

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

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Acknowledgements

All the examples shared in this presentations were transcribed as part of the Field Methods Class 2019/20 at UCSB, in which the presenters took part. All transcriptions were double checked by the presenters.

We want to thank: Griselda Reyes Basurto, Gabriel Mendoza, Eric W. Campbell, Saleem Alfaife, Catherine Scanlon, Giorgia Troiani, Jesús Olguín and Pinping Ge.

Yucunani Sà'án Sàvĭ

The village of Yucunani, with 105 inhabitants, is located in the municipality of San Juan Mixtepec, in Oaxaca, Mexico (INEGI 2010).

The Mixtec variety spoken in Yucunani is classified as part of Mixtepec Mixtec (ISO639-3: *mix*), a Mixtec language belonging to the Mixtecan branch of the Amuzgo-Mixtecan, Eastern Otomanguean languages (INALI 2008; Campbell 2017).

Yucunani Sà'án Sàvĭ has an estimated 87 speakers (INEGI 2010) in Yucunani. The number of speakers of Yucunani Sà'án Sàvĭ in diaspora communities elsewhere in Mexico and the US is unknown.



Documenting tone in Yucunani Sà'án Sàvĩ

Yucunani Sà'án Sàvĩ was the language on which the Field Methods class at UCSB worked during the academic year 2019-2020. Jeremías Salazar was the language expert, and the class was made up by linguistics graduate students as well as community members who speak other Mixtec varieties.

To document tone, we based our methodology on Cruz and Woodbury (2014), and we grouped words by tonal melodies rather than trying to identify every single tone separately. Once we had some groups, we started analyzing the individual tones. To this day, this is still how we check the tones of ‘new’ words.



[Lexical] Tonal melodies: Possible and documented

- *Bisyllabic words*: 15 documented tonal melodies so far. High-Low and Falling Low contain mostly adjectives (adjectival high?, see Hinton 1991)¹

Table 1. *Tonal melodies of bisyllabic words in Yucunani Sà'án Sàvĩ.*

Low-Low	Mid-Low	High-Low	Rising-Low	Falling-Low
kuìkà ‘comb’	ñu’ù ‘fire’	má’á ‘raccoon’	tǐnà ‘dog’	xǐñù ‘shiny’
ù’ùn ‘five’	xìkò ‘smell’	ntíkà ‘wide’	kǔñù ‘meat’	
vìxì ‘sweet’	ità ‘flower’	súkù ‘tall’	ntǔxì ‘honey’	
Low-Mid	Mid-Mid	High-Mid	Rising-Mid	Falling-Mid
và’a ‘good’	vìchì ‘today’	í’in ‘sweat bath’	vǎ’a ‘bad’	--
tìkà ‘grasshopper’	sava ‘half’	sáta ‘dove’	xǔ’un ‘money’	
nchìkà ‘wall’	ve’e ‘house’	kuìkà ‘rich’	tǐchì ‘avocado’	
Low-High	Mid-High	High-High	Rising-High	Falling-High
sà’án ‘language’	ña’á ‘woman’	yúyú ‘dew’	--	--
ntsítù ‘full’	yakúé ‘crooked’	yókó ‘hot’		
chò’ó ‘flea’	yo’ó ‘rope’	kú’ntù ‘lazy’		
Low-Rising	Mid-Rising	High-Rising	Rising-Rising	Falling-Rising
nùní ‘corn (grain)’	ntuchì ‘bean’	kání ‘long’	--	--
ñùmǎ ‘wax’	saín ‘corncob’	yúchǎ ‘young’		
xìkuǎ ‘eyebrow	chakǎ ‘fish’	xínǐ ‘hat’		

¹ Notice that these ‘unattested’ tonal melodies may appear as a result of morphological processes involving tonal alternation.

- *Monosyllabic words*: 11 documented tonal melodies so far.

Table 2. *Tonal melodies of monosyllabic words in Yucunani Sà'án Sàvĩ.*

Low-Low	Mid-Low	High-Low	Rising-Low	Falling-Low
ntàà 'flat'	ñuù 'village'	sèé 'young man'	--	--
ìn 'nine'	yaà 'music'	mpàà 'co-father'		
chùùn 'star'	chai 'chair'	kuài 'horse'		
Low-Mid	Mid-Mid	High-Mid	Rising-Mid	Falling-Mid
vèé 'heavy'	iin 'one'	--	nĩi 'adult'	--
ntii 'death'	yaa 'white'		nkuĩi 'fox'	
kàa 'metal'	luu 'small'			
Low-High	Mid-High	High-High	Rising-High	Falling-High
--	ncheé 'thick'	máá 'mother'	--	--
	ntuú 'day'	íin 'hail'		
	saán 'always'	xóó 'a little (bit)'		
Low-Rising	Mid-Rising	High-Rising	Rising-Rising	Falling-Rising
iin 'salt'	naá 'dark'	kuĩi 'green'	--	--
ntáá 'fiber'	iin 'skin'	yáá 'tongue'		
yóó 'moon'	ii 'husband'	kuĩn 'thin'		

- *Falling tone?* Very few simplex words with a falling tone in the last syllable. Mostly adjectives and adverbs, but not exclusively. The realization of this falling tone seems to vary depending on the preceding tone.

Table 3. *Words ending in a falling tone in Yucunani Sà'án Sàvĩ.*

Low-Falling	Mid-Falling	High-Falling	Rising-Falling	Falling-Falling
--	isâ 'day after tomorrow'	kuítâ 'tired'	Nkôyô 'Mexico'	--
	vitâ 'soft'		Ntùvâ 'Oaxaca'	
	lesû 'rabbit'		xùvâ 'hammock'	
Low-Falling	Mid-Falling	High-Falling	Rising-Falling	Falling-Falling
kuáá 'approx.'	tσαâ 'new'	kuĩi 'clear'	--	--
	tatakeên 'step-father'	kuáá 'blind'		
		kuáân 'yellow'		

- *Comparison with Paster & Beam de Azcona (2004a, 2004b)*

In their analysis of Yucunani Sà'án Sàvĩ tone, Paster & Beam de Azcona (2004a, 2004b) suggested that it had three tones: High, Mid and Low. They analyzed contour tones as bimoraic combinations of these three basic tones.

In our analysis, we suggest that Yucunani Sà'án Sàvĩ has five basic tones: High, Mid, Low, Rising and Falling. The presence of Rising tones on the first syllable of seemingly non-morphologically complex bisyllabic words makes us argue for the existence of a rising tone on its own. The nature of the falling tone is slightly more complicated, since its realization does seem to depend on the preceding tone (especially in monosyllabic words). In any case, it is rare in non-morphologically complex words.

Both Rising and Falling tones can also be the result of grammatical characteristics expressed through tonal alternations!

Caveat for linguistic research (Jeremías):

- Asking us to keep repeating words can sometimes be 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 Sàvĩ Tone:

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

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 Sàvĩ grammatical tone

In Yucunani Sà'án Sàvĩ, grammatical tone is used, on its own or together with other morphological processes, to express at least the following categories:

- Person marking
- TAM
- Polarity

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 considerable 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

Table 4. *Enclitic pronouns in Yucunani Sà'án Sàvĩ (Belmar et al. forthcoming)*

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

1st person in Yucunani Sà'án Sàvĩ

The first person singular in Yucunani Sà'án Sàvĩ presents allomorphy between the enclitic =yù and the ‘floating Low tone’, =^L. =yù is used when the modified phrase ends with either a Low or a Falling tone, such as *kuikà* ‘comb’ and *kuikà-yù* ‘my comb’ or *tatàkèên* ‘step-father’ and *tatàkèên-yù* ‘my step-father’. The floating low tone is used elsewhere, and it is sometimes realized as a falling tone, depending on the tonal melody of the phrase which it is modifying (Belmar et al. 2020).

Table 5. *First person pronouns in Yucunani Sà'án Sàvĩ (Belmar et al. 2020)*

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

(1) a

Và'a nìkìtsàà-yù. [Elicitation]
 và'a nìkìtsà=yù
 Good PFV.arrive=1SG
 I arrived well (I am fine)

(1) b

Nìkìtsàà và'á. [Elicitation]
 nìkìtsà và'a=^L
 PFV.arrive good=1SG
 I arrived well (I am fine)

(2)

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.’

(3)

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.'

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The first person exclusive plural in Yucunani Sà'án Sàvĩ is realized by inserting the pluralizer clitic =*kué* between the phrase and the first person singular marker: the floating Low tone. The result is always =*kuê*, with a falling tone, often realized as [wê] in fast speech (Belmar et al. 2020).

(4)

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

Sana ntsà'àn=^Lkuê=^L ntsítsá'an=^Lkuê=^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.'

The first person inclusive plural in Yucunani Sà'án Sàvĩ presents allomorphy between the enclitic =*kó* and a floating High tone, =^H. =*kó* is often realized as [yó] or coloring the last vowel of the phrase to [ó], especially if this last vowel is /u/. This vowel coloring process may lead to rising tones depending on the tonal melody of the phrase. The allomorphy =^H only appears, so far, in fast speech.

² Commas indicate end of Intonation Unit

(5)

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

cha nìkǎchì lóchí=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'mǎ=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”’.

(6)

Sua'a sua'a-ni kú sǎ'á suaà... suaà kú nkòo nùú kú nkù'ǎn 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 nkòo nùú kú nkù'un=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.’

Grammaticalization: from *yù'ù to =yù and then =^L (Belmar et al. 2020)

Alternation between =yù and =^L is due to 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

The words that ended with (lexical) low tone:

→ *yù'ù > =yù

In fact, it is currently possible to use a similar structure to disambiguate possessives:

(7)

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’.

→ =yù (see Paster 2010 ‘homophony avoidance’)

→ Possible competition with 3s =ì. In other varieties, =ì indicates the 1s

2nd person in Yucunani Sà'án Sàvĩ

Similar to the enclitic =*kó*, the second person singular non-formal agent-like enclitic pronoun =*kú*, is often realized as [yú] or coloring the last vowel of the phrase it modifies. Depending on the tonal melody of the phrase, this may be realized with a rising tone instead.

In addition, when the last vowel of the modified phrase is /u/, this enclitic is realized as a floating high tone, which may surface as a level high tone or a rising tone.

Table 6. *Second person pronouns in Yucunani Sà'án Sàvĩ (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>yó</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>

(8)

Và'a nchuà'a vídà yéù rì meú ra kuě tsíní-ñú'ú sáchuún táná sáchuun ra ñàà, ne'ũ ñàà kátsũ kàchà. [Text 4, 01:05]

và'a	nchuà'a	vídà	yéè= 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.’

(9)

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=2S.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.’

3rd person in Yucunani Sà'án Sàvĩ

Yucunani Sà'án Sàvĩ has a rather elaborate set of distinctions in the third person, with eleven different pronouns attested so far. In their agent-like singular form, these are for: (a) generic non-formal =ì, =à(n); (b) inanimate =ñà, =à(n); (c) formal (human) plural =nà; (d) children =tsi; (e) masculine formal =rà; (f) feminine formal =í, =á(n), =ñá; (g) zoological =tí; (h) round-shaped objects =tí³; (i) the trunk-like objects =tú; (j) liquids =rá; and (k) deities =yà.

Table 7. Third person pronouns 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	miì	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

Only two of these seem to trigger any tonal alternation, as well as coloring the last vowel of the modified phrase: the generic non-formal and the feminine formal.

Table 8. 3rd person pronouns which trigger tonal alternation 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	miì	meé-kue-yì
F.FORM	=í / =á(n) / =ñá	=kue-ñá	=ñá	=kue-ñá	meé-ñá	meé-kue-ñá

³ Note that the zoological and round-shape pronouns are homophonous, but come from different proto-Mixtec roots

3rd person singular non-formal

Often realized as [i] or [î] depending on the tonal melody of the phrase. It often colors the last vowel.

If the modified element ends in a /i/, the allomorph =à(n) is used instead.

(10)

Vásù chikuí i'ní ná kuchú, cha mà chinchî mà kí'in coronavirus yô. [COVID Guidelines, translation]

Vásù chikuí i'ní ná kuchi=kú,
even.if water hot IRR PURP.bathe=2SG.NFORM

cha mà chincheé=ì 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.'

(11)

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

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

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

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

3rd person singular feminine formal

Often realized as [í] or [ĩ] depending on the tonal melody of the phrase. It often colors the last vowel.

If the modified element ends in a /i/, the allomorph =á(n) is used instead.

Possession in nominal phrases is indicated with =ñá instead.

(12)

Má-yù ra ntànchikuí ñàà... ntànchikuí tána... ntàtsàù ra ñàà sana nìkìtsi-kuê 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'.

(13)

Ùtsì yòó á ùtsì iin yòó ntsìo=í yo'o sana ntànchikuí 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

ntànchikó=í sara ñàà.
 PFV.come.back=3SG.F.FORM then DISC

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

TAM in Yucunani Sà'án Sàvĩ

Yucunani Sà'án Sàvĩ presents a system split between forms that take a *realis* stem and forms that take an *irrealis*. There are at least three aspectual distinctions in the *realis*: imperfective, perfective and habitual perfective; as well as three mood distinctions in the *irrealis*: potential*, purposive* and imperative. In addition, some verbs of movement present two different imperfective forms, a progressive and a habitual one. Note that this is ongoing work, and some of these labels are still just working labels!

Table 9. Examples of the three ‘realis’ aspects in Yucunani Sà'án Sàvĩ.

Imperfective	Perfective	Habitual perfective	Gloss
Ntákacha	Ntākācha	Ntsintākācha	Wash
Kí'in	Nìkì'in	Ntsìkì'in	Grab
Snúu	Snùu	Ntsìsnúu	Take down
Káchì	Nìkächì	Ntsìkächì	Say
Tsítú nǐnì	Ntsítú nǐnì	Ntsìtsítú nǐnì	Understand
Tsátsí	Ntsàtsí	Ntsìtsàtsí	Eat (transitive)
Tsítsá'an	Ntsítsá'an	Ntsìtsítsá'an	Eat (intransitive)
Progressive	Habitual		
Kuà'an	Tsá'an	Ntsà'an	Go

Table 10. Examples of the three ‘irrealis’ moods in Yucunani Sà'án Sàvĩ.

Potential	Purposive	Imperative	Gloss
Kú ntākācha	Ntakacha	Ntakacha	Wash
Kú nkí'in	Ki'in	Ki'in	Grab
Kú snúu	Snuu	Snúu	Get down
Kú nkächì	Kachì	Káchì	Say
Kú nkùtu nǐnì	Kutú nǐnì	Kutú nǐnì	Understand
Kú nkàtsí	Kátsí	Kátsí	Eat (transitive)
Kú nkàtsá'an	Kàtsá'an	Katsá'an	Eat (intransitive)
Kú nkù'un	Kù'un	Kuà'an	Go

In addition, polarity is usually expressed by means of the negative particles *kuě* (with the *realis* forms) and *mà* (with the *irrealis* forms). The progressive-habitual distinction of verbs of movement seems to neutralize to an imperfective form in the negative. Negative perfective forms are preceded by *ní*. In addition, in fast speech *kuě* may be omitted and the first syllable of the

verb is then realized as a rising tone, what we are calling the ‘negative rise’. It is not clear how productive this process is or whether it is possible with all verbs, and it is so far only attested with the perfective. As for the negative irrealis forms, they often have this ‘negative rise’ even accompanied by the particle *mà*. All irrealis forms seem to converge in the negative

Table 11. *Examples of the three ‘realis’ aspects in Yucunani Sà'án Sàvĩ with negation.*

Imperfective	Perfective	Habitual perfective	Gloss
Kuě ntákacha	Kuě níntákacha	Kuě nítsìntákacha	Wash
Kuě kí'in	Kuě níki'in	Kuě nítsìki'in	Grab
Kuě snúu	Kuě nísnúu	Kuě nítsìsnúu	Get down
Kuě káchì	Kuě níkachì	Kuě nítsìkachì	Say
Kuě tsítú nìni	Kuě nítsítú nìni	Kuě nítsìtsítú nìni	Understand
Kuě tsátsí	Kuě nítsátsí	Kuě nítsìtsátsí	Eat (transitive)
Kuě tsátsá'an	Kuě nítsátsá'an	Kuě nítsìtsátsá'an ⁴	Eat (intransitive)
Kuě tsá'àn	Kuě nítsá'àn	Kuě nítsìtsá'àn	Go

Table 12. *Examples of the three ‘irrealis’ moods in Yucunani Sà'án Sàvĩ with negation.*

Potential	Purposive	Imperative	Gloss
Mà ntákacha	Mà ntákacha	Mà ntákachú	Wash
Mà kí'in	Mà kí'in	Mà kí'ún	Grab
Mà snúu	Mà snúu	Mà snúú	Get down
Mà káchì	Mà káchì	Mà káchũ	Say
Mà kutú nìni	Mà kutú nìni	Mà kutú nìni	Understand
Mà kátsí	Mà kátsí	Mà kátsũ	Eat (transitive)
Mà kátsá'an	Mà kátsá'an	Mà kátsá'ùn	Eat (intransitive)
Mà kũ'ùn	Mà kũ'ùn	Mà kũ'ùn	Go

Table 13. *Summary of TAM in Yucunani Sà'án Sàvĩ.*

IPFV	PFV	HAB.PFV	POT	PURP	IMP
H _ _	L _ _	Ntsì- + IPFV	Kú n- + L/R/M _ _	M _ _	M _ _
	Nì/N- + L _ _	Ntsì- + L _ _	Kú + L/R/M _ _	H _ _	H _ _
	Nì/N- + R _ _	Ntsì- + R _ _		L _ _	L _ _
	L + R _ _	Ntsì + M _ _			

Table 13. *Summary of TAM in Yucunani Sà'án Sàvĩ, with negation.*

IPFV	PFV	HAB.PFV	POT	PURP	IMP
Kuě + IPFV	Kuě ní- + PFV	Kuě nítsì- + PFV	Mà + R _ _	Mà + R _ _	Mà + R _ _ +=kú
	Kuě ní- + H _ _	Kuě nítsì- + H _ _	Mà + M _ _	Mà + M _ _	Mà + M _ _ +=kú
	Kuě ní + M _ _	Kuě nítsì- + M _ _			
	R + PFV	Kuě nítsì- + R _ _			

⁴ Not found in the texts we have so far. Elicited.

Examples:

(14) Imperfective

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

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

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

(15) Negative imperfective

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

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

á kuà'á kà cha **kuě káyĩ**=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.’

(16) Habitual imperfective [verbs of movement]

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

ñàà tá nìkìtsáà=^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’.

(17) Perfective

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

aan xina=kà nìkìtsáà=^L skuá'a=^L sana ntsà'àn=yù nùú frésa.
 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).’

(18) Negative perfective

Tíi susaán kuàâ tsà'ùn á tsà'ùn iin kuìà 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	kuìà	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)’.

(19) Negative perfective: Negative rise

Kuăchi ìi-kue-yì ni ñàkàà ntsĩnì-à nixi sávà'ì ñàà. [Text 2, 01:49]

Kuăchi=ìí=kue=yì	ni	ñàkàà	ntsĩnì=à	nixi
young=still=PLZ=3SG.NFORM	still	this.is.why	NEG.PFV.know.3SG.NFORM	how
să+và'a=ì	ñàà.			
PFV.do+good=3SG.NFORM	thing			

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

(20) Habitual perfective:

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

àhă,
yes

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

tá	ntsintì'i,
when	HAB.PFV.finish

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

ñàà,
FILL

kuàâ	iin	yòó	á	ùvì	yòó	ntsísáchuun=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’.

(21) Potential

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

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

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

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

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

(22) Purposive

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

tàtã ñà tsá'ní kuè'è a và'a=ì **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?’.

(23) Negative potential / purposive

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

Kuè'è tsaâ coronavirus **mà ntaya'a=ì** meé=kú
illness new coronavirus NEG POT.spread=3SG.NFORM TOP=2SG.NFORM

ratù ná kátsí tikuáin=yô
COND IRR PURP.eat mosquito=2SG.NFORM.P

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

(24)

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’.

(25) Imperative

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

ka'àn tuku iinkàâ.
IMP.speak again one.more.time

‘Repeat’.

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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Abbreviations:

A	agent-like	LIQ	liquid
ADV	adverbial	M	masculine
CHILD	children	MOD	modal
CLAS	classifier	NEG	negative
COM	comitative	NFORM	non-formal
COMP	complementizer	OBL	oblique
COND	conditional	P	patient-like
COP	copula	PFV	perfective
DISC	discourse marker	PL	plural
DIST	distal	PLZ	pluralizer
EMPH	emphatic	POT	potential
F	feminine	PURP	purposive
FILL	filler	Q	question
FORM	formal	RDPL	reduplication
FUT	future	ROUND	round-shaped object
HAB	habitual	S	subject
IMP	imperative	SG	singular
INAN	inanimate	TOP	topicalizer
INCL	inclusive	TRUNK	trunk-like objects
IPFV	imperfective	ZOO	zoological
IRR	irrealis		