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Syntactic Sketch of San Martín Peras Tu'un Savi

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by

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1. Introduction

The purpose of this paper is to provide and support the analysis and description of San Martín Peras Tu'un Savi² basic syntax with additional sections presenting the basics of phonology and morphology, and some discussion of pragmatics and discourse. However, more emphasis is placed on the syntax section, which is analyzed through transcriptions of stories from cultural events, migration narratives, and childhood stories, Day of the Dead stories and rabbit stories. The syntax section shows the basic clauses, clause combining, clause chaining, and coordination. For each example, the relevant part is first described and then the example is shown. For instance, in (1), it is a transitive verb because it displays two arguments, agent and patient. The =ntù '1PL' is the agent and *itsĩ* 'candles' is the patient. In (2) it shows two intransitive verbs with the same imperfective aspect inflection in the same clause, which is categorized as a serial verb construction.

Transitive Verbs

- (1) xíin=ntù itsĩ=va
 IPFV.buy=1PL candles=SEQ
 'We buy candles' (01:56 CLVM migration narratives)

Serial Verbs

- (2) kixáà táxìn tsìkasùn
 IPFV.begin IPFV.grind *totopo*
 The *totopos* start being ground' (CLVM migration narratives 04:05)

¹ My gratitude goes to Dr. Eric W. Campbell and Simon L. Peters to support me during my academic years and working with me on my thesis and the variants of San Martín Peras Tu'un Savi. I am so grateful to my parents for supporting me and my elders, Ita Tsindoo and Ntsiva'yi. Also, I am thankful to the whole team of Mexican Indigenous Language Promotion and Advocacy (MILPA) because they inspired me to do this work and Mixteco Indígena Community Organizing Project (MICOP). Thank you, Carmen Hernández, Griselda Reyes Basurto, Arcenio López, Yésica Ramirez, Juvenal Solano, Vanessa Terán, Sandra Auderset, Anna Bax, Christian Brendel, Mary Bucholtz, Alexia Fawcett, Jessica Love-Nichols, Kevin Schäfer, Adrienne Tsikewa, Albert Ventayol-Boada. Finally, I am grateful to my community in Ñuù California and Oaxaca. I am responsible for any mistake that remains. This work was supported in part by the National Science Foundation grants 1660355 and 1650114 to the University of California, Santa Barbara.

² Tu'un Savi is the word, language or language of the people originating from the rain. I call Mixtec Tu'un Savi because it is the general term of the Tù'un Ntá'vi or Mixtec.

In what follows, background information on the language and a description of the data and methods are provided in §2. The basic phonology is sketched in §3, the word classes in §4, and the basic morphology in §5. Basic syntax is described in §6, and clause combining is presented in §7. Examples of pragmatics are presented in §8, and in §9 I discuss a passage of discourse that I found in the transcriptions. The pragmatics and discourse sections are very preliminary, and much work remains to be done in these areas.

2. Background Information

2.1. The Language

The Tu'un Savi languages, along with Cuicatec and Trique, form the Mixtecan subgroup in the Amuzgo-Mixtecan branch of Eastern Otomanguean (Kaufman, 2006). The variety that is the focus of this paper Piedra Azul and Paredón, San Martín Peras Tu'un Savi. This variety is classified as a Southern Baja variety, which is one of 12 primary Tu'un Savi subgroups identified by Josserand (1983: 470). It has also been classified as Western Juxtlahuaca Tu'un Savi (ISO 639-3: jmx) by Ethnologue. The individuals who contributed data that is presented in this paper come from two towns within the municipality of San Martín Peras: Piedra Azul, with a population of 208, and Paredón, with a population of 301 (INEGI, 2010). There is some variation of Tu'un Savi in San Martín Peras, and the Piedra Azul and Paredón data presented in this paper are not necessarily representative of the entire municipality.

Many people from San Martín Peras have settled in several locales in the Central Coast region of California, especially Oxnard, Santa Maria, Watsonville and Salinas. The majority of them work in the agricultural industry. The speakers that are part of this paper work in the strawberry fields, and migrate with the growing season between Salinas, Oxnard, and Santa Maria to maintain their livelihoods. Many of them migrated to the United States in the first place because there were no jobs in their villages. Others emigrated to the United States because they were running from violence like agrarian conflict. My parents wanted to migrate to the United States because they wanted me and my siblings to go to school so we would be able to have opportunities that they did not have in Oaxaca.

Many scholars have written about indigenous Mexican immigrants in the United States and especially in California (Fox & Rivera-Salgado, 2004) and the discrimination and racism that they face in schools (Gitlin et al., 2003; Perez et al., 2016) and in the workplace (Zabin et al., 1993). While anthropological perspectives are well represented in the literature (Nagengast & Kearney 1990), relatively little work has so far focused on linguistic aspects of the indigenous diaspora (but see Campbell & Reyes Basurto In press; Bax, 2020; Carroll, 2015; Caponigro et al., 2013). There is a significant body of linguistic work on Tu'un Savi languages, especially from the subgroups that Josserand (1983) labels Northern Alta, Eastern Alta, Western Alta, Northern Baja, Guerrero, Tezoatlán, and Mixtepec. After some early work in the 60s and 70s (Overholt, 1961; Pankratz & Pike, 1967; North & Shields, 1977), relatively little work has been carried out on varieties of the Southern Baja subgroup, especially San Martín Peras and villages around the municipality (but see Hills, 1990). The previous work on this language includes the inventory and distribution of tone (Peters, 2018) but few aspects of the language's syntax have been addressed (but see Ostrove, 2018). This paper fills this gap by describing a wide range of basic syntactic structures.

2.2. Research Motivations and Methods

I started to work with San Martín Peras Tu'un Savi because many Tu'un Savi youth in Oxnard have stopped speaking their indigenous languages. I did not want to lose my language and my identity because it is a major connection that I have with my grandmother and my homeland. Thus, the motivation for my work with the language is for reclamation of my roots and to share my knowledge of my grandmother with the youth generation in California.³ I wanted to learn to write Tu'un Savi, which is why I joined a literacy teaching workshop that was held at the Oxnard Mexican Consulate with the collaboration of the Mixteco/Indígena Community Organizing Project (MICOP) and the Instituto Nacional para la Educación de los Adultos (INEA) in 2016. After the workshops, Griselda Reyes Basurto and I organized Tu'un Savi

³ Tequio Youth Group develops the leadership skills of indigenous Mexican youth to promote indigenous pride, encourage academic achievement, and advocate against bullying of indigenous young people. I am grateful to the Tequio Youth Group because they gave the strength to continue my studies at University of California, Santa Barbara and soon at the University of Chicago.

literacy courses in MICOP with the support of Dr. Eric W. Campbell and UCSB linguistics graduate students. In the courses, we had a diverse set of Tu'un Savi varieties: San Martín Peras, San Martín Durazos, San Juan Mixtepec, San Sebastian del Monte, San Francisco Higos, and Guadalupe de Morelos. Mostly all of the participants were indigenous leaders in Oxnard,

Indigenous community members in Oxnard speak many different Tu'un Savi variants. Since I am a member of the Na Savi⁴ community, I always hear that many children are not learning Tu'un Savi in the United States. My parents always told me to speak Tu'un Savi with my little brothers, so that they could learn our language. From my perspective, linguistic work is critical for the community, so we can start working on linguistic and pedagogical materials to support the new generation to learn the language—also, to think critically about their identity and understand the cosmovision of Na Savi people. This paper presents some of the findings of my ongoing work on syntax which will lead to more advanced work on syntax of Tu'un Savi languages. This paper is a basis to start to work on other projects that I am interested in pursuing, such as raciolinguistics with the Na Savian communities in California and in Mexico.

There are two main types of data presented in this paper, the first is data from my own knowledge of the language (especially in the phonology section), and the other data are from a corpus of audio recordings of four individuals from the villages of Piedra Azul and Paredón. Both of the communities belong to the municipality of San Martín Peras. Two male and two female speakers, from ages 16 to 43 years old were interviewed. Two of the consultants have been living in the United States for about 11 years and the other two have lived in the United States for four years. At home, they speak Tu'un Savi because the rest of the family are native speakers.

The lexical, phonological, and morphological data presented in this analysis have been steadily gathered since 2016 when the Tu'un Savi courses at MICOP began. In 2016 I started to work closely in collaboration with UCSB graduate student Simon Peters, creating a corpus of Piedra Azul, Peras Tu'un Savi texts. We recorded short stories which we transcribed together. Then, during the summer of 2018, I

⁴ Na Savi are people of the rain or originating of the village originating from the rain or Mixtecs.

began to record with two other speakers from Piedra Azul. Many of the recordings were migration narratives, short stories, childhood memories, the structure of the village, etc. I went through the consent form that was provided by Dr. Eric W. Campbell, which was presented to participants in Tu'un Savi and Spanish. In the recordings, I started with dates, times, and the names of the people who were present at the moment. I gave the speakers copies of the audio files after the recording so they would be able to listen to it and approve if I could use it. When I finished recording, I uploaded the audio files to a shared secure cloud file storage service. During this time, I continued working in the lexical database from the MICOP workshops, adding forms from the texts.

I used two recorders, which were the Zoom H4n Handy Recorder and TASCAM DR-100mkIII Handheld Digital Stereo Recorder. I used two microphones, which were the AT8010 omnidirectional condenser microphone and the Shure SM10A head-worn cardioid dynamic microphone. All the equipment I used was provided by the UCSB linguistics department and Dr. Eric W. Campbell.

During the 2019 academic year, Dr. Eric W. Campbell and I met weekly to discuss the transcriptions and check the tones for the textual data presented in this paper. In the winter 2020 quarter, Dr. Eric W. Campbell, Simon Peters and I continued to work checking the tones and selecting particular examples for this syntactic sketch. In the spring of 2020, the three of us continued to meet to discuss the paper and how to approach the particular sections.

Some of the data in the paper were gathered using targeted elicitation, especially in the phonology and morphology section. However, for the analysis of morphosyntax, the data are mostly from the text corpus. Likewise, in the pragmatics and discourse sections, the examples come from the transcriptions from the text of short stories, etc.

3. Phonology

San Martín Peras Tu'un Savi has a contrast of oral vs. nasal vowels, an inventory of 26 consonants with no voicing contrast, and lexical as well as grammatical tone. This section presents the sound system of the language with examples that were collected from elicitation and transcription.

3.1. Vowel inventory

There are five oral vowels and three nasal vowels in San Martín Peras Tu'un Savi as is shown in Figures 1 and 2. The language has long (bimoraic) oral and nasal vowels that marginally contrast with short (monomoraic) vowels. For the nasal vowels, in the orthography of the language /ĩ/ is presented <in>, /ã/ as <an> and /ũ/ as <un>.

Figure 1 Oral Vowels

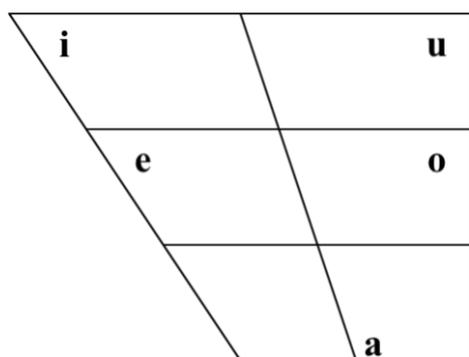
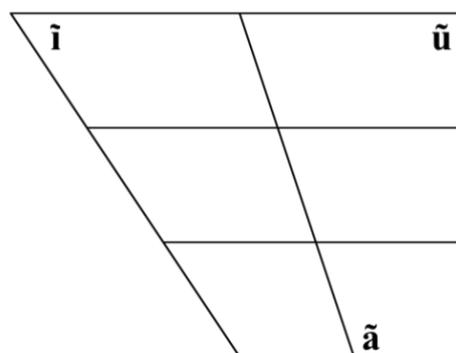


Figure 2 Nasal Vowels



Examples of each oral vowel are shown in Table 1 and each nasal vowel in Table 2. Each vowel is shown with two examples, one in the first syllable of a word and another in the final syllable in the word. Phonologically nasal vowels only occur in the final syllable of the word. Lastly, Table 3 displays long oral vowels and Table 4 shows the long nasal vowels.

Table 1. Oral Vowels

Oral Vowels	Tu'un Savi	Gloss
/a/	òvà	'salty'
/a/	machi	'cotton'
/e	yé'è	'clear, bright'
/e/	sè'e	'son'
/i/	kisi	'pot'
/i/	ì'ma	'smoke'
/o/	sòkò	'shoulder'
/o/	òvà	'bitter'
/u/	minu	'mint'
/u/	ùxì	'ten'

Table 2. Nasal Vowels

/an/	xǎ'ân	'fat'
/in/	xitsîm	'intestines'
/un/	xàtũn	'coffin'

Table 3. Long Oral Vowels

/aa/	saà	'bird'
/ee/	see	'young'
/ii/	kuíi	'watery'
/oo/	yoo	'little pot'
/uu/	kuu	'POT.die'

Table 4. Long Nasal Vowels

/aan/	kààn	'PFV.open'
/iin/	ìin	'nine'
/uun/	chuun	'work'

3.2. Consonant inventory

There are 26 consonants in Tu'un Savi, shown in Table 5. The consonants in angle brackets represent the practical orthography of the language.⁵ The bilabial /p/ and /mp/ are infrequent in the language. However, /p/ occurs word initially *páñu* 'cloth, kerchief' (a borrowing from Spanish *pañu*) and word medially in *lapa* 'soldiers'. In the case of /mp/, this sound also occurs word-initially and word medially, but in few words. From the data gathered so far, for example in *mpáa* 'co-father' (another Spanish borrowing) <mp> occurs word initially and in *cha'mpa lo'o* 'little one' it occurs word-medially. Also, /tj/ and /ntj/ are infrequent in the language and both occur in word-initial position: for example, *tiata* 'type of tree' and *ntio'o* 'dry stalk of corn'. Also, /kj/ it is not frequent in the language either, only appearing in word-initial position, for example in *kiu'ũn* 'wilderness'. Lastly, the /mj/ sound occurs word-initially and word medially and it is infrequent in the language, for example in *miajǎn* 'that one' it occurs word-initially, and in *tsimiǎ* 'devil' it occurs word-medially.

⁵ The orthography of San Martín Peras Tu'un Savi was established during the language and literacy workshops in MICOP.

Table 5. San Martín Peras Tu'un Savi, Consonant Inventory

	Bilabial	Bilabial palatalized	Alveolar	Alveolar-palatalized	Palatal-alveolar	Velar	Palatalized Velar	Labiovelar	Glottal
Obstruent	(p) (mp) <p><mp>		t nt <t><nt>	tj ntj <ti> <nti>		k <k>	kj <ki>	k _w <ku>	? <'>
Affricate				tsj ntsj <tsi><ntsi>	tʃ ntʃ <ch><nch>				
Fricative			s <s>	s _j <si>	x <ʃ>				h <j>
Tap			r <r>						
Lateral			l <l>						
Nasal	m <m>	m _j <mi>	n <n>		ɲ <ñ>				
Approx	β <v>			j <y>					

Table 6 illustrates each consonant of the language in word-initial position, except in cases where the consonant only occurs word-medially (/m_j/ and /ʃ/). Each example word is shown in phonetic, phonemic, and orthographic forms.

Table 6: Examples of Consonants Inventory

Phoneme	Phonetic	Phonemic	Orthographic	Gloss
/p/	[paʎɲũʈ]	/páɲu/	<páñu>	'shawl'
/mp/	[mba:ʎ]	/mpáa/	<mpáa>	'co-father, friend or companion'

/t/	[taʔmaʔ]	/taʔmà/	<ta'mà>	'plain' (n.)
/nt/	[ndʔβiʔ]	/ntiβi/	<ntivi>	'pretty'
/tj/	[tjoʔhoʔ]	/tjòhǒ/	<tiòjǒ>	'type of tree'
/ntj/	[ndjoʔʔoʔ]	/ntjoʔo/	<ntio'o>	'dry stalk of corn'
/k/	[kaʔnuʔ]	/káʔnu/	<ká'nu>	'big.SG'
/kj/	[kjaʔʔaʔ]	/kjàʔǎ/	<kià'ǎ>	'chili pepper plant'
/kw/	[kwã:ʔ]	[kwáá]	<kuáan>	'yellow'
/ʔ/	[saʔʔβaʔ]	/sáʔʔà/	<sá'và>	'frog'
/tsj/	[tsjaʔhkaʔ]	/tsjàkà/	<tsiàkà>	'fish'
/ntsʃ/	[ndzʃiʔhβiʔ]	/ntsʃiβi/	<ntsivĩ>	'egg'
/tʃ/	[tʃaʔʔʃiʔ]	/tʃátʃi/	<cháchi>	'tornado'
/ntʃ/	[ntʃuʔʔʃiʔ]	/ntʃuʔʃi/	<nchuxi>	'hen'
/s/	[saʔβiʔ]	/sáβi/	<sáví>	'spring'
/sj/	[sjaʔʔaʔ]	/sjàʔǎ/	<sià'ǎ>	'Tecomaxtlahuaca'
/ʃ/	[ʃaʔhʔuʔ]	/ʃàhtù/	<xàtù>	'spicy'
/h/	[joʔhoʔ]	/jòhǒ/	<yòjǒ>	'moon'
/t/	[raʔβiʔʃiʔ]	/raβiʃi/	<ravixì>	'soda' (CL. liquid-sweet)
/l/	[laʔʔloʔ]	/láʔʔlò/	<lá'lò>	'lizard'
/m/	[maʔʔnũʔ]	/màʔʔnú/	<mà'nũ>	'half'

/m/	[mjaʔhaʔ]	/m;ahǎn/	<miajǎn>	‘that one’
/n/	[nãʔnẽʔ]	/náně/	<náně>	‘lady’
/ɲ/	[ɲãʔɲĩʔ]	/ɲaɲĩ/	<ɲãĩ>	‘brother’
/β/	[βaʔʔa:ʔ]	/βàʔa/	<và’a>	‘good’
/j/	[jaʔʔa:ʔ]	/jaʔǎ/	<ya’ǎ>	‘chili’

3.3. Tone

There are three level tones in San Martín Peras Tu’un Savi which are high (H), mid (M), and low (L). Plus, in the language are two contour tones, which are rising (R) and falling (F). Table 7 shows how the tones are presented in the language and in this paper, and Table 8 shows some words that illustrate the tones.

Table 7. Tone Inventory

	Level		Contour	
High	á	Rising	ǎ	
Mid	a	Falling	â	
Low	à			

Table 8. Lexical Tones of San Martín Peras Tu’un Savi

HH	chútú	‘short’		lá’vá	‘toothless’
MM	leke	‘thin’		ve’e	‘house’
LL	sànà	‘property (animal)’		kuè’è	‘illness’
RR	tsiötö	‘rat’		tütü	‘paper’

RF	síkî	‘joke’		xă’ân	‘lard, fat’
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The phonological constituent that the tone associates to is known as the tone bearing unit, or TBU. The TBU in San Martín Peras Tu’un Savi is the mora, and there is no evidence yet found for underspecified TBUs (Peters, 2018). Additionally, San Martín Peras Tu’un Savi expresses an extensive use of grammatical tone. Regarding tone melodies on the bimoraic couplet, Table 9 shows how tones are distributed in disyllabic couplets and Table 10 displays tone distribution in monosyllabic couplets. San Martín Peras Tu’un Savi shows very little phonological tonal processes like what is reported for some other Tu’un Savi languages. The language does, however, show complex tonal processes and alternations in grammatical tone (person marking and aspect-mood marking).

Table 9. Tone Distribution on Bisyllabic Couplets (C)V(?)CVCV (Peters & Mendoza 2018)

	<u>H</u>	<u>M</u>	<u>L</u>	<u>R</u>	<u>F</u>
<u>H</u>	H-H	H-M	H-L	H-R	--
<u>M</u>	M-H	M-M	M-L	M-R	M-F
<u>L</u>	L-H	L-M	L-L	L-R	--
<u>R</u>	--	R-M	--	R-R	R-F
<u>F</u>	--	--	--	--	--

Table 10. Tone Distribution on Monosyllabic Couplets (C)VV (Peters & Mendoza 2018)

	<u>H</u>	<u>M</u>	<u>L</u>	<u>R</u>	<u>F</u>
<u>H</u>	H-H	H-M	(H-L)	--	--
<u>M</u>	M-H	M-M	M-L	--	--
<u>L</u>	L-H	(L-M)	L-L	--	--
<u>R</u>	--	R-M	R-L	--	--
<u>F</u>	F-H	--	--	--	--

3.4. The syllable and the word

The word structure in San Martín Peras Tu’un Savi is (C)VV for monosyllables and (C)V(?)C)V(V) for disyllables (Peters, 2018). Trisyllabic words are mostly polymorphemic, often with inflectional or derivational prefixes.

1. Monosyllable

yaa ‘white’

2. Bimoraic disyllable

ìvì ‘two’

3. Trimoraic disyllable

tsìkuĩ ‘water’

4. Trisyllable

tsìsì'vì ‘saliva’

4. Word Classes

This section defines and demonstrates the primary lexical word classes in San Martín Peras Tu'un Savi: specifically, verbs, nouns, adjectives and adverbs.

4.1.1. Verbs

Verbs in San Martín Peras Tu'un Savi inflect for aspect-mood, which makes them different from other word classes. Verbs can inflect for various aspect-mood categories, the primary ones being imperfective aspect, perfective aspect, and potential mood, as shown in example (3).

(3) **kòtòò=rà** **kísa'a=rà** iin ñuù ká'nu **káchi=nà**
 PFV.want=3M.SG POT.build=3M.SG one town big IPFV=3PL

‘He wanted to build a big town, people say’ (Giant Story 01:05)

4.1.2. Nouns

In San Martín Peras Tu'un Savi, nouns, or noun phrases, function to express the participants involved in the state, event, or process expressed in a clause. In the example in (4), *tù'un rà leso* is a noun phrase in the clause. The head of the noun phrase is *tù'un* ‘word, story’ and it is followed by *rà leso* ‘the rabbit’.

(4) ñà ná ntàtatú'=ìn **tù'un rà leso** nùjün=ntó
 DM MOD POT.tell=1SG story 3M.SG rabbit for=2IFRM.PL

‘I am going to tell a story of rabbit for you all’ (Conejo 0:27)

4.1.3. Adjectives

Adjectives are a word class whose primary function is to modify nouns, and they occur within a noun phrase and modify the head noun. In example, (5) *ká'nu* ‘big’ is the adjective and it modifies *chèje* ‘ox’ in the clause.

(5) ntsì'i ntàà chèje ká'nu sàná táťě ká
 healthy INTS ox big owner sir DEM

‘That gentleman's big ox is very healthy.’

Also, adjectives may function as predicates to express the notion or state that is the core of the clause and which involves some nominal participant (see §6.2.8).

4.1.4. Adverbs

Adverbs are lexical words that modify words in a clause that are not nouns, that is, verbs, adjectives, or other adverbs. In example (6) *tolo'o* ‘later’ is modifying the verb *kuxi* ‘eat’ in the clause.

(6) tolo'o kuxi rà
 later POT.eat 3SG

‘He will eat later’

4.1.5. Person marking

Person marking in San Martín Peras Tu'un Savi is typically expressed by dependent (enclitic) pronouns. There is only one set of dependent pronouns in the language, that is, there are not separate pronouns for subject vs. object vs. possessor, etc. Dependent pronoun enclitics attach to verbs, nouns, adjectives, and relational nouns (like adpositions). The vowel-initial dependent pronouns =ì (1SG), =ún (2 SG.IFRM), =á 2 SG.IFRM), =àn (3.INAN), and =é (1PL.INCL) interact with or fuse with the host, while the consonant-initial pronouns form their own syllables. The dependent pronouns are presented in Table 10.

Table 10. Dependent Pronouns

	SG	PL	
		INCL	EXCL
1	=ì	=é	=ntù
2 IFRM	=ún		=ntó

FRM	=a		
3 INAN	=àn		=nà
M	=rà		
F	=ñá		=ná
ANIM	=rí		
LIQ	=rá		
TREE	=tún		

The examples (7) through (9) show some of the dependent pronouns in use. Example (7) shows the dependent pronoun *=ntù*, which is the 1st plural exclusive, and it is enclitic to the verb. It is the subject in the transitive clause.

- (7) *xíin=ntù* *itsí=va*
 IPFV.buy=1PL.EXCL candles=SEQ
 ‘We buy candles’ (1:56 CLVM migration narratives)

In example (8) the subject is expressed by the 3rd person masculine enclitic *=rà*. The 1^{sg} enclitic *=ì* expresses an oblique addressee in the clause.

- (8) *xí’=in* *ká’an=rà*
 with=1SG IPFV.talk=3SG
 ‘He’s talking to me’

The example in (9) shows the same 1^{sg} enclitic *=ì* attached to a noun, expressing the grammatical possessor of the noun, and attached to a verb, for which it is the subject.

- (9) *xìká+chíñ=ì* *xí’in* *tát=ì=va*
 HAB.PFV.do+work=1SG with father=1SG=SEQ
 ‘I used to work with my dad’ (CL migration narratives 01:11)

The dependent pronouns are the default referent-tracking devices in the language, but the language has two sets of independent pronouns as well (independent phonological words): (i) emphatic pronouns and (ii) pronouns that express contrastive emphasis and topic. For the emphatic pronouns (Table 11) the first and second person forms are unique roots, while the third person forms are constructed by combining the dependent pronouns with demonstratives, forming demonstrative pronouns.

Table 11. Independent emphatic and demonstrative pronouns

	SG	PL	
		INCL	EXCL
1	yù'ù ~ yùù	yéé (yó'o)	ntù'ù
2	yó'ò		ntó'o
3 INAN	ñà-DEM		nà-DEM
M	rà-DEM		
F	ñá-DEM		ná-DEM
ANIM	rí-DEM		
LIQ	rá-DEM		
TREE	tún-DEM		

Examples (9) and (10) show independent emphatic and demonstrative pronouns. In (9), *yù'ù* is the 1st person singular independent pronoun, and it is expressing the subject in the clause.

- (10) yù'ù k=î kama kixa nùjün=ntó
 1SG COP=1SG quick PFV.arrive for=2PL
 'I got here faster than you guys'

In (10) the pronoun =*rí* with the demonstrative =*ká* forms a demonstrative pronoun that functions as an oblique in the clause.

- (11) xà'ă rí=ká kuà'à=rà
 for 3ANIM=DEM PFV. go=3M.SG
 'He went after that animal'

The independent contrastive emphasis and topic pronouns are formed by the topic shifter *mii* with the dependent pronouns attached to it.

Table 12: Independent contrastive emphasis and topic pronouns Dependent Pronouns

	SG	PL	
		INCL	EXCL
1	mi=ìn	mi=é	mii=ntù
2 IFRM	mii=ún		mii=ntó
FRM	mii=á		
3 INAN	mii=àn		mii=nà
M	mii=rà		
F	mii=ñá		mii=ñá
ANIM	mii=rí		
LIQ	mii=rá		

TREE	mii=tún		
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Examples (12) and (13) show some emphatic topic-shifting pronouns.

- (12) á xìxi **mii=á**
 Q PFV.EAT EMP=2FRM.SG
 ‘Did you eat?’ [Conversations with families]

- (13) **mii=rà** ntǒ’va=va
 EMP=3M.SG POT.NEG.know=SEQ
 ‘*He* does not know.’

5. Morphology

This section discusses the structure of the verb of San Martín Peras Tu’un Savi, and then presents the nominal morphology.

5.1. The structure of the verb

The structure of the verb in Tu’un Savi of San Martín Peras is shown in Figure 3. Morphological slots preceding the verb root are numbered 1 (closest) through 3 (furthest), and positions following the root are numbered using negative numerals.

3	2	1	0	-1	-2	-3	-4	-5	-6
MOD	ASP<NEG>	(DRV)	root	(+stem)	(=adv)*	=ini	=SUBJ	=OBJ	=DSC

Figure 3. San Martín Peras Tu’un Savi Verbal Template

The following examples show forms in the various positions of the verbal template. Example (14) shows a compound verb *xiká+chíñu* (positions 0 and -1) inflected for aspect (position 2) and with the subject enclitic =ì (position -4).

- 2.0 -1 -4
- (14) xiká+chíñ=ì xí’in tát=ì=va (compound verb)
 PFV.do+work=1SG with father=1SG=SEQ
 ‘I worked with my father’ (CL migration narratives 01:11)

Example (15) shows the adverbial enclitic =**tì** ‘only’ (position -2), which is attached to the predicate *kuà’àn*.

- (15) inká tu tsiáñu kuà’àn=t=ì xí’in kitsĩ=va
 other CLA sometimes IPFV.go=only=1SG with animal=SEQ
 ‘Other times, I would go with animals’ (CL narrative migration 01:47)

The example in (16) shows another adverbial enclitic *ntuxǎ* ‘forcefully’ (position -2) and a causative prefix *chi-* (position 1).

- (16) ntsiàa iin chí-káa=ntuxǎ=rà yùù
 then one IPFV.CAUS.be.inside=force=3M.SG 1SG
 ‘He put me inside with force’ (MC migration narratives 10:00)

The example in (17) shows a verb with a subject enclitic and an object enclitic (position -5) following it.

- (17) ʒkaa yoo xà’ǎ kíxa=nà=ñà ra?
 Q who for IPFV.do=3PL=3INAN DM
 ‘Who are they doing it for? CLVM migration narratives 00:44.)

Example (18) shows the element *ini* ‘living core (emotional center, essence, being....)’ in position -3, which combines with basic verbs to form verbs of emotion and cognition (Macaulay, 1996).

- (18) Kuká’un=ini=ntó xà’ǎ ññ=ì
 POT.forgive=ini=2.IFRM about brother=1SG
 ‘Forgive my brother’

5.1.1. Aspect and Mood

Tu’un Savi languages are described as having morphological aspect and mood, but not tense (Bickmore & Marlett 1988). The three primary aspect categories in San Martín Peras Tu’un Savi are imperfective, perfective and potential (Simon Peters 2020). In example (19), the whole sequence and the

conversation take place in the past. The first clause expresses a state, and then the following clauses all express repeated or ongoing actions and are inflected for imperfective aspect.

(19)

yù'ù k=î xìká'nu nùjün nà ra tsiaa ñà
1SG COP=1SG older COMP 3PL DM then DEM

‘I was the oldest (child) of my parents then.’ (CL migration narratives 01:20)

savatí ntsíko=v=ì
sometimes IPFV.grind=1SG

‘Sometimes I would grind.’ (CL migration narratives 01:20)

ntsíku=ì xìta=va
IPFV.grind=1SG tortilla=SEQ

‘I would grind tortillas’ (CL migration narratives 01:20)

xíxi=va nà savatí
IPFV=SEQ 3PL sometimes

‘so, they (parents) would eat sometimes.’ (CL migration narratives 01:20)

5.1.2. Morphological complexity of aspect-mood inflection

In San Martín Peras Tu'un Savi, the aspect-mood inflection is expressed by three types of inflectional morphology: tone Table 13, prefixation Table 14, and stem alternation/suppletion Table 15. (Palancar et al., 2016; Peters, 2020).

Table 13. Tone

‘plant’	
chi'i	POT
chì'i	PFV
chí'i	IPFV

Table 14. Prefixation

‘be afraid’	
yí'vi	POT
nì-yí'vi	PFV
íyí'vi	IPFV

Table 15. Stem Alternation/suppletion

‘boil’ (Intransitive)	
kùisò	POT
nì-sisò	PFV
sísò	IPFV

As shown in the example in Table 15 ‘boil’, in which tone, prefixation, and stem change all play a role, these types of morphology often co-occur in the expression of aspect-mood.

5.2. Nominal morphology

Nouns in San Martín Peras Tu’un Savi display little morphology. The expression of possession with enclitic pronouns as possessors was illustrated above in examples (14) and (18). Another type of nominal morphology is what Hinton et al. (1991) refer to as “adjectival high”, a H tone added to a noun derives an adjective with related meaning. However, this process is not productive and is not common in San Martín Peras Tu’un Savi. Table 16 shows some examples of the adjectival high.

Table 16. Adjectival High

tǒsò	‘arc’	tóso	‘crooked’
sàví	‘rain’	sáví	‘spring’
sò’o	‘ear’	só’o	‘deaf’
sokǔn	‘neck’	sókun	‘tall’

6. Basic syntax

6.1. Noun phrase syntax

The noun phrase has a noun as its head and can or express the same grammatical functions as a bare noun. In addition to a head noun, the noun phrase can include a numeral or quantifier, article, classifier, noun, adjective, demonstrative, and/or possessor. For example, the noun phrase in (20) *iin ñà'an kanĩ* ‘one thing slippery’ includes the head noun, a numeral *iin* ‘one’ and an adjective.

(20)	tá	kíxaà	iin-nùú	chìka=é	iin	ñà'an	kanĩ
	when	PFV.do	situation	PFV.put=INCL	one	thing	slippery

‘it was like when we put something slippery’ (MC migration narratives 11:03)

6.2. Basic clauses

In this section, basic clause types in San Martín Peras Tu’un Savi are discussed. As mentioned in the introduction, all the examples are from recordings.

6.2.1. Intransitive verbal predicates

In San Martín Peras Tu’un Savi intransitive verbal predicates take one argument in the clause. The common constituent order of San Martín Peras Tu’un Savi is VS, as shown in examples (21, 22, and 23).

- (21) kàyà itâ=va kàyà
 POT.collect flower=SEQ POT.collect

‘The flowers are collected, collected, and’ (CLVM migration narratives 01:47)

- (22) kua'a tǒsò=va
 POT.build arch=SEQ

‘the arch is built, and’ (CLVM migration narratives 01:49)

- (23) kua'a xìto=va
 POT.build bed=SEQ

‘the bed is built, and’ (CLVM migration narratives 01:49)

6.2.2. Transitive verbs

Transitive verbs in San Martín Peras Tu’un Savi have two arguments. The two arguments are subject and object. In (24), the =ntù 1st person plural exclusive pronoun is the subject (agent) and the object (patient) is *itsĩ* ‘candles. The common order is VAP in San Martín Peras Tu’un Savi. A similar example is shown in (25), where the subject (agent) is expressed by the 1st person plural inclusive =é and the object (patient) is =iin ñà'an kanĩ ‘one slippery thing’. In (26), =ntù is again the subject and *xuxâ* ‘copal’ is the object.

- (24) xíin=ntù itsĩ=va
 IPFV.buy=1PL candles=SEQ

‘We buy candles’ (CLVM migration narratives 01:56)

- (25) chika=é iin ñà'an kanĩ
 PFV.put=INCL one thing slippery
 ‘(like) we put something slippery’ (MC migration narratives 11:01)

- (26) xíin=ntù xuxâ=va tuku rá ijĩ=va
 IPFV.buy=1PL copal=SEQ like 3LIQ Holy-Water=SEQ
 ‘We buy copal, (and) like holy water’ (CLVM migration narratives 01:59)

6.2.3. Oblique

Obliques are noun phrase that are not core arguments of a clause. They tend to occur with relational nouns or prepositions in San Martín Peras Tu'un Savi. In example (27), the noun phrase ‘Day of the Dead’ is marked with *xà'ă*, and it is not a core argument in the clause.

- (27) kà'àn=nà **xà'ă** ñà kijĩ ntsĩ
 POT.talk=3PL about DEM day dead

‘They are going to talk about the Day of the Dead.’ (CLVM migration narratives 00:39)

6.2.4. Benefactive Oblique

The benefactive oblique expresses that the referent of the noun receives some benefit of the situation expressed by the clause. In (28), *nujũ=ntó* ‘for=2PL’ it is marked as a benefactive oblique because it is receiving the benefit of the *válí* ‘children’.

- (28) sinú=ntó=yù nátaxá'=ì **nujũ=ntó** válí
 POT.down=EXCL=1SG POT.dance=1SG for=2PL children

‘Let me know so I can dance for you all, children.’ (Rabbit Story 01:10)

6.2.5. Comitative

A comitative NP makes the expression of accompaniment in the clause. In (29), *xí'in* ‘with’ marks the comitative noun phrase ‘my father’ in the clause.

- (29) Xiká+chíñ=ì xí'in tát=ì=va
 PFV.do+work=1SG with father=1SG=SEQ

‘I used to work with my dad.’ (CL migration narratives 01:11)

6.2.6. Locative NP

Locative NPs in San Martín Peras Tu'un Savi are expressed in a number of ways. In (30) *iin ñuù* ‘a village’ is a goal of the motion. This, like most locative NPs in the language, is bare, without any relational noun or locative preposition in the clause.

- (30) nìxá'=ún iin ñuù **iin** **ñuù** sa'
 PFV.go=2IFRM.SG one town one town right

‘You went to a town, right?’ (MC migration narratives 06:56)

In (31), ‘in the cornfield’ is expressed with the relational noun *xà'ă* (from ‘foot’) preceding the noun *utû* ‘corn plant’.

- (31) tû'un=ntù xà'ă utû=va
 IPFV.weed=1PL.EXCL in corn=SEQ

‘We yank out (grasses) in the corn field.’ (CL migration narratives 02:53)

6.2.7. Existential predicates

Existential predicates express the real or imagined existence of an object. In (32 and 33) *íyo* is a predicate that is used to express the existence of something, either real or hypothetical.

- (32) tsiaa íyo nàyiǎ nà anima ntá'vi míí
 then IPFV. Exist people REL.3PL spirit/soul poor/alone EMP

‘There are people whose spirits are alone/poor.’ (CLVM migration narrative 03:07).

- (33) íyo taa ñà'=ěn xí'in familia ñà'=ěn sa'
 IPFV.exist HYP things=1PL with family things=1PL right?

‘We have things in our family’ (MC migration narratives 01:30)

6.2.8. Adjectival predicates

The primary function of an adjective is to modify nouns (§4.1.2), but in the following examples, adjectives function as predicates.

- (34) ñà tá xìxìk=ún tá lo'=ún?

DEM when HAB.PFV.walk=2SG when little=2SG

‘when you were little?’ (CL narrative migration 00:53)

- (35) kuá’a kue’i
red very=1SG

‘I am very red’ (wearing a lot of red; elicited)

6.2.9. Nominal predicate

Nominal predicates are nouns that function as the predicate of a clause. In (36) *ntsìvá’yi* ‘coyote’ is the predicate and *tátă=vun* ‘your father’ is the subject. In (37) it is similar to the example before, *maestro* ‘teacher’ is the predicate, which occurs with the copula and 1st person singular enclitic subject *k=î*.

- (36) ntsìvá’yi tátă=vún sa’
coyote father=2SG right

‘your father is a coyote, right?’ (MC migration narratives 04:43)

- (37) maestro k=î vitsin
teacher COP=1SG now

‘I am a teacher now.’

6.3. Questions

Content questions in San Martín Peras Tu’un Savi are used to obtain information from an addressee. The questions (38) and (39) begin with interrogative pro-forms, which are *ntsiachi* ‘where’ and *yoo* ‘who’.

- (38) ǀntsiáa chíí kíxa=nà ñà nì?
Where ? IPFV.do=3PL DEM ?

‘Where do you all do it then?’ (CLVM migration narratives 00:47)

- (39) ǀyoo kíxáá?
who IPFV.begin

‘Who is going to begin?’ (CLVM migration narratives 00:44)

IPFV.begin IPFV.grind totopo

‘The *totopos* start being ground.’ (CLVM migration narratives 04:05)

- (45) kuà'àn kosó tsìkasùn
 POT.go POT.place totopo

‘the totopo is going to be placed.’ (CLVM migration narrative 09:14)

7.2. Relative clauses

A relative clause is a clause that modifies a noun and describes its referent. It often restricts the reference of the head noun or pronoun. San Martín Peras Tu'un Savi has both headed and headless relative clauses. In (46), *ntúu* ‘black insect’ shows that the *ntúu* is the referent of the head of the relative clause. In (47) the noun *anima* is modified by the relative clause that follows it.

- (46) ntúu rí=kán [rí kíxaà ____] ta
 black insect ANIM=DEM ANIM IPFV.come when

‘It is that black insect that comes when’ (CLVM migration narratives 10:32)

- (47) naki'=é ná (ná) anima [vàxi ____] nakách=é so'o=va nì
 IPFV.pick=INCL 3PL. spirit IPFV.come POT.say=INCL like=SEQ ?

‘We collect the spirits that come, shall we say.’ (CLVM migration narratives 03:04)

7.3. Complement clause

A complement clause is a clause that functions as an argument of another clause. In (48) the verb phrase headed by *ntsíko* ‘IPFV.grind’ is complement of the matrix clause as another clause.

- (48) kixaà=ntó **ntsíko**=ntó míí=ñà míí tsìkasùn
 POT.begin=2IFRM IPFV.grind=2IFRM EMP=DEM EMP totopo

‘when they start grinding the totopo’ (CLVM migration narratives 03:52)

7.4. Adverbial clauses

An adverbial clause is a clause that functions to modify another clause.

7.4.1. Purpose Clauses

A purpose clause expresses the purpose for which the event in a main clause is carried out. For example, in (49) *saá yaa* ‘so that’ is the conjunction which marks the beginning of the purpose clause.

- (49) ntsikùù=va kaa xiñù='àn saá yaa ñà
 everything=SEQ DM IPFV.need=3INAN so that DM
 ntúk=ie iin chuun
 POT=INCL one work
 ‘all of that is needed so that you can look for a job’ (VM migration narratives 09:17)

7.4.2. Reason Clauses

The reason clause expresses a clause which functions as result or reason of an action. In the example (50), it is extracted from a story which describes why the Giant person is leaving the village.

- (50) kùxíñú'u kaa míí nó'o yu'ù **chi** nína
 PFV.NEG.need DEM TOP ? 1SG because most

 ñà'a và'a táxì=nà ntà'=í nì
 thing good IPFV.give=3PL hand=1SG ?
 ‘These people no longer need me because they give me mostly good things.’ (Giant Story 01:41)

7.4.3. Temporal clauses

Temporal clauses are subordinate clauses that express the reference time with respect to which the main clause is interpreted. In the example (51) *tá lo'=ì* ‘when I was little’ expresses the reference time in which the event in the following clause takes place. In (52) the temporal adverbial clause is *kuá'=é ra*.

- (51) tá lo'=ì nìxìk=ì ñuù ñuù Nàmà
 when little=1SG PFV.walk=1SG town town Paredón
 ‘When I was little, I was in the town of Paredón (CL migration narratives 02:40)
- (52) íta'nù=rí tukúu ichĩ káa nákanat=é kuá'=é ra
 IPFV.fly=3PL like road DEM IPFV.leave=INCL IPFV.go=INCL DEM
 ‘it was flying in that road, while we were walking’ (CLVM migration narratives 10:19)

Temporal subsequence is an adverbial clause construction in which the main clause event is understood to occur after the event expressed in the adverbial clause as shown in examples (53) and (54).

- (53) taxa kixaà vaxi míí ntsĩ sá'
 when POT.begin IPFV.come EMP death right
 ‘When it begins, the death is coming’ (CLVM migration narratives 09:57)

- (54) ntsí'i chiñu ra ntsìkûn ikán tuku chiñu
 IPFV.finish work DM then there again work
 vaxi=va
 IPFV.come=SEQ
 ‘the job is done then another job comes’ (CL migration narratives 03:12)

7.4.4. Manner Clause

A manner clause expresses the way in which an event in the main clause happens. For example, (55) *ntùù ntáni'in vĩ* ‘picking the new-corn’ is an example of a manner clause.

- (55) **ntùù ntáni'in vĩ kuà'àn=va=ntù**
 2PL IPFV.pick new-corn POT.go=SEQ=2PL
 Picking the new-corn, we go. (CL migration narratives 02:57)

The example in (57) shows a manner adverbial clause ‘crying’ modifying the main clause.

- (56) xìna ntúu kixaà ntá'yì=rí
 first black insect IPFV.come IPFV.cry==3ANIM
 ‘first the black insect comes crying’ (CLVM migration narratives 10:17)

7.5. Coordination

7.5.1. Coordination of Noun Phrases

The example in (57) display a coordination of noun phrases.

- (57) kosõ nchixî kosõ ikĩn tsintuyũ nañã
 IPFV.place corn IPFV.place pumpkin figleaf.gourd chayote

‘the corn is put the pumpkin is put the pumpkin chilacayote the chayote’ (CLVM migration narratives 09:15)

8. Pragmatics

The example in (58) shows a statement that functions as a command. This is a polite way to make a directive.

- (58) kuu ká'=ún xà'ă míí=ñà? ñà
 COP IPFV.talk=2SG for EMP=DEM DEM
 tá xìxìk=ún tá lo'=ún?
 when HAB.PEFV.walk=2SG when little=2SG

‘Can you talk about when you were a little? (CL migration narratives 00:50)

9. Discourse

The examples from (59) to (64) display =va as an enclitic in the clause. This enclitic links clauses as connected and related events in the discourse.

- (59) kàyà itâ=va kàyà
 POT.collect flower=SEQ POT.collect
 ‘flowers are picked, picked, and’ (CLVM migration narratives 01:47)
- (60) kua'a tǒsò=va
 POT.build arc=SEQ
 ‘the arc is built, and’ (CLVM migration narratives 01:49)
- (61) kua'a xìto=va
 IPFV.build bed=SEQ
 ‘the bed is built, and’ (CLVM migration narratives 01:49)
- (62) tsia kosǒ tsikúu=va ikǐn=va
 then IPFV.place all=SEQ squash=SEQ
 ‘then everything is placed, squash, and’ (CLVM migration narratives 08:34)
- (63) kuá'a tsìkasùn vǎlí míí ñà'an míí=v=an sǎ'
 IPFV.make totopo little TOP own mii=SEQ=INAN right
 ‘the little *totopos* are made just for them, and’ (CLVM migration narratives 08:37)
- (64) ichíyo ikǐn=va ikǐn nchìchî nchixǐ=va
 IPFV=boil squash=SEQ squash green beans corn=SEQ

‘the squash is started to boil, squash, green beans, and corn’ (CLVM migration narratives 08:40)

10. In conclusion

The Syntactic Sketch provides the basic syntax of San Martín Peras Tu’un Savi. Plus, this study incorporates the basics of the phonology, morphology, and provides examples of pragmatics and discourse. All examples from the syntax, pragmatics, and discourse sections are from recordings that were transcribed in ELAN. The phonology data are elicited. Also, this paper includes the description of the language and methodologies used in the study, which shows how the language was analyzed and described in this paper.

The purpose of this paper is to display the examples of basic syntactic of San Martín Peras Tu’un Savi from the texts; migration narratives, rabbit stories, giant story, and other cultural events stories. With all of this content, I described the basics of syntax in Tu’un Savi. For future works, I might record and transcribe more data to understand advanced syntax on San Martín Peras Tu’un Savi. Also, I am interested in working more on the pragmatics and discourse sections for a future project.

References

- Bax, Anna. 2020. Language ideology, linguistic differentiation, and language maintenance in the California Mixtec diaspora. PhD dissertation, University of California, Santa Barbara
- Bickford, J. Albert and Stephen A. Marlett. 1988. The semantics and morphology of Mixtec mood and aspect. *Work Papers of the Summer Institute of Linguistics*, University of North Dakota 32, 1–39.
- Campbell, Eric W. & Griselda Reyes Basurto. In press. El Tu’un Savi (mixteco) en California: documentación y activismo lingüístico. In Marcela San Giacomo, Fidel Hernández & Michael Swanton (eds.), *Estudios sobre lenguas mixtecas*. Mexico City: Seminario Permanente de Lenguas Mixtecas, Instituto de Investigaciones Antropológicas, Universidad Nacional Autónoma de México.
- Caponigro, Ivano; Harold Torrence & Carlos Cisneros. 2013. Free relative clauses in two Mixtec languages. *International Journal of American Linguistics* 79(1): 61–96.
- Carroll, Lucien. 2015. Ixpantepec Nieves Mixtec word prosody. Ph.D. dissertation, University of California, San Diego.
- Fox, Jonathan & Gaspar Rivera-Salgado. 2004. Building civil society among Indigenous migrants. In Jonathan Fox & Gaspar Rivera-Salgado (eds.), *Indigenous Mexican Migrants in the United*

- States*, 1–65. La Jolla: UC San Diego, Center for Comparative Immigration Studies/Center for US-Mexican Studies.
- Gitlin, Andrew; Buendía, Edward; Crosland, Kristin & Doumbia, Fode. 2003. The production of margin and center: welcoming–unwelcoming of immigrant students. *American Educational Research Journal* 40(1): 91–122.
- Hills, Robert A. 1990. A syntactic sketch of Ayutla Mixtec. In C. Henry Bradley & Barbara E. Hollenbach (eds.) *Studies in the Syntax of Mixtecan Languages 2*, 1–260. Dallas: Summer Institute of Linguistics.
- Hinton, Leanne, Gene Buckley, Marv Kramer, and Michael Meacham. 1991. Preliminary Analysis of Chalcatongo Mixtec Tone. In James E. Redden (ed.), *Papers from the American Indian Languages Conferences Held at the University of California, Santa Cruz, July and August 1991*, pp. 147–155. Occasional Papers on Linguistics No. 16. Carbondale: Southern Illinois University.
- INEGI.2010. Censo de Población y Vivienda 2010. <https://www.inegi.org.mx/default.html>.
- Josserand, Judy Kathryn. 1983. Mixtec dialect history. PhD dissertation, Tulane University.
- Kaufman, Terrence. 1988. Otomanguean tense/aspect/mood, voice, and nominalization markers. Unpublished monograph.
- Macaulay, Monica. 1996. *A Grammar of Chalcatongo Mixtec*. Berkeley and Los Angeles: University of California Press.
- Nagengast, Carole y Michael Kearney. 1990. Mixtec ethnicity: social identity, political consciousness, and political activism. *Latin American Research Review* 25(2): 61–91.
- North, Joanne & Jäna Shields. 1977. Silacayoapan Mixtec phonology. In William R. Merrifield (ed.), *Studies in Otomanguean phonology*. Dallas: Summer Institute of Linguistics and University of Texas at Arlington.
- Ostrove, Jason. 2018. When phi-agreement targets topics: the view from San Martín Peras Mixtec. PhD thesis, 2018.
- Overholt, Edward. 1961. The tonemic system of Guerrero Mixtec. In Manuel Gamio and Raúl Noriega (eds.), *A William Cameron Townsend en el vigésimoquinto aniversario del Instituto Lingüístico de Verano*, 597–626. Mexico City: Instituto Lingüístico de Verano.
- Pankratz, Leo y Eunice V. Pike. 1967. Phonology and morphophonemics of Ayutla Mixtec. *International Journal of American Linguistics* 33(4): 287–299.
- Perez, William; Vasquez, Rafael & Buriel, Raymond. 2016. Zapotec, Mixtec, and Purepecha youth: Multilingualism and the marginalization of indigenous immigrants in the United States. In Alim, H. Samy, Rickford, John R., & Ball, Arnetta F. (eds.), *Raciolinguistics: How language shapes our ideas about race*, 255–271. New York: Oxford University Press.
- Peters, Simon L. 2018. *The inventory and distribution of tone in Tù'un Ndá'vi, the Mixtec of Piedra Azul (San Martín Peras), Oaxaca*. University of California, Santa Barbara, 2018.
- Pike, Kenneth L. 1948. *Tone languages: A technique for determining the number and type of pitchcontrasts in a language, with studies in tonemic substitution and fusion*. Ann Arbor: University of Michigan Press.
- Simons, Gary F. & Charles D. Fennig (eds.). 2017. *Ethnologue: Languages of the world*, twentieth edition. Dallas: SIL International.
- Simons, Gary F. and Charles D. Fennig (eds.). 2017. *Ethnologue: Languages of the World*, Twentieth edition. Dallas, Texas: SIL International. Online: <http://www.ethnologue.com>.

Zabin, Carol; California Institute for Rural Studies; Aspen Institute; Rural Economic Policy Program; Ford Foundation. 1993. *Mixtec migrants in California agriculture: a new cycle of poverty*. Davis, California: California Institute for Rural Studies.