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Syntax and morphology of San Sebastián Coatán Chuj, a Mayan language of Guatemala

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Abstract

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This thesis provides a description of the grammar of the San Sebastián Coatán (SSC) variety of Chuj. Chuj is a Mayan language spoken in Huehuetenango, Guatemala and Chiapas, Mexico. The Mayan language family has shown extensive microvariation and a number of notable characteristics, urging study of its languages. Though there are numerous papers on Mayan languages, many are outdated or limited, and therefore there is a need for further investigation.

Furthermore, there are no in-depth studies of SSC Chuj; previous studies on Chuj focus on the San Mateo Ixtatán (SMI) dialect. I compare my findings to papers on SMI Chuj and other Mayan languages. Several differences can be observed between the two dialects, suggesting that study of SSC Chuj is lacking in order to obtain a complete account of the language.

The participants in my research are four bilingual speakers of Spanish and SSC Chuj. They grew up in San Sebastián Coatán, Huehuetenango, Guatemala and currently reside in Seymour, Indiana. I have collected my data in elicitation sessions, in which I ask participants to translate utterances from Spanish to Chuj. I have also recorded three spontaneous speech samples. In these, I prompt a partipicant to talk about a specific topic, then transcribe it and work with the participant to translate it.

In this thesis, I discuss the main characteristics of Mayan languages and their presence in Chuj. Next, I describe basic sentence structure in both dialects of Chuj. Then, I examine two topics especially worthy of further study: negation and imperatives. I find a notable difference in negation in SSC and SMI Chuj. Imperatives introduce an issue with absolutive markers requiring additional investigation.

This thesis is divided into the following sections: I. Introduction, II. Language background, III. Methods, IV. Grammar overview, V. Negation, VI. Imperatives, and VII. Conclusions and directions for future research. I include the transcription of one spontaneous speech sample in the appendix.

I hope to bring awareness to SSC Chuj as more distant from SMI Chuj than previously assumed. Future research should focus on further investigation of grammar as well as comparing SSC to SMI Chuj demographically.

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Tables and Figures

I. Introduction

The goal of this paper is to provide a descriptive grammar of the morphology and syntax of the San Sebastián Coatán dialect of Chuj (Mayan). This dialect has not been recently studied in-depth to my knowledge. Since there is work on other Mayan languages, this is a largely comparative study, and I will be discussing how San Sebastián Coatán Chuj fits in with prior studies on Mayan linguistics.

The Mayan language family has shown extensive microvariation and a number of notable characteristics, urging study of its languages. Though there are numerous papers on Mayan languages, many are outdated or limited, and therefore there is still a need for further investigation. The following is a list of some recent descriptive grammars written on other Mayan languages: Toledo (2008) on Q'anjob'al, Bolles and Bolles (2014) on Yucatec, Vázquez Álvarez (2011) on Ch'ol, Weichel (2006) on Poqomchi', Barrett (1999) on Sipakapense, and Hofling (2000) on Itzaj.

Moreover, a descriptive grammar was written on the San Mateo Ixtatán dialect of Chuj (Hopkins, 1967), and shorter descriptions of this dialect can be found in assorted papers, such as *Agent Focus in Chuj Reflexive Constructions* (Hou, 2013). This provides evidence that work on the San Sebastián Coatán dialect is lacking, since several differences can be observed between the two dialects, using my data and the data presented in other papers on San Mateo Ixtatán Chuj. Also, speakers of the San Sebastián Coatán dialect report that they have difficulty understanding the San Mateo Ixtatán dialect, further suggesting that study on the relationship between the two dialects is necessary.

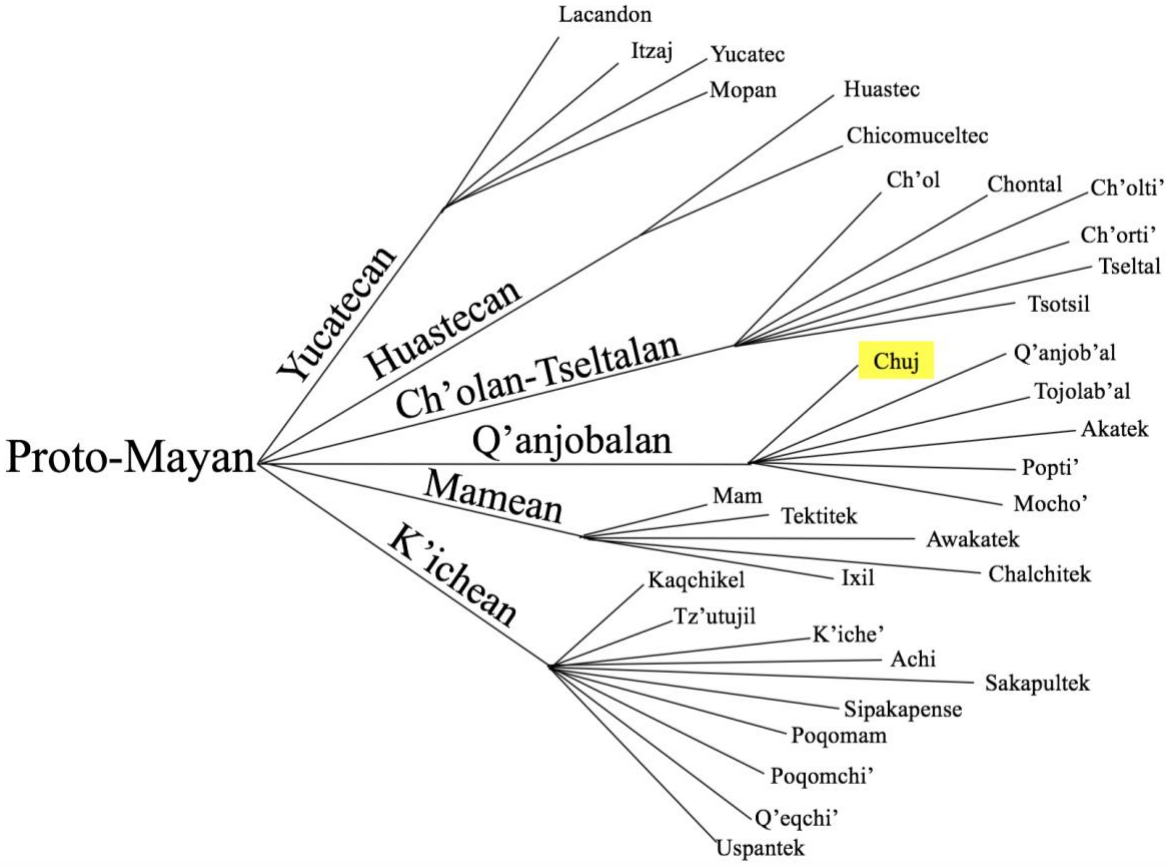
I will begin by giving background information about Chuj and Mayan languages in section II, then I will discuss my methods in section III. Next, in section IV I will provide some

general observations of what I learned about its syntax and morphology, then in sections V and VI, I will go more into detail about two topics particularly worthy of further study: negation and imperatives. Lastly, in section VII, I will discuss directions for further research.

II. Language background

There are about 30 Mayan languages and 6 million speakers of Mayan, concentrated in Guatemala and Southern Mexico. There are also smaller populations of speakers in Northern Mexico, Honduras, and Belize, and there are several communities of speakers in the US and Canada. Most speakers of Mayan languages are bilingual speakers of Spanish, but there are still some monolingual speakers. Figure 1 shows the Mayan language family tree, as well as its 6 major divisions (Bennet et al., 2015).

Figure 1. Mayan language family tree (Bennet et al., 2015)



Chuj has around 61,630 speakers in total, and it is spoken in the Chiapas state of Mexico and the towns Nentón, San Mateo Ixtatán, and San Sebastián Coatán of the Huehuetenango department of Guatemala. These are all rural areas. There are also some known Chuj communities in the US, located in Georgia, Tennessee, Indiana, and other states. Its language status is developing, which is defined as: "[a language] in vigorous use, with literature in a standardized form being used by some though this is not yet widespread or sustainable." (Eberhard et al, 2019, Chuj in the Language Cloud).

Figure 2. Map of Guatemala

There are two main dialects of Chuj: the San Mateo Ixtatán (SMI) dialect and the San Sebastián Coatán (SSC) dialect. The SMI dialect has more speakers; it is spoken in San Mateo Ixtatán, Chiapas, and Nentón, while the SSC dialect is only spoken in San Sebastián Coatán (Eberhard et al, 2019). As a result, the literature on Chuj focuses on the SMI dialect, and to my knowledge there are no in-depth studies focusing on SSC Chuj, which is the dialect I will be

looking at in this paper. The data reported in this thesis was collected from bilingual speakers of Chuj and Spanish currently residing in Seymour, Indiana.

III. Methods

The language consultants in this study consisted of four native speakers of Spanish and Chuj from San Sebastián Coatán, Guatemala that live in Seymour, Indiana. They all grew up in SSC and moved to the US as adults. Table 1 provides some information about each consultant, as well as how they will be referred to throughout this paper. All the consultants reported that they spoke and wrote in both Spanish and Chuj daily with their friends and family. They also received instruction in both languages in primary school.

Table 1. Consultant information

Consultant	A	B	C	D
Age	22	23	20	25
Gender	Male	Female	Male	Male
How long he/she has lived in the US	3 years	11 months	2 years	2 years
Utterances elicited	223	208	573	63

Data was collected in traditional elicitation sessions. This is the method that linguists standardly use to document understudied languages, in which language consultants, native speakers of the language being studied and speakers of a common language with the researcher, are prompted to translate words and sentences from the common language to the target language (Bowern, 2007). In this case, speakers translated from Spanish to Chuj. To give an idea of what an elicitation session is like, example (1) shows a line-by-line excerpt of an elicitation session. R indicates the researcher, and C indicates the consultant.

(1) R. Juan come (John eats) (12-16A)
C. to t͡s-Ø-ba bin ʃuban[1]
COMP IMPF-B3S-eat CLF.male John
R. Juan come fruta (John eats fruit)
C. to t͡s-Ø-(s)-k'uʃ[2] bin ʃuban lop'salte'
COMP IMPF-B3S-A3S-eat CLF.male John fruit
R. Juan no come (John doesn't eat)
C. bin ʃuban ma-t͡s-Ø-ba binak
CLF.male John NEG-IMPF-B3S-eat CLF.male
R. Juan no come fruta (John doesn't eat fruit)
C. bin ʃuban ma-t͡s-Ø-(s)-k'uʃ bin lop'salte'
CLF.male John NEG-IMPF-B3S-A3S-eat CLF.male fruit

I received IRB approval to conduct these interviews. Consultants signed informed consent forms and were compensated $13 per hour. Each elicitation session was recorded, then later listened to, transcribed, and entered into a database. I used the International Phonetic Alphabet (IPA) to transcribe data with one modification: /'/ has been used to transcribe glottal stops, due to their frequency in Chuj. Examples from other papers have been converted to this transcription system.

I conducted a total of 18 elicitation sessions and recorded about 2.5 hours of audio. I elicited 183 lexical items and 886 sentences, and I also recorded 3 sessions of spontaneous speech samples, in which consultants were prompted to respond to a video or talk about a certain topic such as their family. I spent an additional 2.5 hours working with consultant C to translate one of the spontaneous speech samples.

[1] The following is a list of abbreviations used to gloss examples:
A: Set A ACC: Accusative AUX: Auxiliary B: Set B CAUS: Causative COMP: Complementizer CP: Completive CLF: Classifier EXST: Existential FOC: Focus GER: Gerund IMP: Imperative IMPF: Imperfective aspect INTRNS: Intransitive NEG: Negation P: Plural PREP: Preposition PRES: Present tense PRF: Perfective aspect PROG: Progressive PRON: Pronoun PROS: Prospective aspect PRT: Particle S: Singular STAT: Status suffix SUBJ: Subjunctive TOP: Topic TRAN: Transitive
1: 1st person 2: 2nd person 3: 3rd person

[2] The set B 3SG marker *s* is put in parentheses because this is what is expected based on the pattern seen in the data, but due to the aspect marker *t͡s*, it cannot be distinguished.

The reason I collected the spontaneous speech samples is that the elicitation method has a disadvantage: consultants' translations are many times influenced by the source language. For example, Spanish generally follows SVO word order, and Mayan languages are verb initial. Possibly as a result of direct translation, many of the consultants' sentences were in SVO order. Additionally, Spanish's present tense is ambiguous; it can be interpreted as progressive or habitual. This makes it difficult to determine if SSC Chuj distinguishes between these two aspects.

I would like to note that I used many of the same sentences with multiple consultants, and I did not see any significant variation between the translations that each consultant provided. In fact, in the majority of cases both consultants provided identical translations.

IV. Grammar overview

In the previous section I discussed my methods in collecting and analyzing data, and in the remainder of the paper I will be providing information about the grammar of SSC Chuj with commentary on how it compares to the other variety and to other Mayan languages.

Mayan languages have many characteristics in common. Here is a list of the typical elements of Mayan languages:

- Ejective consonants
- Five vowel system
- Verb-initial word order
- Two predicate types: verbal and non-verbal
- Affixal aspect markers
- Ergative-absolutive person markers
- Noun classifiers

I will discuss all of these elements and their presence in Chuj below.

A. Sound inventory and orthography

Tables 2 and 3 show the most common phonemes in Mayan languages. The sounds not present in SSC Chuj are marked with an asterisk. There are two notable differences in the phonological systems of SSC and SMI Chuj. First, all instances of prevocalic /w/ in SMI Chuj are realized as /b/ in SSC Chuj. Second, all instances of the implosive consonant /ɓ/ in SMI Chuj are realized as the ejective consonant /p'/ in SMI Chuj (Hou, 2013).

Table 2. Common consonants in Mayan languages

	Bilabial	Alveolar	Post-alveolar	Retroflex	Palatal	Velar	Uvular	Glottal
Nasal	m	n				ŋ		
Lateral		l						
Glide	w				j			
Trill		r*						
Stop	p b	t				k	q*	ʔ
Fricative		s	ʃ	ʂ*		x		h*
Affricate		t͡s	t͡ʃ	t͡ʂ*				
Implosive	ɓ*							
Ejective	p'	t' t͡s'	t͡ʃ'	t͡ʂ'*		k'	q'*	

Table 3. Common vowels in Mayan languages

	Front	Central	Back
High	i		u
Mid	e		o
Low		a	

The standard orthography to be used by all Mayan languages was established in 1987 through workshops attended by Guatemalan and foreign linguists (Domingo Pascual, 2007, p. 41-42). Though other papers use this writing system to transcribe data, I have chosen to use IPA due to the differences in pronunciation between the SSC dialect and the SMI dialect. For example, the word *winak* (man) is written the same in both dialects, but in the SMI dialect it is pronounced /winak/ and in the SSC dialect it is pronounced /binak/. This is seen in most instances of the letter *w* in the prevocalic position. The differences between the Mayan writing system and IPA are shown in table 8. Only sounds present in SSC Chuj are included. Also,

examples (2) and (3) show the same sentence in Chuj written in IPA and in standard Mayan orthography.

Table 4. Differences in IPA and standard Mayan orthography seen in SSC Chuj

Standard Mayan Orthography	**IPA**
b’	pʼ
ch	t͡ʃ
j	x
nh	ŋ
tz	t͡s
w	b
x	ʃ
y	j
’	ʔ

(2) IPA (122A)
bin ku**ʔ**in t͡s-∅-(s)-pet͡ʃ bin no(k) mistun a CLF.male Pascual IMPF-B3S-A3S-chase CLF.male CLF.animal cat PREP sk’iŋp’i**ʔ**al
morning
‘Pascual was chasing the cat this morning’

(3) Standard Mayan orthography
Win Ku’in tz pech win nok’ mistun a sk’inhb’i’al

In sentence (2), I used IPA with no changes, but recall that in the rest of the paper, I am transcribing examples using IPA with the following modification: I am using /’/ for glottal stops.

B. Word order

Mayan languages are generally verb initial. As discussed in section III, many of the sentences from the elicitation sessions did not follow this order, most likely due to the SVO word order of the original Spanish sentences. However, in the spontaneous speech sample (see appendix), 24 out of 26 sentences are verb-initial. Since Mayan languages are pro-drop, meaning that pronouns are not required, only sentences containing subject and/or object constituents were included in the 26.

Also, verb-initial sentences that mention both the subject and the object follow VSO order across all of my data. In example (4), the word order is the only way to determine which constituent is the subject and which is the object. This suggests that VSO is the unmarked word order in SSC Chuj.

(4) to t͡s-Ø-(s)-pet͡ʃ no(k) mistun no(k) kaʃtilan (9A)
COMP IMPF-B3S-A3S-chase CLF.animal cat CLF hen
'The cat is chasing the hen'

C. Predicate types

There are two types of predicates in Mayan languages: verbal predicates and non-verbal predicates. In Chuj, verbal predicates consist in an aspect marker, object marker, subject marker, a verb root, and a status vowel suffix when the predicate is sentence final.

(5) Aspect + Object + Subject + Verb root + Status suffix

(6) t͡s-at͡ʃ-in-pet͡ʃ-a (29A)
IMPF-B2S-A1S-chase-STAT
'I chase you'

(7) t͡s-Ø-o bin ʃuban (65A)
IMPF-B3S-cry CLF.male John
'John cries'

These five elements are typically present in all Mayan languages, though the order may vary. In example (8) from Chontal, the aspect marker and the object marker are placed after the verb root and status affix.

(8) ki-t͡s'ib-i-n-Ø (Chontal; Knowles-Berry, 1987)
A1S-write-STAT-IMPF-B3S
'I write it'

Non-verbal predicates are usually nominal or adjectival and cannot take an object. They do not have an aspect marker, and in SSC Chuj, the subject marker typically goes after the root. I found a few instances in my data in which the subject marker was placed before the root (see

(11)), but I conducted grammaticality judgement tests with consultant A, and not every NVP was judged grammatical with this structure. I was not able to determine a pattern for this. Example (12) from Kaqchikel shows another Mayan language that places subject markers before the root.

(9) Root + Subject OR Subject + Root

(10) sonum-at͡ʃ (196C)
marimba.player-B2S
'You're a marimba player'

(11) at͡ʃ-b-u'utak (614C)
B2S-my-brother
'You're my brother'

(12) at-tixoʃel (Kaqchikel; Coon et al, 2014)
B2S-student
'You are a student'

It is not clear to me whether the set B markers in NVPs are bound or free morphemes, but I have decided to transcribe them as bound morphemes. This is an arbitrary decision as it remains an open question, and I have no hard evidence supporting either conclusion.

D. Aspect markers

In Mayan languages, aspect is marked on verbs by affixes. SSC Chuj has the following aspects: imperfective, perfective, prospective, and progressive. Table 5 shows the aspect markers I found in SSC Chuj, as well as what has been found in SMI Chuj.

Table 5. Aspect markers in Chuj (Carolan, 2016; Buenrostro, 1995)

Aspect	**Marker**	
	SSC	SMI
Imperfective	t͡s	t͡s
Perfective	ʃ	iʃ
Prospective	(o)x	ol
Progressive	ban	lan/wan/laŋaŋ

The aspect markers slightly differ in each dialect, but the most striking difference is that while I eventually identified a progressive aspect in SSC Chuj, consultants did not prefer to use

this aspect marker when translating the progressive tense. I am concluding this because I used the Spanish progressive construction (*estar* + verb root-V-*ndo*) in 59 sentences, and consultants only used *ban* in 9 of them, during my final elicitation session, despite my numerous attempts to elicit it during my first elicitations. Additionally, I asked consultants about the progressive marker *lan* from SMI Chuj, as well as if there was a way to mark verbs that had not been used during the elicitation session, and it was not mentioned. The following examples show the varied responses I received when I elicited progressive sentences; in (13), the imperfective aspect was used, in (14), the imperfective aspect was used with *to* (discussed below), and in (15), the progressive aspect was used. I identify *ban* as the progressive aspect marker because it is the SSC counterpart of *wan*, since prevocalic /w/ is pronounced as /b/ in SSC Chuj. Also, it follows the same irregular agreement rules as the progressive aspect in SMI Chuj (Coon et al, 2017); set A markers are used to mark the subject, regardless of whether the verb is transitive or intransitive. Person markers are discussed in more detail in the next subsection.

(13) t͡s-at͡ʃ-p'itn-i (735C)
IMPF-B2S-sing-STAT
'You sing' (Prompt: 'Estás cantando')

(14) iʃ malin to t͡s-Ø-(s)-man iʃ lop'salte' (96A)
CLF.woman Mary PROG? IMPF-B3S-A3S-buy CLF.woman fruit
'Mary is buying fruit' (Prompt: 'Malin está comprando fruta')

(15) ban-a-juknap-a (745C)
PROG-A2S-move-STAT
'You're moving' (Prompt: 'Te estás moviendo')

Instead of the progressive aspect, consultants preferred to use a different construction to convey a similar semantic idea. The particle *to* was placed at the beginning of many of the imperfective aspect sentences, and consultants A and C explained that when *to* is used, the sentence describes what someone is doing in the current moment, and when it is not used in an

imperfective sentence, it implies that someone regularly carries out the action. This would suggest that *to* functions like a progressive marker, but it is difficult to prove due to the ambiguity of Spanish's present tense: the simple present tense can be interpreted as progressive or habitual, and therefore it can be used in place of the progressive tense (see examples (18) and (19)). Because of this, it is not certain whether consultants only used *to* when they understood the sentence to be progressive. Another problem with this hypothesis is that *to* was never used in negated sentences, but the progressive aspect marker *ban* was not used in negated sentences either (see section V). Examples (16) and (17) show this use of *to* when the simple present tense was used in the prompt.

(16) to t͡s-Ø-j-ap bin pilin xun p'it (75A)
PROG? IMPF-B3S-A3S-listen CLF.man Philip one music
'Philip is listening to music' (Prompt: 'Felipe escucha música')

(17) to t͡s-Ø-(s)-k'uʃ bin ʃuban lop'salte' (13A)
PROG? IMPF-B3S-A3S-eat CLF.man John fruit
'John is eating fruit' (Prompt: 'Juan come fruta')

(18) Juan com-e
John eat-PRES.3S
'John eats' OR 'John is eating'

(19) Juan est-á com-iendo
John AUX-PRES.3S eat-GER
'John is eating'

Accurately eliciting and classifying aspect is a general challenge in linguistics. Nurse (2008, p. 138) discusses this issue in Bantu languages, noting that in his research "the trickiest distinction to make was that between imperfective and progressive". Nurse (2008, p. 138) acknowledges that "the semantic range of the imperfective forms in a particular language is not clear or not given". This coincides with the difficulty I experienced eliciting the progressive

aspect; the semantic range of the progressive construction in Spanish most likely does not align with that of the progressive aspect in Chuj.

E. Ergative-absolutive person markers

English is a nominative-accusative language, meaning that subjects of transitive and intransitive verbs are marked one way, while objects of transitive verbs are marked differently, seen in the following sentences: **I** saw John, **I** ran, John saw **me**. In contrast, most Mayan languages use ergative-absolutive affixes to mark subjects and objects on verbs. In an ergative-absolutive system, ergative markers reference the agent of transitive verbs, and absolutive markers reference the single argument of intransitive verbs as well as the object of transitive verbs (see table 6 below). Ergative markers are generally referred to as set A and absolutive markers as set B in Mayan linguistics (Carolan, 2016).

Table 6. Nominative-accusative vs. Ergative-absolutive

	Nominative-accusative		Ergative-absolutive	
Transitive	Agent Nominative	Patient Accusative	Agent Ergative	Patient Absolutive
Intransitive	Subject Nominative		Subject Absolutive	

The following examples illustrate the difference between nominative-accusative languages and ergative-absolutive languages. Example (20) has normal English nominative-accusative sentences, while example (21) shows the same sentences if English were ergative-absolutive. Example (22) shows how this looks in Chuj; A and B both use the set B 1SG marker *in*, but in A, it marks a 1SG object, and in B, it marks a 1SG subject. The same can be observed in C and D with the set B 2PL marker *ef*.

(20) Nominative-accusative

A. We saw **her**
TransA TransP

B. **She** ran
IntransS

C. She saw **us**
TransA TransP

D. **We** ran
IntransS

(21) Ergative-absolutive

A. We saw **her**
TransA TransP

B. **Her** ran
IntransS

C. She saw **us**
TransA TransP

D. **Us** ran
IntransS

(22) A. t͡s-**in**-ej-ap'-i (449C)
IMPF-B1S (TransP)-A2P (TransA)-listen-STAT
'You listen to me'

B. t͡s-**in**-ba'-i (558C)
IMPF-B1S (IntransS)-eat-STAT
'I eat'

C. to t͡s-**eʃ**-in-pet͡ʃ-a (33A)
COMP IMPF-B2P (TransP)-A1S (TransA)-chase-STAT
'I chase you'

D. aʃ.tik t͡s-**eʃ**-ba'-i (446C)
2P IMPF-B2P (IntransS)-eat-STAT
'You eat'

Table 7. Pronouns in English

Person	**Nominative**	**Accusative**
1st singular	I	me
1st plural	we	us
2nd singular/plural	you	you
3rd singular	she/he	her/him
3rd plural	they	them

Table 8. Person markers in SSC Chuj

Person	**Ergative (Set A)**		**Absolutive (Set B)**
	Before Vowel	Before Consonant	
1st singular	b	in	in
1st plural	k	ki	oŋ
2nd singular	∅	a	a͡ʧ
2nd plural	ej	e	e͡ʃ
3rd singular	j	s	∅
3rd plural	j	s	∅

There are minor differences between SSC and SMI Chuj person markers: in SMI Chuj, the 1PL set A marker is *ko* before consonants. Additionally, in SMI the set A 1SG marker is *w* before vowels, though this difference is due to the global pronunciation difference between the two dialects stated in earlier sections.

Furthermore, though some papers on SMI Chuj mention *ep'* as a discontinuous 3PL marker that acts as a suffix on the verb root, Hou (2013) argues that it should not be included with other person markers because it is optional, and it must appear with a 3PL prefix when ergative. *Ep'* was also used in SSC Chuj; it was placed after the verb root or before the predicate, and it was not used in all 3PL sentences. This suggests that *ep'* is an optional plural marker. Example (24) shows the same sentence produced with and without *ep'*.

(23) t͡s-∅-(s)-pet͡ʃ **ep'** no(k) mistun (26A)
IMPF-B3S-A3P-chase 3P CLF.animal cat
'They chase the cat'

(24) A. iʃ malin j-et bin ʃuban t͡s-j-ak **ep'** t͡ʃaŋal (57A)
CLF Mary A3S-and CLF John IMPF-B3P-dance 3P dance
'Mary and John dance'
B. iʃ malin j-et bin ʃuban t͡s-j-ak t͡ʃaŋal (57B)
CLF Mary A3S-and CLF John IMPF-B3P-dance dance
'Mary and John dance'

F. Noun classifiers

Noun classifiers are short words that are placed near nouns and 'classify' or show agreement with them. English does not have noun classifiers, but a language outside of the Mayan language family that does is Chinese (see examples (25) and (26)).

(25) **Zek** gau zungji sek juk (Cantonese; Cheng & Sybesma, 1999)
CLF dog like eat meat
'The dog likes to eat meat'

(26) Ngo soeng maai **bun** syu lei tai
I want buy CLF book come read
'I want to buy a book to read'

Just like the examples from Cantonese, classifiers come before nouns in Chuj. There are 15 noun classes in SMI Chuj (Hopkins, 2012). In order to find what noun classes are present in SSC Chuj, I used a list of SMI classifiers to create sentences with the structure shown in (27). I wrote one sentence with each classifier and left a blank space after, then asked consultants to fill in the blank with a noun that would make each sentence grammatical. Consultants were only able to fill in nouns for 9 of the 15 classifiers, and they stated that the other 6 would not be grammatical sentences if a noun were added. This leads me to conclude that the remaining 6 are not in use in SSC Chuj. Table 8 shows a chart of noun classifiers in both varieties of Chuj and other Mayan languages.

(27) t͡s-b-il + classifier + _____
IMPF-A1S-see
'I see the _____'

(28) t͡s-Ø-in-pet͡ʃ **no** mistun (106A)
IMPF-B3S-A1S-chase CLF.animal cat
'I'm chasing the cat'

(29) ʃ-Ø-(j)-il **bin** ku'in **te'** oŋ (54A)
PRF-B3S-A3S-see CLF.man Pascual CLF.tree avocado
'Pascual saw the avocado'

When the noun is omitted, classifiers can be placed after the predicate and act like pronouns (see (30)). Also, when the subject comes before the predicate, the noun classifier is repeated after the predicate (see (31)).

(30) t͡s-Ø-(s)-man **iʃ** lop'salte' (91A)
IMPF-B3S-A3S-buy CLF.female fruit
'She buys fruit'

(31) **iʃ** malin t͡s-Ø-(s)-p'o **iʃ** komida (58A)
CLF.female Mary IMPF-B3S-A3S-make CLF.female food
'Mary cooks'

Though classifiers were used in most sentences in my data, they are not obligatory. Based on data from SMI Chuj, Royer (2017) proposes that noun classifiers are used "in contexts where the denotation of the noun is not empty," (p. 30), meaning that the noun has an precise referent. He exemplifies this using the following sentences, which change meaning based on whether the classifier is included.

(32) aj anab (SMI Chuj; Royer, 2017)
EXST sister
'Do you have a sister?'

(33) aj **iʃ** anab (SMI Chuj; Royer, 2017)
EXST CLF.female sister
'Is that your sister?'

However, Royer also admits that further research is necessary to formalize this definition. Also, the use of classifiers appears to differ between the two dialects. Royer uses an example of an existential sentence to argue that classifiers do not act as definite determiners in SMI Chuj, though in my data classifiers were not used in existentials, leading to the conclusion that they may act as definite determiners in SSC Chuj. Example (37) presents a sentence from my data that does not support this conclusion, since indefinite determiners were used in the prompt, and classifiers were used in the translation.

(34) aj **t͡ʃʼaŋ** libro jiɓan te’ meʃa (SMI Chuj; Royer, 2017)
EXST CLF.vine book over CLF.wood table
‘There are books on the table.’

(35) aj xun oŋ (70A)
EXST one avocado
‘There is one avocado’

(36) aj mistun (87A)
EXST cat
‘There are cats’

(37) xun **no** kaʃtilan to t͡s-Ø-(s)-pet͡ʃ no **no** mistun (11A)
one CLF hen COMP IMPF-B3S-A3S-chase CLF CLF cat
‘A hen chases a cat’

Table 9. Noun classifiers in five Mayan languages (Hopkins, 2012)

Popti'	**Q'anjob'al (Martin)**	**Q'anjob'al (Montejo)**	**Akateko**	**Chuj (SMI)**	**Chuj (SSC)**	**Gloss**
1. Natural Classes						
no'	no'	no'	no'	nok'	no(k')	animal
te'	te'	te'	te'	te'	te'	wood, tree
'iʃim	ʃim	('i)ʃim	'iʃim	'iʃim	iʃim	maize, grain
t͡ʂ'aŋ	t͡ʂ'an	tʂ'an	t͡ʃ'an	t͡ʃ'aŋ	t͡ʃ'aŋ	cord, vine
t͡ʂ'ot͡ʂ'	t͡ʂ'ot͡ʂ'	t͡ʂ'ot͡ʂ'	t͡ʂ'ot͡ʂ'	lum	lum	earth
t͡ʃ'en	t͡ʃ'en	t͡ʃ'en	t͡ʃ'en	k'en	k'en	stone
a'	a'	a'	a'	a'	a'	water
q'a'	q'a'	q'a'	q'a'	-	-	fire
'at͡s'am	-	t͡s'am	'at͡s'am	'at͡s'am	-	salt
-	'an	'an	'an	'aŋ	-	plant, herb
q'ap	-	-	-	k'apak	-	cloth
met͡ʂ'	-	-	-	-	-	dog
t͡ʂ'al	-	-	-	-	-	thread
-	-	q'inal	-	k'inal	-	rain
-	-	-	-	jap'il	-	illness
-	-	-	-	najle	-	sheet plastic
2. Social Classes						
nax	naq	naq	nax	wiŋ	bin(ak)	male
'iʃ	'iʃ	'iʃ	'iʃ	'iʃ	iʃ	female
ja'	cham/ʃal	cham/ʃal(a)	jap'	-	-	respect
komam	qomam	-	-	-	-	god
komi'	qot͡ʂut͡ʂ	-	-	-	-	goddess
ʃo'	ʃo'	-	-	-	-	kinswoman
o'	-	-	-	-	-	kinsman
'unin	-	-	-	-	-	infant
o' ni'an	-	-	-	-	-	boy kin
ʃo' ni'an	-	-	-	-	-	girl kin
'iʃ ni'an	-	q'oj	-	-	-	girl
nax ni'an	-	ja'	-	-	-	boy
-	-	-	k'o	-	-	known person

In this section, I discussed general observations about syntax and morphology in Mayan languages. In the following two sections, I will go into more detail about negation and imperatives.

V. Negation

Negation in Mayan languages is generally formed with particles that are cognates beginning with *ma*. Nevertheless, micro-variation within this language family is shown regarding number of particles and their functions, and micro-variation can also be observed within Chuj. This was the most significant difference that I observed regarding the morphosyntax of Chuj. In this section I will discuss negation in the two varieties of Chuj, comparing my data to Buenrostro's paper (1995) on SMI Chuj. I will begin with SSC Chuj, which generally has a simpler system than SMI Chuj.

A. Negation in SSC Chuj

SSC Chuj has two particles of negation: *ma* and *maŋ*, both of which appear in the first position of the verb complex. *Ma* is used to negate existentials and sentences with aspect markers. The rest of the sentence does not change when *ma* is added. The following examples compare affirmative sentences with their negative counterparts.

(38) A. t͡s-Ø-in-pet͡ʃ no mistun (23A)
IMPF-B3S-A1S-chase CLF.animal cat
'I'm chasing the cat'
B. **ma**-t͡s-Ø-in-pet͡ʃ no mistun (106A)
NEG-IMPF-B3S-A1S-chase CLF.animal cat
'I'm not chasing the cat'

(39) A. ʃ-in-j-il bin ku'in (53A)
PRF-B1S-A3S-see CLF.man Pascual
'Pascual saw me'
B. **ma**-ʃ-in-j-il bin ku'in (136C)
NEG-PRF-B1S-A3S-see CLF.man Pascual
'Pascual didn't see me'

(40) A. aj lop'salte' (69A)
EXST fruit
'There is fruit'
B. **m(a)**-aj lop'salte' (152C)
NEG-EXST fruit
'There is no fruit'

Maŋ is used to negate imperatives and non-verbal predicates. In both sentence types, the subject marker is always placed directly after the negation marker, even though this is not the case in affirmative sentences. The subject marker most frequently appears after the root in affirmative non-verbal predicates (41A), and in affirmative imperatives, the subject marker is not used (42A).

(41) A. kujuxum-in (636C)
teacher-B1S
'I'm a teacher'
B. **maŋ**-in kujuxum **ok** (637C)
NEG-B1S teacher NEG
'I'm not a teacher'

(42) A. paʃtin-a (398D)
speak-STAT
'Speak'
B. **maŋ**-at͡ʃ-paʃtin **ok** (385D)
NEG-B2S-speak NEG
'Don't speak'

Ok was sometimes placed after the predicate when *maŋ* was used (42B), though it appears to be optional. Buenrostro (1995) and Coon (2018) refer to this particle as the irrealis marker in their papers on SMI Chuj. Hofling defines the irrealis as "…nonactual states or events, as opposed to 'realis,' which refers to actual states or events," (Hofling, 1998, p. 214). Since *ok* only appeared in some negated sentences in my data, I have no evidence that this particle is the irrealis. It acts as a postverbal negation marker .

The progressive aspect in SSC Chuj uses a different sentence structure when negated, which does not include the progressive aspect marker *ban*. Instead, it is formed with the negated

existential verb, a set A person marker, and a verbal predicate in the imperfective aspect. However, as I discussed in the previous section, the progressive aspect was almost never used, and this seems to be a generalization based on the little data I have on this aspect.

(43) A. ban a munx-i (776B)
PROG A2S work-STAT
'You are working'
B. **m(a)**-aj a t͡s-at͡ʃ-munx-i (777B)
NEG-EXST A2S IMPF-B2S-work-STAT
'You are not working' (lit- 'There is no you working')

B. Negation in SMI Chuj

Now I will compare what we have seen in SSC Chuj to SMI Chuj, which has a more complex system of negation.

In her paper (1995), Buenrostro shows that in a negated sentence in SMI Chuj, the bound morpheme *ma* appears at the beginning of the predicate, followed by a suffix indicating aspect. *Max* and *maʃ́* are used to negate the perfective and imperfective aspects, respectively, and when these particles are used, the aspect markers *t͡s* and *iʃ́* are not used. In example (44), it can be observed that the aspect marker *iʃ́* becomes *x* when the sentence is negated. This is striking since in SSC Chuj the same aspect markers are used in both the affirmative and negative sentences (see (38) and (39)).

(44) A. **iʃ**-at͡ʃ-w-il-a (SMI Chuj; Buenrostro, 1995)
PRF-B2S-A1S-ver (see)-STAT
'Yo te vi' ('I saw you')
B. **ma**-**x**-at͡ʃ-w-il-a
NEG-PRF-B2S-A1S-ver (see)-STAT
'No te vi' ('I didn't see you')

The particle *man* negates prospective and progressive aspects, but unlike the previous two aspects, the aspect markers used in affirmative sentences are placed after the negation marker. *Man* may appear in discontinuous negation with the negation marker *lax*. In

progressives, *lax* is required, along with the negation marker *ok* (see (45)). *Lax* was never used in my data, and therefore I am concluding that this negation marker is not present in SSC Chuj. Also, note that in SMI Chuj, negation markers are added to the affirmative progressive structure, whereas in SSC Chuj, negated progressives become existentials (43).

(45) A. wan s-munlax wiŋ
PROG A3S-trabajar (work) CLF.male
'Él está trabajando' ('He is working') (SMI Chuj; Buenrostro, 1995)
B. **man** wan = **ok** = **lax** s-munlax wiŋ
NEG PROG = NEG = NEG A3S-trabajar (work) CLF.male
'Él no está trabajando' ('He isn't working') (SMI Chuj; Buenrostro, 1995)

(46) A. ol-in-o͡tʃ-i (SMI Chuj; Buenrostro, 1995)
PROS-B1S-entrar (enter)-STAT
'Yo voy a entrar' ('I'm going to enter')
B. **man** ol-in-o͡tʃ = **lax**
NEG PROS-B1S-entrar (enter) = NEG
'Yo no voy a entrar' ('I'm not going to enter')

Man also negates imperatives and nonverbal predicates. It appears to be the counterpart of *maŋ*, the particle used in SSC Chuj in these contexts. In both dialects the irrealis marker is sometimes used with these particles. Both of these constructions lack aspect markers, which may explain why they use the same negation marker.

(47) **man** a͡tʃ-waj = **lax** (SMI Chuj; Buenrostro, 1995)
NEG B2S-dormir (sleep)-NEG
'No duermas' ('Don't sleep')

(48) a wiŋ **man** Ø-sonum = **ok** = **lax** wiŋ
TOP CLF.man NEG B3S-marimbero (marimba player) = NEG = NEG CLF
'Él no es marimbero' ('He isn't a marimba player') (SMI Chuj; Buenrostro, 1995)

However, the third construction that lacks aspect, the existential, is negated differently from imperatives and non-verbal predicates in both dialects, and it shows a notable difference between the two dialects. As discussed above, in SSC Chuj, the negation prefix *ma* is added to

the existential verb root *aj* (see (49)). In contrast, in SMI Chuj, suppletion occurs; *malax* is used, and the affirmative verb root is left out (50).

(49) A. **aj** xun oŋ (SSC Chuj; 70A)
EXST one avocado
'There is one avocado'
B. **m(a)-aj** xun oŋ (SSC Chuj; 153C)
NEG-EXST one avocado
'There is not one avocado'

(50) A. **aj** in-tumin (SMI Chuj; Buenrostro, 1995)
EXST A1S-dinero (money)
'Tengo dinero' ('I have money' – lit. 'There is my money')
B. **malax** in-tumin
NEG.EXST A1S-dinero (money)
'No tengo dinero' ('I don't have money' – lit. 'There is no my money')

In short, in SSC Chuj, negation is generally simpler; the same aspect markers are used in negative and affirmative sentences, there are only two negation markers as opposed to three in SMI Chuj, and the verb root in existentials does not change when negated. Table 9 shows examples from each dialect side-by-side.

Table 10. Negation in SSC and SMI Chuj

	SSC	SMI (Buenrostro, 1995)
VP	(51) A. **t͡s**-Ø-in-pet͡ʃ no(k) mistun IMPF-B3S-A1S-chase CLF cat 'I'm chasing the cat' (23A) B. **ma-t͡s**-Ø-in-pet͡ʃ no(k) mistun NEG-IMPF-B3S-A1S-chase CLF cat 'I'm not chasing the cat' (106A)	(52) A. **iʃ**-at͡ʃ-w-il-a PRF-B2S-A1S-see-STAT 'Yo te vi' ('I saw you') B. **ma-x**-at͡ʃ-w-il-a NEG-PRF-B2S-A1S-see-STAT 'No te vi' ('I didn't see you')
NVP	(53) A. kujuxum-in teacher-B1S 'I'm a teacher' (636C) B. **maŋ**-in-kujuxum **ok** NEG-B1S-teacher NEG 'I'm not a teacher' (637C)	(54) A. a win Ø-sonum wiŋ TOP CLF B3S-marimbero CLF 'Él es marimbero' (He's a marimba player) B. a wiŋ **man** Ø-sonum = **ok** wiŋ TOP CLF NEG B3S-marimb. = NEG CLF 'Él no es marimbero' (He's not a marimba player)
IMP	(55) **maŋ**-at͡ʃ-paʃtin **ok** NEG-B2S-speak NEG 'Don't speak' (385D)	(56) **ma.n** at͡ʃ-waj = **lax** NEG B2S-dormir (sleep) = NEG 'No duermas' (Don't sleep)
PROG	(57) A. ban a munx-i PROG A2S work-STAT 'You are working' (776B) B. **m(a)**-aj a t͡s-at͡ʃ-munx-i NEG-EXIS A2S IMPF-B2S-work-STAT 'You are not working' (lit. 'There is no you working') (777B)	(58) A. wan s-munlax wiŋ PROG A3S-trabajar (work) CLF 'Él está trabajando' (He is working) B. **ma.n** wan = **ok** = **lax** s-munlax wiŋ NEG PROG = NEG = NEG A3S-work CLF 'Él no está trabajando' (He isn't working)
EXST	(59) A. aj lop'salteʔ EXST fruit 'There is fruit' (69A) B. **m(a)**-aj lop'salteʔ NEG-EXST fruit 'There is no fruit' (152C)	(60) A. aj in-tumin EXST A1S-money 'Tengo dinero' (I have money – lit. There is my money) B. **malax** in-tumin NEG.EXST A1S-money 'No tengo dinero' (I don't have money – lit. There is no my money)

C. Other Mayan languages

K'iche' and Chol are two other Mayan languages that seem to pattern similarly to SSC Chuj, in which aspect markers are not affected when a sentence is negated. In example (61) from K'iche', the perfective aspect marker ∫ appears in both the affirmative and negative sentences (Yasavul, 2011). The same occurs with the imperfective aspect marker *mi* in example (61) from Chol (Coon, 2006).

(61) A. **ʃ**-Ø-war-ik (K'iche'; Yasuvul, 2011)
PRF-B3S-sleep-STAT
'S/he slept'
B. **man** **ʃ**-Ø-war tax
NEG PRF-B3S-sleep NEG
'S/he didn't sleep'

(62) A. **mi** k-mahlel tji eskwela (Chol; Coon, 2006)
IMPF A1S-go PREP school
'I'm going to school'
B. **ma'aŋ** **mi** k-mahlel tji eskwela
NEG IMPF A1S-go PREP school
'I'm not going to school'

Previous literature on Q'anjob'al, a Mayan language from the same branch as Chuj, suggests that it has a negation pattern similar to SMI Chuj (Comunidad Lingüística Q'anjob'al, 2005, Toledo, 2008, & Pye et al, 2017). Different negation particles are used depending on the aspect of the verb, and in some aspects, the prefix used in affirmative sentences is not used in negated sentences. In (63), the imperfective aspect marker *t͡ʃ* is not used when the sentence is negated.

(63) A. **t͡ʃ**-in tox jekal (Q'anjob'al; Comunidad…, 2005)
IMPF-B1S ir (go) mañana (tomorrow)
'I will go tomorrow'
B. **max** in toq jekal
NEG.IMPF A1S ir (go) mañana (tomorrow)
'I won't go tomorrow'

Moreover, in Q'anjob'al there are two different strategies to negate an existential. The first one resembles SSC Chuj, since a negation particle is placed before the existential verb root (see (64)A). On the other hand, the second strategy resembles SMI Chuj; suppletion occurs with the existential verb root *aj*, which is replaced with *k'am* in the negated sentence ((64)B).

(64) A. **toq aj** naɓ (Q'anjob'al; Pye et al, 2017)
NEG EXST rain
'There is no rain'
B. **k'am** naɓ
NEG.EXST rain
'There is no rain'

VI. Imperatives

I will now discuss imperatives in Chuj. Hopkins (1967) provides an account of imperative morphemes in SMI Chuj, but he does not examine object markers or negation in imperatives, which I will show below.

A. Affirmative imperatives

Affirmative 2SG imperatives in SSC Chuj are formed with just the verb root. They do not have subject or aspect markers. When an intransitive imperative appears in phrase-final position, the suffix *aŋ* is added (66). This suffix was also shown in SMI Chuj by Hopkins (p. 76, 1967). The following examples compare declarative sentences with their imperative counterparts.

(65) A. t͡s-Ø-a-man lop'salte' (90A)
IMPF-B3S-A2S-buy fruit
'You buy fruit'
B. man-Ø te' lop'salte' t͡ʃa (252C)
buy-B3S CLF.plant fruit PRT
'Buy fruit'

(66) A. t͡s-at͡ʃ-p'itn-i (735C)
IMPF-B2S-sing-STAT
'You sing'
B. p'itn-**aŋ** (731C)
sing-IMP
'Sing'

Affirmative 2PL imperatives include the morpheme *ek* after the verb root. This differs from set A and B 2PL markers *e*, *ej*, and *ef*. In intransitive verbs, *ek* follows the imperative suffix *aŋ* (see (69) and (70)). Hopkins (p. 76, 1967) also observed this morpheme in SMI Chuj.

(67) koltx-in-**ek** (369D)
help-B1S-2P
'Help me'

(68) man-Ø-**(e)k** lop'salte' (255C)
buy-B3S-2P fruit
'Buy fruit'

(69) paʃtin-**aŋ-ek** (420D)
speak-IMP-2P
'Speak'

(70) p'atx-**aŋ-ek** (739C)
jump-IMP-2P
'Jump'

Hortatives are formed by placing the 1PL set A marker *ki* before the verb root. Like imperatives, they do not have aspect markers.

(71) A. t͡s-Ø-**ki**-man lop'salte' oŋ (94A)
IMPF-B3S-A1P-buy fruit PRON.1P
'We buy fruit'
B. **ki**-man-Ø lop'salte' (263C)
A1P-buy-B3S fruit
'Let's buy fruit'

Object markers in affirmative imperatives are placed after the verb root (see (72)B), which is surprising since in declarative verbal predicates, object markers come before the verb root ((72)A).

(72) A. aʃ.tik t͡s-**in**-ej-il-a (430C)
PRON.2P IMPF-B1S-A2P-look-STAT
'You look at me'
B. ilt-**in** (547C)
look-B1S
'Look at me'
C. ilt-**in**-ek (549C)
look-B1S-2P
'Look at me'

(73) A. aʃ.tik t͡s-**in**-e-kolt-e (433C)
PRON.2P IMPF-B1S-A2P-help-STAT
'You help me'
B. koltx-**in**-ek (570B)
help-B1S-2P
'Help me'
C. koltx-**ø** ep' (486C)
help-B3P B3P
'Help them'

According to Zagona (2002), "cross-linguistically, it is quite common for clitics to be positioned after the verb [in imperatives]," showing that this phenomena is not unusual. This can also be seen in Spanish; in declarative sentences, object pronouns come before the verb, but in imperatives, the object pronoun is placed after the verb (see (74)).

(74) A. **me** mir-as
ACC.1S look-PRES.2S
'You look at me'
B. míra-**me**
look-ACC.1S
'Look at me'

Set B markers are also in this postverbal position in non-verbal predicates, discussed in section IV. According to Jessica Coon, "the Set B morpheme will attach to the aspect morpheme if one is present, and to the end of the stem if not," (Coon, personal communication, September 22, 2019). Since NVPs and imperatives do not contain aspect markers, this also explains why set B markers follow the root in these contexts.

B. Negative imperatives

Many languages, such as Spanish, cannot negate true imperatives, and thus they employ surrogate imperatives, which take the morphology of another TAM context (Zagona, 2002). In Spanish, negative imperatives use subjunctive verb inflection.

(75) A. míra-me
look-ACC.1S
'Look at me'
B. no me mir-**es**
NEG ACC.1S look-SUBJ.2S
'Don't look at me'

In Chuj, negative imperatives follow the same structure as declarative verbal predicates, but without aspect markers. The negation marker *maŋ* comes first, then the person markers. *Ok* (discussed in the previous section) was sometimes also placed after the verb root (76). It was only used with intransitive verbs in my data. The placement of set B markers in negative imperatives does not fit the pattern Coon described: set B markers either attach to aspect markers or to the root if there is no aspect marker present (Coon, personal communication, September 22, 2019). There is no aspect marker in negative imperatives, though the set B marker still appears preverbally. I speculate that a more accurate generalization is that set B markers always attach to the first morpheme in the verbal complex. In these examples, they attach to the negation marker *maŋ*.

(76) maŋ-**at͡ʃ**-at ok (435C)
NEG-B2S-go NEG
'Don't go'

(77) maŋ-**in**-ej-il-a (418D)
NEG-B1S-A2P-look-STAT
'Don't look at me'

(78) maŋ-**Ø**-a-man lop'salte' (253C)
NEG-B3S-A2S-buy fruit
'Don't buy fruit'

Another way to negate imperatives was used by consultants, with the morphemes *ʃ* before the person markers and *ta* after the verb root. This is striking because these morphemes did not appear in any other context, and they do not resemble other negation morphemes in Chuj. This was only used with the verbs *fall* and *get sick*. However, in other instances these verbs were

also used with the negation particle *maŋ*. I hypothesize that these could be cases of the preventative mood, which is seen in Yucatec and also used with the verb *fall* (see example (81)) (Pye, Pfeiler, and Pedro, 2017).

(79) A. **ʃ**-eʃ-jap'il **ta** (259C)
NEG-B2P-get.sick NEG
'Don't get sick'
B. **maŋ**-eʃ-jap'iln **ok** (333C)
NEG-B2P-get.sick NEG
'Don't get sick'

(80) A. **ʃ**-eʃ-telu **ta** (261C)
NEG-B2P-fall NEG
'Don't fall'
B. **maŋ**-eʃ-telb **ok** (334C)
NEG-B2P-fall NEG
'Don't fall'

(81) **ɓik** luub-uk-et͡ʃ (Yucatec; Pye, Pfeiler, & Pedro, 2017)
NEG fall-dep$_{IV3}$-B2
'Don't fall'

C. Other Mayan languages

For the most part, imperatives in Chuj resemble other Mayan languages. (82), (83), and (84), all affirmative 2SG imperatives, do not have aspect or person markers, just like Chuj. Also, the negated imperative in example (85) follows the same structure as Chuj: a negation particle followed by person markers, with no aspect marker. Additionally, all of these examples have an imperative marker suffix added to the verb root, like the suffix *aŋ* used in 2SG intransitive imperatives ((66)B).

(82) wen-en (Itzaj; Hofling, 1998)
sleep-IMP.INTRNS
'Sleep'

(83) t͡ʃon-o (Chontal; Knowles-Berry, 1987)
sell-IMP
'Sell it'

3 Intransitive dependent

(84) t͡s’iɓ-t-e (Yucatec; Hofling and Ojeda, 1994)
write-TRAN-IMP/SPM[4]
‘Write it’

(85) m(a)-in-aw-il-o (K’iche’; Romero, 2012)
ve[5]-B1S-A2S-look-IMP
‘Don’t look at me’

Yucatec has post-verbal object markers in imperatives like Chuj. However, this is also the case in declarative sentences **Error! Reference source not found.**.

(86) A. t-in lii’-s-ax-et͡ʃ (Yucatec; Armstrong, 2017)
CP-A1S raise-CAUS-STAT-B2S
‘I lifted you up’
B. xat͡s’-o’on-i (Yucatec; Hofling and Ojeda, 1994)
whip-1P-FOC
‘Whip us’

I did not find an account of object marking in true imperatives from another Mayan language with preverbal set B markers, so it is not certain whether this pattern is expected. Jessica Coon suggests that set B markers in Chuj do not follow the general pattern in Mayan: “in K’iche’… set B morphemes *always* precede the stem, and [in] Chol… set B morphemes *always* follow the stem” (Coon, personal communication, September 22, 2019). This again shows that set B markers in Chuj present an unsolved puzzle, as their distribution has yet to be accurately described.

VII. Conclusions and directions for future research

In this paper, I have presented a grammar of SSC Chuj based on interviews with 4 speakers, while making comparisons to other Mayan languages. I started by giving background information on Chuj and Mayan languages in sections I and II, then I discussed my methods in section III. In section IV, I examined sentence structure in SSC Chuj and common characteristics

[4] Subordinate patient marker
[5] Vetative marker

of Mayan languages. In section V, I looked at negation in Chuj, noting the contrast shown between SSC Chuj and SMI Chuj. I discussed imperatives in section VI, while calling attention to a topic worthy of further study: the syntax of set B markers in Chuj and other languages in the Q'anjob'alan branch. There is still no general rule that explains the placement of set B markers in Chuj. Data on object marking in imperatives in other Mayan languages will also be necessary to show whether the pattern in Chuj is expected.

Additionally, there is a need to study the demographics of each dialect of Chuj separately, as well as Chuj communities in the US. This would include number of speakers, language status, and number of monolingual speakers. The current data groups both dialects together, which is not useful since the speakers of each seem to be isolated from each other. It will be especially important to know the status of SSC Chuj, since it has less speakers than SMI Chuj. It is possible that though SMI Chuj is considered a developing language, SSC Chuj could be endangered. Comparing speakers from different generations would also be useful to examine this, since all of my consultants were around the same age. There may be generational differences that explain the dialectal differences I have observed.

Moreover, in order to better understand the relationship between the two dialects, their mutual intelligibility should be tested, along with other closely related languages such as Q'anjob'al. Consultants in my research reported that they experienced difficulty understanding SMI Chuj when I showed them a short video. This should be extended to test more speakers and control the audio used.

Lastly, the alternative method of negating imperatives that I found in a few cases (see (79) and (80)) should be investigated more. I hypothesized that these were examples of the

preventative mood, but it does not seem to be known whether there is a preventative mood in Chuj, and there is little work on this in Mayan linguistics.

Appendix

Spontaneous speech sample (081419_C_1)

(1) t͡s-Ø-jamilit͡ʃ xun bideo tik
IMPF-B3S-start one video here
'A video starts'

(2) aj xun bin it͡ʃin binak
EXST one CLF.male old man
'There is an old man'

(3) bin binak x-Ø-t͡ʃejl bin t͡s-Ø-jamno t͡ʃ'inem xun.so'oŋ
CLF.male man PROS-B3S-show CLF.male IMPF-B3S-start cut many
ep' te pelʃ skap-te'
3P CLF.plant pear branch-tree
'And he is a man, he is cutting down many pears'

(4) laxot͡ʃa.tik (oʃe t͡ʃa' t͡ʃa' ʃuk) t͡ʃa' ʃu t͡ʃu t͡s-Ø-(s)-toʃikin binak
then (three two two basket) two basket ? IMPF-B3P-A3S-take.down CLF
'He had then cut down two baskets'

(5) aʃt͡ʃa t͡s-Ø-k'iʃ bin a skapte' a tik (nxunʃ) xonkʃo ʃu'uk
then IMPF-B3S-go.up CLF in branch in here ? another basket
'Then he got back up in the tree for another basket'

(6) aʃin aj.tk'e bin t͡ʃip'in a skap'te
while be.up CLF then in tree.branch
'While he was up in the tree branch'

(7) tet͡ʃam ʃ-Ø-xaw xun bin.un j-et' s-bisikleta
there PRF-B3S-come one boy A3S-with A3S-bike
'A boy came on his bike'

(8) laxot͡ʃatik ʃ-Ø-ot͡ʃban binak ʃ-Ø-(j)-il binak t͡s-Ø-(s)-nipnot͡ʃ
then PRF-B3S-stop CLF PRF-B3P-A3S-see CLF IMPF-B3P-A3S-want
binak ep' te' pelʃa
CLF 3P CLF pear
'Then he stopped when he saw the pears, and he wanted some'

(9) aʃt͡ʃa ʃ-Ø-am binak ʃ-Ø-(j)-il binak to
then PRF-B3S-get.off CLF PRF-B3S-A3S-see CLF COMP
ma-t͡s-Ø-(j)-ilʃ bin jux bin ajik te' pelʃa
NEG-IMPF-B3S-A3S-see CLF PREP CLF owner CLF pear
'Then he got off (his bike), and he saw that the owner of the pears wasn't watching him'

(10) ʃ-Ø-(s)-pat͡ʃint͡ʃan bin xun (xun) ʃuk ep' te' ʃ-Ø-j-anke
PRF-B3S-A3S-lift CLF one basket 3P CLF PRF-B3S-A3S-put.on
bin ajepnik s-bicicleta t͡ʃa
CLF PREP A3S-bike PRT
'He picked up a basket and put it on his bike'

(11) laxot͡ʃa ʃ-Ø-atbinelk j-et'-ok
then PRF-B3S-escape A3S-with-it
'Then he ran away with it'

(12) aʃint͡ʃa ata ajit' s-nap'en bin j-et'-ok
in.that.moment there EXST A3S-mind CLF A3S-with-it
'While he thought about that' (lit – While his mind was with it)

(13) ʃ-Ø-atbinelk j-et nik s-bisikleta t͡ʃa ʃinsat t͡s-Ø-p'e binak
PRF-B3S-escape A3S-with CLF A3S.bike PRT mientras IMPF-B3S-walk CLF
'And while he was escaping with his bike, without realizing…'

(14) laxot͡ʃa aj xun ʃiʃ iʃ.unin t͡s-Ø-xaw paʃiʃ
then EXST one CLF.female girl IMPF-B3S-come meanwhile
j-et s-bisikleta t͡ʃa
A3S-con A3S-bike PRT
'… a girl came on her bike'

(15) aʃt͡ʃatik ʃ-Ø-'ot͡ʃ k'eln bin a iʃ tiknim ma-ʃ-Ø-(j)-il bin
then PRF-B3S-focus see CLF PREP her but NEG-PRF-B3S-A3S-see CLF
ax t͡s-Ø-k'ot͡ʃi t͡s-Ø-ma'anst͡ʃ a bin a xun k'e'en'
where IMPF-B3S-arrive IMPF-B3S-trip PREP él PREP one stone
'While he watched her, without realizing he tripped on a stone'

(16) ʃ-Ø-telu bin j-et nik s-bisikleta t͡ʃa
PRF-B3S-fall CLF A3S-with CLF B3S.bike PRT
'He fell with his bike'

(17) koxunt͡ʃa ʃ-Ø-top' ep' te' pelʃ t͡ʃa aj.em.ajul nik
in.that.moment PRF-B3P-spill 3P CLF pera PRT EXST.inside CLF
ʃuk t͡ʃa
basket PRT
'And the pears that were in the basket spilled'

(18) tiknik kabal t͡ʃa aj (xunson e(p') bin) xunsonʃo e(p') bin
PRT exactly PRT EXST (many 3P CLF) many 3P CLF
kelintak (ʃ-Ø-xaw) ʃ-Ø-xaw ast͡s'e binak
adolescent (PRF-B3P-come) PRF-B3P-come close him
'Right in that moment many boys came close to him'

(19) ʃ-Ø-(j)-iln ep' to iʃta ʃ-Ø-ut͡sba binak
PRF-B3S-A3P-see 3P COMP like.that PRF-B3S-happen CLF
'They saw what happened'

(20) laxot͡ʃa ʃ-Ø-embot͡sn ep' sient͡ʃaŋ ep' binak
then PRF-B3P-bend.down 3P pick.up 3P CLF
'Then they bent down and picked them up'

(21) koxunt͡ʃa ʃ-Ø-jamnot͡ʃ ep' sient͡ʃaŋ te pelʃ t͡ʃa
then PRF-B3P-start 3P pick.up CLF pear PRT
'Then they started to pick the pears up'

(22) ʃ-Ø-jamnot͡ʃ ep' ja'nem ajul te' ʃuk t͡ʃa
PRF-B3P-start 3P put in CLF basket PRT
'And they started to put them in the basket'

(23) koxunt͡ʃa ʃ-Ø-ik'eba' binak ʃ-Ø-at͡ʃ binak
then PRF-B3S-get.up CLF PRF-B3S-go CLF
'Then he got up and left'

(24) aʃatik ʃ-Ø-(j)-kankunko'ta ʃunpiln binak
in.that.moment PRF-B3S-A3S-drop hat CLF
'In that moment he dropped his hat'

(25) koxunt͡ʃa aj xunʃ bin e(p') bin oʃin kelntak t͡ʃa
then EXST another boy 3P CLF three adolescent PRT
ʃ-Ø-ilnt͡sba bin a nik ʃunpiln bin t͡ʃa ʃ-Ø-at͡ʃit͡s'a bin
PRF-B3S-realize CLF PREP CLF hat CLF PRT PRF-B3S-go.back CLF
jux binak koxunt͡ʃa
PREP he immediately
'Then one of the three boys noticed his hat and immediately went after him'

(26) ʃ-Ø-j-a'kal bin nik ʃunpiln t͡ʃa binak
PRF-B3S-A3S-leave CLF CLF hat PRT CLF
'He went to leave him his hat'

(27) nik.koxunt͡ʃa.tik ʃ-Ø-j-elni bin oʃe pelʃa
then PRF-B3P-A3S-steal CLF three pear
a bin un.t͡ʃi ʃ-Ø-(j)-elni ʃon ep’ te’ t͡ʃa bin
PREP CLF boy PRF-B3P-A3S-steal before 3P CLF PRT CLF
‘While he stole three pears from the boy that had stolen them before’

(28) t͡s-Ø-ati j-et s-bisikleta t͡ʃa
IMPF-B3S-leave A3S-with A3S-bike PRT
‘And he escaped on his bike’

(29) koxunt͡ʃa ʃ-Ø-(j)-eln bin (oʃe) oʃe pelʃe t͡ʃ’a binak
then PRF-B3P-A3S-steal CLF (three) three pear PREP him
‘He stole three pears from him’

(30) koxont͡ʃa ʃ’at͡ʃ binak
then PRF-B3S-leave CLF
‘Then he left’

(31) ʃ-Ø-j-a’n bin xun.xun jik e(p’) bin (xun e bin)
PRF-B3P-A3S-give CLF one.by.one PREP 3P CLF (one 3P CLF)
jamigo bin t͡ʃi t͡s-Ø-’a’n jux pajʃi oʃin t͡s-Ø-p’e
A3S.amigo CLF PRT IMPF-B3P-follow PREP go three IMPF-B3P-walk
binak
CLF
‘He gave one to each of his three friends who were with him’

(32) jo ʃ-Ø-p’e e(p’) binak koxunt͡ʃa aʃbin bin(a)k t͡ʃa ajik ep’ te
then PRF-B3P-walk 3P CLF then man CLF PRT owner 3P CLF
pelʃ ep’ te t͡s-Ø-a’ t͡ʃa ep’ te’ ʃ-Ø-(j)-elʃ t͡ʃa
pear 3P CLF IMPF-B3P-lose 3P CLF PRF-B3P-A3P-steal PRT
ajtk’e bin a skap te pelʃe
EXST.up CLF in branch CLF pear
‘They walked to where the owner of the pears that were stolen was, who was still in the tree’

(33) ajik mas koxunt͡ʃa ʃ-Ø-empt’ binak aʃ ʃ-Ø-e xun bin
owner more then PRF-B3S-get.down CLF and PRF-B3S-pass.by one CLF
binak
man
‘He got down’

(34) ʃ-Ø-ilsnba binak to toʃ ʃ-Ø-(j)-elʃ xun ʃuk ep te’
PRF-B3S-realize CLF COMP already PRF-B3S-A3P-steal one basket 3P CLF
‘And he realized that one of his baskets had been stolen’

(35) jo kabal paʃt͡ʃa ʃ-Ø-k'ot͡ʃ xunt͡so'ŋ e(p') bin (ep' bin)
and exactly in.that.moment PRF-B3P-arrive many 3P CLF 3P CLF
kelntak t͡ʃa
adolescent PRT
'And exactly in that moment the boys arrived…'

(36) j-et e(p') bin xun.xun pelʃ t͡ʃa ʃox t͡s-Ø-(s)-k'uʃn e
A3P-with 3P CLF each.one pear PRT in.that.moment IMPF-B3P-A3P 3P
binak
CLF
'… each one eating a pear'

(37) ʃ-Ø-atk'el bin a ep' ijo iʃta ʃax t͡s-Ø-laxok'ot͡ʃ xun bideo
PRF-B3S-turn CLF PREP 3P then like.that and IMPF-B3S-finish one video
tik
here
'And that's how the video ends'

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