is indicated with =*ñá* instead.

Belmar et al. forthcoming

| | | AGENT-LIKE PRONOUNS | | PATIENT-LIKE PRONOUNS | | TOPICALIZED PRONOUNS | |
|-----------------|--------|--|-----------------|-----------------------|-----------------|----------------------|-------------------|
| | | SINGULAR | PLURAL | SINGULAR | PLURAL | SINGULAR | PLURAL |
| 3 rd | NFORM | = <i>í</i> / = <i>á(n)</i> | = <i>kue-yì</i> | = <i>ñà</i> | = <i>kue-yì</i> | <i>miî</i> | <i>meé-kue-yì</i> |
| | F.FORM | = <i>í</i> / = <i>á(n)</i> / = <i>ñá</i> | = <i>kue-ñá</i> | = <i>ñá</i> | = <i>kue-ñá</i> | <i>meé-ñá</i> | <i>meé-kue-ñá</i> |



3rd person singular feminine formal

Má-yù ra ntànchikuí ñàà... ntànchikuí tána... ntàtsàíí ra ñàà sana nìkìtsi-kué tsi-án. [Text 11, 00:54]

máá=yù ra ntànchikó=í ñàà
mother=1SG DISC PFV.come.back=3SG.F.FORM FILL

ntànchikó=í táná
PFV.come.back=3SG.F.FORM like

ntàtsàà=í ra ñàà sana nìkìtsi=kue=L tsi=án
PFV.come.back=3SG.F.FORM DISC FILL then PFV.go.back=PLZ=1SG COM=3SG.F.FORM

‘My mom had come back... she had come back like... she came back and then we went back with her’.

Example 12



3rd person singular feminine formal

Ùtsì yòó á ùtsì iin yòó ntsìí yo'o sana ntàchikuí sara ñàà. [Text 11, 01:06]

| | | | | | | | | |
|------|-------|----|------|-----|-------|---------------------|------|------|
| ùtsì | yòó | á | ùtsì | iin | yòó | ntsìo=í | yo'o | sana |
| ten | month | or | ten | one | month | PFV.live=3SG.F.FORM | here | then |

| | | |
|--------------------------|------|------|
| ntàchikó=í | sara | ñàà. |
| PFV.come.back=3SG.F.FORM | then | DISC |

‘She was here for ten or eleven months and then she went back’.

Example 13



TAM Imperfective

Perfective

Habitual perfective

Potential*

Purposive*

Imperative

Polarity:

Often with negative particles like *kuě* (realis moods) or *mà* (irrealis moods)



| IPFV | PFV | HAB.PFV | POT | PURP | IMP | GLOSS | |
|------------|-------------|----------------|---------------|-----------|-----------|-------------------|-----------|
| Ntákacha | Ntākăcha | Ntsintākăcha | Kú ntākăcha | Ntakacha | Ntakacha | Wash | |
| Kí'in | Nìkì'in | Ntsìkì'in | Kú nkì'in | Ki'in | Kí'in | Grab | |
| Snúu | Snùu | Ntsìsnúu | Kú snùu | Snuu | Snúu | Take down | |
| Káchì | Nìkăchì | Ntsìkăchì | Kú nkăchì | Kachì | Káchì | Say | |
| Tsítú nǎnì | Ntsítú nǎnì | Ntsìtsítú nǎnì | Kú nkùtu nǎnì | Kutú nǎnì | Kutú nǎnì | Understand | |
| Tsátsí | Ntsàtsí | Ntsìtsàtsí | Kú nkàtsí | Kátsí | Kátsí | Eat (trn) | |
| Tsítsá'an | Ntsìtsá'an | Ntsìtsìtsá'an | Kú nkàtsá'an | Kàtsá'an | Katsá'an | Eat (itrn) | |
| PROG.IPFV | HAB.IPFV | PFV | HAB.PFV | POT | PURP | IMP | GLOSS |
| Kuà'àn | Tsá'àn | Ntsà'àn | Ntsìtsà'àn | Kú nkù'ùn | Kù'ùn | Kuà'àn | Go |



| NEG.IPFV | NEG.PFV | NEG.HAB.PFV | NEG.POT | NEG.PURP | NEG.IMP | GLOSS |
|----------------|------------------|---------------------|--------------|--------------|--------------|-------------------|
| Kuě ntákacha | Kuě níntákacha | Kuě nítsìntákacha | Mà ntákacha | Mà ntákacha | Mà ntákachú | Wash |
| Kuě kí'in | Kuě níki'in | Kuě nítsiki'in | Mà kí'in | Mà kí'in | Mà kí'ún | Grab |
| Kuě snúu | Kuě nísnúu | Kuě nítsìsnúu | Mà snúu | Mà snúu | Mà snúú | Take down |
| Kuě káchì | Kuě níkachì | Kuě nítsikachì | Mà káchì | Mà káchì | Mà káchü | Say |
| Kuě tsítú nìni | Kuě nítsítú nìni | Kuě nítsìtsítú nìni | Mà kutú nìni | Mà kutú nìni | Mà kutú nìnü | Understand |
| Kuě tsátsí | Kuě nítsatsí | Kuě nítsìtsätsí | Mà kätsí | Mà kätsí | Mà kätsü | Eat (trn) |
| Kuě tsítsá'an | Kuě nítsitsá'an | Kuě níntsìtsitsá'an | Mà kätsá'an | Mà kätsá'an | Mà kätsá'ün | Eat (itrn) |
| Kuě tsá'àn | Kuě nítsà'àn | Kuě nítsìtsà'àn | Mà kǔ'ùn | Mà kǔ'ùn | Mà kǔ'ün | Go |



Realis (?)

| IPFV | PFV | HAB.PFV |
|------|--|---|
| H __ | L __ Nì/N- + L __ Nì/N- + R __ L + R __ | Ntsì- + IPFV Ntsì + L __ Ntsì + R __ Ntsì + M __ |

Irrealis (?)

| POT | PURP | IMP |
|---|----------------------|----------------------|
| Kú n- + L / M / R __ Kú + L / M / R __ | M __ H __ L __ | H __ M __ L __ |

NEG.IPFV

Kuě + IPFV

NEG.PFV

Kuě ní- + PFV
Kuě ní- + H __
Kuě ní- + M __
R + PFV

NEG.HAB.PFV

Kuě nítsì- + PFV
Kuě nítsì + H __
Kuě nítsì- + M __
Kuě nítsì- + R __

NEG.POT

Mà + R __
Mà + M __

NEG.PURP

Mà + R __
Mà + M __

NEG.IMP

Mà + R __ + =kú
Mà + M __ + =kú



Imperfective

*Iin chà và'a **ká'àn** tsà'vì-ka tavà kuu (...)* [Text 5, 01:33]

| | | | | | | |
|-----|---------------|------|--------------|---------------|---------|-----|
| iin | chà | và'a | ká'àn | tsà'vì=ka | tavà | kuu |
| one | CLASS.M.HUMAN | good | IPFV.speak | parangon=DIST | so.that | COP |

‘Someone who speaks the parangon well so that...’.

Example 14



Negative imperfective

*Ratù kúu tíin tàchǔ tìtsi ùtsì segúndò á kuà'á kà cha **kuě káyǔ** á kini ntú'ú **kuě kúnì-à** káchâ ñàà **kuě kú'mú** coronavirus á **kuě kú'ù** ña'mà-kú. [COVID Guidelines translation]*

ratù kúu tíin=kú tàchǐ=kú tìtsi ùtsì segúndò
COND POT.be IPFV.grab=2SG.NFORM breath=2SG.NFORM OBL ten second

á kuà'á kà cha **kuě káyì=kú** á kini ntó'o=kú
or more more and NEG IPFV.cough=2SG.NFORM or bad IPFV.feel=2SG.NFORM

kuě kúnì=à káchì=à ñàà **kuě kú'mí=kú**
NEG IPFV.want=3SG.NFORM IPFV.say=3SG.NFORM COMP NEG IPFV.have=2SG.NFORM

coronavirus á **kuě kú'ù** ña'mà=kú.
coronavirus or NEG IPFV.be.sick lung=2SG.NFORM

‘If you hold your breath for ten seconds or more and you do not cough or feel bad, that doesn’t mean that you do not have coronavirus or that your lungs are not sick.’

Example 15



Habitual imperfective [Verbs of movement]

Ñàà tá nìkìtsáà tsá'àn-yù ñàà, colegio-ka ra ñàà. [Text 3, 03:05]

ñàà tá nìkìtsáá^L tsá'àn=yù ñàà,
FILL when PFV.start=1SG HAB.IPFV.go=1SG FILL

colegio=ka ra ñàà.
college=DIST DISC FILL

‘When I started going to college’.

Example 16



Perfective

Aan... xina-kà nìkìtsáà skuá'à sana ntsà'àn-yù nùú frésà. [Text 3, 01:26]

aan xina=kà nìkìtsáá=L skuá'a=L sana ntsà'àn=yù nùú frésà.
yes first=more PFV.start=1SG IPFV.study=1SG then PFV.go=1SG OBL strawberry

‘Yes, first I started to study and then I went to the strawberry (fields).’

Example 17



Negative perfective

*Tíi susaán kuàâ tsà'ùn á tsà'ùn iin kuià ínkáà-yù ra saán ni ra **kuě nítsà'àn-kà-yù** nùú frésà.* [Text 3, 02:13]

| | | | | | | | | |
|---------|--------------|---------------|------------|-----------------------|---------|------------|------|---------------|
| tíi | susaán | kuàâ | tsà'ùn | á | tsà'ùn | iin | kuià | ínkáà=yù |
| perhaps | more.or.less | approximately | fifteen | or | fifteen | one | year | IPFV.have=1SG |
| ra | saán | ni=ra | kuě | nítsà'àn=kà=yù | nùú | frésà. | | |
| DISC | always | EMPH | NEG | NEG.PFV.go=more=1SG | OBL | strawberry | | |

‘Approximately I was like fifteen or sixteen and since then I have not gone to (work in) the strawberry (fields)’.

Example 18



Negative perfective

Kuǎchi ìí-kue-yì ni ñàkáà ntsǐnì-à nixi sǎvǎ'ì ñàà. [Text 2, 01:49]

| | | | | |
|---------------------------|-------|-------------|------------------------|------|
| Kuǎchi=ìí=kue=yì | ni | ñàkáà | ntsǐnì=à | nixi |
| young=still=PLZ=3SG.NFORM | still | this.is.why | NEG.PFV.know.3SG.NFORM | how |

| | |
|-----------------------|-------|
| sǎ+vǎ'a=ì | ñàà. |
| PFV.do+good=3SG.NFORM | thing |

‘They were still young, this is why they did not know how to prepare it’.

Example 19



Habitual perfective

Àhă, ntsìsà'àn-yù skuélà cha ñàà, tá ntsìntì'i, skuélà-yù ra ntsìsà'àn-yù, ñàà, kuàâ iin yòó á ùvì yòó ntsìsáchuùn nùú frésà. [Text 3, 00:41]

àhă,
yes

ntsìsá'àn=yù skuélà cha ñàà,
HAB.PFV.go=1SG school and FILL

tá **ntsìntì'i**,
when HAB.PFV.finish

skuélà=yù ra **ntsìsá'àn=yù**,
school=1SG DISC HAB.PFV.go=1SG

ñàà,
FILL

kuàâ iin yòó á ùvì yòó **ntsìsáchuun=L** nùú frésà.
approximately one month or two month HAB.PFV.work=1SG OBL strawberry

‘Yes, I would go to school and, when I would finish my school then I would go to work in strawberries for a month or two’.

Example 20



Potential

Nùú ñu'í ra ñàà, kú nkìtsáì sáchuìn, sara ñàà ntsìni-à. [Text 4, 00:35]

nùú ñu'ú=ì ra ñàà,
OBL land=3SG.NFORM DISC FILL

kú **nkìtsáá=ì** sáchuun=ì,
FUT POT.start=3SG.NFORM IPFV.work=3SG.NFORM

sara ñàà ntsìni=à
then FILL PFV.see=3SG.NFORM

‘On his land he was going to start to work, then he saw’.

Example 21



Purposive

Tàtǎ ñà tsá'ní kuè'è a và'î ka'ní-à kuè'è tsaâ coronavirus? [COVID Guidelines Translation]

| | | | | | | |
|----------|------------|-----------|---------|---|----------------|---------------------|
| tàtǎ | ña | tsá'ní | kuè'è | a | và'a=i | ka'ní=à |
| medicine | CLAS.THING | IPFV.kill | illness | Q | good=3SG.NFORM | PURP.kill=3SG.NFORM |

| | | |
|---------|------|--------------|
| kuè'è | tsaâ | coronavirus. |
| illness | new | coronavirus |

‘Are antibiotics (medicines that kill illnesses) good for killing the new coronavirus?’.

Example 22



Negative potential / purposive

Kuè'è tsaâ coronavirus mà ntaya'ì meú ratù ná kátsí tikuaín yô. [COVID Guidelines Translation]

| | | | | | |
|---------|------|-------------|----------------------|----------------------|---------------|
| Kuè'è | tsaâ | coronavirus | mà | ntaya'a=i | meé=kú |
| illness | new | coronavirus | NEG | POT.spread=3SG.NFORM | TOP=2SG.NFORM |
| ratù | ná | kátsí | tikuaín=yô | | |
| COND | IRR | PURP.eat | mosquito=2SG.NFORM.P | | |

‘The new coronavirus cannot spread to you if a mosquito bites you’.

Example 23



Negative potential / purposive

Ñà vitsi tsi ñà yù'và ra mà ka'ní-à kuè'è tsaâ coronavirus. [COVID Guidelines Translation]
ñà vitsi tsi ñà yù'và ra mà ka'ní=à kuè'è
CLAS.THING cold COM CLAS.THING ice DISC NEG POT.kill=3SG.NFORM illness
tsaâ coronavirus.
new coronavirus
'Cold and ice cannot kill the new coronavirus'.

Example 24



Imperative

***Ka'àn** tuku iinkàâ.* [Text 3, 02:42]

ka'àn tuku iinkàâ.

IMP.speak again one.more.time

‘Repeat’.

Example 24



Last Remarks

In this ongoing work we are trying to figure out the system of grammatical tone, through understanding the tonal phonology, the inflectional systems, and the two all together:

- Aspect-mood involves prefixes, tone, and maybe particles before the verb stem.
- Person is expressed by enclitics, which may fuse with the host and create novel tonal patterns.
- There is a richness (both functionally and formally) in both person marking and aspect-mood inflection, but little apparent interaction/fusion involving the two.
- The preverbal (TAM) and postverbal (person) structure of the morphology perhaps results in this lack of interaction (as reported in Campbell 2016 for Zenzontepec Chatino) but differing from other, related languages in which person and TAM are conflated or less separable (such as Mè'phàà, Otomí or Yaitepec Chatino).

We are also prioritizing naturalistic data from usage to define the categories at the same time as filling out paradigms to understand the formal system.



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