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Community-informed documentary linguistics and community-led participatory research: describing Sà'án Sàvĭ ñà ñuù Xnúvíkó and analyzing speakers' insights on intelligibility with Tlahuapa Mixtec

A dissertation submitted in partial satisfaction of the

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by

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June 2024

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Yukúnaní. In E. Derhemi (Ed.), *Endangered Languages and Diaspora – XXVI Annual Conference Proceedings*, 176-185. Tirana, Albania: Foundation for Endangered Languages / QSPA.

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ABSTRACT

Community-informed documentary linguistics and community-led participatory research: describing Sà'án Sàvĭ ñà ñuù Xnúvíkó and analyzing speakers' insights on intelligibility with Tlahuapa Mixtec

by

Guillem Belmar Viernes

There is a significant diaspora of Mixtec people residing along California's Central Coast, mostly working in the agricultural sector. The new realities in the diaspora have brough Mixtec varieties in contact in new contexts where they co-exist with other Mexican Indigenous languages, as well as with Spanish and English. We urgently need more understanding of the languages to create equitable community access to resources, as well as to foster the maintenance of the traditional linguistic and cultural practices of these communities.

This dissertation presents two studies that aim to further our understanding of the Mixtec languages spoken in the diaspora community in the Central Coast in California: a) the first grammatical description of Sà'án Sàvĭ ñà ñuù Xnúvíkó (Mixtepec Mixtec), one of the main branches of Mixtec (Josserand 1983) and a widely spoken variety in the Central Coast diaspora ; and b) a study of speakers' metalinguistic reflections on intelligibility between Sà'án Sàvĭ ñà ñuù Xnúvíkó and Tlahuapa Mixtec. These two studies also reflect different levels of community

involvement. The community-informed grammatical description was not initiated by community members, but it has been shaped (mostly indirectly) by many projects and discussions with community members. On the other hand, the analysis of metalinguistic reflections on intelligibility exemplifies a community-led participatory approach in which community members were active participants in the research project, initiating it and taking part in the research design.

The grammatical description in this dissertation contains a very rich array of examples from unplanned naturalistic speech, capturing how speakers of Sà'án Sàvĭ ñà ñuù Xnúvíkó deploy different grammatical structures to communicate meaning. The bottom-up approach taken in this description helped solidify TAM categories in Mixtec languages such as the prospective aspect, or the deontic mood, and it uncovered a prefix encoding pluractionality, which may have some consequences for the analysis of other related languages.

Expanding on the multilingual repertoires and translanguaging practices (Li 2018; see also García & Li 2015) of the speakers, in the second part of the dissertation I explore accommodation strategies deployed by speakers in inter-variety communication. This study presents some preliminary findings, focusing on the deep metalinguistic knowledge that shapes speakers' decision-making when trying to repair instances of miscommunication (Wadensjö 1998; Schegloff 1992). Systematic documentation of these accommodation strategies and presentation of these findings in accessible formats could improve language access and social justice in the community (Marie Uliasz 2018; Maxwell et al. 2018) and inspire speakers to bridge differences across varieties in lieu of defaulting to Spanish, using receptive multilingual skills to foster language maintenance (Belmar & Pinho 2020).

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF GLOSSING ABBREVIATIONS

1 First person
2 Second person
3 Third person
ANA Anaphoric
CAUS Causative
CHILD Children
CL Classifier
CMOT Caused motion
COM Comitative
COMPL Complementizer
COND Conditional
CONJ Conjunction
COP Copula
CTF Counterfactual
DEO Deontic mood
DIM Diminutive
DISC Discourse marker
DIST Distal
EMPH Emphatic
EXCL Exclusive
F Female human
FOC Focus marker
FORM Formal
GNR Generic
HAB Habitual
HUM Human
IAM Iamitive
IMP Imperative
INCHO Inchoative
INCL Inclusive
INT Intensifier
INTERJ Interjection
IPFV Imperfective
IRR Irrealis
ITER Iterative
LIQ Liquid
M Male human
MED Medial
MOD Modal
NEG Negative
NFORM Non-formal
OBL Oblique
PFV Perfective
PL Plural
PLZ Pluralizer
PROG Progressive
PROSP Prospective
PROX Proximal
QT Question
RDPL Reduplication
RECIP Reciprocal
REL Relative pronoun
RLZ Relativizer
ROUND Round objects
SG Singular
STA Stative
SUB Subordinator
SURPR Surprise
TEMP Temporal
TOP Topic
TRUNK Trunk-like objects
VPL Pluractional
ZOO Animal

1. Introduction

The Mixtecs are an Indigenous ethnic group originating from Mesoamerica, specifically from an area currently known as *La Mixteca*, which encompasses parts of the present-day states of Oaxaca, Guerrero, and Puebla in present-day southern Mexico (see Figure 1).

Figure 1. Traditional geographical areas of La Mixteca region (Aguilar Sánchez 2020: 24)

There is, however, a significant diaspora of Mixtec people (Fox & Rivera-Salgado 2004; Escárcega & Varese 2004; Stephen 2007; López 2016), many of whom reside along California's Central Coast, mostly working in the agricultural sector (Kresge 2007; Mines, Nichols & Runsten 2010). New realities in the diaspora have brought many different Mixtec varieties into contact with each other in new and unfamiliar contexts, where they also co-exist with other Mexican Indigenous languages, as well as with Spanish and English (Reyes Basurto, Hernández Martínez & Campbell 2021). In this new context, linguistic racism is prevalent across all public institutions, and Indigenous migrant communities are particularly targeted. Indigenous migrant communities are very often left out of local policymaking, which results in their almost systematic exclusion when it comes to basic services. They face discrimination and marginalization at school (Barillas-Chón

2010; Perez, Vasquez & Buriel 2016), exploitative and dangerous working conditions (Holmes 2013), and systemic language barriers to access institutional services, such as healthcare (Braveman, Egerter & Williams 2011; Maxwell et al. 2015; Thompson 2017) and legal counsel (León 2014).

Therefore, community members have identified a need for a greater understanding of the Mixtec languages spoken in the diaspora community to advance language and social justice (Marie Uliasz 2018; Maxwell et al. 2018) and to create equitable community access to resources, as well as to foster the maintenance of the communities' traditional linguistic and cultural practices. At the root of the language access issues faced by the Mixtec people in California is the great diversity among language varieties often considered to be a single language (i.e., Mixtec), and such misconceptions often undermine language interpretation efforts. It is estimated that around 45,000 Mixtecs live in Santa Barbara and Ventura Counties alone (MICOP n.d.), and that about 35 different Mixtec languages (or varieties) are spoken in these counties (Bax 2020). Providers of services and information for these communities need to acknowledge their linguistic diversity (Ávila, García, et al. 2023), but we still do not know much about the varieties spoken in California and how they compare to each other (Bax 2020).

Centering the voices and experiences of community members, this dissertation attempts to address some of these needs by taking a community-led participatory action approach (e.g., Datta, Hurlbert & Marion 2022; Godden et al. 2020; Godden et al. 2021; Pérez Báez & Aguilar Gil 2022). In the five years of work that shaped this dissertation, I have taken part in various initiatives that foster and directly engage with community-led activism, from more traditional language revitalization work (Salazar, Belmar, et al. 2021; Salazar, Belmar, et al. 2024) to medical translation (Salazar, Reyes Basurto, et al. 2024) and interpretation (Ávila, García, et al. 2023; Ávila, Cortez, et al. 2023). The goal of such initiatives is to advance social justice, which I

understand as the fight for equal access to resources, equal rights (including language rights), dignity, and self-determination.

The fight for social justice and linguistic rights for minoritized communities has been somewhat present all along in my life. Perhaps because I grew up speaking Catalan, and issues of linguistic minoritization are very much at the forefront of public discourse in the Catalan community, I have always known that I belonged to a community whose linguistic rights were never guaranteed, and that one needs to take action to make these rights a reality. My positionality as a speaker of a minoritized language therefore has shaped and continues to shape my academic work. Despite the many differences in history and current contexts among different communities and my position as an outsider researcher (Meakins, Green & Turpin 2018; Pérez González 2020), I relate and empathize with issues around linguistic minoritization at a deep personal level.

This dissertation consists of two parts, representing two key components identified by community members to address language and social justice problems: deeper understanding of the Mixtec languages in the diaspora community in the Central Coast of California; and deeper understanding of the differences (and similarities) between these languages. The first part of this dissertation is a grammatical description of Sà'án Sàvĭ ñà ñuù Xnúvíkó (Mixtepec Mixtec), an under-documented Mixtec language that is relatively widely spoken on the Central Coast of California. The goal of this part is to contribute to our knowledge of how Mixtec languages work, and to provide the basis upon which language teaching materials can be built. The second part presents an innovative approach to exploring receptive multilingualism by centering the discussions and metalinguistic reflections of two speakers of two different Mixtec languages. The goal of this part is to serve as a starting point for the study of intelligibility and multilingual practices in Mixtec diaspora communities.

These two parts reflect different levels of community involvement, from the community-informed grammatical description (which has been shaped by many projects and discussions with community members indirectly but was not initiated by community members themselves) to the community-led participatory research exemplified in the analysis of metalinguistc reflections on intelligibility (which was initiated by community members, who were also essential in the research design).

GRAMMATICAL DESCRIPTION OF SÀ'ÁN SÀVĬ ÑÀ ÑUÙ XNÚVÍKÓ

2. Introduction to the Grammatical description of Sà'án Sàvĭ ñà ñuù Xnúvíkó

Sà'án Sàvĭ ñà ñuù Xnúvíkó (Mixtepec Mixtec) is the Mixtec variety spoken primarily in the municipality of San Juan Mixtepec, in the district of Juxtlahuaca of the Mixteca region in the state of Oaxaca, Mexico. Significant numbers of community members have long migrated to other parts of Mexico and the US (Edinger 1985), with many currently residing in Baja California, and in the Central Coast of California (Hernández Martínez, Campbell & Reyes Basurto 2021; Reyes Basurto, Hernández Martínez & Campbell 2021), particularly in the cities of Oxnard and Santa Maria. Sà'án Sàvĭ ñà ñuù Xnúvíkó (ISO 639-3: mix) is classified as one of the primary groups of the Mixtec language family, which in turn belongs to the Otomanguean linguistic stock of Mesoamerica (Josserand 1983); that is, Sà'án Sàvĭ ñà ñuù Xnúvíkó forms a separate branch from the other Mixtec varieties spoken in the same district and beyond. There are about 9,170 speakers of Sà'án Sàvĭ ñà ñuù Xnúvíkó (Eberhard, Simons & Fenning 2019).

Although there have been grammatical descriptions of other Mixtec varieties, very little documentation of Sà'án Sàvĭ ñà ñuù Xnúvíkó exists beyond a few phonological sketches focusing on tone (Pike & Ibach 1978; Paster 2005; Paster & Beam de Azcona 2004a; 2004b), some preliminary work on person pronouns (Paster 2010; including some of our own work Belmar, Vásquez-Aguilar & Salazar 2021; Salazar et al. 2022) and typological features (Bowers 2020; Bowers 2022). This dissertation will contribute a grammatical description of Sà'án Sàvĭ ñà ñuù Xnúvíkó, which needs to be described in its own terms as it constitutes a primary group of the Mixtec language family.

Sà'án Sàvĭ ñà ñuù Xnúvíkó is described as shifting by Glottolog (Hammarström et al. 2020). It still the main community and family language in small villages in the municipality of San Juan Mixtepec, but Spanish is quickly replacing it as the language of younger generations, particularly in Ñuù Xnúvíko, the seat of the municipality— a trend that has been observed in other Mixtec municipalities (Perry 2009). Many people under thirty understand the language but either do not speak or do not feel confident in their ability to speak it, especially those who spent large amounts of time outside of the municipality for work or studies. Many children are now growing up without speaking Sà'án Sàvĭ ñà ñuù Xnúvíkó at home, and even though the schools are supposed to be bilingual, there is very little Mixtec being taught. The maintenance of traditional community organizational roles (*cargos*) and migratory paths that rely on language as a marker of identity have been identified as strongholds for language use and maintenance in the municipality (Rojas Santos 2011). In diaspora communities, however, intergenerational transmission is reportedly low (Reyes Basurto, Hernández Martínez & Campbell 2021).

The study draws from data collected in linguistic fieldwork and during the Field Methods class 2019/20 at UCSB, when we collected about 4 hours of language in use, mostly recordings of Jeremías Salazar, from the village of Yucunani. These records are mostly audio, but there are some video recordings as well. They include anecdotes, stories, social commentary, descriptions, procedures, elicitation sessions, and a conversation.

In early 2022 Jeremías and I collaborated with two community researchers based in Oaxaca, Verónica Aguilar and Claudia Salazar, who recorded audio of over 2 hours of natural speech in Yucunani, Oaxaca, Mexico. The recordings include anecdotes and personal

narratives, history of the village, social commentary, procedures, a conversation, and animal rearing advice.

In Summer 2022, we conducted an additional 3 weeks of fieldwork and we expanded our area to the whole municipality of Ñuù Xnúvíkó (Mixtepec). In total, we collected over 7 hours of new recorded speech from 9 different villages (Yucunani/Yukúnanǐ, Independencia/Tsìkǐ Ntákŭ, Mixtepec/Ñuù Xnúvíkó, Santo Domingo del Progreso/Yukúchòô, Río de las Flores/Yùcha Ità, Santa María Teposlantongo/Nkàun, Unión Cárdenas, Los Tejocotes/Mína, and San Lucas/Nkŏsò) (see Figure 2) and by 17 speakers, 11 women and 6 men, ranging from 16 to 97 years old. These recordings include both audio (363 minutes) and video (220 minutes) recording. The topics in the recordings include elicitation sessions, clay pot making, mushrooms, chilis, beans, parts of the body, folk stories, stories of the municipality, myths, traditional weaving, traditional celebrations, family histories, traditional drumming, traditional medicine, and ritual speech.

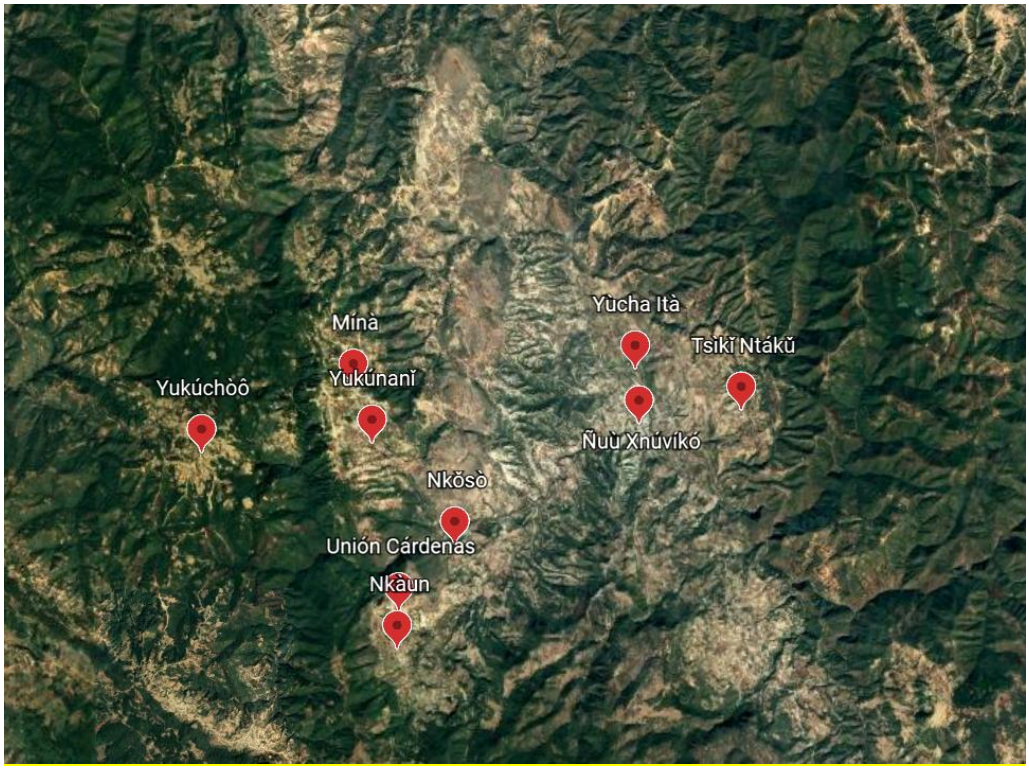


Figure 2. Map showing an aerial view of the municipality of San Juan Mixtepec, with the location of the 9 villages represented in the corpus.

Finally, in October and November 2023 Jeremías and I conducted an experiment to obtain data on the phonetic realization of prenasalized stops. These elicitation sessions with 6 different speakers were also added to our corpus.

We are transcribing these recordings in the community orthography developed during the Field Methods class led by community member, Jeremías Salazar. Over 10 hours have been transcribed so far, about 50% of which are elicitation or experimental sessions, leaving about 5 hours of naturalistic speech data. These transcriptions and their translations in English and Spanish will be used to describe the linguistic structures that can be seen in language use.

Following a usage-based and discourse-centered theoretical and methodological disposition, elicitation of syntactic structures and information packaging is only used sparsely

to complement the discourse data. The complex verbal aspect-mood inflectional patterns are explored with elicitation but exemplified in discourse whenever possible.

2.1. Co-researcher

Jeremías Salazar, speaker of Sà'án Sàvĭ ñà ñuù Xnúvíkó, from the village of Yukúnanĭ (Yucunani) is a key part of the analysis presented in this dissertation. For one, many of the recordings used in this dissertation feature Jeremías, either as a main speaker or as an interviewer. Beyond this, all the recordings were transcribed by me in collaboration with Jeremías throughout the five years that we have been working together. Through in-person sessions, Zoom sessions, or WhatsApp sessions (depending on our personal circumstances and wi-fi availability) Jeremías and I met regularly every week over the last five years, working on transcribing and analyzing these recordings. The analysis presented in this dissertation would not have been possible without this close collaboration.

2.2. Speakers and Recordings

The analysis presented in this grammatical description is based primarily on 39 (fully or partially) transcribed recordings from 24 speakers. Most of these speakers live or identify primarily with the village of Yukúnanĭ (Yucunani), but many of them have lived in other villages in the municipality (or even elsewhere in the district and beyond) and have close contact with relatives in other villages. All examples in the grammar will be identified by a short title of the recording, a time stamp, and the initials of the speaker(s) who uttered the example. Three speakers preferred to remain anonymous, and therefore some examples will be identified with the letter A for Anonymous. The list below introduces the speakers that

participated in the recordings that constitute the corpus for this description. In this dissertation, each speaker is identified with an abbreviation, presented in parentheses in the list below.

- **Jeremías Salazar** (JS): Originally from Yukúnanĭ (Yucunani). He grew up in Santa María (CA). In many of the recordings he is the interviewer.
- **Celia Bautista** (CB): Jeremías' mother. She currently lives in Santa María (CA), but lived most of her life in Yukúnanĭ (Yucunani).
- **Hilaria Velasco López** (HVL): From Yukúnanĭ (Yucunani). She has not migrated.
- **Guillermo Martínez López** (GML): Originally from Yukúnanĭ (Yucunani). He spent some time in Santa Maria (CA), but went back to live in Yukúnanĭ. He was living in Yukúnanĭ at the time of the recording.
- **Hermelinda Velasco Bautista** (HVB): From Yukúnanĭ (Yucunani). She has not migrated.
- **Fernando Víctor Morales Velasco** (FVM): From Yukúnanĭ (Yucunani). He has lived in many places in Mexico (including Chiapas, Veracruz, and Baja California) as well as in the US. When he was young, he worked in the mines in Mínà (Los Tejocotes). At the time of the recording, he had come back to retire in Yukúnanĭ.
- **Constantino Bautista López** (CBL): From Yukúnanĭ (Yucunani).
- **Almadelia Ortiz Cruz** (AOC): From Yosóvà'a (Yosova). At the time of the recording she was living in Yukúnanĭ (Yucunani).
- **Claudia Salazar** (CS): Jeremías' cousin. She grew up in Yukúnanĭ (Yucunani) and still lives there. In many of the recordings she interprets information about consent and the purposes of the research project.

- **Nasario Hernández Gómez** (NHG): From Tsìkĭ Ntákŭ (Independencia). He grew up there and never migrated, although he worked all over the municipality of San Juan Mixtepec and neighboring towns.
- **Deyanira López Santiago** (DLS): From Ñuù Xnúvíkó (San Juan Mixtepec). She grew up there but moved away for her studies. She went back to Ñuù Xnúvíkó during the COVID pandemic.
- **María de la Luz Santiago Galindo** (MLSG): Deyanira's mother. From Tsìkĭ Ntákŭ (Independencia). She spent some time in the US, but she's lived most of her life in San Juan Mixtepec. At the time of the recording, she was living in Ñuù Xnúvíkó.
- **Julia Cruz Paz** (JCP): Jeremías' aunt. From Mínà (Los Tejocotes).
- **Roberto Paz Santiago** (RPS): From Nkŏsò (San Lucas). He spent time in the US but moved back to San Juan Mixtepec. At the time of the recording, he was living in Nkŏsò.
- **David Bautista Salazar** (DBS): Jeremías' uncle. From Nkŏsò (San Lucas). At the time of the recording, he was living in Skuíâ (Santiago Juxtlahuaca).
- **Juan Sánchez** (JSA): From Unión Cárdenas, formerly part of Nkàun (Santa María Tepostlantongo).
- **Alejandra García** (AG): From San Juan Mixtepec. At the time of the recording, she was living in Skuíâ (Santiago Juxtlahuaca).
- **Francisco Bautista Santiago** (FBS): From San Juan Mixtepec. At the time of the recording, he was living in Skuíâ (Santiago Juxtlahuaca).
- **Miguel Martínez Hernández** (MMH): From San Juan Mixtepec. At the time of the recording, he was living in Skuíâ (Santiago Juxtlahuaca).

- **Silverio García** (SG): From San Juan Mixtepec. At the time of the recording, he was living in Skuíâ (Santiago Juxtlahuaca).
- **Yuridia García Santiago** (YGS): From San Juan Mixtepec. At the time of the recording, she was living in Skuíâ (Santiago Juxtlahuaca).

In this grammar, examples from spontaneous naturalistic speech are prioritized, particularly those recordings in which the speaker(s) have someone else they can interact with. That is, recordings in which at least one of the interviewers speaks the language, even if they do not say much or anything at all. These recording events are said to represent naturally occurring discourse more faithfully (Troiani, Du Bois & Filchenko *forthcoming*), as it situates language dialogically. Some recordings of elicitation and working sessions were used, particularly in the phonology section of this grammar. However, priority was given to examples coming from recordings of unplanned naturalistic speech. The list below introduces the main recordings of unplanned naturalistic speech used in this dissertation. The title in Sà'án Sàvĭ ñà ñuù Xnúvíkó appears in bold, followed by the identifying title used in this dissertation in parentheses, followed by a translation of the title into English in Italics. The title is followed by the duration of the recording, the genre, the speaker, the recorder(s) as well as the location and date of the recording session.

- **Nchîı̂ să'â kìĭ suátù** (Nchii_saa_kii_suatu) *What I did on Saturday* [duration: 1 minute 35 seconds]. Personal narrative by Jeremías Salazar, recorded by Guillem Belmar in Santa Barbara, CA, on the 29th of October 2019.

- **Iin chàa tsîni tsi tàchǐ** (Iin_chaa_tsini_tsi_tachi) *The drunk man and the devil* [duration: 4 minutes 57 seconds]. Family story by Jeremías Salazar, recorded by Inî G. Mendoza in Santa Barbara, CA, on the 5th of December 2019.
- **Lóchí tsi ntikú'ntú 1** (Lochi_tsi_ntikuntu1) *The vulture and the lazy man* [duration: 3 minutes 59 seconds]. Traditional story by Jeremías Salazar, recorded by Saleem Alfaife in Santa Barbara, CA, on the 16th of January 2020.
- **Lóchí tsi ntikú'ntú 2** (Lochi_tsi_ntikuntu2) *The vulture and the lazy man* [duration: 3 minutes 20 seconds]. Traditional story by Jeremías Salazar, recorded by Jesús Olguín in Santa Barbara, CA, on the 24th of January 2020.
- **Lóchí tsi ntikú'ntú 3** (Lochi_tsi_ntikuntu3) *The vulture and the lazy man* [duration: 3 minutes 11 seconds]. Traditional story by Jeremías Salazar, recorded by Catherine Scanlon in Santa Barbara, CA, on the 9th of January 2020.
- **Ntsàtsí ntìvă'û chùŭn** (Ntsatsi_ntivau_chuun) *The coyote ate the hens* [duration: 3 minutes 36 seconds]. Family story by Jeremías Salazar, recorded by Giorgia Troiani in Santa Barbara, CA, on the 14th of January 2020.
- **Nùŭ tsáchúun-nà tsà'vi** (Tsachuun-na_tsavi) *Where they use the 'tsà'vì'* [duration: 6 minutes]. Description and social commentary by Jeremías Salazar, recorded by Alonso Vázquez-Aguilar in Santa Barbara, CA, on the 14th of January 2020.
- **Tá nìkìtsàà-yù Estados Unidos yó'o** (Nikitsaa-yu_EEUU) *When I arrived in the US* [duration: 3 minutes 52 seconds]. Personal narrative by Jeremías Salazar, recorded by Guillem Belmar Viernes in Santa Barbara, CA, on the 14th of January 2020.

- **Jeremías in California** (California) [duration: 26 minutes 37 seconds]. Conversation between Jeremías Salazar and Griselda Reyes Basurto,[1] recorded by Eric W. Campbell in Santa Barbara, CA, on the 4th of February 2020. Partially transcribed [9 minutes 36 seconds].
- **Koto kue kitǐ** (Koto_kue_kiti) *Taking care of animals* [duration: 9 minutes 57 seconds]. Animal rearing advice and social commentary given by Hermelinda Velasco Bautista, recorded by Verónica Aguilar and Claudia Salazar in Yukúnanǐ on the 23rd of January 2022.
- **Consentimiento** (Consent_HVB) *Consent* [duration: 4 minutes 16 seconds]. Conversation on consent with Hermelinda Velasco Bautista, recorded by Verónica Aguilar and Claudia Salazar in Yukúnanǐ on the 23rd of January 2022.
- **Sáchúùn tsi ñùñŭ** (Sachuun_tsi_nunu) *I work with bees* [duration: 13 minutes 40 seconds]. Description and procedures of beekeeping, by Guillermo Martínez López, recorded by Verónica Aguilar and Claudia Salazar in Yukúnanǐ on the 23rd of January 2022.
- **Nixi tánta'ă-nà Yukúnanǐ** (Tantaa-na_Yukunani) *How people get married in Yucunani* [duration: 16 minutes 39 seconds]. Social commentary and local traditions by A, recorded by Verónica Aguilar and Claudia Salazar in Yukúnanǐ on the 23rd of January 2022.
- **Nixi ntsìsá'a kue nà yatá vikŏ** (Kue_na_yata_viko) *How the ancestors used to do festivals* [duration: 15 minutes 11 seconds]. Local tradition, history and social

[1] Griselda Reyes Basurto is a speaker of Tlahuapa Mixtec, a different variety. Only Jeremías' utterances have been taken into the account for the description of Sà'án Sàvǐ ñà ñuù Xnúvíkó.

commentary by Hilaria Velasco López, recorded by Verónica Aguilar and Claudia Salazar in Yukúnanĭ on the 23rd of January 2022.

- **Nixi ntsìo tá tsàà na'á Yukúnanĭ** (Ta_tsaa_naa_Yukunani) *What life was like in Yucunani before* [duration: 9 minutes 5 seconds]. Local tradition, history and social commentary by Hilaria Velasco López, recorded by Verónica Aguilar and Claudia Salazar in Yukúnanĭ on the 23rd of January 2022.
- **Ntànchikô Yukúnanĭ** (Ntanchiko_Yukunani) *I came back to Yucunani* [duration: 14 minutes 45 seconds]. Personal narrative and social commentary by A, recorded by Verónica Aguilar and Claudia Salazar in Yukúnanĭ on the 23rd of January 2022.
- **Kue nchaĭ ñoŏ tsi kue nchaĭ Estados Unidos** (Kue_nchai_noo) *The foods from our village and the foods from the US* [duration: 9 minutes 37 seconds]. Personal narrative and social commentary by A, recorded by Verónica Aguilar in Yukúnanĭ on the 26th of March of 2022.
- **Nixi ntà'vĭ ntixì** (Ntavi_ntixi) *How* pulque *started* [duration: 10 minutes 41 seconds]. Traditional knowledge, description, social commentary and conversation between Fernando Victor Morales Velasco and Constantinto Bautista López, recorded by Verónica Aguilar in Yukúnanĭ on the 26th of March of 2022.
- **Nixi ntó'o nà tsíka ntá'vì** (Ntoo_na_tsika_ntavi) *What those who migrated experience* [duration: 11 minutes 21 seconds]. Personal narrative and social commentary by Fernando Victor Morales Velasco, recorded by Verónica Aguilar in Yukúnanĭ on the 26th of March of 2022.
- **Ná ká'ăn sà'án meé-kó, ná ká'ăn sà'án sàvĭ** (Na_kaan_saan_mee-ko) *Let's speak our language, let's speak Mixtec* [duration: 3 minutes 22 seconds]. Social commentary and

speech by Celia Bautista, recorded by Jeremías Salazar in Santa María, California, on the 31st of March 2022.

- **Và'a chincheé ntúchá** (Vaa_chinchee_ntucha) *Goats can help* [duration: 11 minutes 27 seconds]. Personal narrative, traditional knowledge and procedures by Almadelia Ortiz Cruz, recorded by Verónica Aguilar in Yukúnanĭ on the 15th of May 2022.
- **Nixi ntsìo kue nivĭ yatá tá ntsăîn ka'àn-nà Sà'án Xchílà** (Kue_nivi_yata) *How people used to live before when they did not know Spanish yet* [duration: 12 minutes 32 seconds]. Personal narrative, local traditions, local history, and social commentary by Nasario Hernández Gómez, recorded by Jeremías Salazar, Guillem Belmar and Deyanira López Santiago in Tsìkĭ Ntákŭ (Independencia) on the 10th of August 2022.
- **Nixi ntsìkaa Ñuù Xnúvíkó tá tsàà na'á tsi iinkàâ sava kue ñuù kuáchi luu** (Nuu_Xnuviko_ta_tsaa_naa) *What Mixtepec and other small villages used to be like before* [duration: 38 minutes and 55 seconds]. Personal narrative, local traditions, local history, social commentary, and *tsà'vì*[2] by Nasario Hernández Gómez, recorded by Jeremías Salazar, Guillem Belmar and Deyanira López Santiago in Tsìkĭ Ntákŭ (Independencia) on the 10th of August 2022. Partially transcribed [22 minutes 28 seconds].
- **Nixi sá'a i'à ñoŏ** (Ia_noo) *How the giants made our village* [duration: 7 minutes 42 seconds]. Traditional stories, traditional knowledge, and social commentary by Nasario

[2] The speech genre locally known as *tsà'vì* (or 'parangón' in Spanish) is a highly elaborated form of verbal art traditionally used in certain community ritual such as when asking for someone's hand in marriage, or when passing on the baton to the next local authority. This speech genre has been said to be different from every day speech in some Mixtec varieties (León Vázquez 2023), so examples that come from *tsà'vì* in this grammatical description will be flagged as such.

Hernández Gómez, recorded by Jeremías Salazar, Guillem Belmar and Deyanira López Santiago in Tsìkǐ Ntákŭ (Independencia) on the 10th of August 2022.

- **Kájà** (Kaja) *Drums* [duration: 8 minutes and 28 seconds]. Local traditions by Nasario Hernández Gómez, recorded by Jeremías Salazar, Guillem Belmar and Deyanira López Santiago in Tsìkǐ Ntákŭ (Independencia) on the 30th of August 2022.

2.3.This grammatical description

This grammatical description starts with a chapter describing the phonology of the language (§3), both in terms of segments (§3.2 and §3.3) and suprasegmental elements (§3.4), as well as phonotactics (§3.5). I then move on to introduce the relevant word classes in Sà'án Sàvǐ ñà ñuù Xnúvíkó (§4), which serve as a basis upon which I develop a description of the morphology of the language (§5). This morphology chapter is divided into three main sections: person marking (§5.1), nominal morphology (§5.2), and verbal morphology (§5.3). The latter is further subdivided into TAM inflection (§5.3.2), auxiliaries (§5.3.3), and verbal prefixes (§5.3.4).

3. Phonology of Sà'án Sàvĭ ñà ñuù Xnúvíkó

The phonological inventory of Sà'án Sàvĭ ñà ñuù Xnúvíkó (Mixtepec Mixtec) consists of 24 consonants (see Table 1), 5 vowels (see Table 2), and four types suprasegmental elements (see Table 3): vowel length (§3.4.1), vowel nasality (§3.4.2), tone (§3.4.3), and stress or prominence (§3.4.4).

This chapter presents the segmental inventory and the suprasegmental contrastive elements of Sà'án Sàvĭ ñà ñuù Xnúvíkó. Each segmental phoneme is discussed in detail, one phoneme at a time. The basic and allophonic realizations of each phoneme are described, and generalizations about their distribution, such as co-occurrence constraints and position in syllables and words, are also noted. In some cases, sound changes from Proto-Mixtec are also noted. The contrastive status of all phonemes is established with minimal or near-minimal pairs. The spelling conventions used in this dissertation are presented first (§3.1), followed by consonants (§3.2), followed by vowels (§3.3), and the suprasegmental elements (§3.4).

Table 1. Consonant inventory of Sà'án Sàvĭ ñà ñuù Xnúvíkó (in native vocabulary)

		Bilabial	**Alveolar**	**Palatal**	**Velar**	**Labio-velar**	**Glottal**
Plosive	**Plain**	p	t		k	k^w	ʔ
	Prenasalized	^{m}p	^{n}t		^{ŋ}k	$^ŋ k^w$	
Nasal		m	n	ɲ			
Affricate	**Plain**		t͡s	t͡ʃ			
	Prenasalized		^{n}t͡s	^{n}t͡ʃ			
Fricative			s	ʃ	x		(h)
Approximant		β̞		j	(ɣ)	(w)	
Lateral approximant			l				
Tap			ɾ				
Trill			r				

Table 2. Vowel inventory of Sà'án Sàvĭ ñà ñuù Xnúvíkó

	Front	**Central**	**Back**
High	i		u
Mid	e		o
Low		a	

Table 3. Suprasegmental inventory of Sà'án Sàvĭ ñà ñuù Xnúvíkó

	Orthographic representation	Example
Vowel length	VV [V:]	*aa*
Vowel nasality	Vn [Ṽ]	*an*
High tone	V́ [V^{4}]	*á*
Mid tone	V [V^{3}]	*a*
Low-mid tone	V [V^{2}]	*a*
Low tone	V̀ [V^{1}]	*à*
Rising tone	V̌ [V^{14}][3]	*ǎ*
Falling tone	V̂ [V^{41}][4]	*â*

3.1. Spelling system

The examples in this chapter are presented in IPA transcription together with the practical orthography developed during the 2019/20 Field Methods class at the University of California, Santa Barbara, led by Jeremías Salazar and Prof. Eric W. Campbell. This orthography differs from the International Phonetic Alphabet in the following conventions:

[3] Phonetically, rising tones may be realized as rising combinations of any of the four level tones.
[4] Phonetically, falling tones can be high>low [^{41}], high>low-mid [^{42}], or mid>low [^{31}].

Table 4. Conventions in which the practical orthography differs from IPA

Practical orthography	**IPA**
<kuV>	[k^wV]
<mp>	[^mb]
<nt>	[nd]
<nk>	[^ŋg]
<nkuV>	[$^ŋg^wV$]
<ch>	[$\widehat{tʃ}$][5]
<nts>	[$^n\widehat{dz}$]
<nch>	[$^n\widehat{dʒ}$]
<x>	[ʃ]
<ñ>	[ɲ]
<y>	[j]
<v>	[β̞]
<r>	[ɾ]
<rr>	[r]
<'>	[ʔ]
<VV>	long (bimoraic) vowel
<Vn>	nasal vowel

The practical orthography also marks five different tones using diacritics: high tone *á*, mid tone *a* (with no diacritic), low tone *à*, rising tone *ǎ* and falling tone *â*. There is a fourth level tone, the low-mid tone (m) which is orthographically represented just like a mid tone (with no diacritic). In addition, contour tones represent more than two (non-contrastive) tonal

[5] Some community members spell this sound as <ty>, and its pre-nasalized counterpart as <ndy>, following recommendations by (INALI 2022). The use of <ch> in this dissertation is not a judgment on the appropriateness of the diagraph <ty>, rather a choice to stick to the decisions made by community members in the Californian diaspora.

contours[6], but the decision was taken against making these distinctions in the practical orthography to keep it more accessible, as some community members find the diacritics too strange. Note that examples in the rest of the dissertation will be presented solely in this practical orthography.

3.2. Consonants

In the native lexicon, Sà'án Sàvĭ ñà ñuù Xnúvíkó features 24 consonant phonemes (Table 1). Voicing is not contrastive, but both plosives and affricates present pre-nasalization as a contrastive feature (Belmar & Salazar 2023), with the exception of the voiceless glottal stop /ʔ/ (§3.2.1.1).

Of the 8 manners of articulation found among Sà'án Sàvĭ ñà ñuù Xnúvíkó consonants, plosives are the most numerous with 5 distinctive plain segments: /p, t, k, k^w, ʔ/, and 4 pre-nasalized segments /^{m}p, ^{n}t, ^{ŋ}k, ^{ŋ}k^w/. Affricates present a 4-way distinction between plain /t͡s, t͡ʃ/ and their pre-nasalized counterparts /^{n}t͡s, ^{n}t͡ʃ/. Sà'án Sàvĭ ñà ñuù Xnúvíkó also features 3 fricatives in the native lexicon /s, ʃ, x/—although /f/ may appear in loanwords from Spanish (§3.2.3)—; 3 nasals /m, n, ɲ/ and 3 approximants /β̞, j, w/—/w/ is more common in loanwords from Spanish, appearing only in a few native words (§3.2.5). After that, the rhotics /ɾ, r/—/r/ being attested primarily, but not exclusively, in loanwords from Spanish (§3.2.6)—and the lateral /l/ constitute the less populated manners of articulation.

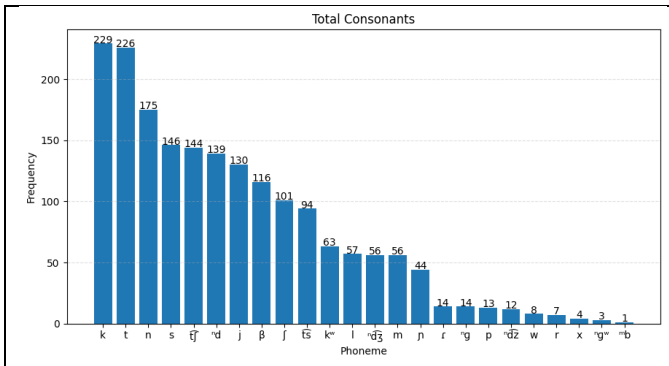
As for place of articulation, alveolars constitute the most elaborate set /t, ^{n}t, t͡s, ^{n}t͡s, s, n, l, ɾ, r/, followed by bilabials /p, ^{n}p, m, β̞/. The latter were not present in proto-Mixtec (see Josserand 1983). In addition, Sà'án Sàvĭ ñà ñuù Xnúvíkó presents five palatal /ɲ, t͡ʃ, ^{n}t͡ʃ, ʃ, j/,

[6] These are non-contrastive in uninflected roots.

three velar /k, ⁿk, x/— although the latter may be realized as [h] in certain environments—, and two labio-velar consonants /kʷ, ᵑkʷ/. Finally, there is only one glottal consonant /ʔ/.

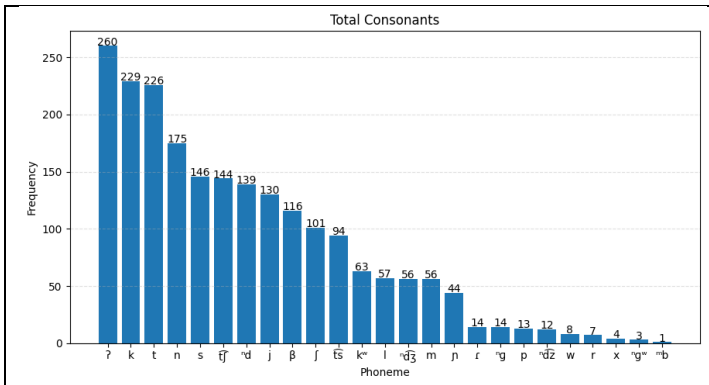
In terms of frequency, the velar plosive /k/ is the most frequent consonant (12.37%), followed closely by the alveolar plosive /t/ (12.20%) (see Figure 3). However, including the glottal stop /ʔ/ in the analysis, this turns out to be the most frequent consonant overall (12.31%) followed by both the velar plosive /k/ (10.84%) and the alveolar plosive /t/ (10.70%) (see Figure 4). If we only consider word-initial consonants, however, the alveolar plosive /t/ is more common (13.91%), followed by its prenasalized counterpart /ⁿt/ (10.87%) (see Figure 5). Finally, if we take into account only word-medial consonants, the velar plosive /k/ is once again the most frequent consonant (15.33%), followed by the alveolar nasal stop /n/ (11.54%) (see Figure 6). The figures below show the frequencies of consonants in bar plots, accompanied by tables showing the relative frequencies of the five most common segments in each environment.

Frequencies were calculated based on an 874-word lexical database, containing mostly nouns and adjectives and purposefully excluding verbs. This database was curated and trimmed to avoid repeating roots in compounds skewing the results. Following this, Yan Lashchev, Research Assistant for our JIPA Illustration project, wrote a code in Python to transform all the entries of the database into their IPA representation, which were then used to calculate frequencies of segments. The same method was used to calculate frequencies in the distribution of the vowels (§3.3) and the types of syllables (§3.5.2).



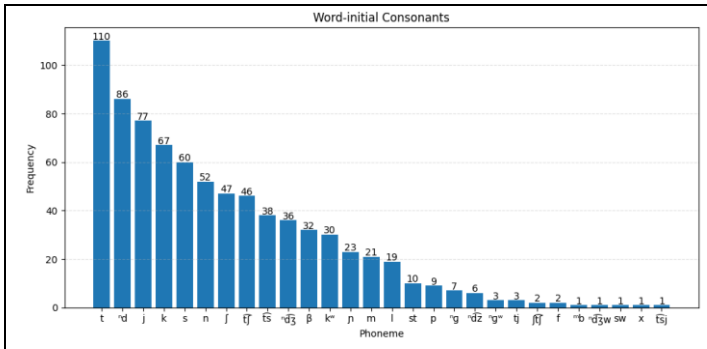
Segment	Frequency (%)
/k/	12.37%
/t/	12.20%
/n/	9.45%
/s/	7.88%
/t͡ʃ/	7.78%

Figure 3. Total frequency of consonants in Sà'án Sàvĭ ñà ñuù Xnúvíkó (without the glottal stop). Relative frequency (N = 1,852).



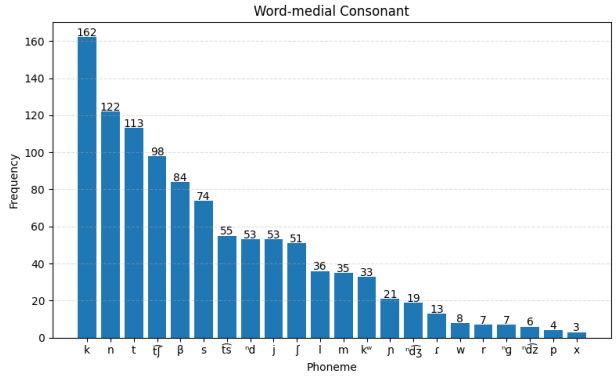
Segment	Frequency (%)
/ʔ/	12.31%
/k/	10.84%
/t/	10.70%
/n/	8.29%
/s/	6.91%

Figure 4. Total frequency of consonants in Sà'án Sàvĭ ñà ñuù Xnúvíkó (with the glottal stop). Relative frequency (N = 2,112).



Segment	Frequency (%)
/t/	13.91%
/nt/	10.87%
/j/	9.73%
/k/	8.47%
/s/	7.59%

Figure 5. Frequency of word-initial consonants in Sà'án Sàvĭ ñà ñuù Xnúvíkó· Relative frequency (N = 791).



Segment	Frequency (%)
/k/	15.33%
/n/	11.54%
/t/	10.69%
/t͡ʃ/	9.27%
/β̞/	7.95%

Figure 6. Frequency of word-medial consonants in Sà'án Sàvĭ ñà ñuù Xnúvíkó (without the glottal stop). Relative frequency (N = 1,057).

The following analysis is based primarily on the sound patterns found in native words, although the most common sounds in loanwords are also discussed. The distribution of consonants in Sà'án Sàvĭ ñà ñuù Xnúvíkó is restricted to word-initial and word-medial environments, in syllable onset position. Nevertheless, some loanwords (especially from Spanish) may have different consonants as codas (§3.5.2.3). The only consonant that does not follow this distribution in native words is the voiceless glottal stop /ʔ/, which may also occur as a coda. The voiceless glottal stop /ʔ/ is also the only consonant that can never occur word-initially—although words beginning with a vowel may be phonetically realized with a glottal stop in connected speech.

3.2.1. Plosive consonants

The voiceless bilabial plosive /p/ is a rare phoneme in Sà'án Sàvĭ ñà ñuù Xnúvíkó, and it usually appears in loanwords from Spanish. It is realized as [p], and it may appear in word-initial and

word medial contexts at the onset position, such as in the words *páá* [pa^{4}a^{4}] ‘father’; *espéjù* [es^{3}.pe^{4}.xu^{1}] ‘mirror’; and *paìn* [pã^{3}ĩ^{1}] ‘shawl’.

The voiceless alveolar plosive /t/ is commonly realized as a dental [t̪], and it is a very common phoneme in Sà'án Sàvĭ ñà ñuù Xnúvíkó both in word-initial and word-medial contexts, as can be seen in the words *tikĭ* [t̪i^{3}.ki^{14}] ‘seed’; *tutù* [t̪u^{3}.t̪u^{1}] ‘paper’; *itù* [i^{3}.t̪u^{1}] ‘milpa / corn field’; and *yŭti* [ju^{14}.t̪i^{3}] ‘sand’. Some function words and clitics that start with /t/ show an alternation between the voiceless dental [t̪] and the alveolar tap [ɾ], such as *tatù* [t̪a^{3}.t̪u^{1}] or *ratù* [ɾa^{3}.t̪u^{1}] ‘if’; and *tsi-tí* [t͡si^{3}.t̪i^{4}] or [t͡si^{3}.ɾi^{4}] ‘with it (the animal)’.

The voiceless velar plosive /k/ is realized as [k], and it may appear in word-initial and word-medial contexts, as can be seen in the words *kìĭ* [ki^{1}i^{14}] ‘day / date’; *tìka* [t̪i^{1}.ka^{3}] ‘grasshopper’; *yùkù* [ju^{1}.ku^{1}] ‘herb’; and *kùmĭ* [ku^{1}.mi^{14}] ‘four’. In fast speech, and especially at the beginning of clitics, the voiceless velar plosive is lenited and may be realized as [ɣ] instead, as in the phrase *sà'án meé-kó* [sã^{1}.ʔã^{4}.me^{3}e^{4}.ko^{4}] or [sã^{1}.ʔã^{4}.me^{3}e^{4}.ɣo^{4}] ‘our language’.

The voiceless labio-velar plosive consonant is realized as a co-articulated single segment, [k^{w}], both in word-initial and word-medial contexts, as in the words *kuiĭ* [k^{w}i^{3}i^{14}] ‘green’; *kuá'à* [k^{w}a^{4}.ʔa^{1}] ‘red’; *kuìkà* [k^{w}i^{1}.ka^{1}] ‘comb’; and *likuì* [li^{3}.k^{w}i^{1}] ‘toad’. It is worth noting, however, that it occurs much more often word-initially. In addition, in fast speech and especially at the beginning of certain clitics it may undergo lenition and be realized as the approximant [w] or even [β̞] by some speakers, as in the phrase *kue nivĭ ñoŏ* [k^{w}e^{3}.ni^{3}.βi^{14}.ɲo^{3}o^{14}] or [we^{3}.ni^{3}.βi^{14}.ɲo^{3}o^{14}] or [β̞e^{3}.ni^{3}.βi^{14}.ɲo^{3}o^{14}] ‘our community’.

The glottal stop /ʔ/ is often realized as creaky voice or glottalization of the following segment, although it surfaces as a glottal stop in careful speech.[7] It behaves differently from

[7] In fact, most stops, especially velar and labio-velar stops, are highly likely to lenite in Sà'án Sàvĭ ñà ñuù Xnúvíkó casual speech, as has been documented for other Mixtec languages (see DiCanio et al. 2022)

the other consonants presented in this section, and its analysis is still somewhat unclear (§3.2.1.1). Its most frequent position is between two homorganic vowels, such as in *ù'ùn* [ũ^{1}.ʔũ^{1}] 'five'; *tĭ'in* [t̪ĩ^{14}.ʔĩ^{3}] 'mouse'; *ché'é* [t͡ʃe^{4}.ʔe^{4}] 'pretty'; *ntika'a* [^{n}di^{1}.ka^{3}.ʔa^{3}] 'jaguar'; or *sto'ò* [st̪o^{3}.ʔo^{1}] 'owner'. However, it can also appear between non-homorganic vowels, such as in *nchá'ì* [^{n}d͡ʒa^{4}.ʔi^{1}] 'black'; *tsà'ùn* [t͡sã^{1}.ʔũ^{1}] 'fifteen'; or *xí'an* [ʃĩ^{4}.ʔã^{3}] 'hawk'. It is also the only consonant that may occur as a coda in native words, as it may appear in word medial context before any voiced segment, such as in *mì'nchă* [miʔ^{1}.^{n}d͡ʒa^{14}] 'nopal'; *sa'và* [saʔ^{3}.β̞a^{1}] 'frog';[8] *ká'nu* [kaʔ^{4}.nu^{3}] 'big'; *ña'mì* [ɲaʔ^{3}.mi^{1}] 'tuber'. Yet it never appears word-finally. It is also the only consonant that does not occur word-initially, although a glottal stop is sometimes added in speech to words that begin with a vowel (for example, in the word *iin* [ĩ^{3}ĩ^{3}] 'one' in this sentence from the translation of the North Wind and the Sun into Sà'án Sàvĭ ñà ñuù Xnúvíkó: *ntsítsi-rà iin koto* [^{n}d͡zi^{4}.t͡si^{3}.ɾa^{1}.ʔĩ^{3}ĩ^{3}.ko^{3}.t̪o^{3}] 'he is wearing a coat').

Example set (1) shows the distribution of plosives in Sà'án Sàvĭ ñà ñuù Xnúvíkó, and example set (2) illustrates minimal pairs between /k/ and /k^{w}/.

(1) Distribution of plosives in Sà'án Sàvĭ ñà ñuù Xnúvíkó

/p/ [p]	*páá*	[pa^{4}a^{4}]	'father'
	espéjù	[es^{3}.pe^{4}.xu^{1}]	'mirror'(< SP 'espejo')
	paìn	[pã^{3}ĩ^{1}]	'shawl' (< SP 'paño')
/t/ [t̪]	*tikĭ*	[t̪i^{3}.ki^{14}]	'seed'
	tutù	[t̪u^{3}.t̪u^{1}]	'paper'
	itù	[i^{3}.t̪u^{1}]	'milpa / cornfield'

[8] This form has been documented in the villages of Yukúnanĭ (Yucunani), Tsìkĭ Ntákŭ (Independencia), and Nkàun (Santa María Teposlantongo). Other attested words for 'frog' include *lakóntó* [la^{3}.ko^{4}.^{n}do^{4}] in Mínà (Los Tejocotes) and *ntixikuì* [^{n}di^{3}.ʃi^{3}.k^{w}i^{1}] in Nkŏsô (San Lucas).

	yǔti	[ju^{14}.t̪i^{3}]	‘sand’
[t̪] ~ [ɾ]	*tatù ~ ratù*	[t̪a^{3}.t̪u^{1}] ~ [ɾa^{3}.t̪u^{1}]	‘if’
	tsi-tí	[t͡si^{3}.t̪i^{4}] ~ [t͡si^{3}.ɾi^{4}]	‘with it (= animal)’
/k/ [k]	*kìǐ*	[ki^{1}i^{14}]	‘day’
	tìka	[t̪i^{1}.ka^{3}]	‘grasshopper’
	yùkù	[ju^{1}.ku^{1}]	‘grass’
	kùmǐ	[ku^{1}.mi^{14}]	‘four’
[k] ~ [ɣ]	*sà’án meé-kó*	[sã^{1}.ʔã^{4}.me^{3}e^{4}.ko^{4}] ~ [sã^{1}.ʔã^{4}.me^{3}e^{4}.ɣo^{4}]	‘our language’
/k^{w}/ [k^{w}]	*kuiǐ*	[k^{w}i^{3}i^{14}]	‘green’
	kuá’à	[k^{w}a^{4}.ʔa^{1}]	‘red’
	kuìkà	[k^{w}i^{1}.ka^{1}]	‘comb’
	likuì	[li^{3}.k^{w}i^{1}]	‘toad’
[k^{w}] ~ [w] ~ [β̪]	*kue nivǐ ñoǒ*	[k^{w}e^{3}.ni^{3}.β̪i^{14}.ɲo^{3}o^{14}] ~ [we^{3}.ni^{3}.β̪i^{14}.ɲo^{3}o^{14}] ~ [β̪e^{3}.ni^{3}.β̪i^{14}.ɲo^{3}o^{14}]	‘our community’
[ʔ]	*ù'ùn*	[ũ^{1}.ʔũ^{1}]	‘five’
	tǐ'in	[t̪ĩ^{14}.ʔĩ^{3}]	‘mouse’
	ché'é	[t͡ʃe^{4}.ʔe^{4}]	‘pretty’
	ntika'a	[^{n}di^{1}.ka^{3}.ʔa^{3}]	‘jaguar’
	sto'ò	[st̪o^{3}.ʔo^{1}]	‘owner’
	nchá'ì	[^{n}d͡ʒa^{4}.ʔi^{1}]	‘black’

tsà'ùn	[t͡sã^{1}.ʔũ^{1}]	‘fifteen’
xí'an	[ʃĩ^{4}.ʔã^{3}]	‘hawk’
mì'nchă	[miʔ^{1}.^{n}d͡ʒa^{14}]	‘nopal’
sa'và	[saʔ^{3}.βa^{1}]	‘frog’
ká'nu	[kaʔ^{4}.nu^{3}]	‘big’
ña'mì	[ɲaʔ^{3}.mi^{1}]	‘tuber’

(2) Minimal pairs between /k/ and /k^{w}/

/k/ ≠ /k^{w}/	*kìĭ*	[ki^{1}i^{14}]	‘day’
	kuiĭ	[k^{w}i^{3}i^{14}]	‘green’
	kàchĭ	[ka^{1}.t͡ʃi^{14}]	‘cotton’
	kuàchi	[k^{w}a^{1}.t͡ʃi^{3}]	‘small’

Voicing is not a contrastive feature in Sà'án Sàvĭ ñà ñuù Xnúvíkó. The set of oral stops of Sà'án Sàvĭ ñà ñuù Xnúvíkó consists of 9 consonants, 4 of which are the prenasalized counterparts (Belmar & Salazar 2023) of 4 others. Pre-nasalized consonants are generally realized as voiced segments, as shown in Figure 7, which shows the spectrogram for the word *mpáà* [^{m}ba^{4}a^{1}] ‘co-father’ as produced by Julia Bautista, a speaker from the village of Mínà (Los Tejocotes). This contrasts with Figure 8, which shows the spectrogram for the word *páá* [pa^{4}a^{4}] ‘father’ as produced by the same speaker during the same recording session.

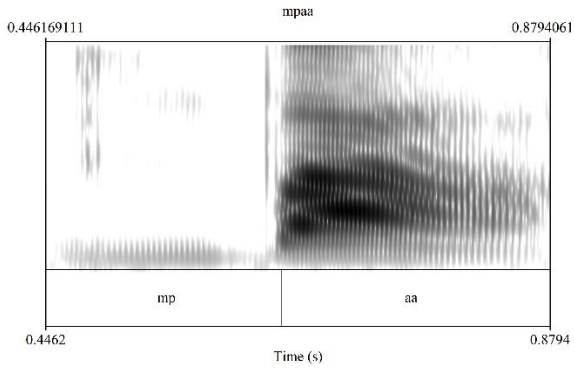


Figure 7. Spectrogram for the word *mpáà* 'co-father', produced by Julia Bautista. Image extracted from Praat.

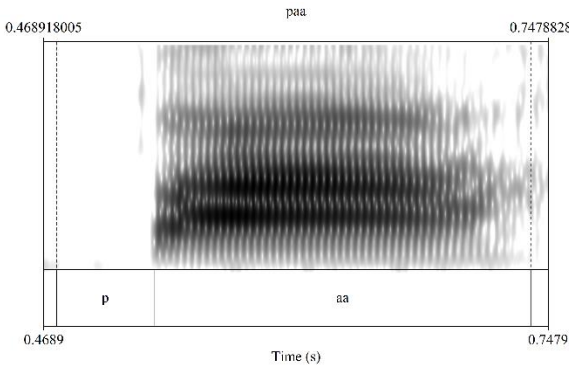


Figure 8. Spectrogram for the word *páá* 'father', produced by Julia Bautista. Image extracted from Praat.

The prenasalized bilabial plosive /ⁿp/ is rare. It is so far only documented in the loanword *mpáà* [ᵐba⁴a¹] 'co-father'. It is realized as a phonetic sequence of a bilabial nasal [m] and a voiced bilabial plosive [b], resulting in the phone [ᵐb]. The prenasalized alveolar plosive /ⁿt/, on the other hand, is a very common phoneme in the language. It is realized as a phonetic sequence of an alveolar nasal [n] and a voiced alveolar plosive [d], realized as [ⁿd]. Some examples of this phoneme are: *nte'e* [ⁿde³.ʔe³] 'atole of ground bean'; *ntuchǐ* [ⁿdu³.t͡ʃi¹⁴] 'bean'; *ntìvǐ* [ⁿdi¹.βi̤¹⁴] 'egg', *ntàà* [ⁿda¹a¹] 'flat', *kú'ntú* [kuʔ⁴.ⁿdu⁴] 'lazy', *xantu* [ʃa³.ⁿdu³] 'navel'; *tìntóǒ* [t̤i¹.ⁿdo⁴o¹⁴] 'spider'.

There are two more prenasalized velar plosives in the language, the prenasalized velar plosive /ⁿk/ and the prenasalized labio-velar plosive /ⁿkʷ/. They are realized as the phones [ᵑg] and [ᵑgʷ] respectively. These two sounds are not very common in native roots, with some examples being *Nkǒyô* [ᵑgo¹³.jo⁴¹] 'Mexico', *Nkàun* [ᵑgã¹ũ³] 'Santa María Teposlantongo', *xúnkává* [ʃu⁴.ᵑga⁴.βa̤⁴] 'roadrunner', *nkuii* [ᵑgʷi²i³] 'fox';[9] *nkuǐnú* [ᵑgʷi¹⁴.nu⁴] 'tobacco'. They

[9] The form *nkuii ntiyá'à* [ᵑgʷi²i³.ⁿdi³.ja⁴.ʔa¹] (lit. orange fox) has also been documented, as opposed to *nkuii nchéá* [ᵑgʷi²i².ⁿd͡ʒa⁴a⁴] 'racoon' (lit. blue fox), in the village of Mínà (Los Tejocotes).

occur, however, in the prospective aspect form of certain verbs, such as *kú nkù'ùn* [ku^{4}.ᵑgũ^{1}.ʔũ^{1}] 'PROSP.go'; *kú nkìtsáá* [ku^{4}.ᵑgi^{1}.t͡sa^{4}a^{4}] 'PROSP.start'; *kú nkuà'nu* [ku^{4}.ᵑg^{w}aʔ^{1}.nu^{3}] 'PROSP.grow'; or as a negative irrealis form, such as *nkŭu* 'NEG.IRR.be_able'.

Example set (3) shows the distribution of prenasalized plosives in Sà'án Sàvĭ ñà ñuù Xnúvíkó, while example set (4) contains minimal pairs contrasting plain and prenasalized plosives.

(3) Distribution of prenasalized plosives in Sà'án Sàvĭ ñà ñuù Xnúvíkó

/ⁿp/ [ᵐb]	*mpáà*	[ᵐba^{4}a^{1}]	'co-father' (< SP 'compadre')
/ⁿt/ [ⁿd]	*nte'e*	[ⁿde^{3}.ʔe^{3}]	'atole of ground bean'
	ntuchĭ	[ⁿdu^{3}.t͡ʃĩ^{14}]	'bean'
	ntìvĭ	[ⁿdi^{1}.βi̤^{14}]	'egg'
	ntàà	[ⁿda^{1}a^{1}]	'flat'
	kú'ntú	[kuʔ^{4}.ⁿdu^{4}]	'lazy'
	xantu	[ʃa^{3}.ⁿdu^{3}]	'navel'
	tìntóŏ	[t̤i^{1}.ⁿdo^{4}o^{14}]	'spider'
/ᵑk/ [ᵑg]	*Nkŏyô*	[ᵑgo^{13}.jo^{41}]	'Mexico'[10]
	Nkàun	[ᵑgã^{1}ũ^{3}]	'Santa María Teposlantongo'[11]
	xúnkává	[ʃu^{4}.ᵑga^{4}.βa̤^{4}]	'roadrunner'
	kú nkù'ùn	[ku^{4}.ᵑgũ^{1}.ʔũ^{1}]	'PROSP.go'
	kú nkìtsáá	[ku^{4}.ᵑgi^{1}.t͡sa^{4}a^{4}]	'PROSP.start'
	nkŭu	[ᵑgu^{13}u^{3}]	'NEG.IRR.be_able'

[10] Some speakers produce it with a glottal *Nkŏ'yô* [ᵑgo^{13}.ʔjo^{41}]. Possibly a lexicalization of *Ñuù Kóyo* 'Fertile village'.
[11] Village in the municipality of San Juan Mixtepec.

/ⁿkʷ/ [ᵑgʷ]	*nkuii*	[ᵑgʷi²i³]	‘fox’
	nkuǐnú	[ᵑgʷi¹⁴.nu⁴]	‘tobacco’
	kú nkuà’nu	[ku⁴.ᵑgʷaʔ¹.nu³]	‘PROSP.grow’

(4) Minimal pairs between plain and prenasalized plosives

/p/ ≠ /ⁿp/	*páá*	[pa⁴a⁴]	‘father’
	mpáà	[ᵐba⁴a¹]	‘co-father’
/t/ ≠ /ⁿt/	*tikǐ*	[t̪i³.ki¹⁴]	‘seed’
	ntikǐ	[ⁿdi³.ki¹⁴]	‘horn’
	to'ó	[t̪o³.ʔo⁴]	‘Saint, holy image’
	nto'ó	[ⁿdo³.ʔo⁴]	‘tail’
/k/ ≠ /ⁿk/	*kóyo*	[ko⁴.jo³]	‘fertile’
	Nkǒyô	[ᵑgo¹³.jo⁴¹]	‘Mexico’
/kʷ/ ≠ /ⁿkʷ/	*kuiǐ*	[kʷi³i¹⁴]	‘green’
	nkuii	[ᵑgʷi²i³]	‘fox’

3.2.1.1. The glottal *stop?*

The glottal stop (or laryngealization) has been analyzed differently across Mixtec languages. Some have treated it as a laryngeal feature of the vowel (Castillo García 2016; Gerfen 1996; Hinton et al. 1991; McKendry 2013); others consider it to be a contrastive floating feature of the root (Carroll 2015; Macaulay & Salmons 1995; Mendoza Ruiz 2016); and still others analyze it as a glottal stop (North & Shields 1977; Pike & Cowan 1967). I do not treat it as a

laryngeal feature of the vowel in Sà'án Sàvĭ ñà ñuù Xnúvíkó, as it is often realized as laryngealization of a following voiced consonant (see Figure 9).

In this dissertation I treat the glottal stop as a consonant, rather than a feature of sonorants or roots. This decision is purely practical, and it follows the approach taken by Auderset & Campbell (2024). Even though it behaves differently from other consonants (§3.5.2) and it is often phonetically realized like creaky voice on the next segment (see Figure 9)—with some creakiness possibly at the end of the preceding segment—analyzing it as a consonant allows us to avoid positing glottalized counterparts for every single sonorant in the language or positing a fifth type of suprasegmental element.

Figure 9 shows the spectrogram for the word *ñà ká'nu* [ɲa^{1}.kaʔ^{4}.nu^{3}] 'big (one)' as produced by María de la Luz Galindo López, a speaker who grew up in the village of Tsìkĭ Ntákŭ (Independencia) but has been living in the municipal seat, Ñuù Xnúvíko (San Juan Mixtepec), for many years. The spectrogram shows how the /n/ is phonetically realized as a glottalized [ˀn].

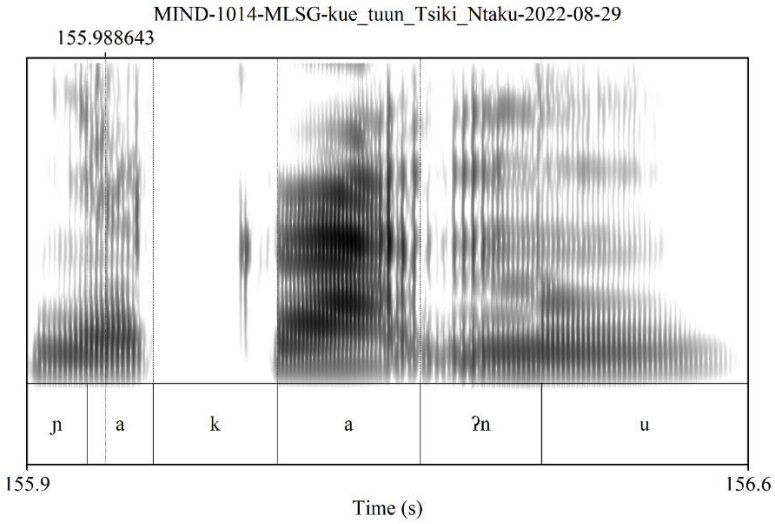


Figure 9. Spectrogram of the word *ñà ká'nu* produced by María de la Luz Galindo López. Image extracted from Praat.

3.2.2. Affricates

Sà'án Sàvĭ ñà ñuù Xnúvíkó has a set of four affricates, two of which are the pre-nasalized counterparts of the other two. The voiceless alveolar affricate /t͡s/ is phonetically realized as [t͡s] in both word-initial and word-medial contexts, as in the words *tsà'ă* [t͡sa^{1}.ʔa^{14}] 'foot' and *vìtsi* [βi̤^{1}.t͡si^{3}] 'cold'. Similarly, the alveolar affricate /t͡ʃ/ is phonetically realized as [t͡ʃ] in both word-initial and word-medial contexts, as in the words *chuun* [t͡ʃũ^{3}ũ^{3}][12] 'work' and *vichi* [βi̤^{3}.t͡ʃi^{3}] 'today'.

The prenasalized alveolar affricate /^{n}t͡s/ and the alveolar affricate /^{n}t͡ʃ/ are phonetically realized as a sequence of a nasal plosive and a voiced affricate, that is [^{n}d͡z] and [^{n}d͡ʒ] respectively. The percentage of voicing in the affricate varies a lot (Belmar & Salazar 2023), but the nasal closure is clearly voiced as can be seen in Figure 10, which shows the spectrogram for the word *nchaĭ* [^{n}d͡ʒa^{3}i^{14}] 'food' as produced by Jeremías Salazar, a speaker from the village of Yukúnanĭ (Yucunani). This contrasts with Figure 11, which shows the spectrogram for the word *chaì* [t͡ʃa^{3}i^{1}] 'stool' produced by the same speaker in the same recording session.

Pre-nasalized affricates are most common word-initially, although they can appear in word medial contexts as well. Some examples are the words *ntsá'nu* [^{n}d͡zaʔ^{4}.nu^{3}] 'elder; *ntintsìtsă* [^{n}di^{3}.^{n}d͡zi^{1}.t͡sa^{14}] 'turtle'; *ncháá* [^{n}d͡ʒa^{4}a^{4}] 'blue'; *nchíì* [^{n}d͡ʒi^{4}i^{1}] 'what?'; and *menche* [me^{3}.^{n}d͡ʒe^{3}] 'nightmare'.

[12] For some older speakers, there is sometimes a glide after /t͡ʃ/. See section 2.1.5.

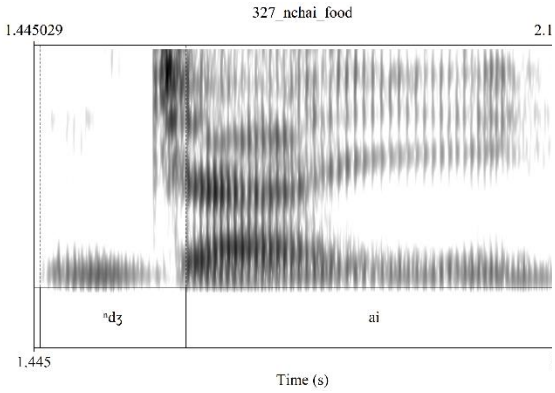


Figure 10. Spectrogram for the word *nchaǐ* 'food', produced by Jeremías Salazar. Image extracted from Praat.

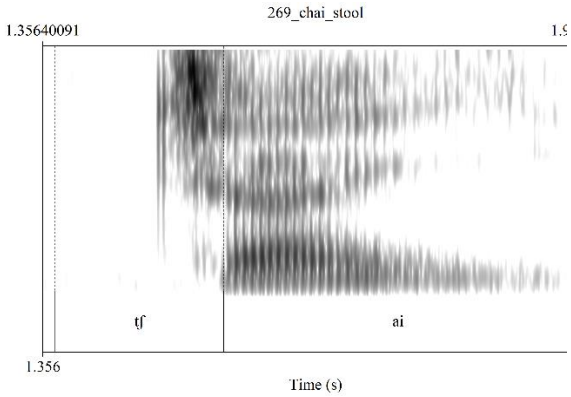


Figure 11. Spectrogram for the word *chaì* 'stool', produced by Jeremías Salazar. Image extracted from Praat.

Example set (5) shows the distribution of affricates in Sà'án Sàvĭ ñà ñuù Xnúvíkó, while example set (6) shows contrasts among prenasalized and plain affricates, as well as between the different places of articulation of affricates, and with the plain stop /t/.

(5) Distribution of affricates in Sà'án Sàvĭ ñà ñuù Xnúvíkó

/t͡s/ [t͡s]	*tsà'ă*	[t͡sa^{1}.ʔa^{14}]	'foot'
	vìtsi	[βi̤^{1}.t͡si^{3}]	'cold'
/t͡ʃ/ [t͡ʃ]	*chuun*	[t͡ʃũ^{3}ũ^{3}]	'work'
	vichi	[βi̤^{3}.t͡ʃĩ^{3}]	'today'
/ⁿt͡s/ [ⁿd͡z]	*ntsá'nu*	[ⁿd͡zaʔ^{4}.nu^{3}]	'elder'
	ntintsìtsă	[ⁿdi^{3}.ⁿd͡zi.^{l}t͡sa^{14}]	'turtle'
/ⁿt͡ʃ/ [ⁿd͡ʒ]	*nchéá*	[ⁿd͡ʒa^{4}a^{4}]	'blue'
	nchíì	[ⁿd͡ʒi^{4}i^{1}]	'what'
	menche	[me^{3}.ⁿd͡ʒe^{3}]	'nightmare'

(6) Minimal pairs with affricates

/t/ ≠ /t͡s/	*kuítî*	[kʷi^{4}.ʈi^{41}]	‘short’
	kuítsî	[kʷi^{4}.t͡si^{41}]	‘light-skinned’
/t/ ≠ /t͡ʃ/	*ità*	[i^{3}.ʈa^{1}]	‘flower’
	ichà	[i^{3}.t͡ʃa^{1}]	‘grass’
/t͡s/ ≠ /t͡ʃ/	*vìtsi*	[βi̤^{1}.t͡si^{3}]	‘cold’
	vichi	[βi̤^{3}.t͡ʃi^{3}]	‘today’
/t͡s/ ≠ /^{n}t͡s/	*tsìtù*	[t͡si^{1}.ʈu^{1}]	‘oven’
	ntsìtú	[^{n}t͡si^{1}.ʈu^{4}]	‘PFV.fill’
/t͡ʃ/ ≠ /^{n}t͡ʃ/	*chàa*	[t͡ʃa^{1}a^{3}]	‘man’
	nchàa	[^{n}d͡ʒa^{1}a^{3}]	‘PFV.write’

3.2.3. Fricatives

Sà'án Sàvĭ ñà ñuù Xnúvíkó has a set of four fricatives, all voiceless. The alveolar fricative /s/ may appear in both word-initial and word-medial contexts, as in the words *saà* [sa^{3}a^{1}] ‘bird’; and *isù* [i^{3}.su^{1}] ‘deer’. The same is true for the palato-alveolar fricative /ʃ/, as can be seen in the words *xăxâ* [ʃa^{14}.ʃa^{41}] ‘bladder’; and *vìxì* [βi̤^{1}.ʃi^{1}] ‘sweet’. Both /s/ and /ʃ/ can appear at the beginning of consonant clusters, as in the words *sto'ò* [sʈo^{3}.ʔo^{1}] ‘owner’, *Skuíâ* [skʷi^{4}a^{41}] ‘Santiago Juxtlahuaca’; *xchààn* [ʃt͡ʃã^{1}ã^{1}] or *ixchààn* [i^{3}.ʃt͡ʃã^{1}ã^{1}] ‘tomorrow’; [13] and *xkă'má* [ʃkaʔ^{13}.ma^{4}] ‘jicama’. However, there is some alternation between [s] and [ʃ] in the cluster /sn/, such as *Xnúvíkó* [ʃnu^{4}.βi̤^{4}.ko^{4}] or *Snúvíkó* [snu^{4}.βi̤^{4}.ko^{4}] ‘San Juan Mixtepec’. In addition, /s/

[13] Other forms are attested, such as the form *ischààn* [i3.st͡ʃã1ã1] in the village of La Batea, with the cluster /st͡ʃ/, and the form *xichààn* [ʃi^{3}.t͡ʃã^{1}ã^{1}] in the village of Tsìkĭ Ntákŭ (Independencia), which does not contain a consonant cluster.

can appear in coda position in loanwords from Spanish, such as *espéjù* [es^{3}.pe^{4}.xu^{1}], and at least one instance of /ʃ/ as a coda has been attested in the word *makùx* [ma^{3}.kuʃ^{1}] ‘fig’ and the Spanish loanwords for the days of the week: *lúnìx* [lu^{4}.niʃ^{1}] ‘Monday’; *mártìx* [maɾ^{4}.t̪iʃ^{1}] ‘Tuesday’; *miérkolìx* [mjeɾ^{4}.ko^{3}.liʃ^{1}] ‘Wednesday’; *juévìx* [xwe^{1}.βi̪ʃ^{1}] ‘Thursday’; and *viérnìx* [βjeɾ^{4}.niʃ^{1}] ‘Friday’.[14]

There is also a labio-dental fricative /f/ which appears in loanwords such as *frésà* [fre^{4}.sa^{1}], *juálfà* [xwal^{4}.fa^{1}] or *fálfà* [fal^{4}.fa^{1}] ‘alfalfa’. Finally, there is the velar fricative /x/ sometimes realized as [h] which also appears mostly in loanwords, as in *espéjù* [es^{3}.pe^{4}.xu^{1}]. This velar fricative also seems to be an allophone of /s/ in some very high frequency native function words, as in *sara* ~ *jara* [sa^{3}.ɾa^{3}] ~ [ha^{3}.ɾa^{3}] ~ [xa^{3}.ɾa^{3}] ‘then’.

Example set (7) shows the distribution of fricatives in Sà'án Sàvĭ ñà ñuù Xnúvíkó, while example set (8) contains minimal pairs between the two main fricatives, as well as with their affricate counterparts.

(7) Distribution of fricatives in Sà'án Sàvĭ ñà ñuù Xnúvíkó

/s/ [s]	*saà*	[sa^{3}a^{1}]	‘bird’
	isù	[i^{3}.su^{1}]	‘deer’
	sto’ò	[st̪o^{3}.ʔo^{1}]	‘owner’
	Skuíâ	[sk^{w}i^{4}a^{41}]	‘Santiago Juxtlahuaca’
	espéjù	[es^{3}.pe^{4}.xu^{1}]	‘mirror’ (< SP ‘espejo’)
/ʃ/ [ʃ]	*xăxâ*	[ʃa^{14}.ʃa^{41}]	‘bladder’
	vìxì	[βi̪^{1}.ʃi^{1}]	‘sweet’

[14] Some speakers produce these with an *-i* at the end and, therefore, no word-final /ʃ/: *lúnìxì* [lu^{4}.ni^{1}.ʃi^{1}] ‘Monday’; *mártìxì* [maɾ^{4}.t̪i^{1}.ʃi^{1}] ‘Tuesday’; *miérkolìxì* [mjeɾ^{4}.ko^{3}.li^{1}.ʃi^{1}] ‘Wednesday’; *juévìxì* [xwe^{1}.βi̪^{1}.ʃi^{1}] ‘Thursday’; and *viérnìxì* [βjeɾ^{4}.ni^{1}.ʃi^{1}] ‘Friday’.

	xchààn	[ʃt͡ʃã^{1}ã^{1}]	‘tomorrow’
	xkă’má	[ʃkaʔ^{13}.ma^{4}]	‘jicama’[15]
	makùx	[ma^{3}.kuʃ^{l}]	‘fig’
	lúnìx	[lu^{4}.niʃ^{l}]	‘Monday’
	mártìx	[maɾ^{4}.t̪i̪ʃ^{l}]	‘Tuesday’
	miérkolìx	[mjeɾ^{4}.ko^{3}.liʃ^{l}]	‘Wednesday’
	juévìx	[xwe^{1}.βi̪ʃ^{l}]	‘Thursday’
	viérnìx	[βjeɾ^{4}.niʃ^{l}]	‘Friday’
/f/ [f]	*frésà*	[fre^{4}.sa^{1}]	‘strawberry’ (< SP ‘fresa’)
	juálfà	[xwal^{4}.fa^{1}]	‘alfalfa’ (< SP ‘alfalfa’)
	fálfà	[fal^{4}.fa^{1}]	‘alfalfa’ (< SP ‘alfalfa’)
/x/ [x] ~ [h]	*espéjù*	[es^{3}.pe^{4}.xu^{1}]	‘mirror’ (< SP ‘espejo’)
	sara ~ jara	[sa^{3}.ɾa^{3}] ~ [ha^{3}.ɾa^{3}] ~ [xa^{3}.ɾa^{3}]	‘then

(8) Minimal pairs with fricatives

/s/ ≠ /ʃ/	*síin*	[sĩ^{4}ĩ^{3}]	‘different’
	xiín	[ʃĩ^{3}ĩ^{4}]	‘owner’
	soo	[so^{3}o^{3}]	‘just’
	xóó	[ʃo^{4}o^{4}]	‘a little bit’
/s/ ≠ /t͡s/	*sá'a*	[sa^{4}.ʔa^{3}]	‘IPFV.do’
	tsá'à	[t͡sa^{4}.ʔa^{1}]	‘nixtamal’

[15] This has also been attested as *skă'ma* [skaʔ^{14}.ma^{3}] in the village of La Batea.

/ʃ/ ≠ /t͡ʃ/	*xǔ'un*	[ʃũ^{13}.ʔũ^{3}]	‘money’
	chù'ún	[t͡ʃũ^{1}.ʔũ^{4}]	‘black widow’

3.2.4. Nasal stops

There are three different nasal stops in Sà'án Sàvĭ ñà ñuù Xnúvíkó, all of which are realized voiced: the bilabial nasal consonant /m/, the alveolar nasal /n/, and the palatal nasal /ɲ/. Some examples are *má'à* [ma^{4}.ʔa^{1}] ‘racoon’;[16] *tùmi* [n̪u^{1}.mi^{3}] ‘feather’; *niĭ* [ni^{3}i^{14}] ‘dried ear of corn’; *tĭnà* [n̪i^{13}.na^{1}] ‘dog’; *ña'á* [ɲa^{3}.ʔa^{4}] ‘woman’; and *kŭñù* [ku^{13}.ɲu^{1}] ‘meat’. The nasal stops /n/ and /m/ can only be coda consonants in Spanish loanwords, such as *kulándrù* [ku^{3}.lan^{4}.dɾu^{1}] ‘cilantro’; or *kostúmvrì* [kos^{3}.n̪um^{4}.bɾi^{1}] ‘custom. In word-medial position and between vowels, these are often realized with longer duration, almost like geminates.

Example set (9) shows the distribution of nasal stops in Sà'án Sàvĭ ñà ñuù Xnúvíkó, while example set (10) contains minimal pairs contrasting nasal stops.

(9) Distribution of nasal stops in Sà'án Sàvĭ ñà ñuù Xnúvíkó

/m/ [m]	*má'à*	[ma^{4}.ʔa^{1}]	‘racoon’
	tùmi	[n̪u^{1}.mi^{3}]	‘feather’
	kostúmvrì	[kos^{3}.n̪um^{4}.bɾi^{1}]	‘custom’ (> SP ‘costumbre’)
/n/ [n]	*niĭ*	[ni^{3}i^{14}]	‘dried ear of corn’
	tĭnà	[n̪i^{13}.na^{1}]	‘dog’
	kulándrù	[ku^{3}.lan^{4}.dɾu^{1}]	‘cilantro’ (> SP ‘cilantro’)

[16] The form *nkuii nchàá* [ᵑgʷi^{2}i^{2}.ⁿd͡ʒa^{4}a^{4}] (lit. blue fox) has also been documented, as opposed to *nkuii ntiyá'à* [ᵑgʷi^{2}i^{3}.ⁿdi^{3}.ja^{4}.ʔa^{1}] ‘fox’ (lit. orange fox) in the village of Mínà (Los Tejocotes).

/ɲ/ [ɲ]	*ña'á*	[ɲa^{3}.ʔa^{4}]	‘woman’
	kǔñù	[ku^{13}.ɲu^{1}]	‘meat’

(10) Minimal pairs with nasal stops

/m/ ≠ /n/	*kùmǐ*	[ku^{1}.mi^{14}]	‘four’
	kuni	[ku^{3}.ni^{3}]	‘yesterday’
/n/ ≠ /ɲ/	*nàmǎ*	[na^{1}.ma^{14}]	‘soap’
	ñàmǎ	[ɲa^{1}.ma^{14}]	‘corn husk’

3.2.5. Approximants

There are two approximant consonants in Sà'án Sàvĭ ñà ñuù Xnúvíkó, the bilabial approximant /β̞/ and the palatal approximant /j/. They can both appear in word-initial and word-medial position, as in the words *vèe* [β̞e^{1}e^{3}] ‘heavy’; *sàvĭ* [sa^{1}.β̞i^{14}] ‘rain’; *ù'và* [uʔ^{1}.β̞a^{1}] ‘salty’; *yavĭ* [ja^{3}.β̞i^{14}] ‘maguey’; *yúyú* [ju^{4}.ju^{4}] ‘dew’; and *ntò'yò* [^{n}doʔ^{1}.jo^{1}] ‘wetlands’. The bilabial approximant /β̞/, however, does not occur before round vowels. For some speakers, the palatal approximant /j/ is rather realized as a palatal fricative [j̟].

Some words feature the palatal approximant /j/ as part of a consonant cluster in onset position, as in *xiòo* [ʃjo^{1}.o^{3}] ‘skirt’;[17] *tù tsiúu* [t̪u^{1}.t͡sju^{4}u^{3}] ‘weapon’; *tiùkú* [t̪ju^{1}.ku^{4}] ‘ahuehuete tree’;[18] *tiàn* [t̪jã^{1}] ‘but’; or the loanwords *siéntù ~ tsiên* [sjen^{4}.t̪u^{1} ~ t͡sjẽ^{41} ~ t͡sjen^{41}] ‘hundred’ and *mastántsià* [ma^{3}.st̪a^{4}.^{n}d͡zja^{1}] ‘mustard’. The combination /sj/ can also be found in verbs with the causative prefix *s-* (§5.3.4.4), such as *siá'a* [sja^{4}.ʔa^{2}] ‘CAUS-IPFV.pass’ (from

[17] The form *xòo* [ʃo^{1}.o^{3}] has been attested in the village of Tsìkĭ Ntákŭ (Independencia).
[18] Some speakers produce *tùyùkú* [t̪u^{1}.ju^{1}.ku^{4}] instead. Type of tree also known in English as Montezuma cypress, and known locally in Spanish as ‘sabino’ or ‘árbol de tule’. Scientific name: Taxodium mucronatum

intransitive *yá'a* [ja^{4}.ʔa^{2}] ‘IPFV.pass’) or *siávà* [sja^{4}.βa̤^{1}] ‘CAUS-IPFV.spread’ (from intransitive *yávà* [ja^{4}.βa̤^{1}] ‘IPFV.spread’). Moreover, word-final /i/ becomes [j] when followed by the third-person generic or third-person feminine enclitic pronouns, such as in *tìtsi-à* [t̪i^{1}.t͡sja^{1}] ‘his/her/its/their stomach’; *tsátsí-á* [t͡sa^{4}.t͡sja^{4}] ‘she eats’. Finally, for some older speakers there is sometimes a palatal approximant after the alveolar affricate /t͡ʃ/, as in [t͡ʃj̰ũ^{3}ũ^{3}] ‘work’. When it is part of a consonant cluster, /j/ is always pronounced as the palatal approximant [j] rather than the palatal fricative [j̰].

In addition to these two approximants, Sà'án Sàvĭ ñà ñuù Xnúvíkó features /w/ in three native words: *nchuà'a* [^{n}d͡ʒ^{w}a^{1}.ʔa^{3}] ‘very’; *suà'a* [swa^{1}.ʔa^{3}] ‘thus’ and *su suií* [su^{3}swi^{3}i^{4}] ‘boy’,[19] as well as in some loanwords such as *anuà* [a^{3}.nwa^{1}] ‘heart’; *suátù* [swa^{4}.t̪u^{1}] ‘Saturday’; *nuês* [nwes^{41}] ‘nut’; or *juálfà* [xwal^{4}.fa^{1}] ‘alfalfa’, as well as an allophonic realization of /k^{w}/ in fast speech (see the section on plosives above).

Example set (11) shows the distribution of approximants in Sà'án Sàvĭ ñà ñuù Xnúvíkó.

(11) Distribution of approximants in Sà'án Sàvĭ ñà ñuù Xnúvíkó

/β̤/ [β̤]	*vèe*	[β̤e^{1}e^{3}]	‘heavy’
	sàvĭ	[sa^{1}.βi̤^{14}]	‘rain’
	ù'và	[uʔ^{1}.βa̤^{1}]	‘salty’
/j/ [j] ~ [j̰]	*yavĭ*	[ja^{3}.βi̤^{14}] ~ [j̰a^{3}.βi̤^{14}]	‘dried ear of corn’
	yúyú	[ju^{4}.ju^{4}] ~ [ju^{4}.j̰u^{4}]	‘dew’
	ntò'yò	[^{n}doʔ^{1}.jo^{1}] ~ [^{n}doʔ^{1}.j̰o^{1}]	‘wetlands’
/j/ [j]	*xiòo*	[ʃ̰jo^{1}.o^{3}]	‘skirt’

[19] *Suií* itself possibly a lexicalization of the classifier for children *su* [su^{3}] and *íí* [i^{4}i^{4}] ‘male’. Note that the form *su sií* is also attested.

	tù tsiúu	[ʈu^{1}.t͡su^{4}u^{3}]	‘weapon’
	tiàn	[ʈjã^{1}]	‘but’
	siéntù	[sjen^{4}.ʈu^{1}]	‘hundred’ (< SP ‘ciento’)
	mastántsià	[ma^{3}.sʈa^{4}.^{n}d͡zja^{1}]	‘mustard’ (< SP ‘mostaza’)
	siá'a	[sja^{4}.ʔa^{2}]	CAUS-IPFV.pass
	siávà	[sja^{4}.βa^{1}]	CAUS-IPFV.spread
	tìtsi-à	[ʈi^{1}.t͡sja^{31}]	stomach=3GNR
			‘his/her/its stomach’
	tsátsí-á	[t͡sa^{4}.t͡sja^{4}]	IPFV.eat=3F ‘she eats’
/w/ [w]	*nchuà'a*	[^{n}d͡ʒ^{w}a^{1}.ʔa^{3}]	‘very’
	suà'a	[swa^{1}.ʔa^{3}]	‘thus’
	su suií	[su^{3}swi^{3}i^{4}]	‘boy’
	nuês	[nwes^{41}]	‘nut’ (< SP ‘nuez’)[20]
	anuà	[a^{3}.nwa^{1}]	‘heart’ (< SP ‘ánima’)[21]
	suátù	[swa^{4}.ʈu^{1}]	‘Saturday’ (< SP ‘sábado’)
	juálfà	[xwal^{4}.fa^{1}]	‘alfalfa’ (< SP ‘alfalfa’)

3.2.6. Laterals and rhotics

Lateral and rhotic consonants are not very common in Sà'án Sàvĭ ñà ñuù Xnúvíkó, although both the alveolar lateral /l/ and the alveolar tap /ɾ/ appear in native vocabulary, such as *luu* [lu^{3}u^{3}] ‘small’; *vílú* [βi̤.lu^{4}] ‘cat’; *ratù* [ɾa^{3}.ʈu^{1}] ‘if’; and *tsînì-rà* [t͡si^{41}.ni^{1}.ɾa^{1}] ‘he knows’. They

[20] The form *mês* [mes^{41}] has also been attested.
[21] As documented in the seat of the municipality, Ñuù Xnúvíkó (San Juan Mixtepec). We documented the form *anà* [a^{3}.na^{1}] (also from Spanish ‘ánima’) in the villages of Nkàun (Santa Maria Teposlantongo), Yukúchòô (Santo Domingo del Progreso) and Yukúnanĭ (Yucunani); and the form *ánâ* [a^{4}.na^{41}] in the village of La Batea.

both appear also in loanwords such as *lóchí* [lo^{4}t͡ʃĩ^{4}] ‘vulture’; *kojolîn* [ko^{3}.xo^{3}.lĩ^{41}] ‘sesame’; *máárì* [ma^{4}a^{4}.ɾi^{1}] ‘co-mother’; and *arínà* [a^{3}.ɾi^{4}.na^{1}] ‘flour’. The alveolar trill /r/ is only attested in the word *tìchìrrù* [t̪i^{1}.t͡ʃi^{1}.ru^{1}] ‘fat’ and in loanwords so far, such as *vesérrù* [βe̤^{3}.se^{4}.ru^{1}] ‘calf’; and *lúrrú* [lu^{4}.ru^{4}] ‘donkey’.

Example set (12) shows the distribution of laterals and rhotics in Sà'án Sàvĭ ñà ñuù Xnúvíkó.

(12) Distribution of laterals and rhotics in Sà'án Sàvĭ ñà ñuù Xnúvíkó

/l/ [l]	*luu*	[lu^{3}u^{3}]	‘small’
	vílú	[βi̤^{4}.lu^{4}]	‘cat’
	lóchí	[lo^{4}.t͡ʃĩ^{4}]	‘vulture’ (< SP ‘zopilote’)[22]
	kojolîn	[ko^{3}.xo^{3}.lĩ^{41}]	‘sesame’ (< SP ‘ajonjolí’)
/ɾ/ [ɾ]	*ratù*	[ɾa^{3}.t̪u^{1}]	‘if’
	tsînì-rà	[t͡si^{41}.ni^{1}.ɾa^{1}]	‘he knows’
	máárì	[ma^{4}a^{4}.ɾi^{1}]	‘co-mother’ (< SP ‘comadre’)
	arínà	[a^{3}.ɾi^{4}.na^{1}]	‘flour’ (< SP ‘harina’)
/r/ [r]	*tìchìrrù*	[t̪i^{1}.t͡ʃi^{1}.ru^{1}]	‘fat’
	vesérrù	[βe̤^{3}.se^{4}.ru^{1}]	‘calf’ (< SP ‘becerro’)
	lúrrú	[lu^{4}.ru^{4}]	‘donkey’ (< SP ‘burro’)

[22] Ultimately from Nahuatl *tzopilotl* of the same meaning.

3.3. Vowels

The vowel phonemes of Sà'án Sàvĭ ñà ñuù Xnúvíkó are presented in Table 5, repeated here from Table 2 (page 21) for convenience. There are five basic vowel qualities: /i, e, a, o, u/. They are maximally spread in the vowel space and are roughly equivalent to the vowels in Spanish. In addition, in uninflected native roots we can find the combination /ai/ which seems to behave as a diphthong (§3.3.6).[23]

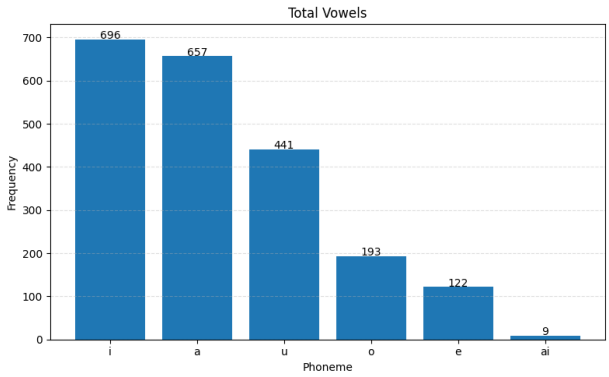
Table 5. Vowel inventory of Sà'án Sàvĭ ñà ñuù Xnúvíkó

	Front	**Central**	**Back**
High	i		u
Mid	e		o
Low		a	

In terms of frequency, the front high vowel /i/ is the most common vowel in Sà'án Sàvĭ ñà ñuù Xnúvíkó (32.86%), followed by /a/ (31.02%) (see Figure 12). These are the two most common vowels in the language in all environments. Type frequency was calculated based on the same lexical database used to calculate type frequency of consonants (§3.2).

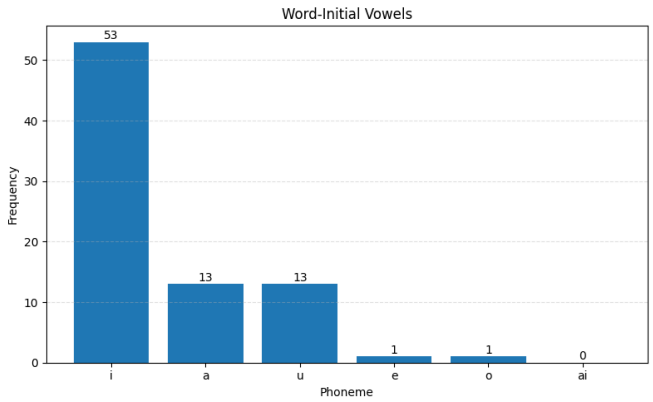
Figure 13 shows the distribution of vowels word-initially, an environment in which /i/ is even more common (65.43%), followed by /a/ (16.05%) and /u/ (16.05%), with only one word beginning in each /e/ and /o/: the loanword *espéjù* 'mirror', and the numeral *òkò* 'twenty'. It is worth mentioning, however, that not many words begin in a vowel in Sà'án Sàvĭ ñà ñuù Xnúvíkó (see §3.5).

[23] Arguably the diphthong /au/ is found in the toponym *Nkàun* [ⁿgã¹ũ³] 'Santa María Teposlantongo'. But since this is the only instance of this diphthong in uninflected roots, it will not be treated as its own phoneme in this dissertation.



Segment	Frequency (%)
/i/	32.86%
/a/	31.02%
/u/	20.82%
/o/	9.11%
/e/	8.76%
/ai/	0.42%

Figure 12. Total frequency of vowels in Sà'án Sàvĭ ñà ñuù Xnúvíkó. Relative frequency (N= 2,118).

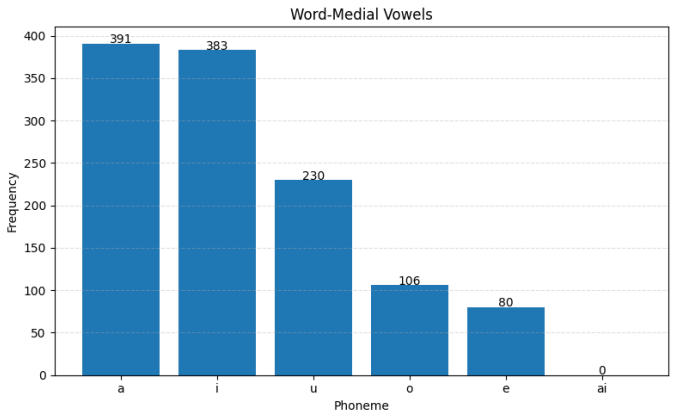


Segment	Frequency (%)
/i/	65.43%
/a/	16.05%
/u/	16.05%
/e/	1.23%
/o/	1.23%
/ai/	0%

Figure 13. Frequency of word-initial vowels in Sà'án Sàvĭ ñà ñuù Xnúvíkó. Relative frequency (N = 81).

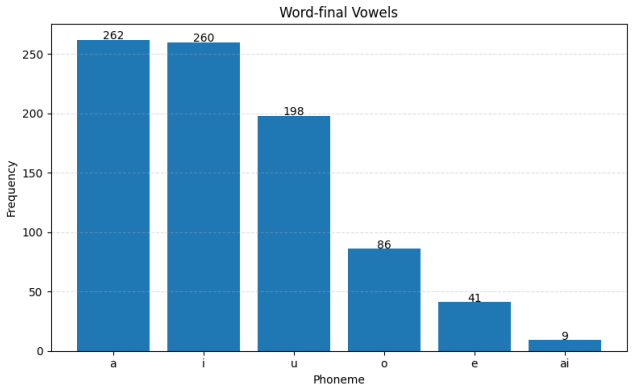
Figure 14 shows the frequency of vowels in word-medial position, that is, as the nucleus of syllables other than the last syllable. The most common vowel in this environment is /a/ (32.86%) followed closely by /i/ (32.18%). Finally, Figure 15 shows the frequency of vowels in word-final position, including bimoraic ultimate syllables. Once again, /a/ is the most

common vowel (30.61%) followed closely by /i/ (30.37%). It's worth noting that this is the only environment where the diphthong /ai/ appears.



Segment	Frequency (%)
/a/	32.86%
/i/	32.18%
/u/	19.33%
/o/	8.91%
/e/	6.72%
/ai/	0%

Figure 14. Frequency of word-medial vowels in Sà'án Sàvĭ ñà ñuù Xnúvíkó. Relative frequency (N = 1,190).



Segment	Frequency (%)
/a/	30.61%
/i/	30.37%
/u/	23.13%
/o/	10.05%
/e/	4.79%
/ai/	1.05%

Figure 15. Frequency of word-final vowels in Sà'án Sàvĭ ñà ñuù Xnúvíkó. Relative frequency (N = 856).

3.3.1. The front high vowel /i/

The front high vowel /i/ is very common in Sà'án Sàvĭ ñà ñuù Xnúvíkó, and it can appear virtually in any position. It can appear word-initially, such as in *iĭ* [$i^{3}i^{14}$] ‘husband’; *ìĭ* [$i^{1}i^{14}$] ‘sacred’; *ichĭ* [$i^{3}.\widehat{tʃ}i^{14}$] ‘path’; or *ità* [$i^{3}.\underset{\sqcup}{t}a^{1}$] ‘flower’. It can also appear word-medially, as in *tsikuàă* [$\widehat{ts}i^{3}.k^{w}a^{1}a^{14}$] ‘night’; *xîñù* [$ʃi^{41}.ɲu^{1}$] ‘shiny’; *kuìà* [$k^{w}i^{1}.a^{1}$] ‘year’; or *vixá* [$\beta\underset{\cdot}{i}^{3}.ʃa^{4}$] ‘wet’. Finally, it can also appear in word-final position, such as in *tĭchi* [$\underset{\sqcup}{t}i^{14}.\widehat{tʃ}i^{3}$] ‘avocado’; *kánĭ* [$ka^{4}.ni^{14}$] ‘long’; and *í'i* [$i^{4}.ʔi^{3}$] ‘raw’.

Example set (13) shows the distribution of the front high vowel /i/ in the language.

(13) Distribution of the front high vowel /i/ in Sà'án Sàvĭ ñà ñuù Xnúvíkó

/i/ [i]	*iĭ*	[$i^{3}i^{14}$]	‘husband’
	ìĭ	[$i^{1}i^{14}$]	‘sacred’
	ichĭ	[$i^{3}.\widehat{tʃ}i^{14}$]	‘path’
	ità	[$i^{3}.\underset{\sqcup}{t}a^{1}$]	‘flower’
	tsikuàă	[$\widehat{ts}i^{3}.k^{w}a^{1}a^{14}$]	‘night’
	xîñù	[$ʃi^{41}.ɲu^{1}$]	‘shiny’
	kuìà	[$k^{w}i^{1}.a^{1}$]	‘year’
	vixá	[$\beta\underset{\cdot}{i}^{3}.ʃa^{4}$]	‘wet’
	tĭchi	[$\underset{\sqcup}{t}i^{14}.\widehat{tʃ}i^{3}$]	‘avocado’
	kánĭ	[$ka^{4}.ni^{14}$]	‘long’
	í'i	[$i^{4}.ʔi^{3}$]	‘raw’
	kuáì	[$k^{w}a^{4}i^{1}$]	‘horse’
	saĭn	[$sã^{3}ĩ^{14}$]	‘corncob’

3.3.2. The front mid vowel /e/

The front mid vowel /e/ is the least common vowel in Sà'án Sàvĭ ñà ñuù Xnúvíkó, although it appears in some very basic and frequent words such as *ve'e* [βe̤^{3}.ʔe^{3}] 'house'; *sè'e* [se^{1}.ʔe^{3}] 'offspring'; *xèĕ* [ʃe^{1}e^{14}] 'much'. It does not occur word-initially, and it is more frequent word-finally, such as in *nchè'ĕ* [^{n}d͡ʒe^{1}.ʔe^{14}] 'peach'; or *vèe* [βe̤^{1}e^{3}] 'heavy'; although it can also occur word-medially, such as in *leka* [le^{3}.ka^{3}] 'bag'. It also appears in a few nativized loanwords from Spanish, such as in *lé'lú* [le^{4}.lu^{4}] 'lamb'; *varrénchè* [βa̤^{3}.ren^{4}.t͡ʃe^{1}] 'liquor'; or *lesô* [le^{3}.so^{41}] 'rabbit'.

Example set (14) shows the distribution of the front mid vowel /e/ in Sà'án Sàvĭ ñà ñuù Xnúvíkó. Example set (15) contains minimal pairs with front vowels.

(14) Distribution of the front mid vowel /e/ in Sà'án Sàvĭ ñà ñuù Xnúvíkó

/e/ [e]	*ve'e*	[βe̤^{3}.ʔe^{3}]	'house'
	sè'e	[se^{1}.ʔe^{3}]	'offspring'
	xèĕ	[ʃe^{1}e^{14}]	'much'
	nchè'ĕ	[^{n}d͡ʒe^{1}.ʔe^{14}]	'peach'
	vèe	[βe̤^{1}e^{3}]	'heavy'
	leka	[le^{3}.ka^{3}]	'bag'
	lé'lú	[leʔ^{4}.lu^{4}]	'lamb' (< SP 'cordero')
	varrénchè	[βa̤^{3}.ren^{4}.t͡ʃe^{1}]	'liquor' (< SP 'aguardiente')
	lesô	[le^{3}.so^{41}]	'rabbit' (< SP 'conejo')[24]

[24] Probably via another language.

(15) Minimal pairs with front vowels

/i/ ≠ /e/	*xìǐ*	[ʃi^{1}i^{14}]	‘lower part’
	xèě	[ʃe^{1}e^{14}]	‘much’
	kí'in	[kĩ^{4}.ʔĩ^{3}]	‘IPFV.grab’
	ké'en	[kẽ^{4}.ʔẽn^{3}]	‘several’

3.3.3. The low central vowel /a/

The low central vowel /a/ is not as common as the high front vowel /i/, but it is one of three vowels that can appear word-initially in Sà'án Sàvǐ ñà ñuù Xnúvíkó— the other two being the high vowels /i/ and /u/.[25] We can see it in *antiví* [a^{3}.^{n}di^{3}.βi̤^{4}] ‘sky’; *anchayá* [a^{3}.^{n}d͡ʒa^{3}.ja^{4}] ‘hell’; *atu* [a^{3}.ʈu^{3}] ‘unripe and bitter’; *anà~anuà* [a^{3}.na^{1} ~ a^{3}.nwa^{1}] ‘heart’; or *àsǐ* [a^{1}.si^{14}] ‘tasty’. It can also occur word-medially and word-finally, such as in *ntá'vì* [^{n}daʔ^{4}.βi̤^{1}] ‘poor’; *tsatù* [t͡sa^{3}.ʈu^{1}] ‘pants’; *sàtsì* [sa^{1}.t͡si^{1}] ‘nephew / niece’; *nchá xăxâ* [^{n}d͡ʒa^{4}.ʃa^{13}.ʃa^{41}] ‘urine’; *kàa* [ka^{1}a^{3}] ‘metal’; *ña'á* [ɲa^{3}.ʔa^{4}] ‘woman’; or *yaà* [ja^{3}a^{1}] ‘music’.

Example set (16) shows the distribution of the low central vowel /a/ in Sà'án Sàvǐ ñà ñuù Xnúvíkó. Example set (17) contains minimal pairs distinguishing /e/ and /a/.

(16) Distribution of the low central vowel /a/ in Sà’án Sàvǐ ñà ñuù Xnúvíkó

/a/ [a]	*antiví*	[a^{3}.^{n}di^{3}.βi̤^{4}]	‘sky’
	anchayá	[a^{3}.^{n}d͡ʒa^{3}.ja^{4}]	‘hell’
	atu	[a^{3}.ʈu^{3}]	‘unripe and bitter’
	anà~anuà	[a^{3}.na^{1} ~ a^{3}.nwa^{1}]	‘heart’ (< SP ‘ánima’)
	àsǐ	[a^{1}.si^{14}]	‘tasty’

[25] The only attested word in the native vocabulary that begins with /o/ is the word *òkò* [o^{1}.ko^{1}] ‘twenty’.

ntá'vì	[^{n}da^{4}.β̤i^{1}]	'poor'
tsatù	[t͡sa^{3}.t̤u^{1}]	'pants'
sàtsì	[sa^{1}.t͡si^{1}]	'nephew / niece'
nchá xăxâ	[^{n}d͡ʒa^{4}.ʃa^{13}.ʃa^{41}]	'urine'
kàa	[ka^{1}a^{3}]	'metal'
ña'á	[ɲa^{3}.ʔa^{4}]	'woman'
yaà	[ja^{3}a^{1}]	'music'

(17) Minimal pairs between /e/ and /a/

/e/ ≠ /a/	*kée*	[ke^{4}e^{3}]	'IPFV.leave'
	káa	[ka^{4}a^{3}]	'IPFV.be_seen'
	ké'en	[kẽ^{4}.ʔẽn^{3}]	'several'
	ká'àn	[kã^{4}.ʔã^{1}]	'IPFV.speak'

3.3.4. The mid back vowel /o/

The mid back vowel /o/ is not as rare as the mid front vowel /e/, but it is still less common than the three peripheral vowels. It only appears word-initially in the word *òkò* [o^{1}.ko^{1}] 'twenty'. Otherwise, it is restricted to either word-final position or in the penultimate syllable of roots ending in /o/. Some examples include *chìtò* [t͡ʃi̠^{1}.t̤o^{1}] 'often'; *xikò* [ʃi^{3}.ko^{1}] 'smell'; *vaxô* [β̤a^{3}.ʃo^{41}] 'piece of leather attaching a hoe to a yoke'; *yòǒ* [jo^{1}o^{14}] 'moon'; *yoò* [jo^{3}o^{1}] 'gourd jug'; *ntò'ǒ* [^{n}do^{1}.ʔo^{14}] 'tortilla basket'; *chokǒ* [t͡ʃo^{3}.ko^{14}] 'ant'; *kóló* [ko^{4}.lo^{4}] 'turkey'; *Nkǒyô* [^{ŋ}go^{13}.jo^{41}] 'Mexico'; or in the compound *skǒo nchà'nchǎ* [sko^{14}o^{3}.^{n}d͡ʒaʔ^{1}.^{n}d͡ʒa^{14}] 'rainbow'. The only attested exceptions to this distribution so far are the loanwords *lóchí* [lo^{4}.t͡ʃi̠^{4}]

‘vulture’; *kótsì* [ko^{4}.t͡si^{1}] ‘car’; *kojolîn* [ko^{3}.xo^{3}.lĩ^{41}] ‘sesame’; and *konéjù ~ konéjú* [ko^{3}.ne^{4}.xu^{1} ~ ko^{3}.ne^{4}.xu^{4}] ‘rabbit / biceps’; and the word *kóní* [ko^{4}.ni^{4}] ‘female turkey’.

Example set (18) shows the distribution of the mid back vowel /o/ in the language.

(18) Distribution of the mid back vowel /o/ in Sà'án Sàvĭ ñà ñuù Xnúvíkó

/o/ [o]	*òkò*	[o^{1}.ko^{1}]	‘twenty’
	chìtò	[t͡ʃĩ^{1}.t̪o^{1}]	‘often’
	xikò	[ʃĩ^{3}.ko^{1}]	‘smell’
	vaxô	[βa̤^{3}.ʃo^{41}]	‘leather attaching a hoe to a yoke’
	yòǒ	[jo^{1}o^{14}]	‘moon’
	yoò	[jo^{3}o^{1}]	‘gourd jug’
	ntò'ǒ	[^{n}do^{1}.ʔo^{14}]	‘tortilla basket’
	chokǒ	[t͡ʃo^{3}.ko^{14}]	‘ant’
	kóló	[ko^{4}.lo^{4}]	‘turkey’
	Nkǒyô	[^{ŋ}go^{13}.jo^{41}]	‘Mexico’
	skǒo nchà'nchǎ	[sko^{14}o^{3}.^{n}d͡ʒaʔ^{1}.^{n}d͡ʒa^{14}]	‘rainbow’
	lóchí	[lo^{4}.t͡ʃĩ^{4}]	‘vulture’ (< SP ‘zopilote’)
	kótsì	[ko^{4}.t͡si^{1}]	‘car’ (< SP ‘coche’)[26]
	kojolîn	[ko^{3}.xo^{3}.lĩ^{41}]	‘sesame’ (< SP ‘ajonjolí’)
	konéjù ~ konéjú	[ko^{3}.ne^{4}.xu^{1} ~ ko^{3}.ne^{4}.xu^{4}]	‘rabbit / biceps’ (< SP ‘conejo’)
	kóní	[ko^{4}.ni^{4}]	‘female turkey’

[26] The loanword *kárrù* [ka^{4}.ru^{1}] (< SP ‘carro’) is used more commonly.

Note that some Spanish loanwords entered Sà'án Sàvĭ ñà ñuù Xnúvíkó with word-final /u/ instead of the original word final /o/, as can be seen in (19). However, some more recent loanwords retain word-final /o/, such as tiémpò [t̪jem^{4}.po^{1}] ‘time’ (< SP ‘tiempo’).

(19) Spanish *arriero* ‘mule driver’ > *chokó riérù* [t͡ʃo^{3}.ko^{4}.ɾje^{4}.ɾu^{1}] ‘*Atta Mexicana* (species of leaf-cutter ant)’

Spanish *chivo / chivito* ‘male goat’ > *tsivátù* [t͡si^{3}.βa̤^{4}.t̪u^{1}] ‘male goat’

Spanish *burro* ‘donkey’ > *lúrrú* [lu^{4}.ru^{4}] ‘donkey’

Spanish *carro* ‘car’ > *kárrù* [ka^{4}.ru^{1}] ‘car’

3.3.5. The high back vowel /u/

The high back vowel /u/ is the second most common vowel in Sà'án Sàvĭ ñà ñuù Xnúvíkó. Its distribution is not restricted, as it can be found in any position in the word. Some examples include *ùnì* [u^{1}.ni^{1}] ‘three’; *ùvà* [u^{1}.βa̤^{1}] ‘bitter’; *ù'và* [uʔ^{1}.βa̤^{1}] ‘salty’; *ù'ù* [u^{1}.ʔu^{1}] ‘difficult’; *tuchà* [t̪u^{3}.t͡ʃa^{1}] ‘atole’; *nùnĭ* [nu^{1}.ni^{14}] ‘corn’; *tutù* [t̪u^{3}.t̪u^{1}] ‘paper’; *ntatŭ* [^{n}da^{3}.t̪u^{14}] ‘pretty and healthy’; *chi'ntù* [t͡ʃĩʔ^{3}.^{n}du^{1}] ‘acorn’; *ntìvă'ŭ* [^{n}di^{1}.βa̤^{13}.ʔu^{41}] ‘coyote’; *ñuû* [ɲu^{3}u^{41}] ‘midnight’; and *luu* [lu^{3}u^{3}] ‘small’.

Example set (20) shows the distribution of the high back vowel /u/ in Sà'án Sàvĭ ñà ñuù Xnúvíkó. Example set (21) contains minimal pairs between the back vowels.

(20) Distribution of the high back vowel /u/ in Sà'án Sàvĭ ñà ñuù Xnúvíkó

/u/ [u]	*ùnì*	[u^{1}.ni^{1}]	‘three’
	ùvà	[u^{1}.βa̤^{1}]	‘bitter’
	ù'và	[uʔ^{1}.βa̤^{1}]	‘salty’

ù'ù	[u^{1}.ʔu^{1}]	‘difficult’
tuchà	[t̪u^{3}.t͡ʃa^{1}]	‘atole’
nùnǐ	[nu^{1}.ni^{14}]	‘corn’
tutù	[t̪u^{3}.t̪u^{1}]	‘paper’
ntatǔ	[^{n}da^{3}.t̪u^{14}]	‘pretty and healthy’
chi'ntù	[t͡ʃĩʔ^{3}.^{n}du^{1}]	‘acorn’
ntìvǎ'û	[^{n}di^{1}.βa̱^{13}.ʔu^{41}]	‘coyote’
ñuû	[ɲu^{3}u^{41}]	‘midnight’
luu	[lu^{3}u^{3}]	‘small’

(21) Minimal pairs with back vowels

/o/ ≠ /u/	*yòǒ*	[jo^{1}o^{14}]	‘moon’
	yùǔ	[ju^{1}u^{14}]	‘stone’
	chokǒ	[t͡ʃo^{3}.ko^{14}]	‘ant’
	chukǔ	[t͡ʃu^{3}.ku^{14}]	‘flea’

3.3.6. Emergent diphthong /ai/

The combination /ai/ in uninflected roots in Sà'án Sàvĭ ñà ñuù Xnúvíkó behaves as one monosyllabic bimoraic unit (§3.5.1) and is therefore analyzed here as a diphthong. This diphthong came to be as Proto-Mixtec **u* was fronted to /i/ in non-initial syllables when it immediately followed the approximant **y*, as can be seen in (22). This sound change turned disyllabic words into monosyllabic bimoraic words. The only attested exception to this sound change is the word *yúyú* [ju^{4}.ju^{4}] ‘dew’, from Proto-Mixtec (Josserand 1983) **yuyuʔ*.

(22) Proto-Mixtec (Josserand 1983) *^{n}*deyu*^{ʔ} ‘food’ > *nchaǐ* [^{n}d͡ʒa^{3}i^{14}] ‘food’[27]

Proto-Mixtec (Josserand 1983) **teyu* ‘stool’ > *chaì* [t͡ʃa^{3}i^{1}] ‘stool’[28]

Other examples include *saĭn* [sã^{3}ĩ1^{4}] ‘corn cob’, *ntaí* [^{n}da^{3}i^{4}] ‘rough’; *tìkuàĭn* [t̪i^{1}.k^{w}ã^{1}ĩ1^{4}] ‘mosquito’; *ntikuáin* [^{n}di^{3}.kwã^{3}ĩ^{4}] ‘squirrel’; *vái* [β̤a^{4}i^{4}] ‘slow’; and the Spanish loanwords *kuái* [k^{w}a^{4}i^{1}] ‘horse’ (> SP ‘caballo’); and *paìn* [pã^{3}ĩ^{1}] ‘shawl’ (> SP ‘paño’).

Example set (23) shows the distribution of the diphthong /ai/ in the language.

(23) Distribution of the diphthong /ai/ in Sà'án Sàvĭ ñà ñuù Xnúvíkó

/ai/ [ai]	*saĭn*	[sã^{3}ĩ^{14}]	‘corncob’
	ntaí	[^{n}da^{3}i^{4}]	‘rough’
	tìkuàĭn	[t̪i^{1}.k^{w}ã^{1}ĩ^{14}]	‘mosquito’
	ntikuáin	[^{n}di^{3}.k^{w}ã^{3}ĩ^{4}]	‘squirrel’
	vái	[β̤a^{4}i^{4}]	‘slow’
	kuái	[k^{w}a^{4}i^{1}]	‘horse’ (> SP ‘caballo’)
	paìn	[pã^{3}ĩ^{1}]	‘shawl’ (> SP ‘paño’)[29]

Forms inflected with person marking (§5.1) may present other, secondary vowel combinations that could be analyzed as diphthongs, such as *luì* [lu^{3}i^{1}] ‘he is small’ (from *luu* ‘small’); *ntúntoì* [^{n}du^{4}.^{n}do^{3}i^{1}] ‘he (she/it/they) is cleaning himself’ (from *ntúntoo* ‘IPFV.become_clean’).

[27] Note that, in most cases, Proto-Mixtec **e* became /a/ in Sà'án Sàvĭ ñà ñuù Xnúvíkó.
[28] This has been attested as *cheì* [t͡ʃe^{3}i^{1}] in the village of La Batea. In our data, the sequence /ei/ does not appear elsewhere.
[29] This has also been attested with a high>falling tone melody, *páîn* [pã^{4}ĩ^{41}] in the village of La Batea.

3.4. Suprasegmental elements

The suprasegmental elements in Sà'án Sàvĭ ñà ñuù Xnúvíkó are presented in Table 6, repeated here from Table 3 (page 21) for convenience. This section presents examples and discussions of vowel length (§3.4.1); nasality (§3.4.2); the tone system (§3.4.3); and stress or prominence (§3.4.4) in Sà'án Sàvĭ ñà ñuù Xnúvíkó.

Table 6. Suprasegmental inventory of Sà'án Sàvĭ ñà ñuù Xnúvíkó.

	Orthographic representation	Example
Vowel length	VV [V:]	*aa*
Vowel nasality	Vn [Ṽ]	*an*
High tone	V́ [V^{4}]	*á*
Mid tone	V [V^{3}]	*a*
Low-mid tone	V [V^{2}]	*a*
Low tone	V̀ [V^{1}]	*à*
Rising tone	V̌ [V^{14}][30]	*ă*
Falling tone	V̂ [V^{41}][31]	*â*

3.4.1. Vowel length

Vowel length in Sà'án Sàvĭ ñà ñuù Xnúvíkó is only a feature of some word-final syllables, which are the only syllables that can have two morae (§3.5.1) and which are generally stressed (see §3.4.4). Since each long vowel is assigned two morae, and every mora is assigned a tone, long vowels are assigned two tones. This means that long vowels can present very complex sequences of contour tones (e.g., *tâăn* [t̪ã^{42}ă^{34}] 'IPFV.put'), but this is not attested in

[30] Phonetically, rising tones may be realized as rising combinations of any of the four level tones.
[31] Phonetically, falling tones can be high tolow [41], high to low-mid [42], or mid to low [31].

monosyllabic uninflected nominal roots. Any of the five vowels of Sà'án Sàvĭ ñà ñuù Xnúvíkó can be lengthened, and vowel length can co-occur with nasality.

Long vowels occur most commonly in monosyllabic words, such as *ntàà* [^{n}da^{1}a^{1}] 'flat'; *xchààn* [ʃt͡ʃã^{1}ã^{1}] 'tomorrow'; *séè* [se^{4}e^{1}] 'young boy', *tèěn* [t̪ẽ^{1}ẽ^{14}] 'sweat'; *nkuii* [^{ŋ}g^{w}i^{2}i^{3}] 'fox'; *iin* [ĩ^{3}ĩ^{3}] 'one'; *yòǒ* [jo^{1}o^{14}] 'moon'; *ntuú* [^{n}du^{3}u^{4}] 'daytime'; and *tùŭn* [t̪ũ^{1}ũ^{14}] 'charcoal'. They can also occur with polysyllabic words, although much less frequently, as is the case with *tsikuàă* [t͡si^{3}k^{w}a^{1}a^{14}] 'night'; *nìkànchiĭ* [ni^{1}.ka^{1}.^{n}d͡ʒi^{3}i^{13}] 'sun'; *tìkòǒ* [t̪i^{1}.ko^{1}o^{14}] 'tamal'; or *Ntisnuŭ* [^{n}di^{3}.snu^{3}u^{14}] 'Tlaxiaco'.

The only attested case of a bimoraic syllable in non-final position is the loanword *máárì* [ma^{4}a^{4}.ɾi^{1}] 'co-mother' (< SP 'comadre'), which seems to maintain the stress placement of the borrowed element.

Example set (24) shows the distribution of long vowels in Sà'án Sàvĭ ñà ñuù Xnúvíkó.

(24) Distribution of long vowels in Sà'án Sàvĭ ñà ñuù Xnúvíkó

VV	*ntàà*	[^{n}da^{1}a^{1}]	'flat'
	xchààn	[ʃt͡ʃã^{1}ã^{1}]	'tomorrow'
	séè	[se^{4}e^{1}]	'young boy'
	tèěn	[t̪ẽ^{1}ẽ^{14}]	'sweat'
	nkuii	[^{ŋ}g^{w}i^{2}i^{3}]	'fox'
	iin	[ĩ^{3}ĩ^{3}]	'one'
	yòǒ	[jo^{1}o^{14}]	'moon'
	ntuú	[^{n}du^{3}u^{4}]	'daytime'
	tùŭn	[t̪ũ^{1}ũ^{14}]	'charcoal'

tsikuàǎ	[t͡si^{3}k^{w}a^{1}a^{14}]	‘night’
nìkànchiǐ	[ni^{1}.ka^{1}.^{n}d͡ʒi^{3}i^{13}]	‘sun’
tìkòǒ	[t̪i^{1}.ko^{1}o^{14}]	‘tamal’
Ntisnuǔ	[^{n}di^{3}.snu^{3}u^{14}]	‘Tlaxiaco’
máárì	[ma^{4}a^{4}.ɾi^{1}]	‘co-mother’ (> SP ‘comadre’)

Nonetheless, there are no minimal pairs distinguished solely by vowel length, the closest attested pair being *ntùyù* [^{n}du^{1}.ju^{1}] ‘wooden stake used as a nail’ and *ntùyúú* [^{n}du^{1}.ju^{4}u^{4}] ‘PFV.harden’. Vowel length is therefore marginally contrastive. Monosyllabic words of lexical classes are always long, and some polysyllabic words have long final vowels as well. In this dissertation length is analyzed as a suprasegmental feature of certain roots, rather than treating long vowels as separate phonemes.

3.4.2. Vowel nasality

Nasality, which can co-occur with vowel length, is only a feature of certain word-final syllables. In this dissertation nasality is analyzed as a suprasegmental feature of certain roots, rather than as separate nasal vowel phonemes because a) nasality is maintained when the vowel changes due to morphological processes (such as in *kí'ún* [kĩ^{4}.ʔũ^{4}] ‘you grab’ from *kí'in* [kĩ^{4}.ʔĩ^{3}] ‘IPFV.grab’ and *=ú* [u^{4}] ‘2NFORM’, §5.1); b) even though Proto-Mixtec **o* became /u/ in nasal environments (§3.3.4), nasalized /o/ can still be found in the language as a result of these morphological processes (such as in *ná kò'ǒn* [na^{4}.kõ^{1}.ʔõ^{14}] ‘let’s go’ from *kù'ùn* [kũ^{1}.ʔũ^{1}] ‘IRR.go’ and *=ó* [o^{4}] ‘1PL.INCL’, §5.1.3); c) nasality can only be found in the last syllable of roots, and is therefore only a feature of stressed or prominent syllables (§3.4.4).

Nasality is contrastive, and there are many minimal pairs such as *íín* [ĩ^{4}ĩ^{4}] ‘hail’ and *íí* [i^{4}i^{4}] ‘male’, *ù'ùn* [ũ^{1}.ʔũ^{1}] ‘five’ and *ù'ù* [u^{1}.ʔu^{1}] ‘difficult’; *iĭn* [ĩ^{3}ĩ^{14}] ‘skin’ and *iĭ* [i^{3}i^{14}] ‘husband’; *xiín* [ʃĩ^{3}ĩ^{4}] ‘owner / tutor’ and *xií* [ʃi^{3}i^{4}] ‘skinny’; *kuáân* [k^{w}ã^{4}ã^{41}] ‘yellow’ and *kuáâ* [k^{w}a^{4}a^{41}] ‘blind’; *tsá'àn* [t͡sã^{4}.ʔã^{1}] ‘IPFV.HAB.go_NONBASE’ and *tsá'à* [t͡sa^{4}.ʔa^{1}] ‘nixtamal’; or *kúun* [kũ^{4}ũ^{3}] ‘IPFV.fall (liquid)’ and *kúu* [ku^{4}u^{3}] ‘COP’.

Example set (25) contains minimal pairs between oral and phonologically nasal vowels in Sà'án Sàvĭ ñà ñuù Xnúvíkó.

(25) Minimal pairs between oral and phonologically nasal vowels

[V] ≠ [Ṽ]	*íí*	[i^{4}i^{4}]	‘male’
	íín	[ĩ^{4}ĩ^{4}]	‘hail’
	ù'ù	[u^{1}.ʔu^{1}]	‘difficult’
	ù'ùn	[ũ^{1}.ʔũ^{1}]	‘five’
	iĭ	[i^{3}i^{14}]	‘husband’
	iĭn	[ĩ^{3}ĩ^{14}]	‘skin’
	xií	[ʃi^{3}i^{4}]	‘skinny’
	xiín	[ʃĩ^{3}ĩ^{4}]	‘owner / tutor’
	kuáâ	[k^{w}a^{4}a^{41}]	‘blind’
	kuáân	[k^{w}ã^{4}ã^{41}]	‘yellow’
	tsá'à	[t͡sa^{4}.ʔa^{1}]	‘nixtamal’
	tsá'àn	[t͡sã^{4}.ʔã^{1}]	‘IPFV.HAB.go_NONBASE’
	kúu	[ku^{4}u^{3}]	‘COP’
	kúun	[kũ^{4}ũ^{3}]	‘IPFV.fall (liquid)’

Vowels following or preceding nasal stops may be partially nasalized, but they are different from phonologically nasal vowels. In addition, the contrast between nasalized and oral vowels is lost after nasal stops. Compare Figure 16, showing a spectrogram for an oral vowel /i/ in the word *iĭ* [i^{3}i^{14}] 'husband'; with Figure 17, showing a spectrogram for a phonologically nasal vowel /ĩ/ in the word *iin* [ĩ^{3}ĩ^{3}] 'one'; and Figure 18, showing a spectrogram for a phonetically nasalized vowel /i/ in the word *nìĭ* [ni^{1}i^{14}] 'blood'. All three words were produced by Jeremías Salazar, from Yukúnanĭ (Yucunani) in the same elicitation session. Note that there is no nasal airflow in Figure 16, whereas there is constant and intense nasal airflow in Figure 17, but less intense and only in the second part of the vowel in Figure 18.

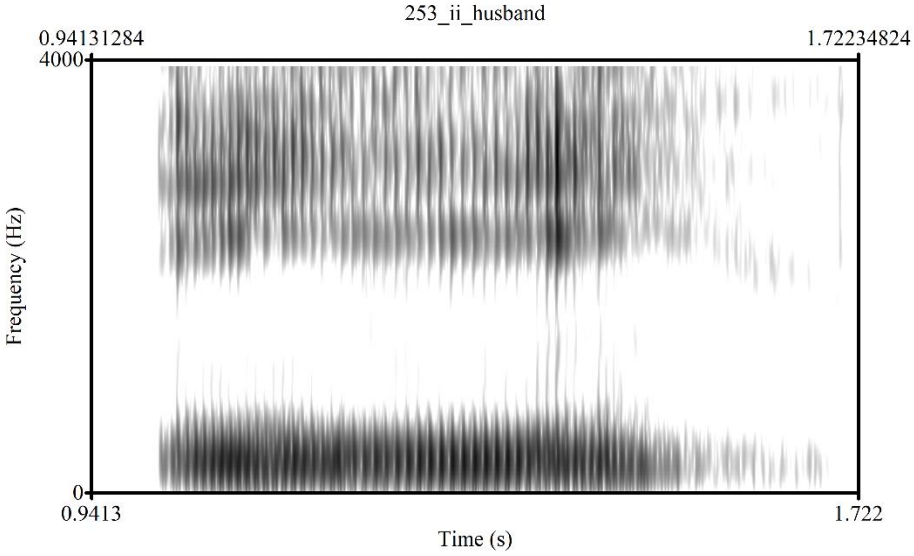


Figure 16. Spectrogram for the word *iĭ* [i^{1}i^{14}] 'husband', with an oral /i/. Image extracted from Praat.

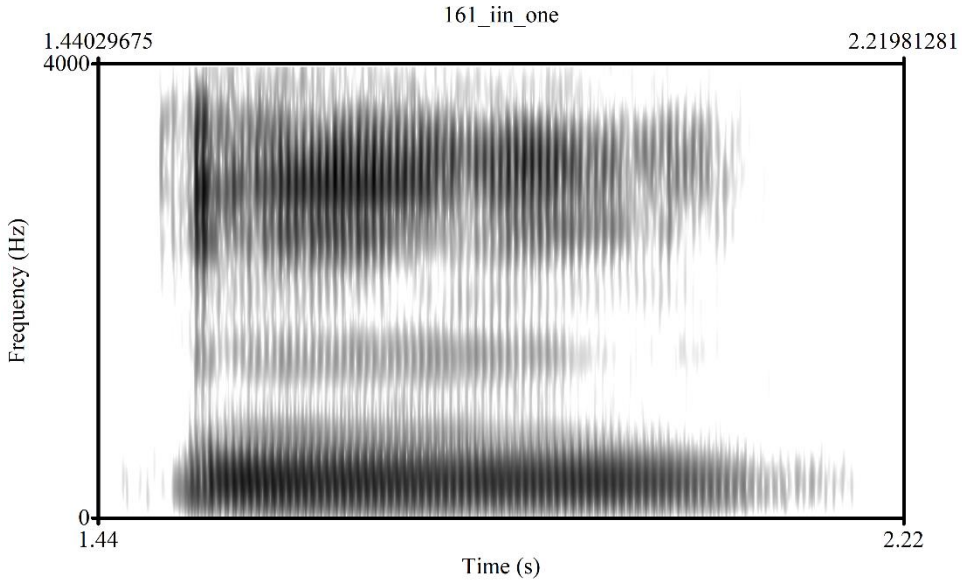


Figure 17. Spectrogram for the word *iin* [ĩ^{3}ĩ^{3}] ‘one’, with a phonologically nasal /ĩ/. Image extracted from Praat.

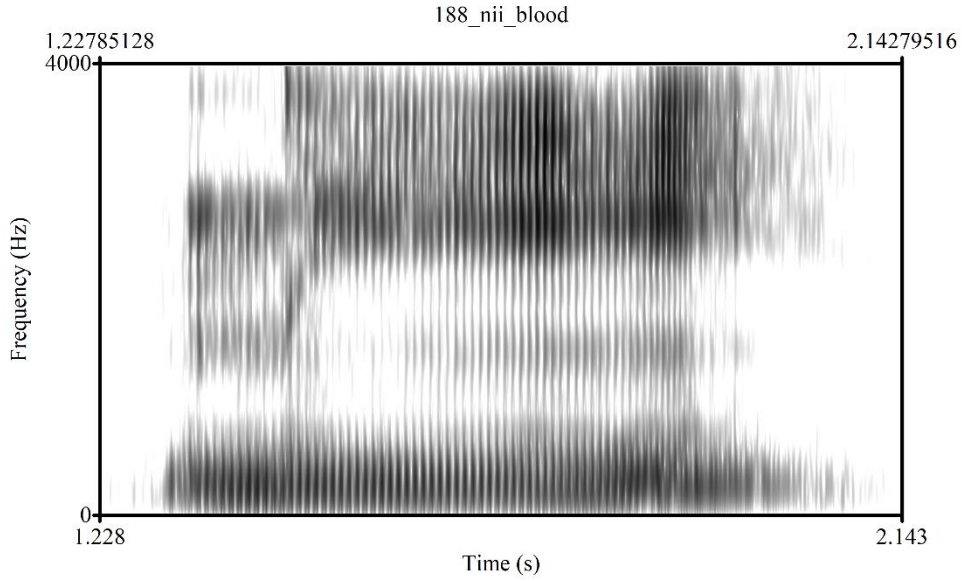


Figure 18. Spectrogram for the word *nìǐ* [ni^{1}i^{14}] 'blood', with a phonetically nasalized /i/. Image extracted from Praat.

3.4.3. Tone

Roots in Sà'án Sàvĭ ñà ñuù Xnúvíkó typically consist of two morae, forming what has often been described as the couplet for Mixtec languages (Pike & Ibach 1978; Longacre 1957; Eischens & Bennett 2024). Couplets can be disyllabic (CV(ʔ)CV) or monosyllabic (CVV). The Tone Bearing Unit (TBU) is the mora. In Sà'án Sàvĭ ñà ñuù Xnúvíkó each mora hosts one of six phonological tones. These are divided into four level tones: high (H), mid (M), low-mid (m), low (L);[32] and two contour tones: rising (R) and falling (F). These tones are combined to form melodies, which may then be modified to mark grammatical information. Some of these tones are very rare in nominal roots, particularly the low-mid tone and the falling tone. However, they are much more common in inflected verbal forms, and are sometimes the only feature distinguishing two different forms.

In this analysis, the contour tones are treated as tones in their own right, rather than combinations of level tones. Paster and Beam de Azcona (2004a; 2004b) analyzed contour tones in Yucunani Mixtec as a series of level tones. The two contour tones may indeed have different phonetic realizations depending on: a) the tones of the preceding morae; b) the lexical tone melody of the uninflected form of the word; and as such could be analyzed as combinations of level tones, especially in inflected forms. However, the contour tones occur on morphologically simplex forms as well, in different positions and in different tone melodies. No tonal processes have been observed in this variety that would justify an analysis of contour tones as comprised of two level tones. However, some secondary contours do arise in morphological inflection, particularly with personal enclitics and their hosts (§5.1). Some

[32] In the phonetic transcription system used in this dissertation, tones are represented with superscript numbers: high (4), mid (3), low-mid (2), and low (1). Contour tones are represented with combinations of these numbers.

secondary contours have also been observed, though less commonly, in TAM inflection (§5.3.2).

The following discussion focuses on nouns and adjectives. Since words of these classes tend to be simplex, this allows us to get a view on the basic phonological tone patterns. Verbs, which are more complex and bear grammatical tone, are discussed later (§4.3).

In monomorphemic, **disyllabic**, bimoraic nouns and adjectives, [33] there are 23 attested tone melodies, with some being very uncommon (such as rising>rising or low>falling) while others seem to be very prevalent. It is worth noting that our database does not include, to this date, any disyllabic noun or adjective with a low-mid tone (m) in the first mora. In fact, the low-mid tone seems restricted to a couple of rising>low-mid (R.m)[34] melodies. Table 7 presents a summary of the 23 melodies, with columns representing the tone of the first mora, and rows representing the tone of the second mora. Shaded cells represent melodies that remain unattested in uninflected nouns and adjectives thus far.

In monomorphemic, **monosyllabic**, bimoraic nouns and adjectives there are 19 attested tone melodies, low>rising (LR) being the most common melody. Table 8 presents a summary of these melodies, with the same layout as Table 7. It is worth noting that certain melodies are not shared across monosyllabic and disyllabic nouns. The low>high (L.H) and low>rising (L.R) melodies of disyllabic nouns, for example, seem to correspond to a single low>rising (LR) melody in monosyllabic nouns. These two tones would be distinguished by timing, similar to what has been observed as the difference between high>low (HL) and high>falling (HF) melodies in monosyllabic words. Compare the pitch track (in blue) in Figure 19—which

[33] It is not clear whether some of the adjectives in the tables are derived through tonal alternation from other forms (§5.2.2.1).
[34] The dot (.) represents a syllable break.

starts descending halfway through the first mora to reach a low tone by the beginning of the second mora—with the pitch track (blue) in Figure 20—which remains high all throughout the first mora and only starts falling halfway through the second mora. Both words were uttered by Jeremías Salazar, from Yukúnanĭ (Yucunani) in the same recording session. The lengthened vowels in the figures have been split in two at the mid-point of their duration, to represent the bimoraic nature of the syllable.

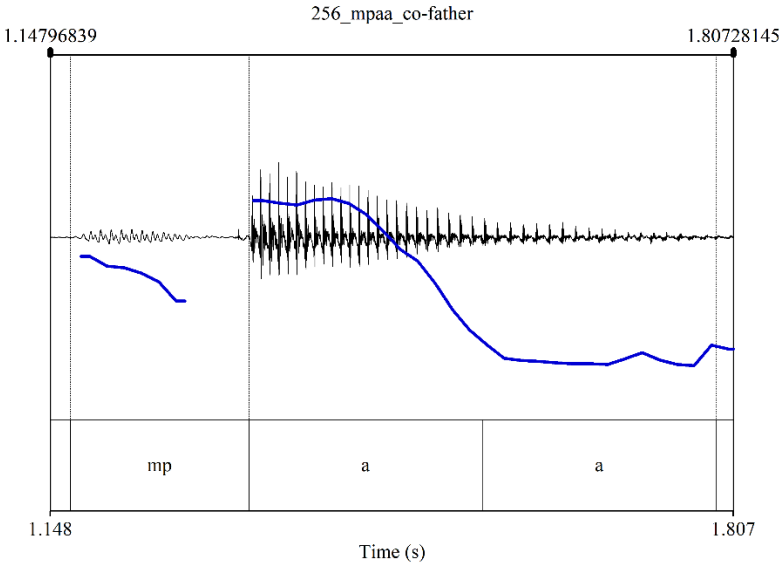


Figure 19. Waveform and pitch track (blue) of the word *mpáà* [^{m}ba^{4}a^{1}] ‘co-father’

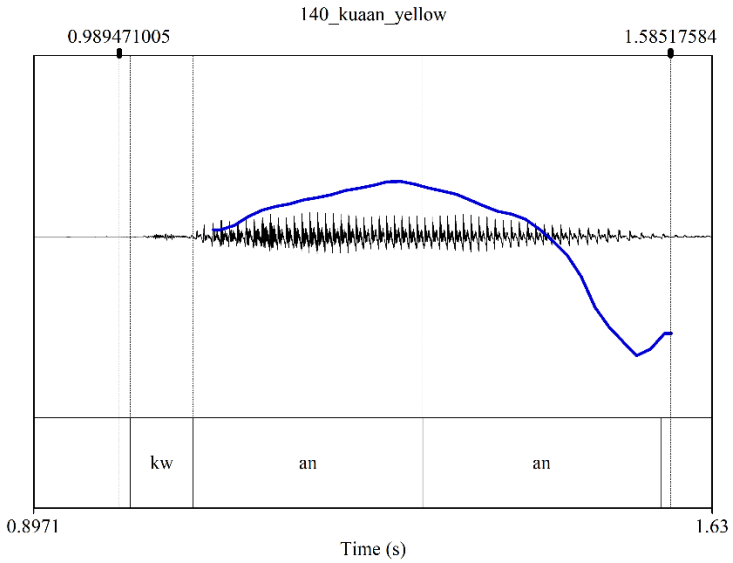


Figure 20. Waveform and pitch track (blue) of the word *kuáân* [k^{w}ã^{4}ã^{41}] ‘yellow’

Table 7. Tone melodies in monomorphemic, disyllabic, bimoraic nouns and adjectives in Sà'án Sàvĭ ñà ñuù Xnúvíkó. Columns represent the tone of the first mora. Rows representing the tone of the second mora.

	L	m	M	H	R	F
L	*ù'và* [u^{1}ʔ.βa̤^{1}] 'salty' *kuìàa* [k^{w}i^{1}.ka^{1}] 'comb' *tsìtù* [t͡si^{1}.ʈu^{1}] 'oven' *òkò* [o^{1}.ko^{1}] 'twenty' *ìñù* [i^{1}.ɲu^{1}] 'six' *ncha'ì* [^{n}d͡ʒa^{3}.ʔi^{1}] 'mud'		*và'a* [βa̤^{1}.ʔa^{3}] 'good' *tù'un* [ʈũ^{1}.ʔũ^{3}] 'word' *nchìka* [^{n}d͡ʒi^{1}.ka^{3}] 'wall; chest' *ñà'a* [ɲa^{1}.ʔa^{3}] 'thing' *yùcha* [ju^{1}.t͡ʃa^{3}] 'river' *kuàchi* [k^{w}a^{1}.t͡ʃi^{3}] 'culpa'	*sà'án* [sã^{1}.ʔã^{4}] 'language' *chò'ó* [t͡ʃo^{1}.ʔo^{4}] 'flea' *chù'ún* [t͡ʃũ^{1}.ʔũ^{4}] 'black widow' *ntsìtú* [^{n}d͡zi^{1}.ʈu^{4}] 'full' *tiùkú* [ʈju^{1}.ku^{4}] 'ahuehuete tree' *tiùtú* [ʈju^{1}.ʈu^{4}] 'maguey flower stem'	*nùnĭ* [nu^{1}.ni^{14}] 'corn' *vìkŏ* [βi̤^{1}.ko^{14}] 'cloud' *sàtă* [sa^{1}.ʈa^{14}] 'back' *sùkŭ* [su^{1}.ku^{14}] 'neck' *mì'nchă* [mi^{1}ʔ.^{n}d͡ʒa^{14}] 'nopal' *xìnĭ* [ʃi^{1}.ni^{14}] 'head'	*nà'â* [na^{1}.ʔa^{41}] 'pretty much' *chìô* [t͡ʃi^{1}.o^{41}] 'upper arm' *à'ân* [ã^{1}.ʔã^{41}] 'no' *ìchî* [i^{1}.t͡ʃi^{41}] 'dry'
M	*itù* [i^{3}.ʈu^{1}] 'milpa' *yavì* [ja^{3}.βi̤^{1}] 'hole' *yukù* [ju^{3}.ku^{1}] 'line' *kinì* [ki^{3}.ni^{1}] 'pig' *ñu'ù* [ɲu^{3}.ʔu^{1}] 'fire' *tutù* [ʈu^{3}.ʈu^{1}] 'paper'		*ve'e* [βe̤^{3}.ʔe^{3}] 'house' *kini* [ki^{3}.ni^{3}] 'bad/ugly' *nti'i* [^{n}di^{3}.ʔi^{3}] 'all' *u'va* [uʔ^{3}.βa̤^{3}] 'thick' *si'vi* [si^{3}ʔ.βi̤^{3}] 'shit' *sava* [sa^{3}.βa̤^{3}] 'half'	*vixá* [βi̤^{3}.ʃa^{4}] 'wet' *iá* [i^{3}.a^{4}] 'sour' *yakuá* [ja^{3}.k^{w}a^{4}] 'crooked' *yatá* [ja^{3}.ʈa^{4}] 'old' *ña'á* [ɲa^{3}.ʔa^{4}] 'woman' *ñu'ú* [ɲu^{3}.ʔu^{4}] 'land'	*tutŭ* [ʈu^{3}.ʈu^{14}] 'wood' *sivĭ* [si^{3}.βi̤^{14}] 'name' *vikŏ* [βi̤^{3}.ko^{14}] 'party' *iñŭ* [i^{3}.ɲu^{14}] 'thorn' *yokŏ* [jo^{3}.ko^{14}] 'wasp' *yosŏ* [jo^{3}.so^{14}] 'plain'	*isâ* [i^{3}.sa^{41}] 'day after tomorrow' *vitâ* [βi̤^{3}.ʈa^{41}] 'soft' *lesô* [le^{3}.so^{41}] 'rabbit'[35] *Mesô* [me^{3}.so^{41}] 'Mesón'[36] *limûn* [li^{3}.mũ^{41}] 'lemon'[37] *vaxô* [βa̤^{3}.ʃo^{41}] 'leather attaching a plow to a yoke'

[35] This pronunciation is attested in the villages of Yukúnanĭ (Yucunani) and Yukúchòô (Santo Domingo del Progreso). Other attested forms include *léxu* [le^{4}.ʃu^{3}] in Xnúvíkó (San Juan Mixtepec); *lésu* [le^{4}.su^{3}] in Mínà (Los Tejocotes); and *léso* [le^{4}.so^{3}] in Mínà (Los Tejocotes) and Nkàun (Santa María Teposlantongo). Possibly a loanword from Spanish via some other language. Some speakers also produce *konéjù ~ konéjú* [ko^{3}.ne^{4}.xu^{1} ~ ko^{3}.ne^{4}.xu^{4}] or *kuanéjù ~ kuanéjú* [k^{w}a^{3}.ne^{4}.xu^{1} ~ k^{w}a^{3}.ne^{4}.xu^{4}]. The latter four are also used with the meaning of 'biceps'.

[36] From Spanish *Mesón*, from the name of the village *Mesón de Guadalupe*, located in San Juan Mixtepec. The village is also known as *Tinùmà* [ʈi^{3}.nu^{1}.ma^{4}].

[37] From Spanish *limón* 'lemon'.

H	*má'à* [ma^{4}.ʔa^{1}] ‘racoon’ *nchá'ì* [^{n}d͡ʒa^{4}.ʔi^{1}] ‘black’ *tsánì* [t͡sa^{4}.ni^{1}] ‘dream’ *súkù* [su^{4}.ku^{1}] ‘tall’ *ntíkà* [^{n}di^{4}.ka^{1}] ‘wide’ *kuá'à* [k^{w}a^{4}.ʔa^{1}] ‘red’		*í'in* [ĩ^{4}.ʔĩ^{3}] ‘temazcal’ *xí'an* [ʃĩ^{4}ʔã^{3}] ‘hawk’ *tó'lo* [t̪oʔ^{4}.lo^{3}] ‘rooster’ *sáta* [sa^{4}.t̪a^{3}] ‘dove’ *kuáchi* [k^{w}a^{4}.t͡ʃi^{3}] ‘small’ *xánu* [ʃa^{4}.nu^{3}] ‘cigarrette’	*yúyú* [ju^{4}.ju^{4}] ‘dew’ *kuáchá* [k^{w}a^{4}.t͡ʃa^{4}] ‘happy’ *vílú* [βi̤^{4}.lu^{4}] ‘cat’ *íyú* [i^{4}.ju^{4}] ‘empty’ *kóló* [ko^{4}.lo^{4}] ‘turkey’ *yókó* [jo^{4}.ko^{4}] ‘hot’	*yúchă* [ju^{4}.t͡ʃa^{14}] ‘young person’ *xínĭ* [ʃi^{4}.ni^{14}] ‘hat’ *kánĭ* [ka^{4}.ni^{14}] ‘long’ *yávĭ* [ja^{4}.βi̤^{14}] ‘expensive’ *xé'ĕ* [ʃe4.ʔe14] ‘ring’ *sívĭ* [si^{34}.βi̤^{14}][38] ‘name’	*kuítâ* [k^{w}i^{4}.t̪a^{41}] ‘tired’ *Skuíâ* [sk^{w}i^{4}.a^{41}] ‘Juxtlahuaca’ *kúnû* [ku^{4}.nu^{41}] ‘deep’ *kuíñû* [k^{w}i^{4}.ɲu^{41}] ‘jealous’ *kuítî* [k^{w}i^{4}.t̪i^{41}][39] ‘short’ *ánâ* [a^{4}.na^{41}][40] ‘heart’
R	*tĭnà* [t̪i^{13}.na^{1}] ‘dog’ *kŭñù* [ku^{13}.ɲu^{1}] ‘meat’ *mănà* [ma^{13}.na^{1}] ‘nap’ *ntŭxì* [^{n}du^{13}.ʃi^{1}] ‘honey’ *nchĭchì* [^{n}d͡ʒi^{13}.t͡ʃi^{1}] ‘green beans’ *Nchŭxì* [^{n}d͡ʒu^{13}.ʃi^{1}] ‘God’[41]	*ntăku* [^{n}da^{13}.ku^{2}] ‘pozole’ *tsăku* [t͡sa^{13}.ku^{2}] ‘fence’	*yŏso* [jo^{14}.so^{3}] ‘quern’ *yŭti* [ju^{14}.t̪i^{3}] ‘sand’ *tĭchi* [t̪i^{14}.t͡ʃi^{3}] ‘avocado’ *kăsa* [ka^{14}.sa^{3}] ‘son-in-law’ *yăka* [ja^{14}.ka^{3}] ‘dust’ *mĭ'i* [mi^{14}.ʔi^{3}] ‘trash’	*nkuĭnú* [^{ŋ}g^{w}i^{14}.nu^{4}] ‘tobacco’ *xkă'má* [ʃkaʔ^{14}.ma^{4}] ‘jicama’ *ntĭxí* [^{n}di^{14}.ʃi^{4}] ‘bluejay’ *Nkăvá* [^{ŋ}ga^{14}.βa̤^{4}] ‘Tepejillo’[42] *tĭchí* [t̪i^{14}.t͡ʃi^{4}] ‘iguana’	*chŭxă* [t͡ʃu^{13}.ʃa^{14}] ‘type of spider’	*Nkŏyô* [^{ŋ}go^{13}.jo^{41}] ‘Mexico’ *Ntŭvâ* [^{n}du^{13}.βa̤^{41}] ‘Oaxaca’ *chŭvâ* [t͡ʃu^{13}.βa̤^{41}] ‘hammock’ *xăxâ* [ʃa^{13}.ʃa^{41}] ‘bladder’ *nă'â* [na^{13}.ʔa^{41}] ‘very’ *Nkŏsô* [^{ŋ}go^{13}.so^{41}] ‘San Lucas’[43]
F	*xîñù* [ʃi^{41}.ɲu^{1}] ‘shiny’ *lântù* [la^{41}.^{n}du^{1}] ‘vain’		*tsîni* [t͡si^{42}.ni^{3}] ‘drunk person’ *tâka* [t̪a^{42}.ka^{3}] ‘woodpecker’			

[38] As attested in Ñuù Xnúvíkó (Mixtepec) and La Batea. This has been attested with a mid>rising tone melody in the village of Yukúnanĭ (Yucunani).
[39] As attested in La Batea. This has been attested with a high>low tone melody in the village of Yukúnanĭ (Yucunani).
[40] As attested in La Batea. From Spanish ‘ánima’. It has also been attested as *anuà* [a^{3}.nwa^{1}] in the seat of the municipality, Ñuù Xnúvíkó (San Juan Mixtepec), and as *anà* [a^{3}.na^{1}] in the villages of Nkàun (Santa Maria Teposlantongo), Yukúchòô (Santo Domingo del Progreso) and Yukúnanĭ (Yucunani).
[41] From Spanish *Dios* ‘God’.
[42] Municipality of Santos Reyes Tepejillo, in Oaxaca.
[43] Village in the municipality of San Juan Mixtepec.

Table 8. Tone melodies in monomorphemic, monosyllabic, bimoraic nouns and adjectives in Sà'án Sàvĭ ñà ñuù Xnúvíkó. Columns represent the tone of the first mora. Rows representing the tone of the second mora.

	L	**M**	**H**	**R**	**F**
L	*ììn* [ĩ^{l}ĩ^{1}] 'nine' *chùùn* [t͡ʃũ^{1}ũ^{1}] 'star' *ntàà* [^{n}da^{1}a^{1}] 'true / flat' *xchààn* [ʃt͡ʃã^{1}ã^{1}] 'tomorrow'	*ntìì* [^{n}di^{1}i^{3}] 'dead' *kàa* [ka^{1}a^{3}] 'metal / pancreas' *chàa* [t͡ʃa^{1}a^{3}] 'hombre' *vèe* [βe̤^{1}e^{3}] 'pesado' *xiòo* [ʃjo^{1}o^{3}] 'skirt' *Nkàun* [^{ŋ}gã^{1}ũ^{3}] 'Santa María Teposlantongo'		*ìĭn* [ĩ^{l}ĩ^{14}] 'salt' *yàă* [ja^{1}a^{14}] 'ash' *nìĭ* [ni^{1}i^{14}] 'blood' *ntàă* [^{n}da^{1}a^{14}] 'fiber' *xìĭ* [ʃi^{1}i^{14}] 'lower part' *chùŭn* [t͡ʃũ^{1}ũ^{14}] 'hen'	*kuàâ* [k^{w}a^{1}a^{41}] 'size' *ntìî* [^{n}di^{1}i^{41}] 'fat'
m		*nkuii* [^{ŋ}g^{w}i^{2}i^{3}] 'fox' *Nkaa* [^{ŋ}ga^{2}a^{3}] 'Putla Villa de Guerrero' *nii* [ni^{2}i^{2}] 'adult'			
M	*yaà* [ja^{3}a^{1}] 'music' *yoò* [jo^{3}o^{1}] 'gourd jug' *saà* [sa^{3}a^{1}] 'bird' *ñuù* [ɲu^{3}u^{1}] 'village' *chaì* [t͡ʃa^{3}i^{1}] 'stool'	*iin* [ĩ^{3}ĩ^{3}] 'one' *chuun* [t͡ʃũ^{3}ũ^{3}] 'work' *yaa* [ja^{3}a^{3}] 'white' *tuun* [t̪ũ^{3}ũ^{3}] 'tight' *luu* [lu^{3}u^{3}] 'small'	*xiín* [ʃĩ^{3}ĩ^{4}] 'owner / tutor' *ntií* [^{n}di^{3}i^{4}] 'smooth' *xií* [ʃi^{3}i^{4}] 'skinny' *Seén* [sẽ^{3}ẽ^{4}] 'Huajuapan'[44] *ntaí* [^{n}da^{3}i^{4}] 'rough'	*iĭn* [ĩ^{3}ĩ^{14}] 'skin' *iĭ* [i^{3}i^{14}] 'husband' *niĭ* [ni^{3}i^{14}] 'dried ear of corn' *naă* [na^{3}a^{14}] 'dark' *xiĭ* [ʃi^{3}i^{14}] 'flexible	*ñuû* [ɲu^{3}u^{41}] 'midnight' *keên* [kẽ^{3}ẽ^{41}] 'step-'[45]

[44] Municipality of Huajuapan de León in Oaxaca.
[45] Part of the compounds *nánà keên* 'stepmother'; *tátà keên* 'stepfather'; *sè'e keên* 'stepchild'; etc.

H	*séè* [se^{4}e^{1}] ‘young man’ *kuáì* [k^{w}a^{4}i^{1}] ‘horse’ *nchíì* [^{n}d͡ʒi^{4}i^{1}] ‘what’ *táà* [t̪a^{4}a^{1}] ‘boy’ *mpáà* [^{m}ba^{4}a^{1}] ‘co-father’	*síin* [sĩ^{4}ĩ^{3}] ‘different’ *níi* [ni^{4}i^{3}] ‘whole’ *kíi* [ki^{4}i^{3}] ‘soon’	*íí* [i^{4}i^{4}] ‘male’ *píí* [pi^{4}i^{4}] ‘turkey chick’ *íín* [ĩ^{4}ĩ^{4}] ‘hail’ *ncháá* [^{n}d͡ʒa^{4}a^{4}] ‘blue’ *nchíí* [^{n}d͡ʒi^{4}i^{4}] ‘where’ *vái* [β̪a^{4}i^{4}] ‘slow’	*chíĭn* [t͡ʃĩ^{4}ĩ^{14}] ‘fingernail’ *kuíĭ* [k^{w}i^{4}i^{14}] ‘green’ *kuíĭn* [k^{w}ĩ^{4}ĩ^{14}] ‘thin’ *yáă* [ja^{4}a^{14}] ‘tongue’ *xíĭn* [ʃĩ^{4}ĩ^{14}] ‘side’	*kuíî* [k^{w}i^{4}i^{41}] ‘watery’ *kuáân* [k^{w}ã^{4}ã^{41}] ‘yellow’ *kuéên* [k^{w}ẽ^{4}ẽ^{41}] ‘slowly’ *kuáâ* [k^{w}a^{4}a^{41}] ‘blind’ *páâ* [pa^{4}a^{41}] ‘bread’
R	*săì* [sa^{41}i^{1}] ‘phlegm’	*tsăa* [t͡sa^{34}a^{3}] ‘new’			
F		*nûú* [nu^{42}u^{4}] ‘flimsy’		*ñûŭ* [ɲu^{42}u^{14}] ‘palm of your hand’	

Although most roots in Sà'án Sàvĭ ñà ñuù Xnúvíkó are indeed bimoraic, there are roots that present alternative shapes (§3.5.1), namely: a) disyllabic trimoraic roots;[46] b) trisyllabic trimoraic roots; and trisyllabic tetramoraic roots.

Table 9 presents the 17 melodies attested in disyllabic trimoraic nouns and adjectives. Table 10 presents the 28 melodies attested in trisyllabic nouns and adjectives. These words are uninflected, but are often derived, even though in most cases the result is fully lexicalized. The mid-high-high and the mid-high-low melodies are by far the most common, and the latter is very common for Spanish loanwords.[47] Notably, the low-mid level tone is not found among trimoraic words, the falling tone may only appear in the last mora of trimoraic words, and the rising tone cannot appear in the first mora of uninflected trimoraic words.

[46] There is only one attested case of a trimoraic bisyllabic word with a bimoraic first syllable, the loanword *máárì* [ma^{4}a^{4}.ɾi^{1}] 'co-mother' (from Spanish *comadre*).
[47] This tone melody somewhat resembles the dominant penultimate stress pattern in Spanish.

Table 9. Tone melodies in uninflected, disyllabic, trimoraic nouns and adjectives in Sà'án Sàvĭ ñà ñuù Xnúvíkó

Melody	Examples
L.LR	*tìkuàĭn* [t̪i^{1}.k^{w}ã^{1}ĩ^{14}] ‘mosquito’; *tùyòŏ* [t̪u^{1}.jo^{1}o^{14}] ‘reed’
L.MH	*tìkuaá* [t̪i^{1}.k^{w}a^{3}a^{4}] ‘butterfly’; *Tìntuú* [t̪i^{1}.^{n}du^{3}u^{4}] ‘Santa María Tindú’[48]
L.MR	*tìkoŏ* [t̪i^{1}.ko^{3}o^{14}] ‘tamal’
L.MF	*chìkuiî* [t͡ʃi^{1}.k^{w}i^{3}i^{41}] ‘water’[49]
L.HM	*tùtsiúu* [t̪u^{1}.t͡su^{4}u^{3}] ‘weapon’
L.HH	*tìlúú* [t̪i^{1}.lu^{4}u^{4}] ‘round object’
L.HR	*tìntóŏ* [t̪i^{1}.^{n}do^{4}o^{14}] ‘spider’
L.RL	*tìxĭî* [t̪i^{1}.ʃi^{13}i^{1}] ‘tick’
M.LR	*tsikuàă* [t͡si^{3}.k^{w}a^{1}a^{14}] ‘night’; *kañùŭ* [ka^{3}.ɲu^{1}u^{14}] ‘quail’
M.ML	*ntikuùn* [^{n}di^{3}.kũ^{3}ũ^{1}] ‘scarecrow’[50]
M.MM	*nisaa* [ni^{3}.sa^{3}a^{3}] ‘how much’
M.MR	*Ntisnuŭ* [^{n}di^{3}.snu^{3}u^{14}] ‘Tlaxiaco’[51]
M.HM	*ntikuáin* [^{n}di^{3}.k^{w}ã^{4}ĩ^{3}] ‘squirrel’
M.HL	*ntitóò* [^{n}di^{3}.t̪o^{4}o^{1}] ‘fruit fly’
H.MR	*túxiĭ* [t̪u^{4}.ʃi^{3}i^{14}] ‘staff’
H.HR	*kíyóŏ* [ki^{4}.jo^{4}o^{14}] ‘esophagus’
H.HF	*nchá kuáân* [^{n}d͡ʒa^{1}.k^{w}ã^{4}ã^{41}] ‘aguamiel (type of liquor)’

[48] Village in the municipality of Tezoatlán de Segura y Luna, in the state of Oaxaca (Mexico).
[49] The form *chàkuiî* [t͡ʃa^{1}.k^{w}i^{3}i^{41}] has also been documented. Both forms are documented in the same villages, although the more elderly speakers seem to feature *chàkuiî* more.
[50] Also known as *lasú'ntù* [la^{3}.suʔ^{4}.^{n}du^{1}].
[51] Name of the municipality of Tlaxiaco and the city La Heroica Ciudad de Tlaxiaco, in the state of Oaxaca (Mexico).

Table 10. Tone melodies in uninflected, trisyllabic, trimoraic nouns and adjectives in Sà'án Sàvĭ ñà ñuù Xnúvíkó

Melody	Examples
L.L.L	*tìchìrrù* [ʈi^{1}.t͡ʃi^{1}.ru^{1}] 'fat'; *kùkù'vì* [ku^{1}.kuʔ^{1}.βi̤^{1}] 'owl'
L.L.M	*tìkùchi* [ʈi^{1}.ku^{1}.t͡ʃi^{3}] 'bat'; *xìchìlu* [ʃi^{1}.t͡ʃi^{1}.lu^{3}] 'dragon fruit'
L.L.R	*tsìkò'ŏ* [t͡si^{1}.ko^{1}.ʔo^{14}] 'type of bird'; *tìntò'ŏ* [ʈi^{1}.^{n}do^{1}.ʔo^{14}] 'small pitcher'
L.M.L	*tìsu'mà* [ʈi^{1}.suʔ^{3}.ma^{1}] 'scorpion'; *tìxe'è* [ʈi^{1}.ʃe^{3}.ʔe^{1}] 'armpit'; *tìkasù* [ʈi^{1}.ka^{3}.su^{1}] 'totopo'; *kuànta'vì* [k^{w}a^{1}.^{n}daʔ^{3}.βi̤^{1}] 'shadow'; *tìtsa'àn* [ʈi^{1}.t͡sã^{3}.ʔã^{1}] 'cooking pot'
L.M.M	*ntìka'a* [^{n}di^{1}.ka^{3}.ʔa^{3}] 'jaguar'
L.M.H	*tìkatsá* [ʈi^{1}.ka^{3}.t͡sa^{4}] 'malnourished'
L.M.R	*tìnană* [ʈi^{1}.na^{3}.na^{14}] 'tomato'; *tìntuyŭ* [ʈi^{1}.^{n}du^{3}.ju^{14}] 'chilacayote squash'; *tìkatŭ* [ʈi^{1}.ka^{3}.ʈu^{14}] 'knot'; *tìntakŭ* [ʈi^{1}.^{n}da^{3}.ku^{14}] 'worm'
L.M.F	*tùta'vî* [ʈu^{1}.ʈaʔ^{3}.βi̤^{41}] 'half-burned log'
L.H.M	*yùyé'e* [ju^{1}.je^{4}.ʔe^{3}] 'door'; *tùntó'o* [ʈu^{1}.^{n}do^{4}.ʔo^{3}] 'problem'
L.H.R	*ñà yívĭ* [ɲa^{1}.ji^{4}.βi̤^{14}] 'world'
L.R.L	*tìkuĭtì* [ʈi^{1}.k^{w}i^{14}.ʈi^{1}] 'potato'; *tìvăyà* [ʈi^{1}.βa̤^{14}.ja^{1}] 'chilacayote flower'
L.R.M	*tìkĭva* [ʈi^{1}.ki^{14}.βa̤^{3}] 'conch shell'
L.R.H	*tìkŭchá* [ʈi^{1}.ku^{14}.t͡ʃa^{4}] 'circular'
L.R.F	*ntìvă'û* [^{n}di^{3}.βa̤^{13}.ʔu^{41}] 'coyote'
M.L.L	*ntivìxì* [^{n}di^{3}.βi̤^{1}.ʃi^{1}] 'vain person'; *Tinùmà* [ʈi^{3}.nu^{1}.ma^{1}] 'Mesón'[52]
M.L.R	*ntintsìtsă* [^{n}di^{3}.^{n}d͡zi^{1}.t͡sa^{14}] 'turtle'
M.M.L	*ntixikuì* [^{n}di^{3}.ʃi^{3}.k^{w}i^{1}] 'frog'; *ntikamà* [^{n}di^{3}.ka^{3}.ma^{1}] 'fly'; *ntisuchì* [^{n}di^{3}.su^{3}.t͡ʃi^{1}] 'small venomous lizard'
M.M.M	*ntikachi* [^{n}di^{3}.ka^{3}.t͡ʃi^{3}] 'sheep'; *ntisachi* [^{n}di^{3}.sa^{3}.t͡ʃi^{3}] 'liar'
M.M.H	*antiví* [a^{3}.^{n}di^{3}.βi̤^{4}] 'sky'; *anchayá* [a^{3}.^{n}d͡ʒa^{3}.ja^{4}] 'hell'
M.M.F	*kojolîn* [ko^{3}.xo^{3}.lĩ^{41}] 'sesame' (>SP 'ajonjolí')
M.H.L	*espéjù* [es^{3}.pe^{4}.xu^{1}] 'mirror' (>SP 'espejo'); *varrénchè* [βa̤^{3}.ren^{4}.t͡ʃe^{1}] 'liquor' (>SP 'aguardiente'); *ntuchávà* [^{n}du^{3}.t͡ʃa^{4}.βa̤^{1}] 'faba bean' (>SP

[52] Village in the municipality of San Juan Mixtepec. It is also known in Mixtec as *Mesô* [me^{3}.so^{41}].

	‘haba’); *tsivátù* [t͡si^{3}.βᵱa^{4}.ʈu^{1}] ‘male goat’ (>SP ‘chivo’); *lasú'ntù* [la^{3}.suʔ^{4}.^{n}du^{1}] ‘scarecrow’; *konéjù ~ kuanéjù* [ko^{3}.ne^{4}.xu^{1} ~ k^{w}a^{3}.ne^{4}.xu^{1}] ‘rabbit / biceps’ (>SP ‘conejo’); *kuvétà* [ku^{3}.βᵱe^{4}.ʈa^{1}] ‘bucket’ (>SP ‘cubeta’); *mastántsià* [ma^{3}.sʈa^{4}.^{n}d͡za^{1}] ‘mustard’ (>SP ‘mostaza’); *kulándrù* [ku^{3}.lan^{4}.dɾu^{1}] ‘cilantro’ (>SP ‘cilantro’); *asíchì* [a^{3}.si^{4}.t͡ʃi^{1}] ‘oil’ (>SP ‘aceite’); *kanérrù ~ karnérù* [ka^{3}.ne^{4}.ru^{3} ~ kaɾ^{3}.ne^{4}.ɾu^{3}] ‘ram’ (>SP ‘carnero’)
M.H.H	*ntikú'ntú* [^{n}di^{3}.kuʔ^{4}.^{n}du^{4}] ‘lazy person’; *ntikuí'ná* [^{n}di^{3}.k^{w}iʔ^{4}.na^{4}] ‘thief’; *Kanámá* [ka^{3}.na^{4}.ma^{4}] ‘Canamá’;[53] *ntiché'é* [^{n}di^{3}.t͡ʃe^{4}.ʔe^{4}] ‘cockroach’; *likuákú* [li^{3}.k^{w}a^{4}.ku^{4}] ‘lizard’; *lakóntó* [la^{3}.ko^{4}.^{n}do^{4}] ‘frog’; *vesérrú* [βᵱe^{3}.se^{4}.ru^{4}] ‘calf’ (>SP ‘becerro’); *kiché'é* [ki^{3}. t͡ʃe^{4}.ʔe^{4}] ‘bone’; *tachúkú* [ʈa^{3}.t͡ʃu^{4}.ku^{4}] ‘spirit of the forest’; *salúrrú* [sa^{3}.lu^{4}.ru^{4}] ‘hare’; *konéjú ~ kuanéjú* [ko^{3}.ne^{4}.xu^{4} ~ k^{w}a^{3}.ne^{4}.xu^{4}] ‘rabbit / biceps’ (>SP ‘conejo’); *ntikáxí* [^{n}di^{3}.ka^{4}.ʃi^{4}] ‘rattle’
M.H.R	*lasú'ŭn* [la^{3}.sũ^{4}.ʔũ^{14}] ‘roadrunner’
H.L.L	*nchá vìxì* [^{n}d͡ʒa^{4}.βᵱi^{1}.ʃi^{1}] ‘soda’; *tívìxì* [ʈi^{4}.βᵱi^{1}.ʃi^{1}] ‘sweets’; *míspèrù* [mis^{4}.pe^{1}.ɾu^{1}] ‘loquat’ (>SP ‘níspero’)
H.L.M	*Níkòko* [ni^{4}.ko^{1}.ko^{3}] ‘Lázaro Cárdenas’;[54] *ntáyò'o* [^{n}da^{4}.jo^{1}.ʔo^{3}] ‘stover’
H.H.M	*mátsá'nu* [ma^{4}.t͡saʔ^{4}.nu^{3}] ‘grandmother’; *pátsá'nu* [pa^{4}.t͡saʔ^{4}.nu^{3}] ‘grandfather’
H.H.H	*xúnkává* [ʃu^{4}.ᵑga^{4}.βᵱa^{4}] ‘roadrunner’; *Xnúvíkó ~ Snúvíkó* [ʃnu^{4}.βᵱi^{4}.ko^{4} ~ snu^{4}.βᵱi^{4}.ko^{4}] ‘San Juan Mixtepec’[55]
H.R.F	*nchá xăxâ* [^{n}d͡ʒa^{4}.ʃa^{13}.ʃa^{41}] ‘urine’

Trisyllabic words are often the result of lexicalization of a bimoraic root and a classifier (§4.1.1.1), such as *túxiĭ* [ʈu^{4}.ʃi^{3}i^{14}] ‘staff’ (possibly from *xiĭ* ‘flexible’ and the classifier for

[53] Village in the municipality of San Juan Mixtepec.
[54] Village in the municipality of San Juan Mixtepec.
[55] Seat of the municipality of San Juan Mixtepec. By extension, also the modern Mixtec name for the municipality.

trunk-like shaped objects *tú*); or *nchá vìxì* [^{n}d͡ʒa^{4}.βi̤^{1}.ʃi^{1}] ‘soda’ (from *vìxì* ‘sweet’ and the classifier for liquids *nchá*).[56] These forms are now largely opaque or highly lexicalized, and they are treated as simplex forms. Take the word *tìnanǎ* [t̪i^{1}.na^{3}.na^{14}] ‘tomato’, for example, which possibly comes from a combination of the classifier for round things *tí* and the form *nanǎ*, which is not transparent anymore.

Other trisyllabic words are Spanish loanwords, which are adapted to a tone melody that somewhat reflects the stress pattern in the original word, *kulándrù* [ku^{3}.lan^{4}.dru^{1}] ‘cilantro’ (from Spanish *cilantro*); *kojolîn* [ko^{3}.xo^{3}.lĩ^{41}] ‘sesame’ (from Spanish *ajonjolí*); or *asíchì* [a^{3}.si^{4}.t͡ʃi^{1}] ‘oil’ (from Spanish *aceite*). They can also be lexicalizations of inflected forms, such as *nìkànchiĭ* [ni^{1}.ka^{1}.^{n}d͡ʒi^{3}i^{13}] ‘sun’ (possibly from an inflected form of the verb *kána* ‘leave, rise’); or highly lexicalized compounds that are not easily teased apart, such as *súkúyúú* [su^{4}.ku^{4}.ju^{4}u^{4}] ‘type of spirit that steals money’. In addition, there are also loanwords and compounds with more than three syllables, such *kamisántù* [ka^{3}.mi^{3}.san^{4}.t̪u^{1}] ‘cemetery’ (from Spanish *camposanto*); or *chokoláte* [t͡ʃo^{3}.ko^{3}.la^{4}.t̪e^{3}] ‘chocolate’ (from Spanish *chocolate*).

3.4.3.1. Tonal processes

Unlike some Mixtec languages (see Hunter & Pike 1969; Pike & Cowan 1967; Daly 1973; McKendry 2013; León Vázquez 2017; Penner 2019), Sà'án Sàvĭ ñà ñuù Xnúvíkó does not feature many processes of tonal perturbation or *tone sandhi*. The only attested case is in nominal compounds, in which a rising tone (R) in the last mora of the first element surfaces as a high tone (H) instead. Note the change from rising tone (transcribed as ^{14}) to high tone

[56] These lexicalized forms are generally spelled as two separate words when speakers are still aware of the classifier nature of the first syllable, although this is not consistent.

(transcribed as ^{4}) in the last mora of *yukŭ* ‘mountain (range)’ (example (26); *yuchĭ* ‘dust’ (example (27)); and *vikŏ* ‘celebration’ (example (28)).

(26) *yu**kŭ** nanĭ* [ju^{3}.**ku^{14}**.na^{4}.ni^{14}] ‘long mountain ranges’ > *Yuk**ú**nanĭ* [ju^{3}.**ku^{4}**.na^{4}.ni^{14}] ‘Yucunani’

(27) *yu**chĭ*** [ju^{3}.**t͡ʃi^{14}**] ‘dust’ and *yutŭ* [ju^{3}.ʉ^{14}] ‘wood’ > *yu**chí** yútŭ* [ju^{3}.**t͡ʃi^{4}**.ju^{4}.ʉ^{14}] ‘sawdust’[57]

(28) *vi**kŏ*** [βi̯^{3}.**ko^{14}**] ‘celebration’ and *sántù* [san^{4}.ʉ^{1}] ‘saint’ (>SP ‘santo’) > *vi**kó** sántù* [βi̯^{3}.**ko^{4}**.san^{4}.ʉ^{1}] ‘patron saint celebration’

(29) *cho**kŏ*** [t͡ʃo^{3}.**ko^{14}**] ‘ant’ and *riérù* [ɾje^{4}.ɾu^{1}] ‘mule driver’ (>SP ‘arriero’) > *cho**kó** riérù* [t͡ʃo^{3}.**ko^{4}**. ɾje^{4}.ɾu^{1}] ‘type of leaf-cutter ant’

Figure 21 shows the pitch contour (in blue) for the word *chokŏ* [t͡ʃo^{3}.ko^{14}] ‘ant’, as produced by Julia Bautista, a speaker from the village of Mínà (Los Tejocotes). Note the rising pitch in the last [o]. Figure 22, on the other hand, shows the pitch contour (in blue) for the compound *chokó riérù* [t͡ʃo^{3}.ko^{4}.ɾje^{4}.ɾu^{1}] ‘type of leaf-cutter ant’, as produced by the same speaker in the same recording session. The word *chokŏ* was produced as part of an elicitation of a wordlist, while *chokó riérù* was offered by Julia as she listed different types of ants.

[57] Note the change in the first mora of the second element too. This high tone on the first mora is possibly an example of an ‘adjectival high’ (Hinton et al. 1991) (§5.2.2.1), and it can be found in several compounds in Sà'án Sàvĭ ñà ñuù Xnúvíkó (for example, *ve'e chúun* [βe̯^{3}.ʔe^{3}.t͡ʃũ^{4}ũ^{3}] ‘city hall’, from *ve'e* [βe̯^{3}.ʔe^{3}] ‘house’ and *chuun* [t͡ʃũ^{3}ũ^{3}] ‘work’).

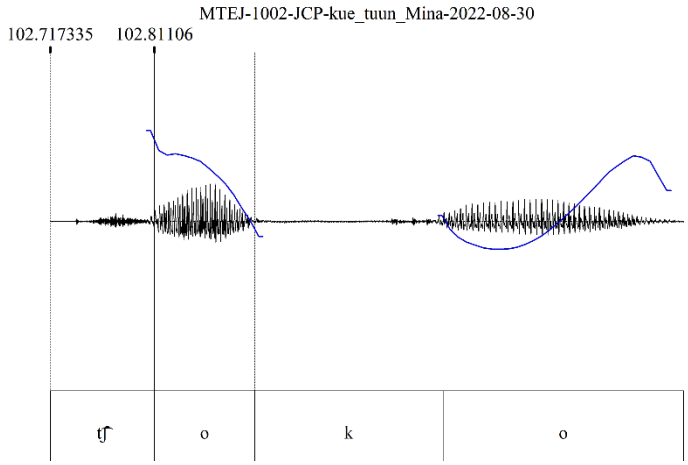


Figure 21. Pitch contour (in blue) for the word *chokǒ* 'ant'. Image extracted from Praat.

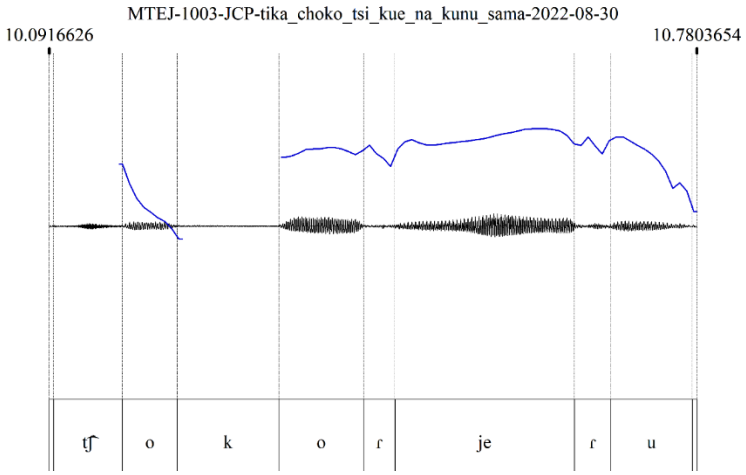


Figure 22. Pitch contour (in blue) for the word *chokó riérù* 'type of leaf-cutter ant'. Image extracted from Praat.

However, when the first element of the compound is a monosyllabic bimoraic root with a low-rising (LR) melody, this process does not apply (see (30) and (31)). In fact, even though this is not represented in the practical orthography, in these compounds the first element is phonetically reduced to a single mora and is realized solely with a low tone (L).

(30) ***kòǒ*** [ko^{1}**o^{14}**] ‘snake’ and *kàa* [ka^{1}a^{3}] ‘bell’ > ***kòǒ*** *káâ* [ko^{1}.ka^{4}a^{41}] ‘rattlesnake’

(31) ***kòǒ*** [ko^{1}**o^{14}**] ‘snake’ and *tùmi* [t̪u^{1}.mi^{3}] ‘feather’ > ***Kòǒ*** ***Tùmi*** [ko^{1}.t̪u^{1}.mi^{3}] ‘Quetzalcoatl (the feathered serpent)’

Figure 23 shows the pitch contour (in blue) for the word *kòǒ* [ko^{1}o^{14}] ‘snake’, as produced by Jeremías Salazar, a speaker from the village of Yukúnanĭ (Yucunani). Note the rising pitch. Figure 24, on the other hand, shows the pitch contour (in blue) for the compound *kòǒ káâ* [ko^{1}.ka^{4}a^{41}] ‘rattlesnake’, as produced by the same speaker in the same recording session. Note the low pitch in the syllable *ko*.

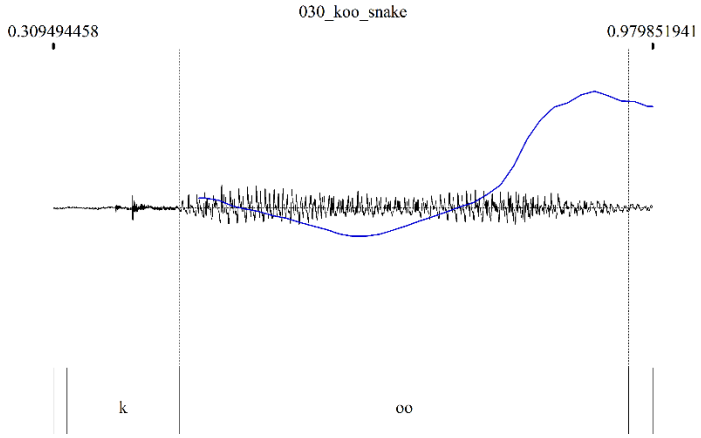


Figure 23. Pitch contour (in blue) for the word *kòǒ* 'snake'. Image extracted from Praat.

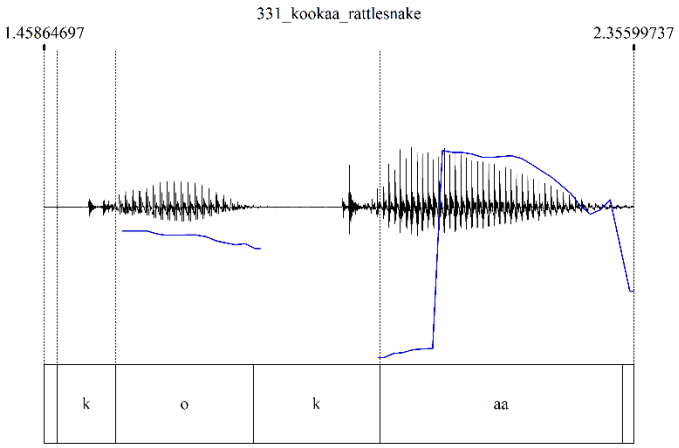


Figure 24. Pitch contour (in blue) for the word *kòǒ káâ* 'rattlesnake'. Image extracted from Praat.

3.4.3.2. Grammatical tone

Sà'án Sàvĭ ñà ñuù Xnúvíkó, like other Otomanguean languages, makes use of tonal alternations to mark grammatical distinctions (Hyman 2016; see Palancar & Léonard 2016 for some examples in Otomanguean languages). These will be discussed in the appropriate sections of the grammar, namely: person marking (§5.1); TAM marking (§5.3.2); and nominal derivation (§5.2.2.1). Grammatical tone is also used in Sà'án Sàvĭ ñà ñuù Xnúvíkó to express negation (Belmar & Salazar 2023).

3.4.4. Stress or prominence

Like other Otomanguean languages (DiCanio & Bennett 2020; Carroll 2015; DiCanio 2008; McKendry 2013), words in Sà'án Sàvĭ ñà ñuù Xnúvíkó have stress (or prominence) in addition to lexical tone. In Mixtec languages, stress typically appears in the penultimate syllable of disyllabic lexical roots (DiCanio & Bennett 2020). In Sà'án Sàvĭ ñà ñuù Xnúvíkó, however,

stress falls on the last syllable of roots, as has also been described for Yoloxóchitl Mixtec (DiCanio, Amith & Castillo García 2014; DiCanio, Benn & Castillo García 2018). Impressionistically, the correlate of stress is increased duration. Moreover, length and nasality are only possible in word-final syllables, as is also the case of the low-mid (m) tone (§3.4.3). These factors suggest that final syllables are indeed most promiment.

In addition, stress in Sà'án Sàvĭ ñà ñuù Xnúvíkó seems to shift rightwards when an enclitic is attached. This has been observed for other Mixtec languages (DiCanio, Amith & Castillo García 2014; DiCanio & Bennett 2020), and it has been the basis to argue that stress in Mixtec languages is assigned to the phonological word, not the couplet (see Pike & Ibach 1978; DiCanio & Bennett 2020). In addition, there seems to be a lengthening effect of the negative rising tone (see §5.3.2.8) in words such as *và'a* [βa̤^{1}.ʔa^{3}] 'good' and *vă'a* [βa̤^{13}.ʔa^{3}] 'bad', which could be related to a shift in the stress pattern. However, this is an area that still needs to be explored in detail.

3.5. Phonotactics

This section discusses the phonotactics of Sà'án Sàvĭ ñà ñuù Xnúvíkó. It begins by introducing the possible word shapes and morae (§3.5.1); and syllable shapes (§3.5.2). Under syllable shapes, I discuss the possible onsets (§3.5.2.1), nuclei (§3.5.2.2), and codas (§3.5.2.3) in the language.

3.5.1. Word shapes and morae

As seen in the tone section (§3.4.3), native roots in Sà'án Sàvĭ ñà ñuù Xnúvíkó typically consist of two morae, known as a couplet (Pike & Ibach 1978; Longacre 1957; Eischens &

Bennett 2024). Each syllable is assigned a mora, except for syllables containing long vowels (§3.4.1), which are assigned two morae. These bimoraic syllables are also stressed or more prominent (§3.4.4). In addition, every mora is assigned one of six phonological tones (§3.4.3).

Most native words in Sà'án Sàvǐ ñà ñuù Xnúvíkó are disyllabic and bimoraic (see (32)), followed in frequency by monosyllabic bimoraic words (see (33)). The only sequence of two non-homorganic vowels that behaves as a diphthong in uninflected native roots is /ai/ (§3.3.6). Therefore, the word *chìô* [t͡ʃĩ^{1}.o^{41}] ‘upper hand’ is disyllabic bimoraic, whereas the word *ntaí* [^{n}da^{3}i^{4}] ‘rough’ is monosyllabic bimoraic.

(32) Examples of disyllabic bimoraic words:

ava [a^{3}.βa̰^{3}] ‘last year’

ñu'ù [ɲu^{3}.ʔu^{1}] ‘fire’

ntuchǐ [^{n}du^{3}.t͡ʃĩ^{14}] ‘bean’

chìô [t͡ʃĩ^{1}.o^{41}] ‘upper arm’

(33) Examples of monosyllabic bimoraic words:

ntaí [^{n}da^{3}i^{4}] ‘rough’

ììn [ĩ^{1}ĩ^{1}] ‘nine’

ntoo [^{n}do^{3}o^{3}] ‘clean’

chuun [t͡ʃũ^{3}ũ^{3}] ‘work’

Other less common word shapes include: disyllabic trimoraic (see (34)), trisyllabic trimoraic (see (35)), and trisyllabic tetramoraic (see (36)). Some loanwords from Spanish may have other shapes, such as *kamisántù* [ka^{3}.mi^{3}.san^{4}.t̪u^{1}] ‘cemetery’ (> SP ‘camposanto’); or *chocolate* [t͡ʃo^{3}.ko^{3}.la^{4}.t̪e^{3}] ‘chocolate’ (> SP ‘chocolate’).

(34) Examples of disyllabic trimoraic words:

nisaa [ni^{3}.sa^{3}a^{3}] ‘how much’

chìkuiî [t͡ʃi^{1}.k^{w}i^{3}i^{41}] ‘water’

tìkuaá [t̪i^{1}.k^{w}a^{3}a^{4}] ‘butterfly’

tìntóǒ [t̪i^{1}.^{n}do^{4}o^{14}] ‘spider’

(35) Examples of trisyllabic trimoraic words:

tìnanǎ [t̪i^{1}.na^{3}.na^{14}] ‘tomato’

anchayá [a^{3}.^{n}d͡ʒa^{3}.ja^{4}] ‘hell’

tachúkú [t̪a^{3}.t͡ʃu^{4}ku^{4}] ‘spirit of the forest’

tívìxì [t̪i^{4}.βi^{1}.ʃi^{1}] ‘candy’

(36) Examples of trisyllabic tetramoraic words:

súkúyúú [su^{4}.ku^{4}.ju^{4}u^{4}] ‘type of spirit that steals money’

nìkànchiǐ [ni^{1}.ka^{1}.^{n}d͡ʒi^{3}i^{13}] ‘sun’

In addition, all clitics and certain function words are monosyllabic and monomoraic, such as those in (37). Clitics are produced with longer duration unless they are followed by another clitic (§3.4.4), and some clitics fuse with the roots (§5.1).

(37) Examples of monosyllabic monomoraic function words:

cha [t͡ʃa^{3}] ‘and’

tiàn [t̪jã^{1}] ‘but’

rì [ɾi^{1}] ‘because’

kue [k^{w}e^{3} ~ we^{3}] ‘PLZ’

Table 11 shows a summary of the word shapes attested in native vocabulary (that is, excluding loanwords) together with the number of syllables and morae that each shape represents. Note that the only possible coda in native words is the glottal stop /ʔ/.

Table 11. Summary of the possible word shapes in the native lexicon of Sà'án Sàvĭ ñà ñuù Xnúvíkó.

Word shape	Number of syllables	Number of morae
CV	1	1
CV(ʔ)(C)V	2	2
CVV	1	2
CV(ʔ)CVV	2	3
CV(ʔ)CV(ʔ)CV	3	3
CV(ʔ)CV(ʔ)CVV	3	4

3.5.2. Syllable shapes

This section discusses the attested syllable shapes in Sà'án Sàvĭ ñà ñuù Xnúvíkó, presenting the attested syllable onsets (§3.5.2.1), nuclei (§3.5.2.2), and codas (§3.5.2.3). Table 12 shows a summary of the syllable shapes attested in native vocabulary in Sà'án Sàvĭ ñà ñuù Xnúvíkó (that is, excluding loanwords). Note that consonant clusters, albeit attested, are not very frequent, and CCVʔ syllables have only been attested in verbs with the causative prefix *s-* so far (§5.3.4.4). In fact, note how the vast majority of attested syllables are of the shape CV (see also Figure 25).

Table 12. Summary of the syllable shapes attested in Sà'án Sàvĭ ñà ñuù Xnúvíkó native vocabulary.

Syllable shape	Examples	Relative Frequency[58]
V	***i**sâ* [**i^{3}**.sa^{41}] 'day after tomorrow' *kuì**à*** [k^{w}i^{1}.**a^{1}**] 'year ***iá*** [**i^{3}.a^{4}**] 'sour'	3.94%
VV	***ii**n*** [**ĩ^{3}ĩ^{3}**] 'one' ***uu**n inì* [**ũ^{3}ũ^{3}**.i^{3}.ni^{1}] 'calm' ***íí*** [**i^{4}i^{4}**] 'male'	1.33%
Vʔ	***í'**ní* [**iʔ^{4}**.ni^{4}] 'hot' ***u'**va* [**uʔ^{3}**.βa^{3}] 'thick' ***ù'**và* [**uʔ^{1}**.βa^{1}] 'salty'	0.14%
CV	***kini*** [**ki^{3}.ni^{3}**] 'bad' ***tùmi*** [**t̪u^{1}.mi^{3}**] 'feather' ***xikò*** [**ʃi^{3}.ko^{1}**] 'smell'	71.76%
CVV	***kìĭ*** [**ki^{1}i^{14}**] 'day' ***kwéên*** [**k^{w}ẽ^{4}ẽ^{41}**] 'slowly' ***ntaí*** [**^{n}da^{3}i^{4}**] 'rough'	8.88%
ʔV	*kú'**ù*** [ku^{4}.**ʔu^{1}**] 'sick' *xá'**ín*** [ʃã^{4}.**ʔĩ^{4}**] 'border'[59] *chò'**ó*** [t͡ʃo^{1}.**ʔo^{4}**] 'flea'	9.41%
CVʔ	***ña'**mà* [**ŋaʔ^{3}**.ma^{4}] 'lung' ***tó'**lo* [**t̪oʔ^{4}**.lo^{3}] 'rooster' ***su'**nǔ* [**suʔ^{3}**.nu^{14}] 'shirt'	2.56%
CCV	***xchà**ki* [**ʃt͡ʃa^{1}**.ki^{3}] 'brain' ***sto'**ò* [**st̪o^{3}**.ʔo^{1}] 'owner' ***Skuí**â* [**sk^{w}i^{4}.**a^{41}] 'Juxtlahuaca'	1.42%

[58] Relative frequencies calculated based on 874-item lexical database. Data processing and calculations by Yan Lashchev.

[59] It refers to a landmark (such as a tree, a rock…) that indicates the boundary of a property or the town's limits.

	xiòo [ʃjo^{1}o^{3}] ‘skirt’	0.52%
CCVV	***xchààn*** [ʃt͡ʃã^{1}ã^{1}] ‘tomorrow’	
	stàă [st̪a^{1}a^{14}] ‘tortilla’	
	stá'vì [st̪aʔ^{4}.βi̯^{1}] ‘IPFV.lie’	--[60]
CCVʔ	***skuí'ná*** [sk^{w}iʔ^{4}.na^{4}] ‘IPFV.steal’	
	skuá'nu [sk^{w}aʔ^{4}.nu^{3}] ‘IPFV.rear’	

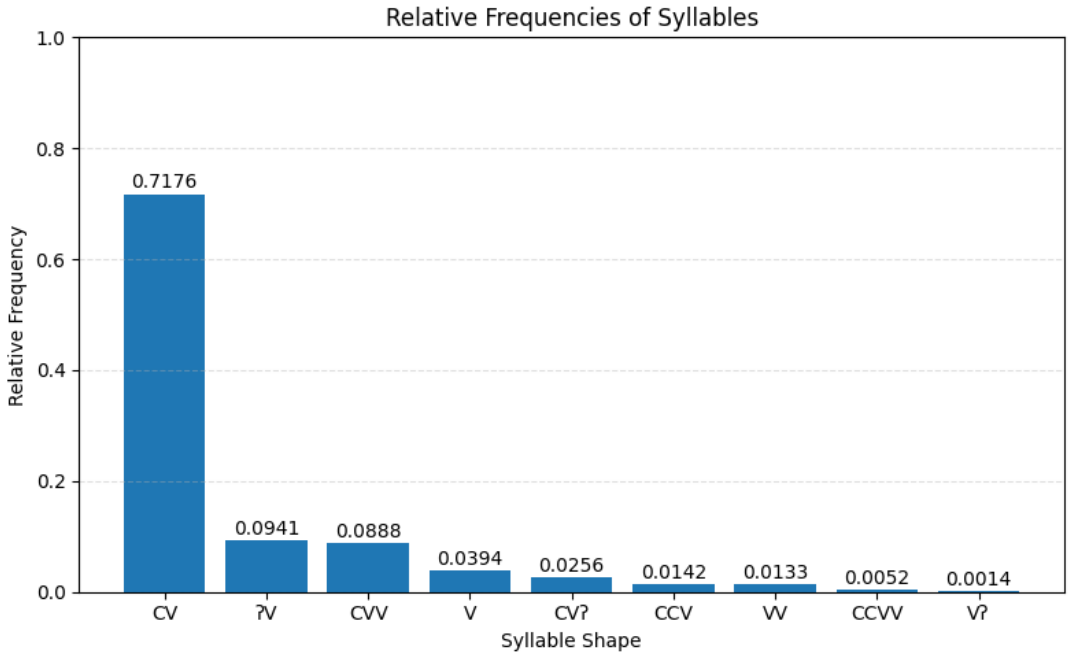


Figure 25. Frequency of syllable shapes in in Sà'án Sàvĭ ñà ñuù Xnúvíkó. Calculation based on an 874-word lexical database.

3.5.2.1. Onsets

All consonants, except for the glottal stop, can appear in syllable onsets in Sà'án Sàvĭ ñà ñuù Xnúvíkó native words. Most syllable onsets consist of a single consonant phoneme (see Table 13). All consonants, except for the glottal stop and the trill /r/,[61] appear word-initially in native

[60] This syllable type is only found in verbs (see §5.3.4.4 on the prefix *s-*) and a handful of loanwords such as *xkă'má* ‘jícama’. Since the database used to calculate frequency did not include verbs, there was no instance of CCVʔ syllables.

[61] The only attested word that starts with a trill /r/ is the loanword *rádiù* [ra^{4}.ðju^{1}] ‘radio’ (> SP ‘radio’).

vocabulary. However, /p/, /x/ and /ⁿkʷ/ do not appear as onsets of word-medial syllables in native words. In fact, all the prenasalized consonants are much more frequent in word-initial position (see Figure 5 and Figure 6, p.26).

Table 13. Examples of single consonant phonemes as syllable onsets word-initially and word-medially in the native lexicon

Onset	Word-initial example	Word-medial example
/p/	***pií*** [**p**i^{4}i^{4}] 'turkey chick'	
/m/	***má'à*** [**m**a^{4}.ʔa^{1}] 'racoon'	*chu**m**ǐ* [t͡ʃu^{3}.**m**i^{14}] 'owl'
/β̞/	***vèe*** [**β̞**e^{1}e^{3}] 'heavy'	*a**v**a* [a^{3}.**β̞**a^{3}] 'last year'
/t/	***táà*** [**t̪**a^{4}a^{1}] 'young man'	*tsì**t**ù* [t͡si^{1}.**t̪**u^{1}] 'oven'
/ⁿt/	***nta'á*** [ⁿ**d**a^{3}.ʔa^{4}] 'hand'	*xa**nt**u* [ʃa^{3}.ⁿ**d**u3] 'navel'
/n/	***nùǔ*** [**n**u^{1}u^{14}] 'face'	*ki**n**ì* [ki^{3}.**n**i^{1}] 'pig'
/t͡s/	***ts**ìto* [**t͡s**i^{1}.**t̪**o^{3}] 'bed'	*vì**ts**i* [β̞i^{1}.**t͡s**i^{3}] 'cold'
/ⁿd͡z/	***nts**ìtsa* [ⁿ**d͡z**i^{1}.t͡sa^{3}] 'hard'	*nti**nts**ìtsǎ* [ⁿdi^{3}.ⁿ**d͡z**i^{1}.t͡sa^{14}] 'turtle'
/s/	***s**aà* [**s**a^{3}a^{1}] 'bird'	*i**s**ù* [i^{3}.**s**u^{1}] 'deer'
/l/	***l**uu* [**l**u^{3}u^{3}] 'small'	*ví**l**ú* [β̞i^{4}.**l**u^{4}] 'cat'
/ɾ/	***r**atù* [**ɾ**a^{3}.**t̪**u^{1}] 'if'	*ja**r**a* [xa^{3}.**ɾ**a^{3}] 'then
/ɲ/	***ñ**uù* [**ɲ**u^{3}u^{1}] 'village'	*na**ñ**ǎ* [na^{3}.**ɲ**a^{14}] 'chayote squash'
/t͡ʃ/	***ch**akǎ* [**t͡ʃ**a^{3}.ka^{14}] 'fish'	*yù**ch**a* [ju^{1}.**t͡ʃ**a^{3}] 'river'
/ⁿt͡ʃ/	***nch**o'o* [ⁿ**d͡ʒ**o^{3}.ʔo^{3}] 'hummingbird'	*me**nch**e* [me^{3}.ⁿ**d͡ʒ**e^{3}] 'nightmare'
/ʃ/	***x**ií* [**ʃ**i^{3}i^{4}] 'skinny'	*ta**x**í* [t̪a^{3}.**ʃ**i^{4}] 'silence'
/j/	***y**aa* [**j**a^{3}a^{3}] 'white'	*kó**y**o* [ko^{4}.**j**o^{3}] 'fertile'
/k/	***k**àa* [**k**a^{1}a^{3}] 'metal'	*tsó**k**o* [t͡so^{4}.**k**o^{3}] 'possum'
/ᵑg/	***nk**ènùu* [ᵑ**g**e^{1}.nu^{1}u^{3}] 'downwards slope'	*ká**nk**úun* [ka^{4}.ᵑ**g**ũ^{4}ũ^{3}] 'tailor-made'
/x/	***j**ara* [**x**a^{3}.ɾa^{3}] 'then	
/kʷ/	***ku**á'à* [**k**ʷa^{4}.ʔa^{1}] 'red'	*li**ku**ì* [li^{3}.**k**ʷi^{1}] 'toad'
/ᵑgʷ/	***nku**ii* [ᵑ**g**ʷi^{2}i^{3}] 'fox'	

In word-initial syllables, consonant clusters of fricative + stop/affricate as well as consonant + glide are also attested in the language, although these occur infrequently in uninflected words. The only attested native word that contains a consonant cluster in the onset of a word-medial syllable is the toponym *Ntisnuǔ* [^{n}di^{3}.snu^{3}u^{14}] ‘Tlaxiaco’. In fact, the consonant clusters /sk^{w}/ and /sn/ are not attested in uninflected words other than toponyms. Table 14 presents some examples of consonant clusters in native uninflected words. Note that speakers alternate between [ʃn] and [sn] as the realization of the cluster /sn/.

Table 14. Examples of word-initial consonant clusters

Attested Cluster Onsets	Example
/st/	***st**àă* [**st̪**a^{1}a^{14}] ‘tortilla’ ***st**o'ò* [**st̪**o^{3}.ʔo^{1}] ‘owner’ ***st**ìkǐ* [**st̪**i^{1}.ki^{14}] ‘cattle’
/sk/	***sk**ŏo nchà'nchă* [**sk**o^{14}o^{3}.^{n}d͡ʒaʔ^{1}.^{n}d͡ʒa^{14}] ‘rainbow’
/sk^{w}/	***Sku**íâ* [**sk^{w}**i^{4}.a^{41}] ‘Juxtlahuaca’ *Yosó* ***Sku**á'á* [jo^{3}.so^{4}.**sk^{w}**a^{4}.ʔa^{4}] ‘San Pedro Yososcua’[62]
/sn/	***Sn**úvíkó* ~ ***Xn**úvíkó* [**sn**u^{4}.βi̤^{4}.ko^{4} ~ **ʃn**u^{4}.βi̤^{4}.ko^{4}]
/ʃt͡ʃ/	***xch**ààn* ~ *i**xch**ààn* [**ʃt͡ʃ**ã^{1}ã^{1} ~ i^{3}.**ʃt͡ʃ**ã^{1}ã^{1}] ‘tomorrow’;[63] ***xch**àki* [**ʃt͡ʃ**a^{1}.ki^{3}] ‘brain’ *Sà'án* ***Xch**ílà* [sã^{1}.ʔã^{4}.**ʃt͡ʃ**i^{4}.la^{1}] ‘Spanish language’
/tj/	***ti**àn* [**t̪j**ã^{1}] ‘but’ ***ti**ùkú* [**t̪j**u^{1}.ku^{4}] ‘ahuehuete tree’
/ʃj/	***xi**òo* [**ʃj**o^{1}o^{3}] ‘skirt’
/t͡sj/	*tù* ***tsi**úu* [t̪u^{1}.**t͡sj**u^{4}u^{3}] ‘weapon’
/sw/	***su**à'a* [**sw**a^{1}.ʔa^{3}] ‘thus’ *su* ***su**ií* [su^{3}**sw**i^{3}i^{4}] ‘boy’
/^{n}d͡ʒw/	***nchu**à'a* [**^{n}d͡ʒw**a^{1}.ʔa^{3}] ‘very’

[62] Village in the municipality of San Juan Mixtepec.
[63] Possibly /st͡ʃ/ underlyingly. The form *ischààn* [i^{3}.st͡ʃã^{1}ã^{1}] is also attested in the village of La Batea.

Consonant + glide clusters are also found in loanwords, such as *tiémpò* [t̪jem^{4}.po^{1}] ‘time’ (> SP ‘tiempo’); *mastántsià* [ma^{3}.st̪a^{4}.^{n}d͡zja^{1}] ‘mustard’ (> SP ‘mostaza’); *disiémvrè* [di^{3}.sjem^{4}.bɾe^{1}] ‘December’ (> SP ‘diciembre’); *siéntù* [sjen^{4}.t̪u^{1}] ‘hundred’ (> SP ‘ciento’); *tsiên* [t͡sjẽ^{41} ~ t͡sjen^{41}] ‘hundred’ (> SP ‘cien’); *júliò* [xu^{4}.ljo^{1}] ‘July’ (> SP ‘julio’); *suátù* [swa^{4}.t̪u^{1}] ‘Saturday’ (> SP ‘sábado’); *juálfà* [xwal^{4}.fa^{1}] ‘alfalfa’ (> SP ‘alfalfa’); or *anuà* [a^{3}.nwa^{1}] ‘heart’ (> SP ‘ánima’).

In addition, consonant clusters can be the result of morphological processes, particularly when the causative prefix *s-* is added to verb roots (§5.3.4.4). Table 15 shows some examples of causative verbs with consonant clusters in the onset of their first syllables.

Table 15. Examples of causative verbs beginning with a consonant cluster

Attested Cluster Onsets	Example
/st/	***st***átá [**st̪**a^{4}.t̪a^{4}] ‘CAUS.IPFV.heal’
	stûu [**st̪**u^{42}u^{3}] ‘CAUS.IPFV.emerge’
/sk/	***sk***âa [**sk**a^{42}a^{3}] ‘CAUS.IPFV.go_up’
	skútú [**sk**u^{4}.t̪u^{4}] ‘CAUS.IPFV.fill’
/sk^{w}/	***sku***í'ná [**sk^{w}**iʔ^{4}.na^{4}] ‘IPFV.steal’
	skuíǐ [**sk^{w}**i^{4}i^{34}] ‘IPFV.skin’
/sn/	***sn***âa ~ ***xn***âa [**sn**a^{42}a^{3} ~ **ʃn**a^{42}a^{3}] ‘CAUS.IPFV.end’
	snûu ~ ***xn***ûu [**sn**u^{42}u^{3} ~ **ʃn**u^{42}u^{3}] ‘CAUS.IPFV.go_down’
/sj/	***si***ávà [**sj**a^{4}.β̞a^{1}] ‘CAUS.IPFV.spread’
	siá'a [**sj**a^{4}.ʔa^{2}] ‘CAUS.IPFV.cross’

Other consonant clusters are possible in loanwords, such as /bɾ/ in *avrîl* [a^{3}.bɾil^{41}] ‘April’ (> SP ‘abril’); *lívrù* [li^{4}.bɾu^{1}] ‘book’ (> SP ‘libro’); *fevrérù* [fe^{3}.bɾe^{4}.ɾu^{1}] (> SP ‘febrero’); *kostúmvrì* ~ *kostúmvrè* [kos^{3}.t̪um^{4}.bɾi^{1} ~ kos^{3}.t̪um^{4}.bɾe^{1}] ‘custom’ (> SP

‘costumbre’); or /dɾ/ in *padrínù* [pa^{3}.dɾi^{4}.nu^{1}] ‘god-father’ (SP ‘padrino’);[64] or *kulándrù* [ku^{3}.lan^{4}.dɾu^{1}] ‘cilantro’ (SP ‘cilantro’).

3.5.2.2. Nuclei

Vowels are the only possible nuclei in Sà'án Sàvĭ ñà ñuù Xnúvíkó. Single vowels make up the nuclei of monomoraic syllables, whereas long vowels (§3.4.1) and the emergent diphthong /ai/ (§3.3.6) make up the nuclei of bimoraic syllables. Table 16 presents some examples of each of the five vowels acting as nuclei of ultimate, penultimate, and antepenultimate syllables (see also Figure 13, p. 46, and Figure 14 and Figure 15, p. 47). Shaded cells represent unattested syllables in native vocabulary.

Table 16. Examples of vowels as nuclei of syllables

Vowel	Ultimate syllable	Penultimate syllable	Antepenultimate syllable
/i/	*kán**ĭ*** [ka^{4}.n**i**^{14}] ‘long’	***i**tà* [**i**^{3}.t̪a^{1}] ‘flower’	*t**ì**nană* [t̪i^{1}.na^{3}.na^{14}] ‘tomato’
/e/	*mench**e*** [me^{3}.^{n}d͡ʒ**e**^{3}] ‘nightmare’	*l**e**ka* [l**e**^{3}.ka^{3}] ‘bag’	
/a/	*ùn**à*** [u^{1}.n**a**^{1}] ‘eight’	*ts**à**tù* [t͡s**a**^{1}.t̪u^{1}] ‘spicy’	***a**ntiví* [**a**^{3}.^{n}di^{3}.βi̪^{4}] ‘sky’
/o/	*xik**ò*** [ʃi^{3}.ko^{1}] ‘smell’	*k**ó**ní* [ko^{4}.ni^{4}] ‘female turkey’	
/u/	*ntat**ŭ*** [^{n}da^{3}.t̪u^{14}] ‘pretty and healthy’	*k**ù**mĭ* [k**u**^{1}.mi^{14}] ‘four’	*t**ú**tĭchi* [t̪**u**^{4}.t̪i^{14}.t͡ʃi^{3}] ‘avocado tree’

In addition, the vowels /i, a, u/ can be nuclei of syllables without an onset in native vocabulary, such as in *ìĭ* [i^{1}i^{14}] ‘sacred’; *atu* [a^{3}.t̪u^{3}] ‘unripe and bitter’; or *ù'ù* [u^{1}.ʔu^{1}]

[64] Some speakers produce the more adapted *talínù* [t̪a^{3}.li^{4}.nu^{1}] instead.

‘difficult’. The only attested native word that begins with a vowel other than the three peripheral vowels is the word *òkò* [o^{1}.ko^{1}] ‘twenty’. These words are often produced with an epenthetic glottal stop word-initially in connected speech (§3.2.1).

3.5.2.3. Codas

The only coda allowed in native vocabulary is the glottal stop /ʔ/ (§3.2.1 and §3.2.1.1), although it never occurs word-finally and it is restricted to word-medial coda positions followed by voiced segments, such as in *mì'nchă* [miʔ^{1}.^{n}d͡ʒa^{14}] ‘nopal’; *sa'và* [saʔ^{3}.βa̤^{1}] ‘frog’; *ká'nu* [kaʔ^{4}.nu^{3}] ‘big’; *ña'mì* [ɲaʔ^{3}.mi^{1}] ‘tuber’. Phonetically, this may surface as a glottal stop in careful speech, although it is often realized as creaky voice in the following segment (see Figure 9, page 34).

However, this restriction does not apply to codas in loanwords. In more recent loanwords, the syllable structure of the loaned element is often maintained, as can be seen in the words *espéjù* [es^{3}.pe^{4}.xu^{1}] ‘mirror (> SP ‘espejo’); *selulâr* [se^{3}.lu^{3}.laɾ^{41}] ‘cell phone’ (> SP ‘celular’); *lápìs* [la^{4}.pis^{1}] ‘pencil’ (> SP ‘lápiz’); *mársù* [maɾ^{4}.su^{1}] ‘March’ (> SP ‘March’); *kostúmvrì ~ kostúmvrè* [kos^{3}.t̪um^{4}.bɾi^{1} ~ kos^{3}.t̪um^{4}.bɾe^{1}] ‘costum’ (> SP ‘costumbre’); or the days of the week *lúnìx* [lu^{3}.niʃ^{l}] ‘Monday’ (> SP ‘lunes’); *mártìx* [maɾ^{4}.t̪iʃ^{l}] ‘Tuesday’ (> SP ‘martes’); *miérkolìx* [mjeɾ^{4}.ko^{3}.liʃ^{l}] ‘Wednesday’ (> SP ‘miércoles’); *juévìx* [xwe^{4}.βi̤ʃ^{l}] ‘Thursday’ (> SP ‘jueves’); and *viérnìx* [βjeˠ4.niʃ^{l}] ‘Friday’ (> SP ‘viernes’).

4. Word classes

This chapter presents the main word classes attested in Sà'án Sàvĭ ñà ñuù Xnúvíkó, that is, the major types of words that are distinguished grammatically in the language (Schachter & Shopen 2007: 1). This chapter starts by introducing the types of referring expressions found in the language, namely nouns (§4.1.1) and pronouns (§4.1.2). The section on nouns also introduces three types of words tightly related to nominal expressions and central to the grammar of Sà'án Sàvĭ ñà ñuù Xnúvíkó, namely the classifiers (§4.1.1.1), the demonstratives (§4.1.1.2), and the quantifiers (§4.1.1.3). Then I move on to introducing adjectives (§4.2), verbs (§4.3), adverbs (§4.4), relational nouns and prepositions (§4.5), linking devices (§4.6), and interjections (§4.7). These categories are defined in this dissertation based on their syntactic function.

4.1. Referring expressions

This section presents the types of referring expressions in Sà'án Sàvĭ ñà ñuù Xnúvíkó, namely nouns (§ 4.1.1) and pronouns (§4.1.2), as well as classifiers (§4.1.1.1), demonstratives (§4.1.1.2), and quantifiers (§4.1.1.3).

4.1.1. Nouns

Nouns, or rather noun phrases, are referring expressions that denote a participant in the state, event, or process expressed in the clause. For example, the word *ntuchǐ* in example (38) denotes what is being cooked/boiled. [65]

(38) *Schó'ô* ***ntuchǐ*** *schó'ô*.
s-chó'ǒ=^{L} **ntuchǐ** s-chó'ǒ=^{L}
CAUS-IPFV.boil=1 bean CAUS-IPFV.boil=1
'I cook beans, I cook' [Kue_nchai_noo; A; 00:21][66]

Nouns function as heads of noun phrases. They can be modified by classifiers (§4.1.1.1); demonstratives (§4.1.1.2); and quantifiers (§4.1.1.3) as well as by adjectives (§4.2).

Nouns can be preceded by quantifiers, such as *nti'i* 'all' in example (39) which modifies the noun *ñà'a* 'thing' that refers to inanimate entities. In this example, *ñà'a* is the semantic head of the noun phrase *kue nti'i ñà'a*, which denotes where the speaker is re-learning to do the work, and which illustrates another characteristic of nouns in Sà'án Sàvĭ ñà ñuù Xnúvíkó: they can also be preceded by the pluralizer *kue*.

[65] Examples are provided from recordings of speech whenever possible. A shorter title for the recording the example was selected from is provided after the English free translation, followed by the initials of the speaker, and a timestamp. "A" stands for speakers who preferred to remain anonymous.

[66] This structure whereby an element (frame) is repeated as if a parallel structure was intended but left incomplete is pervasive in the language. This structure is very similar to the frame tag structure described by H. Cruz (2014: 180) in her analysis of rhetoric in the Eastern Chatino variety of San Juan Quiahije (also Otomanguean). Parallelisms, which may be the origin of this structure, are widespread in all types of discourse in Sà'án Sàvĭ ñà ñuù Xnúvíkó, and they are a core feature of the elaborate speech genre locally known as *tsà'vì*. In this dissertation, I will include this frame tag introduced by a comma in the translations of examples.

(39) *Ntàskuă'a tsăa soò ntásá'à chuun ñàà nùŭ* ***kue ñu'û*** *nùŭ* ***kue nti'i ñà'a****.*[67]

ntà-skuă'a	tsăa	soo=L	ntá-sá'a=L	chuun
PFV.ITER-learn	anew	EMPH=1	IPFV.ITER-do=1	work

ñàà
DISC

nùŭ	**kue**	**ñu'ú=L**
OBL	**PLZ**	**land=1**

nùŭ	**kue**	**nti'i**	**ñà'a**
OBL	**PLZ**	**all**	**thing**

'I just newly learned again how to do the work, on my lands, and on everything.' [Ntanchiko_Yukunani; A; 06:04]

Example (39) also contains the noun phrase *kue ñu'û*, which illustrates another characteristic of nouns: they can be possessed or function as possessors. The noun phrase *kue ñu'ú* 'lands' hosts the 1st person singular pronominal low tone (=L) which expresses the possessor of the head noun 'land'. Example (40) illustrates the noun *lóchí* 'vulture' functioning as a possessor in a part-whole relation. Furthermore, the whole noun phrase *sa'mă lóchí* 'the body of the vulture' denotes the thing being grabbed.

(40) *Ntàki'in ñàà ntikú'ntú-ka* ***sa'mă lóchí****.*

ntà-ki'in	ñàà
PFV.ITER-grab	DISC

nti	kú'ntú=ka
CL.DIM.ZOO	lazy=ANA

sa'mă	**lóchí**
body	**vulture**

'The lazy one grabbed the body of the vulture.' [Lochi_tsi_ntikuntu3; JS; 01:30]

[67] Line breaks in the glosses represent Intonation Units.

Another characteristic of nouns in Sà'án Sàvĭ ñà ñuù Xnúvíkó is that they can be preceded by classifiers. Example (41) contains the noun phrase *kue tú nchè'ĕ* 'peach trees', in which the semantic head *nchè'ĕ* 'peach' is preceded by the classifier for trees *tú*.

(41) *Káa* ***kue tú nchè'ĕ*** (…)
káa
IPFV.be_seen

kue **tú** **nchè'ĕ**
PLZ **CL.trunk** **peach**

'There are peach trees.' [Ta_tsaa_naa_Yukunani; HVL; 07:29]

Finally, example (42) illustrates two more characteristics of nouns in Sà'án Sàvĭ ñà ñuù Xnúvíkó: they can be modified by an adjective in attributive function (such as in *kúentù luu* 'little story'; and they can be modified by a relative clause.

(42) *Ná ntakanì iin kuéntù* ***luu ñàà ntàkani ñanì-yù***.
ná ntakani=^{L} iin kuéntù **luu**
DEO IRR.tell=1 one story **little**

ñàà
RLZ

ntàkani **ñanì=yù**
PFV.tell **brother_of_male=1**

'I am going to tell a little story that my brother told.' [Ntsatsi_ntivau_chuun; JS; 00:35]

4.1.1.1. Classifiers

Mixtec languages present a set of monosyllabic forms often called classifiers that are widely seen as originating in binominal constructions in which the first disyllabic noun underwent segmental erosion and lost semantic content (De León 1988; Small 1990; Hollenbach 1995; Macaulay 1996).

These forms can be used to create nominal referring expressions from adjectives and verbs. In addition, they classify the referent into different semantic categories, with the exception of *ñà*, which is semantically neutral. Table 17 presents the classifiers and their glosses, as well as the nouns they originate from and their meaning, when these are found synchronically in the language.

Table 17. Classifiers of Sà'án Sàvĭ ñà ñuù Xnúvíkó

Classifier	**Gloss**	**Noun**	**Meaning of the noun**
ñà	generic	ña'a	'thing'
chà	male human	chàa	'man'
ñá	female human	ña'á	'woman'
tí	animal	kitĭ	'animal'
nti	diminutive animal (pejorative for humans)	--	--
tú	trunk	yutŭ	'tree'
nchá	liquid	ntùchă	'ocean'
kà	metal	kàa	'metal'
ntìi / ntì	late	ntìi	'death'
nà	plural human	---	---
su	human child	--	--
tí	round	kítí	'fruit'
yà	deity	--	--

Examples (43) and (44) show instances of classifiers used to nominalize adjectives. In example (43), we can see the generic classifier *ñà* used in the noun phrase *kue ñà kuáchi* 'the children', where it creates a nominal form from the adjective *kuáchi* 'small', which in turn co-occurs with the pluralizer *kue.*

(43) *¿A kúu kuàchúun-kue-ì nti'i soo tù'un nìka'àn-nĭ tsàân tavà kúu skuá'a kue* ***ñà*** *kuáchi Sà'án Ntá'vì?*

a	kúu	kuàchúun=kue=ì	nti'i	soo	tù'un	nìka'àn=ní
QT	IPFV.be_able	IRR.use=PLZ=3GNR	all	EMPH	word	PFV.speak=2FORM

tsàân	tavà	kúu	skuá'a	kue	**ñà**	kuáchi
IAM	so_that	IPFV.be_able	IRR.learn	PLZ	**CL.GNR**	small

Sà'ánNtá'vì
Mixtec

'Can they use all the words that you just said so that children (*lit*. the small ones) can learn Mixtec?' [Tantaa-na_Yukunani; CS; 13:42]

In example (44) we can see the classifier for deities *yà* used with the adjective *ká'nu* 'big' to create the nominal referent *yà ká'nu* 'the great being'.

(44) *Ntsìntú'ú* ***yà*** *ká'nu suà'a.*

ntsì	ntú'ú	**yà**	ká'nu	suà'a
PFV.HAB	be_sitting_down	**CL.DEITY**	big	thus

'The great being was sitting like this.' [Kue_na_yata_viko; HVL; 13:20]

Finally, example (45) illustrates the use of a classifier to modify a noun semantically. In this case, the classifier for trunk-like things *tú* modifies the word *tĭchi* 'avocado' to express the meaning of an 'avocado tree'.

(45) *Kú nkee nta'á* ***tú*** *tĭchi.*

kúnkee	nta'á	**tú**	tĭchi
PROSP.be_thrown	hand	**CL.TRUNK**	avocado

'Some avocado leaf will be thrown in.' [Vaa_chinchee_ntucha; AOC; 10:08]

4.1.1.2. Demonstratives

In Sà'án Sàvĭ ñà ñuù Xnúvíkó there are three demonstratives that may modify nominal referents: the proximal demonstrative *yó'o* (which may reduce to the clitic *=yô*, although this is not represented in the practical orthography); the medial demonstrative *(t)sàăn* (which does

not cliticize); and the anaphoric enclitic demonstrative =*ka* which identifies nominal referents as known or previously established in the discourse.

Example (46) shows the demonstrative *yó'o* as an independent demonstrative modifying the noun *piésà* 'piece'. Example (47) shows an instance of the demonstrative *yó'o* used as an enclitic that modifies the diminutive form *niĭ luu* 'little ear of corn'.

(46) *Kuàntì'vi-kue-nà ve'e-nà kuàntì'vi-nà ntákí'in tuku piésà* ***yó'o***.

kuàntì'vi=kue=nà	ve'e=nà		
PROG.enter=PLZ=3HUM.PL	house=3HUM.PL		
kuàntì'vi=nà			
PROG.enter=3HUM.PL			
ntá-kí'in	tuku	piésà	**yó'o**
IPFV.ITER-grab	also	piece	**PROX**

'When they are going back home, as they are going back, it's also time for this piece again.' [Kaja; NHG; 04:54]

(47) *Sáná nìkìtsáá kána niĭ luu* ***yó'o*** [ni^{3}i^{14}ljo^{43}].

sáná	nìkìtsáá
then	PFV.start
kána	niĭ=lu=**yô**
IPFV.sprout	ear_of_corn=DIM=**PROX**

'Then these little ears of corn started to sprout.' [Ta_tsaa_naa_Yukunani; HVL; 01:43]

Examples (48) and (49) show the medial demonstrative *sàăn*. In example (48) the medial demonstrative is modifying the noun *tù'un* 'word/story'.

(48) *Kŏo chà ntakani tù'un* ***sàăn***.

kŏo	chà	ntakani	tù'un	**sàăn**
NEG.exist	CL.M	IRR.tell	word	**MED**

'There's nobody who would tell that story.' [Ia_noo; NHG; 04:39]

In example (49), *sàăn* is modifying the noun *kìĭ* 'day'. This is the most common use of the medial demonstrative, in temporal expressions.

(49) *Kìĭ **sàǎn**-ni ra nìyà'a-kuê.*

kìĭ	**sàǎn**=ni	ra
day	MED=EMPH	TOP

nìyà'a=kue=^{L}
PFV.cross=PLZ=1

'That very same day we crossed (the border).' [Nikitsaa-yu_EEUU; JS; 01:29]

Finally, example (50) shows the anaphoric demonstrative *=ka* modifying the noun *ità* 'flower' in the second IU. This flower is known to both the speaker and the interlocutor, and it has been established in the first IU.

(50) *Káa ità ñàà ità kartúchù ká'àn-nà tsi ità-**ka**.*

káa	ità		
IPFV.be_seen	flower		
ità_kartúchù	ká'àn=nà	tsi	ità=**ka**
flower_cartridge	IPFV.say=3HUM.PL	COM	flower=**ANA**

'There are flowers, they call the flowers *ità kartúchù* (*lit*. Cartridge flowers, referring to lillies).' [Ta_tsaa_naa_Yukunani; HVL; 07:55]

One would expect to also find a distal demonstrative, based on the spatial adverbs (§4.4) and other descriptions of other Mixtec languages. In particular, in his description of Abasolo del Valle Mixtec,[68] Galindo Sánchez (2014: 67-68) describes the enclitic *=ga* as the distal demonstrative. Based on our data, the demonstrative *=ka* in Sà'án Sàvĭ ñà ñuù Xnúvíkó may be analyzed as a distal demonstrative, as in example (51), for instance, where Nasario Hernández Gómez is telling us the story of a mythical giant that diverted the waters to create the river that currently crosses San Juan Mixtepec.

[68] A variety of Mixtepec Mixtec that developed in Veracruz after migration waves that started in the 1930s (Galindo Sánchez 2014: 16).

(51) *Ñuù yó'o skǐtsi... skǐtsi-rà chàkuiî-**ka**.*
ñuù yó'o s-kǐtsi
village PROX CAUS-PFV.come

s-kǐtsi=rà
CAUS-PFV.come=3M

chàkuiî=**ka**
water=**DIST**

'He made that water come to this village.' [Ia_noo; NHG; 02:40]

However, I gloss it as *anaphoric* in this dissertation, as the common function across all instances of *=ka* is that of identifying the referent as known (although not necessarily as definite) regardless of whether it is indeed distal. Indeed, the situational distance in example (51) may well be established in the discourse, rather than by the use of *=ka* itself. Example (52) shows an instance of the anaphoric demonstrative *=ka* which Jeremías Salazar translated with the Spanish proximal demonstrative 'este'. In this example, the speaker affirms that she likes doing the work that she needs to do now that she moved back to Yukúnanǐ. The work is the topic of the discourse at this point of the recording session.

(52) *Kú ntàsăchúun tsăa tukù iinkàâ kuàâ ra ñàà meê ra tá'àn inì-yù sá'à chuun-**ka**.*

kúntà-săchúun	tsăa	tuku=L	iinkàâ	kuàâ	ra	ñàà
PROSP.ITER-work	anew	also=1	other	approximately	TOP	DISC

meé=L	ra	tá'àn-inì=yù	sá'a=L	chuun=**ka**
INT=1	TOP	IPFV.touch-core=1	IPFV.do=1	work=**ANA**

'I am going to work again once more, I like doing this work.' [Ntanchiko_Yukunani; A; 06:09]

Nevertheless, the tonal assignation of this enclitic *=ka* in Sà'án Sàvǐ ñà ñuù Xnúvíkó is very variable, and there could be two underlyingly different enclitics that interact with tone in

different ways that remain unclear.[69] In addition, there is an adverbial enclitic *=ka* (§4.4), and the distinction between the two is sometimes unclear.

4.1.1.3. Quantifiers

Referring expressions in Sà'án Sàvĭ ñà ñuù Xnúvíkó can be preceded by a quantifier, namely: *nti'i* 'all'; *sava* 'some'; *níi* 'the entirety of'; the pluralizer *kue*; and numerals (§4.1.1.3.1). Example (53) illustrates the use of the quantifier *sava* 'some' modifying the nominal expression *nivĭ* 'people'.

(53) *Síin xèě ntásá'a nivĭ,* ***sava*** *nivĭ.*

síin	xèě	ntá-sá'a	nivĭ
different	very	IPFV.ITER-do	people

sava	nivĭ
some	people

'People do this very differently, some people.' [Kue_na_yata_viko; HVL; 14:30]

Example (54) illustrates the use of the pluralizer *kue* modifying the nominal expression *kitĭ yó'o* 'this animal' (§5.1.7 on the pluralizer that appears modifying the verb *kúnì* 'want').

(54) *Kúnì-kue-ní kùnì-nĭ kue...* ***xóó*** *luu tsà'ă kue kitĭ yó'o*

kúnì=kue=ní	kùnì=ní	kue
IPFV.want=PLZ=2FORM	IRR.know=2FORM	PLZ

xóó	luu
a_bit	small

tsà'ă	kue	kitĭ	yó'o
about	PLZ	animal	PROX

'You want to know a bit about these animals.' [Vaa_chinchee_ntucha; AOC; 00:05]

[69] The /k/ in this clitic often lenites to [ɣ]. In fast speech the clitic sometimes reduces to just *a*, such as in the very frequent *ñà-ka* [ŋa^{1}.ka^{3}] which is often reduced to [ŋa^{1}a^{41}]

Finally, example (55) shows the pluralizer *kue* preceded by the quantifier *nti'i* ‘all’, both modifying the noun *kostúmvrì* ‘costum’. Note that *kue* is the only quantifier that can appear between the nominal expression and another quantifier.

(55) *Kú ntàtǐìn tono **nti'i kue** kostúmvrì ra*

kúntà-tǐin=L	tono	**nti'i**	**kue**	kostúmvrì	ra
PROSP.ITER-grab=1	like	**all**	**PLZ**	costum	TOP

‘I will get again all the costums’ [Ntanchiko_Yukunani; A; 06:16]

4.1.1.3.1. Numerals

Numerals are a sub-class of quantifiers in Sà'án Sàvĭ ñà ñuù Xnúvíkó. It is a base-20 system, as in most languages in Mesoamerica (Campbell, Kaufman & Smith-Stark 1986), building numbers between 20 and 39 using the word *òkò* ‘twenty’, and then using the word *xiko* ‘score (twenty)’ to build numbers after 39. In addition, 15 acts as a secondary base, making a number such as *ùvì xiko **tsà'ùn** iin* ‘fifty-six’ which translates literally as ‘two scores fifteen one’. Table 18 presents the numerals from 1 to 80. Example (56) shows the numeral *ùvì* ‘two’ modifying the nominal expressions *ntikachi luu* ‘little sheep’ and *ntúchá luu* ‘little goat’.

(56) *Ntìtsàà-yù ra ntàkuăan-tà-yù **ùvì** ntikachi luu **ùvì** ntúchá luu.*

ntìtsàà=yù	ra	tsàà	ntàkuăan=tà=yù
PFV.arrive_here_base=1	TOP	IAM	PFV.buy=EMPH=1

ùvì	ntikachi=lu	**ùvì**	ntúchá=lu
two	sheep=DIM	**two**	goat=DIM

‘I arrived here and I bought two sheep and two goats’ [Ntanchiko_Yukunani; A; 07:52]

Table 18. Numerals from 1 to 80 in Sà'án Sàvĭ ñà ñuù Xnúvíkó

1 iin	21 òkò iin	41 ùvì xiko iin	61 ùnì xiko iin
2 ùvì	22 òkò ùvì	42 ùvì xiko ùvì	62 ùnì xiko ùvì
3 ùnì	23 òkò ùnì	43 ùvì xiko ùnì	63 ùnì xiko ùnì
4 kùmĭ	24 òkò kùmĭ	44 ùvì xiko kùmĭ	64 ùnì xiko kùmĭ
5 ù'ùn	25 òkò ù'ùn	45 ùvì xiko ù'ùn	65 ùnì xiko ù'ùn
6 ìñù	26 òkò ìñù	46 ùvì xiko ìñù	66 ùnì xiko ìñù
7 ùtsà	27 òkò ùtsà	47 ùvì xiko ùtsà	67 ùnì xiko ùtsà
8 ùnà	28 òkò ùnà	48 ùvì xiko ùnà	68 ùnì xiko ùnà
9 ììn	29 òkò ììn	49 ùvì xiko ììn	69 ùnì xiko ììn
10 ùtsì	30 òkò ùtsì	50 ùvì xiko ùtsì	70 ùnì xiko ùtsì
11 ùtsì iin	31 òkò ùtsì iin	51 ùvì xiko ùtsì iin	71 ùnì xiko ùtsì iin
12 ùtsì ùvì	32 òkò ùtsì ùvì	52 ùvì xiko ùtsì ùvì	72 ùnì xiko ùtsì ùvì
13 ùtsì ùnì	33 òkò ùtsì ùnì	53 ùvì xiko ùtsì ùnì	73 ùnì xiko ùtsì ùnì
14 ùtsì kùmĭ	34 òkò ùtsì kùmĭ	54 ùvì xiko ùtsì kùmĭ	74 ùnì xiko ùtsì kùmĭ
15 tsà'ùn	35 òkò tsà'ùn	55 ùvì xiko tsà'ùn	75 ùnì xiko tsà'ùn
16 tsà'ùn iin	36 òkò tsà'ùn iin	56 ùvì xiko tsà'ùn iin	76 ùnì xiko tsà'ùn iin
17 tsà'ùn ùvì	37 òkò tsà'ùn ùvì	57 ùvì xiko tsà'ùn ùvì	77 ùnì xiko tsà'ùn ùvì
18 tsà'ùn ùnì	38 òkò tsà'ùn ùnì	58 ùvì xiko tsà'ùn ùnì	78 ùnì xiko tsà'ùn ùnì
19 tsà'ùn kùmĭ	39 òkò tsà'ùn kùmĭ	59 ùvì xiko tsà'ùn kùmĭ	79 ùnì xiko tsà'ùn kùmĭ
20 òkò	40 ùvì xiko	60 ùnì xiko	80 kùmĭ xiko

4.1.2. Pronouns

In Sà'án Sàvĭ ñà ñuù Xnúvíkó there are three types of personal pronouns: dependent pronouns (§4.1.2.1), independent pronouns (§4.1.2.2), and pronominal expressions with the intensifier *meé* (§4.1.2.3). In addition, there are also interrogative pronouns (§4.1.2.4), and relative pronouns (§4.1.2.5).

4.1.2.1. Dependent personal pronouns

Dependent pronouns can be used with verbs to express the Subject (S/A) or Object (O), as well as with nouns or noun phrases to express possession. Table 19 presents the dependent pronouns in Sà'án Sàvĭ ñà ñuù Xnúvíkó and their allomorphs (§5.1 on person marking).

Table 19. Dependent pronouns in Sà'án Sàvĭ ñà ñuù Xnúvíkó

		Subject (S/A)		**Object (O)**		**Possession**	
		SG	**PL**	**SG**	**PL**	**SG**	**PL**
1	EXCL	=yù /=^{L}	=kuê	=yù	=kuê	=yù /=^{L}	=kuê
	INCL		=kó /=ó /=^{H} /=á		=(kue-)kó		=kó /=ó /=^{H}
2	NFORM	=ú /=kú	=kue-yú	=yô	=kue=yú	=kú /=ú	=kue-yú
	FORM	=ní	=kue-ní	=ní	=kue-ní	=ní	=kue-ní
3	GNR	=ì /=à	=kue-ì	=à /=ñà	=kue-ì	=ñà /=à /=í	=kue-ì
	M	=rà	=kue-rà	=rà	=kue-rà	=rà	=kue-rà
	F	=í /=á	=kue-ñá	=á /=ñá	=kue-ñá	=í /=á /=ñá	=kue-ñá
	CHILD	=tsi[70]	=kue-tsi	=tsi	=kue-tsi	=tsi	=kue-tsi
	ZOO	=tí	=kue-tí	=tí	=kue-tí	=tí	=kue-tí
	ROUND	=tí	=kue-tí	=tí	=kue-tí	=tí	=kue-tí
	LIQ	=rá		=rá		=rá	
	TRUNK	=tú	=kue-tú	=tú	=kue-tú	=tú	=kue-tú
	DEITY	=yà	=kue-yà	=ya	=kue-yà	=yà	=kue-yà
	HUM.PL		=(kue-)nà		=(kue-)nà		=(kue-)nà

[70] The form *=si* has been attested in the village of Kava Yáxí (San Juan Cahuayaxi), also known as Sà Juáâ.

Examples (57) and (58) show some instances of dependent pronouns in use. In example (57) the dependent pronoun for round objects *=tí* (in the second IU) refers to *kiti* 'the ball' (in the first IU), and it encodes the subject of the action 'crossing (the goal line)'.

(57) *Nchíví kúu nùǔ nìyà'a kiti-ka nchíí kúu nùǔ nìyà'a-**tí**.*

nchíví	kúu	nùǔ	nìyà'a	kiti=ka
where	COP	REL.where	PFV.cross	ball=ANA
nchíí	kúu	nùǔ	nìyà'a=**tí**	
where	COP	REL.where	PFV.cross=**3ROUND**	

'Where it is that the ball crosses, where it crosses.' [Kue_nivi_yata; NHG; 06:49]

In example (58) the dependent pronoun for female human referents is used as the subject of the verb 'cut' (referring to the speaker's grandma), while the generic third person dependent pronoun referring to the speaker's siblings is used as the subject for the verb 'take out'. The dependent pronoun for animals is used as the object of both verbs (referring to the hen they were cooking).

(58) *Ntsă'nch**ǐ-tí** tavà nìkuu ñàà ntavă-**kue-ì-tǐ**.*

ntsă'nchà=**í=tí**		tavà	nìkuu	ñàà
PFV.cut=**3F=3ZOO**		so_that	PFV.be_able	DISC
ntavă=**kue=ì=tí**				
PFV.take_out=**PLZ=3GNR=3ZOO**				

'She cut it (the animal) so that they could take it out.' [Ntsatsi_ntivau_chuun; JS; 02:53]

4.1.2.2. Independent personal pronouns

There are two types of independent pronouns in Sà'án Sàvĭ ñà ñuù Xnúvíkó: independent pronouns for Speech Act Participants (§4.1.2.2.1), and independent pronouns for third persons (§4.1.2.2.2).

4.1.2.2.1. Independent pronouns for Speech Act Participants

Independent pronouns for Speech Act Participants, that is, first and second person, are infrequent in our corpus.[71] Table 20 presents the attested forms.

Table 20. Independent pronouns for Speech Act Participants in Sà'án Sàvĭ ñà ñuù Xnúvíkó

Gloss	**Form**
1	yùù
PLZ 1 (1PL.EXCL)	kue yùù
1PL.INCL	(kue) yóó
2NFORM	yóò
PLZ 2NFORM	kue yóò

Examples (59) and (60) illustrate the use of the first person plural inclusive independent pronoun *yóó*. This pronoun always has an impersonal meaning, as the group of people referred to includes the speaker, but it is not a specific group (§5.1.3 on the first person plural inclusive).

(59) *Kuà'ă nchuà'a chincheé-tí* ***yóó****.*

kuà'ă	nchuà'a	chincheé=tí	**yóó**
a_lot	very	IRR.help=3ZOO	**1PL.INCL**

'They can help us a lot.' [Sachuun_tsi_nunu; GML; 06:49]

(60) *Ntùkùnkáà-yà ntùkùnchíchì-yà tsà'ă* ***kue yóó*** *nivĭ pekadôr luu ñà yívĭ.*

ntù-kù-nkáà=yà
PFV.ITER-STA-stay=3DEITY

ntù-kù-nchíchì=yà
PFV.ITER-STA-steep=3DEITY

tsà'ă	**kue**	**yóó**	nivĭ	pekadôr=lu	ñà_yívĭ
for	**PLZ**	**1PL.INCL**	people	sinner=DIM	world

'He came to be again, he rose again for us, sinners of the world.' [Nuu_Xnuviko_ta_tsaa_naa; NHG; 08:16][72]

[71] In fact, only the first person plural independent pronouns have been attested in the recordings transcribed so far.
[72] This example comes from an instance of the specialized speech genre locally known as *tsà'vì*.

Example (61) illustrates one of the only two instances of the first person plural exclusive independent pronoun attested in discourse so far.

(61) *Tiàn tono **kue yùù** tsíku'mî kue kitĭ luu yó'o ra kú'mî kue tĭnà ra kŏo tùntó'o.*

tiàn	tono	**kue**	**yùù**			
but	like	**PLZ**	**1**			
tsí	ku'mí=^{L}		kue	kitĭ=lu=yô		ra
IPFV.HAB	have=1		PLZ	animal=DIM=PROX		TOP
kú'mí=^{L}	kue	tĭnà	ra			
IPFV.have=1	PLZ	dog	TOP			
kŏo	tùntó'o					
NEG.exist	problem					

'But we, we have animals, we have dogs, we have no problem.' [Vaa_chinchee_ntucha; AOC; 06:53]

4.1.2.2.2. Third person independent pronouns

Independent pronouns for third persons are much more common in the corpus. These consist of constructions of classifier (§4.1.1.1) + demonstrative (§4.1.1.2). Table 21 presents the third person independent pronouns. The shaded forms have been attested in recordings of unplanned naturalistic speech, while other forms have been elicited. Their formation is entirely productive.

Table 21. Third person independent pronouns in Sà'án Sàvĭ ñà ñuù Xnúvíkó

Classifier	Gloss	Pronouns		
		PROX	MED	ANA
ñà	generic	**ñǒ'o**	**ñà (t)sàăn**	**ñà-ka**
chà	male human	**chà yó'o**	**chà (t)sàăn**	**chà-ka**
ñá	female human	**ñá yó'o**	**ñá (t)sàăn**	**ñá-ka**
tí	animal	tí yó'o	tí (t)sàăn	tí-ka
tú	trunk	tú yó'o	tú (t)sàăn	tú-ka
nchá	liquid	**nchá yó'o**	nchá (t)sàăn	nchá-ka
kà	metal	kà yó'o	kà (t)sàăn	kà-ka
nà	plural human	nà yó'o	nà (t)sàăn	**nà-ka**
su	human child	su yó'o	su (t)sàăn	su-ka
tí	round	tí yó'o	tí (t)sàăn	tí-ka
yà	deity	yà yó'o	yà (t)sàăn	yà-ka

Examples (62), (63) and (64) illustrate the use of third person independent pronouns in recordings of unplanned naturalistic speech. Example (62) illustrates the use of the independent pronoun for female human referents, *ñá-ka.* Example (63) illustrates the use of the independent pronoun for liquids, *nchá yó'o*. Example (64) illustrates the use of the plural independent pronoun for humans, *nà-ka*.

(62) ***Ñá-ka*** *kúu xixì-yù.*

ñá=ka	kúu	xixì=yù
CL.F=ANA	COP	aunt=1

'She is my aunt.' [Ntanchiko_Yukunani; A; 14:39]

(63) *Tsàà yachi* ***nchá yó'o*** *kúu nchá tsá'a iin ánimò.*

tsàà_yachi	**nchá**	**yó'o**
almost	**CL.LIQ**	**PROX**

kúu	nchá	tsá'a	iin	ánimò
COP	REL.LIQ	IPFV.give	one	courage

'This (liquid) almost was what gave one courage.' [Ntavi_ntixi; CBL; 06:36]

(64) ***Nà-ka**-ni kúu nà ntátú'un xèě-kà tsi-kuê.*

nà=ka=ni	kúu	nà	ntátú'un	xèě=kà
CL.HUM.PL=ANA=EMPH	COP	REL.HUM.PL	IPFV.chat	much=more

tsi=kue=^{L}
COM=PLZ=1

'They are the ones that chat the most with us.' [Ntanchiko_Yukunani; A; 14:11]

The forms that were not attested in recordings of unplanned naturalistic speech were all elicited in sentences such as those in examples (65) and (66).

(65) ***Tí yó'o** kúu tí ntsìnì-yù.*

tí	**yó'o**	kúu	tí	ntsìnì=yù
CL.ZOO	**PROX**	COP	REL.ZOO	PFV.see=1

'This animal is the one I saw.' [Elicited; JS]

(66) ***Su yó'o** kúu su ntsìnì-yù.*

su	**yó'o**	kúu	su	ntsìnì-yù
CL.CHILD	**PROX**	COP	REL.CHILD	PFV.see=1

'This child is the one I saw.' [Elicited; JS]

Note how all the examples above are copula constructions in which the independent pronoun is used to establish a semantic framing for a specific referent that is instroduced by the copula *kúu*.

4.1.2.3. Pronominal expressions with *meé*

Lastly, a separate set of independent pronouns exists in Sà'án Sàvĩ ñà ñuù Xnúvíkó, consisting of the intensifier *meé* and the dependent pronouns (§4.1.2.1). These are much more common than the independent pronouns in our corpus, particularly in constructions involving topicalization or reflexives. Table 22 presents the full paradigm.

Table 22. Pronominal expressions with *meé* in Sà'án Sàvĭ ñà ñuù Xnúvíkó

Gloss	SG	PL
1	meê	meé-kuê (excl.) / meé-kó (incl.)
2NFORM	meú	meé-kue-yú
2FORM	meé-ní	meé-kue-ní
3GNR	miî / meé-ñà / míí-à[73]	meé-kue-ì
3M	meé-rà	meé-kue-rà
3F	meé-ñá	meé-kue-ñá
3CHILD	meé-tsi	meé-kue-tsi
3ZOO	meé-tí	meé-kue-tí
3ROUND	meé-tí	meé-kue-tí
3LIQ	meé-rá	
3TRUNK	meé-tú	meé-kue-tú
3DEITY	meé-yà	meé-kue-yà
3HUM.PL		meé-nà / meé-kue-nà

Example (67) illustrates the use of the pronominal form *meé-ní* 'you (formal, singular)' in a contrastive topic construction, where the speaker compares himself with his interlocutor who, according to the speaker, knows more about the discussion topic.

(67) ***Meé-ní*** *ra tsînì-kà-nĭ istórià nixi tono nixí káa ntsìtsăìn-nà yaà.*

meé=ní	ra			
INT=2FORM	TOP			
tsînì=kà=ní		istória	nixi	tono
IPFV.know=more=2FORM		story	how	like
nixi	káa	ntsì		
how	IPFV.be_seen	PFV.HAB		
tsăìn=nà	yaà			
step=3HUM.PL	music			

'You know more the story, how it was that they used to dance.' [Ntavi_ntixi; CBL; 06:57]

Example (68) illustrates the use of the pronominal form *meé-kó* 'us (inclusive)' in a possessive construction.

[73] The form *meé-ñà* remains unattested in the recordings of unplanned naturalistic speech transcribed so far. The form *miî* appears with human referents, often encoding S or A arguments, or possessors in a noun phrase, whereas the form *míí-à* to topicalize headless relative clauses.

(68) *Ná mà năa sà'án **meé-kó**.*

ná	mà	năa	sà'án	**meé=kó**
DEO	NEG.MOD	NEG.IRR.fade_away	language	**INT=1PL.INCL**

'So that our language does not disappear.' [Kue_nivi_yata; JS; 09:43]

4.1.2.4. Interrogative pronouns

The interrogative pronouns in Sà'án Sàvĭ ñà ñuù Xnúvíkó are presented in Table 23.

Table 23. Interrogative pronouns in Sà'án Sàvĭ ñà ñuù Xnúvíkó

Interrogative pronoun	**Translation**
Anà / Nchíì kúu nà	Who?
Nchíì	What?
Nchíì kúu-ñà	Which?
Nchíí	Where?
Nisaa	How many?
Nixi	How?
Chanu / Chanu và'a / Nchíì tsà'ă kuíî	Why?
Nchorà	What time? / When?

Example (69) illustrates the use of the interrogative pronoun *nixi* 'how'. Notice how the interrogative pronoun starts the sentence. Content questions are formed by placing the question word in clause-initial position, and with a gap where the questioned constituent would typically occur.

(69) *¿**Nixi** kitsáá-kó sáchóón ñà kakŏ itù?*

nixi	kitsáá=kó	sáchúun=ó
how	IRR.start=1PL.INCL	IPFV.work=1PL.INCL
ñà	kakì=ó	itù
SUB	IRR.sow=1PL.INCL	milpa

'How does one start to work to sow milpa?' [Ntanchiko_Yukunani; A; 06:29]

4.1.2.5. Relative pronouns

The classifiers (§4.1.1.1) can also function as relative pronouns in Sà'án Sàvĭ ñà ñuù Xnúvíkó (see Table 17, p. 94). In addition, the form *nùŭ* can be used as a relative pronoun for location and time, with the meaning of 'where'. Example (70) illustrates this use.

(70) *Iká kúu ñuù* ***nùŭ*** *ntsìô.*
iká kúu ñuù **nùŭ** ntsìo=L
DIST COP village **where** PFV.exist=1
'The village where I lived was there.' [Ntanchiko_Yukunani; A; 10:51]

Example (71) illustrates the use of the relative pronoun for round things, *tí*.

(71) *Kítí tsàăn-ni kúu* ***tí*** *íin ye'è-kuê.*
kití tsàăn=ni kúu **tí**
fruit MED=EMPH COP **REL.ROUND**
íin ye'è=kue=L
there_is outside=PLZ=1
'That fruit is the one that is outside (of our house).' [Ta_tsaa_naa_Yukunani; HVL; 08:19]

Note, however, that relative clauses are most often introduced by the relativizer *ñà* (Belmar & Salazar in preparation) or by no pronoun at all.

4.2. Adjectives

Adjectives in Sà'án Sàvĭ ñà ñuù Xnúvíkó are words whose primary function is to modify a noun by attributing some property to it, such as in example (72) where *yaa* 'white' modifies *sa'mă* 'the clothes'. Adjectives in attributive function follow the noun they modify.

(72) *Ntákuaan-nà sa'mă* ***yaa***.
ntákuaan=nà sa'mă **yaa**
IPFV.buy=3HUM.PL clothes **white**
'They buy white clothes.' [Tantaa-na_Yukunani; A; 00:14]

In addition, adjectives modifying nouns can be modified in turn by adverbs (§4.4 on adverbs), as can be seen in example (73) where the adverb *nà'â* 'very' modifies the adjective *ká'nu* 'big' which is modifying the noun *tsivátù* 'male goat'. These all occur in the noun phrase *iin tsivátù ká'nu nà'â* 'a very big male goat'.

(73) *Ntsìkàà iin tsivátù* ***ká'nu nà'â***

ntsìkàà	iin	tsivátù	**ká'nu**	**nà'â**
PFV.stay	one	male_goat	**big**	**very**

'There was a very big male goat.' [Vaa_chinchee_ntucha; AOC; 04:57]

Adjectives in Sà'án Sàvĭ ñà ñuù Xnúvíkó may also function as predicates, which involves some nominal participant. For example, in the temporal adverbial clause in (74), *luu* 'little' is the predicate, and the noun that is predicated upon is expressed by the 3GNR enclitic pronoun (§4.1.2.1) that refers to the 'brother' of the narrator. In predicate functions, adjectives canonically precede the noun (Subject). Unlike verbs (§4.3), adjectives do not inflect for aspect or mood.

(74) *Nixi ntŏ'ì tá* ***luì***.

nixi	ntŏ'o=ì	tá	**luu=ì**
how	PFV.happened=3GNR	when	**small=3GNR**

'How it happened when he was small.' [Ntsatsi_ntivau_chuun; 00:39]

Adjectives in predicative function can also be modified by adverbs, as in example (75) where the adjective *và'a* 'good' is modified by the adverb *nchuà'a* 'very', and the nominal participant that is predicated is the 'stinger of bees' (*iñŭ ñùñŭ luu-ka*).

(75) ***Và'a nchuà'a*** *iñŭ ñùñŭ luu-ka.*

và'a	**nchuà'a**	iñŭ	ñùñŭ	luu=ka
good	**very**	thorn	bee	small=ANA

'The stinger of bees is very good (for one's health).' [Sachuun_tsi_nunu; GML; 06:12]

4.3. Verbs

Verbs in Sà'án Sàvĭ ñà ñuù Xnúvíkó inflect directly for aspect-mood (§5.3.2), which sets them apart from other word classes. In example (76), the verb 'come back' in the first clause bears an initial Low tone in the first mora, inflecting it in the Perfective Aspect, while the verb 'stay' in the second clause bears an initial High tone in the first mora, inflecting it in the Imperfective Aspect.

(76) *Ñà-ka kúu* ***ntànchikô ñántú'û*** *vi'í.*

ñà=ka	kúu	**ntànchikó=^{L}**	**ñántú'ú=^{L}**	ve'e=í
CL.GNR=ANA	COP	**PFV.come_back**=1	**IPFV.stay**=1	house=3F

'That's why I came back to live in her house.' [Ntanchiko_Yukunani; A; 14:43]

Verbs in Sà'án Sàvĭ ñà ñuù Xnúvíkó are the semantic head of the verbal complex (see Figure 26, p. 185) and, apart from being directly inflected for aspect-mood, they can also be modified by a range of other particles, such as the adverbial enclitics *=kà* 'more' and *=tà* 'EMPH' in example (77).

(77) ***Ntsìnè'ĕ-kà-tà-yù*** *ñà katsî.*

ntsì	**nè'ĕ=kà=tà=yù**	ñà	katsí=^{L}
PFV.HAB	**get=more=EMPH=1**	RLZ	IRR.eat=1

'I would get much more to eat.' [Ta_tsaa_naa_Yukunani; HVL; 06:39]

4.4. Adverbs

Sà'án Sàvĭ ñà ñuù Xnúvíkó also has adverbs, which modify a clause or some constituent of a clause that is not a noun. For example, the word *xèĕ* 'much' functions as an adverb in example (78), where it modifies the verb 'work'.

(78) *Sáchúun xèê*.
sáchúun xèě=L
IPFV.work much=1

'I work a lot.' [Ntanchiko_Yukunani; A; 09:58]

There are different types of adverbs in Sà'án Sàvĭ ñà ñuù Xnúvíkó. Syntactically, these can be distinguished based on their position in or relative to the verbal complex (see Figure 26, p. 185), with only a restricted set of adverbs appearing inside the verbal complex (see Table 24). Forms in bold have been attested solely in the verbal complex, whereas other forms have been attested in other syntactic positions in the sentence.

Table 24. Summary of adverbs attested in the verbal complex in Sà'án Sàvĭ ñà ñuù Xnúvíkó

Adverbs attested in the verbal complex	**Meaning**
=tà	emphasis, very
=kà	more
=tu	also, surprise
=ka	there
=ni	emphasis, focus
soo	just, emphasis
tsăa	anew
ìĭ	still
tuku	also
xèě	much
tèěn	much
ché'é	very
nchuà'a	very
kuà'ă	many
kíi	soon
và'a	well
viĭ	beautifully
tsáá	on foot
kánkúun	specially
kòŏ	in a line

Adverbs can also be classified into different semantic categories, as in Table 25. The main types of adverbs based on their semantics are temporal adverbs; spatial adverbs; adverbs of movement; spatiotemporal adverbs; adverbs of manner; iamitives; and negative adverbs.

Table 25. Summary of adverbs independent from the verbal complex in Sà'án Sàvĭ ñà ñuù Xnúvíkó

Type of adverb	Examples
Temporal	*vichi* (now/today), *xchààn* (tomorrow); *(tá kuni* (yesterday); *yée-nùŭ* (sometimes); *michú'ni / michú'mi* (right now); *(tá) ava* (last year); *na'á* (early); *xina-kà* (first); *saán / jaán* (at that moment), *mikĭ* (never); *kíi* (soon); *ìĭ* (still); *tsăa* (anew)...
Spatial	*iká* (there); *yó'o* (here), *ye'è* (outside); *=ka* (there)…
Movement	*chiká* (towards there), *chinìnù* (downwards)…
Spatiotemporal	*yachi* (near); *tsíka* (far)
Manner	*suà'a* (like this), *tùntŭtsà* (barely); *vichi* (fast); *kuéên* (slowly); *nkústù* (at ease, comfortably);[74] *kuàâ* (approximately); *iin* (suddenly); *tsio* (sideways): *kòŏ* (in line); *tsáá* (on foot)…
Iamitives	*tsàà* (already); *sàkâ* (already / just)*; ntsăîn* (not yet)…
Negative	*kuĕ; mà / màa; văsa…*
Others	*vàà* (maybe); *tíí* (maybe); *luu luu* (a bit); *xóó* (a bit); *nkùsaán* (maybe); *mítu'un* (only); *=tà* (emphasis); *=kà* (more); *tuku* (also)…

The examples below illustrate the use of some adverbs. Example (79) shows the adverbial phrase *xchààn na'á* 'early tomorrow', which contains two temporal adverbs: *xchààn* 'tomorrow' and *na'á* 'early'. This adverbial phrase is modifying the verb, specifying when the action of getting up will take place.

(79) ***Xchààn na'á*** *ra ntakòô.*

xchààn	**na'á**	ra	ntakòo=^{L}
tomorrow	**early**	TOP	IRR.get_up=1

'I will get up early tomorrow.' [Ntanchiko_Yukunani; A; 10:03]

[74] From Spanish *a gusto* 'at ease'.

Example (80) illustrates the use of the spatial adverb *ye'è* ‘outside’, modifying the locational predicate introduced with the existential verb *íin* ‘there is’.

(80) *¿Nixi naní kítí íin* ***ye'è***?

nixi	naní	kítí	íin	**ye'è**
how	IPFV.be_called	fruit	there_is	**outside**

‘What’s the fruit outside called?’ [Ta_tsaa_naa_Yukunani; HVL; 08:24]

Example (81) shows the adverb of manner *nkústù* modifying the action of ‘wandering’, which is expressed by the verb *tsíkanuu*.

(81) ***Nkústù*** *tsíkanuù ñoǒ* ***nkústù***.

nkústù	tsíkanuu=^{L}	ñuù=ó	**nkústù**
comfortably	IPFV.wander=1	village=1PL.INCL	**comfortably**

‘I feel at ease in our village, at ease (*lit:* I wander comfortably in our village).’ [Ntanchiko_Yukunani; A; 07:38]

Example (82) shows the use of reduplication in the adverbial phrase. In this example, *kuéên* ‘slow(ly)’ is reduplicated and it is modifying the verb *ntàkavà* ‘reproduce’.

(82) *Jara iká ra* ***kuéên kuéên*** *ra ntàkayà-tǐ.*

jara	iká	ra	**kuéên-kuéên**	ra	ntà-kavà=tí
then	DIST	TOP	**slow-RDPL**	TOP	PFV.ITER-reproduce=3ZOO

‘Then they slowly reproduced there.’ [Sachuun_tsi_nunu; GML; 02:28]

Finally, the examples below illustrate the use of adverbs in the verbal complex. Example (83) shows the use of the emphatic adverb *=tà*, which appears between the verb *né'ě* ‘get’ and the dependent personal pronoun *=*^{H} (§5.1.3). Similarly, example (84) illustrates the use of the adverb *ìǐ* ‘still’, which appears between the adjective in predicative function *kuáchi* ‘small’ and the pluralizer *=kue* (§5.1.7).

(83) *Né'ě-**tǎ** xǔ'un luu ntakuáán ñà tsátsǒ.*

né'ě=**tà**=H		xǔ'un	
IPFV.get=**EMPH**=1PL.INCL		money	
luu	ntakuaan=H	ñà	tsátsí=ó
small	IRR.buy=1PL.INCL	RLZ	IPFV.eat=1PL.INCL

'We do get a bit of money to buy food.' [Ta_tsaa_naa_Yukunani; HVL; 02:04]

(84) *Kuáchi **ìǐ**-kue-ì ñàà ntsǐnì-à nixi sǎvà'î.*

kuáchi **ìǐ**=kue=ì		ñàà	
small **still**=PLZ=3GNR		DISC	
ntsǐnì=à	nixi	sǎ-và'a=ì	
NEG.PFV.know=3GNR	how	PFV.CAUS-good=3GNR	

'They were still young, so they didn't know how to prepare it.' [Ntsatsi_ntivau_chuun; JS; 01:50]

4.5. Relational nouns and prepositions

Sà'án Sàvǐ ñà ñuù Xnúvíkó has both relational nouns and prepositions. Relational nouns are nominal expressions that function like prepositions in the language. These, like other nominal expressions, can take person marking (see the Possession paradigm in Table 19, p. 102). Table 26 presents a summary of relational nouns in Sà'án Sàvǐ ñà ñuù Xnúvíkó. This analysis, for the most part, coincides with that of Bowers (2022: 92) but expands it to other uses and other forms.

Table 26. Summary of Relational Nouns in Sà'án Sàvǐ ñà ñuù Xnúvíkó

Form	Noun meaning	Prepositional use(s)
nùǔ	'face'	General oblique (*location:* on, in, at, in front of, to, from; *benefactive; recipients*…)
tsà'ǎ	'foot'	Circumstantial (*location:* around; *reason; about*)
tìtsi	'stomach'	Inside (an open space / object), under
inì	'core'	Inside (a closed space / object)
sàtǎ	'back'	(on the) back (of), behind
yu'ú	'mouth'	Liminal space
xìnǐ	'head'	Above
xiǐn	'side of the body'	Next to
xìǐ	'lower part of the body'	At the bottom of

In addition to these relational nouns, Sà'án Sàvĭ ñà ñuù Xnúvíkó also presents four prepositions. These prepositions cannot take possessive personal marking directly, but they can modify nominal referents and pronominal expressions with the intensifier *meé* (§4.1.2.3). The only exception is the comitative and instrumental *tsi*, which can inflect for person.[75] Table 27 presents the preposition in Sà'án Sàvĭ ñà ñuù Xnúvíkó.

Table 27. Summary of Prepositions in Sà'án Sàvĭ ñà ñuù Xnúvíkó

Preposition	Meaning(s)
tsi	Comitative and Instrumental
chíí	Towards
nchàà (*also* mànchà / vànchà)	Until / Up to / Even
kuéntà	For / On account of

4.6. Linking devices

In Sà'án Sàvĭ ñà ñuù Xnúvíkó there are words that are used to link phrases and clauses. Table 28 presents a summary of the linking devices in the language. Note that the forms in parentheses are rare in our corpus.

[75] This preposition can inflect for person, and it does so in unexpected ways. The addition of pronouns that do not begin with a consonant triggers nasalization and glottalization, hence the forms *tsîn* [t͡sĩ^{4}ĩ^{1}] 'with me'; *tsi-ón* [t͡sĩ^{3}.ʔõ^{4}] 'with us (inclusive)'; *tsi-ún* [t͡sĩ^{3}.ʔũ^{4}] 'with you (non-formal)'; *tsi-àn* [t͡sĩ^{3}.ʔã^{1}] 'with him/her/it/them (generic)'; and *tsi-án* [t͡sĩ^{3}.ʔã^{4}] 'with her'.

Table 28. Summary of Linking Devices in Sà'án Sàvĭ ñà ñuù Xnúvíkó

Linking device	Meaning(s)
cha (ta/te)	and, but
tsi	and (between two noun phrases)
tiàn / teèn	but
(soro / oro / choro)[76]	but
á	or / whether)
sana / sara / jana / jara	then
ñà	subordinator
tá	when
nchàà	until
rì / varì	because
tsà'ă ñà-ka	because
takuà / tavà	so that
tatù / ratù / (atù)	if
vásù	even if
ra	topic, background

4.7. Interjections

In Sà'án Sàvĭ ñà ñuù Xnúvíkó there are some interjections, which are words that are grammatically independent from the surrounding words and are used mostly in backchanneling or to add expressivity in discourse. Some of these words are *àjă* 'yes'; *aan* 'uhm', *óò* 'oh!', *à'ân* 'no'; *ăan* 'oh!', *ùjŭn* 'yes', *chíùn* 'shoot!', *sus* 'Jesus!', *ay* 'ouch!', etc. Example (85) illustrates the use of *óò* and *ùjŭn* in conversation.

[76] In his analysis of Spanish loanwords into Abasolo del Valle Mixtec, Galindo Sánchez claims that the forms *soro* and *oro* are indeed loanwords, ultimatly from Spanish 'pero' (Galindo Sánchez 2014: 105). Therefore, the form *choro* may be a combination of the general conjunction *cha* and the loanword *oro*, whereas *soro* could have emerged in analogy with the form *sara* 'then'.

(85) NHG: *Tsaán káa ñà kúu ñuù Xnúvíkó yó'o.*

tsaán	káa	ñà	kúu	ñuù	Xnúvíkó	yó'o
MED.TEMP	IPFV.be_seen	RLZ	COP	village	Mixtepec	PROX

'That's what Mixtepec looked like then'

JS: ***Óò*,**
Óò
Oh

'Oh!'

NHG: ***Ùjŭn***
ùjŭn
yes

'yes'

JS: *Tsà'ă ñà-ka kúu-ñà*

tsà'ă	ñà=ka	kúuñà
due_to	CL.GNR=ANA	FOC

'This is why'

NHG: ***Ùjŭn***
ùjŭn
yes

'yes'

JS: *Ntsă'nchà-nà-ñà*

ntsă'nchà=nà=ñà
PFV.cut=3HUM.PL=3GNR

'They cut it.'

5. Morphology

In this chapter I discuss morphology in Sà'án Sàvĭ ñà ñuù Xnúvíkó. I first present person marking (§5.1), as it is an essential and very salient aspect of the language. The sets of pronominal enclitics used for person marking in Sà'án Sàvĭ ñà ñuù Xnúvíkó may attach to verbs and other predicates, identifying participants in an event, as well as nouns, identifying possessors in a possession relationship. After introducing the system, I discuss each enclitic and their allomorphs using both elicited forms and examples from recordings of unplanned naturalistic speech. The system is summarized in §5.1.8.

I then move on to discuss nominal morphology in Sà'án Sàvĭ ñà ñuù Xnúvíkó, of which there is very little. I briefly discuss person marking expressing possessors (§5.2.1) as well as derivational morphology applied to nominal roots (§5.2.2). Finally, I move on to discuss verbal morphology, which is very rich. In this section I present TAM inflection (§5.3.2), auxiliaries (§5.3.3), and verbal prefixes (§5.3.4).

5.1. Person marking[77]

The set of pronominal enclitics used for person marking in Sà'án Sàvĭ ñà ñuù Xnúvíkó is presented in Table 29, repeated here from Table 19 (page 102) for convenience. These pronouns can mark participants when attaching to a verbal complex (see Figure 26, p. 185) or other predicates, or they can mark possession when attaching to a noun (§4.1.1) or a noun phrase. Note the three highly similar paradigms. The forms expressing S/A participants differ slightly

[77] Much of the information contained in this section was previously published in an article at the 24th WAIL Proceedings (Salazar et al. 2022), co-authored with Jeremías Salazar, Alonso Vásquez-Aguilar and Eric W. Campbell; and in an article at the Proceedings of the 20th Meeting of the Texas Linguistics Society (Belmar, Vásquez-Aguilar & Salazar 2021), co-authored with Alonso Vásquez-Aguilar and Jeremías Salazar.

from the forms expressing O participants, and they also occupy different slots in the verbal complex. The forms across the paradigms are very similar, but there are some differences in the distribution (or even existence) of allomorphs. Note that the labels singular (SG) and plural (PL) are used in this table for convenience, although singular forms are better understood as 'non-pluralized' forms (§5.1.7).

Table 29. Dependent pronouns in Sà'án Sàvĭ ñà ñuù Xnúvíkó

		Subject (S/A)		**Object (O)**		**Possession**	
		SG	**PL**	**SG**	**PL**	**SG**	**PL**
1	EXCL	=yù /=^{L}	=kuê	=yù	=kuê	=yù /=^{L}	=kuê
	PL.INCL		=kó / =ó /=^{H} /=á		=(kue-)kó		=kó /=ó /=^{H}
2	NFORM	=ú /=kú	=kue-yú	=yô	=kue=yú	=kú /=ú	=kue-yú
	FORM	=ní	=kue-ní	=ní	=kue-ní	=ní	=kue-ní
3	GNR	=ì /=à	=kue-ì	=à /=ñà	=kue-ì	=ñà /=à /=í	=kue-ì
	M	=rà	=kue-rà	=rà	=kue-rà	=rà	=kue-rà
	F	=í /=á	=kue-ñá	=á /=ñá	=kue-ñá	=í /=á /=ñá	=kue-ñá
	CHILD	=tsi[78]	=kue-tsi	=tsi	=kue-tsi	=tsi	=kue-tsi
	ZOO	=tí	=kue-tí	=tí	=kue-tí	=tí	=kue-tí
	ROUND	=tí	=kue-tí	=tí	=kue-tí	=tí	=kue-tí
	LIQ	=rá		=rá		=rá	
	TRUNK	=tú	=kue-tú	=tú	=kue-tú	=tú	=kue-tú
	DEITY	=yà	=kue-yà	=ya	=kue-yà	=yà	=kue-yà
	HUM.PL		=(kue-)nà		=(kue-)nà		=(kue-)nà

The paradigms of dependent pronouns in Sà'án Sàvĭ ñà ñuù Xnúvíkó are similar to those of other Mixtec languages in that they display a clusivity distinction in the 1st person plural and a range of 3rd person pronouns for different classes of referents (male, female, animal, child, liquid, etc.). There is a formality distinction in the 2nd person, which some but

[78] The form *=si* has been attested in the village of Kava Yáxí (San Juan Cahuayaxi), also known as Sà Juáâ.

not all other Mixtec languages display. However, the system of Sà'án Sàvĭ ñà ñuù Xnúvíkó stands out among other neighboring Mixtec languages for the following reasons:

a) Some pronouns present allomorphs that, albeit sharing a common origin, take very different shapes synchronically. The realization of these pronouns interacts with phonological characteristics of the elements they attach to, such as tone, vowel nasality, glottalization and/or vowel length.
b) Some pronouns often get reduced and fuse with the element they attach to, and some are even expressed solely with tonal changes (see Paster & Beam de Azcona 2004b; Paster 2010; Salazar et al. 2022), which offers a possible explanation for the emergence of some grammatical tone (see Belmar, Vásquez-Aguilar & Salazar 2021).
c) The language presents a pluralizer, which is a dependent form that precedes the pronoun to express plurality (§5.1.7).

In the next sections I discuss the use of each pronoun and the distribution of their allomorphs when relevant, with examples of each in natural speech.

5.1.1. First person *-yù* or *-^{L}*

The first person is marked either with the clitic *=yù* or a Low tone (=^{L}) that attaches to the last mora of the modified element. These most commonly express a singular referent, but they can be used to express the first person plural exclusive as well (§5.1.2) if the plural reading is established in the discourse or context.

These strategies appear in complementary distribution in our data: *=yù* is used when the tone of the last mora of the modified element is either a Low or a Falling tone (see example sets (86) and (87)); whereas the Low tone (=^{L}) is used elsewhere (see example sets (88) and

(89)). The only regular exception seems to be the possessed form of the words *páá* 'father' and *máá* 'mother', which are *pá-yù* 'my father' and *má-yù* 'my mother' respectively.

(86) Examples of =*yù* marking first person in nouns[79]

ità [i^{3}.ʈa^{1}] 'flower' ➔ *ità-yù* [i^{3}.ʈa^{1}.ju^{1}] 'my flower'

ñuù [ɲu^{3}u^{1}] 'village' ➔ *ñuù-yù* [ɲu^{3}u^{1}.ju^{1}] 'my village'

saà [sa^{3}a^{1}] 'bird' ➔ *saà-yù* [sa^{3}a^{1}.ju^{1}] 'my bird'

chǔvâ [t͡ʃu^{13}.βa^{41}] 'hammock' ➔ *chǔvâ-yù* [t͡ʃu^{13}.βa^{41}.ju^{1}] 'my hammock'

(87) Examples of =*yù* marking first person in verbs

kúnì [ku^{4}.ni^{1}] 'IPFV.want' ➔ *kúnì-yù* [ku^{4}.ni^{1}.ju^{1}] 'I want'

chákù [t͡ʃa^{4}.ku^{1}] 'IPFV.be_alive' ➔ *chákù-yù* [t͡ʃa^{4}.ku^{1}.ju^{1}] 'I am alive'

tsíkà [t͡si^{4}.ka^{1}] 'IPFV.ask_for' ➔ *tsíkà-yù* [t͡si^{4}.ka^{1}.ju^{1}] 'I ask for'

chíkàsè'ê [t͡ʃi^{4}.ka^{1}.se^{1}.ʔe^{41}] 'IPFV.hide' ➔ *chíkàsè'ê-yù* [t͡ʃi^{4}.ka^{1}.se^{1}.ʔe^{41}.ju^{1}] 'I hide'

kána'â [ka^{4}.na^{3}.ʔa^{41}] 'IPFV.scold' ➔ *kána'â-yù* [ka^{4}.na^{3}.ʔa^{41}.ju^{1}] 'I scold'

(88) Examples of a Low tone (=^{L}) marking first person with nouns

ve'e [βe^{3}.ʔe^{3}] 'house' ➔ *ve'è* [βe^{3}.ʔe^{1}] 'my house'

tá'an [ʈã^{4}.ʔã^{3}] 'relative' ➔ *tá'àn* [ʈã^{4}.ʔã^{1}] 'my relative'

(89) Examples of a Low tone (=^{L}) marking first person with verbs

xíko [ʃi^{4}.ko^{3}] 'IPFV.sell' ➔ *xíkò* [ʃi^{4}.ko^{1}] 'I sell'

sáchúun [sa^{4}.t͡ʃũ^{4}ũ^{3}] 'IPFV.work' ➔ *sáchúùn* [sa^{4}.t͡ʃũ^{4}ũ^{1}] 'I work'

ké'e [ke^{4}.ʔe^{3}] 'IPFV.touch' ➔ *ké'è* [ke^{4}.ʔe^{1}] 'I touch'

tsíka [t͡si^{4}.ka^{3}] 'IPFV.walk' ➔ *tsíkà* [t͡si^{4}.ka^{1}] 'I walk'

[79] I bring back IPA to better represent the tonal changes in example sets where grammatical tone is featured.

However, the Low tone ($=^{L}$) marking first person may surface as a Falling tone depending on the tonal melody of the element it modifies:

a) It surfaces as a Low tone (L) when the last mora of the modified element carries either a Mid (M) or a Low-mid tone (m) and is preceded by a High (H), a Mid tone (M), or a Falling tone (F) (see examples (90)).

(90) Examples of the first person marking Low tone ($=^{L}$) surfacing as a Low tone (L)

kí'in [kĩ^{4}.ʔĩ^{3}] 'IPFV.grab' ➔ *kí'în* [kĩ^{4}.ʔĩ^{1}] 'I grab'

xantu [ʃa^{3}.^{n}du^{3}] 'navel ➔ *xantù* [ʃa^{3}.^{n}du^{1}] 'my navel'

tsîni [t͡si^{42}.ni^{3}] 'IPFV.get_drunk' ➔ *tsînì* [t͡si^{42}.ni^{1}] 'I get drunk'

yá'a [ja^{4}.ʔa^{2}] 'IPFV.pass' ➔ *yá'à* [ja^{4}.ʔa^{1}] 'I pass'

b) It surfaces as a Falling tone (F) when the last mora of the modified element carries either a High (H) or a Rising tone (R), or when it carries a Mid (M) or a Low-mid tone (m) that is preceded by a Low (L), or a Low-mid (m). Mid tones (M) preceded by Rising tone (R) and glottal stop also result in Falling tones (F) (see examples (91))

(91) Examples of the first person marking Low tone ($=^{L}$) surfacing as a Falling tone (F)

vílú [βi̤^{4}.lu^{4}] 'cat' ➔ *vilû* [βi̤^{4}.lu^{41}] 'my cat'

kuáchá [k^{w}a^{4}.t͡ʃa^{4}] 'happy' ➔ *kuáchâ* [k^{w}a^{4}.t͡ʃa^{41}] 'I am happy'

sè'e [se^{1}.ʔe^{3}] 'offspring' ➔ *sè'ê* [se^{1}.ʔe^{41}] 'my offspring'

kuà'a [k^{w}a^{1}.ʔa^{3}] 'sibling' ➔ *kuà'â* [k^{w}a^{1}.ʔa^{41}] 'my sibling'

tsà'ǎ [t͡sa^{1}.ʔa^{14}] 'foot' ➔ *tsà'â* [t͡sa^{1}.ʔa^{41}] 'my foot'

xìnǐ [ʃi^{1}.ni^{14}] 'head' ➔ *xìnî* [ʃi^{1}.ni^{41}] 'my head'

ntanchikó [^{n}da^{3}.^{n}d͡ʒi^{3}.ko^{4}] ‘IPFV.come_back’ ➔ *ntanchikô* [^{n}da^{3}.^{n}d͡ʒi^{3}.ko^{41}] ‘I come back’

né'ě [ne^{4}.ʔe^{14}] ‘IPFV.get’ ➔ *né'ê* [ne^{4}.ʔe^{41}] ‘I get’

ká'án [kã^{4}.ʔã^{4}] ‘IPFV.think’ ➔ *ká'ân* [kã^{4}.ʔã^{41}] ‘I think’

nii [ni^{2}i^{3}] ‘adult’ ➔ *niî* [ni^{2}i^{31}] ‘I am an adult’

vă'a [βa̰^{13}.ʔa^{3}] ‘bad’ ➔ *vă'â* [βa̰^{13}.ʔa^{41}] ‘I am bad’

c) In monosyllabic bimoraic words, when the last mora of the modified element carries a Rising tone (R), attaching the first person marking Low tone (=^{L}) results in a Rising-Falling complex contour tone (see examples (92)). This is not reflected in the practical orthography, in which the convention is to switch all Rising tone diacritics (ă) to Falling tone diacritics (â) to mark first person.

(92) Examples of the first person marking Low tone (=^{L}) surfacing as a Rising-Falling tone[80]

nùǔ [nu^{1}u^{14}] ‘face’ ➔ *nùû* [nu^{1}u^{141}] ‘my face’

iǐ [i^{3}i^{14}] ‘husband’ ➔ *iî* [i^{3}i^{141}] ‘my husband’

tâăn [t̪ã^{42}ã^{34}] ‘IPFV.put’➔ *tâân* [t̪ã^{42}ã^{341}] ‘I put’

The following examples illustrate first person marking in natural speech. Example (93) shows the pronoun =*yù* acting as the possessor of the noun *ñuù* ‘the village’.

(93) *Ñuù-**yù** kúu Yukúnanǐ.*

ñuù=**yù**	kúu	Yukúnanǐ
village=**1**	COP	Yucunani

‘My village is Yucunani.’ [Sachuun_tsi_nunu; GML; 00:07][81]

[80] It is still unclear whether this also adds a mora to the modified element.

[81] The audios for some of the examples shared in the person marking section can be found in (Salazar et al. 2023) https://sites.google.com/view/saansavi-yucunani/%C3%B1%C3%A0-s%C3%A1ch%C3%BAun-ku%C3%AA-

Example (94) illustrates the use of the Low tone (=L) to mark first person, in this case as the A argument of the verb *ntáné'ě* ‘find’. Since the modified element ends in a Rising tone (R), adding the first person marking Low tone (=^{L}) results in a Falling tone (F).

(94) *Tá ntáné'**ê** ñùñǔ.*
tá ntáné'ě=**L** ñùñǔ
when IPFV.find=**1** bee
‘When I find bees.’ [Sachuun_tsi_nunu; GML; 01:59]

Example (95) displays a range of the syntactic functions and morphophonological realizations of the first person. Firstly, we find it as a Low tone (L) expressing the subject of the verb *ntakani* ‘tell’, which ends in a Mid tone (M). Then it appears as *=yù*, marking the grammatical possessor of the noun *ñanì* ‘brother (of a male)’, which ends in a Low tone (L). Finally, we see it expressing an oblique (recipient / goal) as a Falling tone (F), modifying the relational noun *nùǔ* ‘face’, which ends in a Rising tone (R).

(95) *Ná ntakan**ì** iin kuéntù luu ñàà ntàkani ñanì-**yù** nù**û**.*
ná ntakani=**L** iin kuéntù luu
DEO IRR.tell=**1** one story little
ñàà
RLZ
ntàkani ñanì=**yù** nùǔ=**L**
PFV.tell brother_of_male=**1** OBL=**1**
‘I am going to tell a little story that my brother told me.’ [Ntsatsi_ntivau_chuun; JS; 00:35]

In example (96) we can see the form *=yù* marking the subject of the verb *ká'àn* ‘speak’, as well as the Low tone (=^{L}) marking the possessor of the nominal phrase *anà luu* ‘little heart’.

trabajos-acad%C3%A9micos-academic-work/audios-wail-paper?authuser=0, as an accompanying resource to (Salazar et al. 2022)

(96) *Kuě kuà'ă xèě-kà ká'àn-**yù** rì kuítâ kuítâ-ni anà lu**ù**.*

kuě	kuà'ă	xèě=kà	ká'àn=**yù**	rì
NEG	many	very=more	IPFV.speak=**1**	because

kuítâ-kuítâ=ni	anà=lu=^{L}
tired-RDPL=EMPH	heart=DIM=**1**

'I don't speak much more because my little heart is really tired now.' [Koto_kue_kiti; HVB; 08:13]

Nevertheless, it is worth noting here that previous studies (Pike & Ibach 1978; Paster 2010) have claimed that there is a difference of formality between the use of *=yù* or =^{L} in some villages of the municipality of Mixtepec, particularly in the municipal seat. However, this does not seem to be the case in the recordings we have transcribed so far—which include people who live in the villages of Yukúnanĭ (Yucunani) and Tsìkĭ Ntákŭ (Independencia), and who either grew up or spent much time in other villages such as Yosóvà'a (Yososba), Mínà (Los Tejocotes), Ñuù Xnúvíkó (San Juan Mixtepec), or Nkàun (Santa Maria Teposlantongo) among others. In fact, example (97) shows the only instance in our corpus of *=yù* when one would expect =^{L} instead. Example (98) shows the same verb with the expected =^{L}.

(97) *Ñà-ka kúu-ñà ntàká'án-**yù** nisaa kuià-yù.*

ñà=ka	kúuñà	ntàká'án=**yù**	nisaa	kuià=yù
CL.GNR=ANA	FOC	IPFV.not_remember=**1**	how_many	year=1

'That's what I don't remember, how old I am.' [Profile_A; A; 00:12]

(98) *Tsàà ntàká'**â**n nixi naní kítí íin ye'è.*

tsàà	ntàká'án=^{L}
IAM	IPFV.not_remember=**1**

nixi	naní	kítí	íin	ye'è
how	IPFV.be_called	fruit	there_is	outside

'I already don't remember what the fruit that is outside is called.' [Ta_tsaa_naa_Yukunani; HVL; 08:24]

Finally, when the first person is the O argument, the pronoun is always *=yù*, regardless of the preceding tone. Example (99) shows the enclitic *=yù* expressing the O argument of the

verb *chinta'á* ‘send’. The use of the enclitic *=yù* in this context is expected, since it attaches to the verbal complex after the third person generic pronoun (§5.1.6.1), and therefore the form it modifies ends in a Falling tone (F). However, consider example (100). In this example, the enclitic *=yù* modifies the form *ntànè'ǔ* ‘you found’ which ends in a Rising tone (R). Note that this does not come from a recording of unplanned naturalistic speech.

(99) *Cha a kúu chinta'î-**yù** sáchúùn tiéndà.*

cha	a	kúu	chi-nta'á=ì=**yù**	sáchúun=^{L}	tiéndà
CONJ	Q	IRR.be_able	IRR.CMOT-hand=3GNR=**1**	IPFV.work=1	shop

‘And if they could send me to work at the shop.’ [California; JS; 07:03]

(100) *¿Nixi ntànè'ǔ-**yù**?*

nixi	ntà-nè'ě=ú=**yù**
how	PFV.ITER-get=2NFORM=1

‘How did you find me?’ [Ma_kuu_ntanteu-yu; JS; p. 7] [82]

Example (101) shows the enclitic *=yù* expressing the O argument of the verb *skuă'nu* ‘raise’. In this example, Fernando Víctor Morales Velasco is quoting his sons, who stayed in the US and told him and his wife to leave and rest in Mexico because they have already worked a lot and they raised them. Note how in the context, *=yù* is understood with a plural meaning, working as a first person plural exclusive (§5.1.2).

(101) *Skuă'nu-kue-ní-**yù**.*

s-kuă'nu=kue=ní=**yù**
CAUS-PFV.grow_up=PLZ=2FORM=**1**

‘You raised us.’ [Ntoo_na_tsika_ntavi; FVM; 06:20]

[82] This example comes from a translation of the book ‘You can’t find me’ by Jose Jemma, available through *storyweaver.org* by Pratham books: https://storyweaver.org.in/en/stories/19721-you-can-t-find-me. The translation was done in the same platform.

5.1.2. First person plural exclusive *-kuê*

Like other Mixtec languages, Sà'án Sàvĭ ñà ñuù Xnúvíkó presents two different forms for first person plural, distinguished by clusivity. Examples (102) and (103) illustrate the difference between the first person plural inclusive and the first person plural exclusive. In example (102), Hilaria Velasco López is talking about how her generation (1PL exclusive) suffered through a lot of periods of hunger due to bad crops, and she compares the stituation with the present day, when people (including both herself and the addressees, 1PL inclusive) can just get some money and buy something to eat.

(102) *Ntò'o xèě-**kuê** tàmă vichi vásù yíì vichi ra né'ě-**tắ** xŭ'un luu ntaku**áán** ñà tsáts**ŏ́**.*

ntò'o	xèě=**kue=^{L}**	tàmă		
PFV.sufffer	much=**PLZ=1**	bad_crop		
vichi	vásù	yéè=ì	vichi	ra
today	even_if	IPFV.exist=3GNR	today	TOP
né'ě=tà=^{H}		xŭ'un=lu		
IPFV.get=EMPH=**1PL.INCL**		money=DIM		
ntakuaan=^{H}	ñà	tsátsí=**ó**		
IRR.buy=**1PL.INCL**	RLZ	IPFV.eat=**1PL.INCL**		

'We suffered a lot of hunger (*lit:* bad crops). Nowadays, even if there are (bad crops), we just get a bit of money to buy food.' [Ta_tsaa_naa_Yukunani; HVL; 01:59]

In example (103), Jeremías Salazar was telling me the story of when he first arrived in the US, when he switched to direct reported speech quoting something his dad said. Notice the switch from first person plural exclusive (when talking to me while referring to himself, his dad, and his brother) to first person plural inclusive (when directly quoting his dad).

(103) *Cha tá nìkì'vi-**kuê** ñàà Estados Unidos ra ñàà káchì pá-yù ná k**ò'ǒn** kàtsá'an-**kó** káchì-rà.*

cha	tá	nìkì'vi=**kue=**^{L}		ñàà
CONJ	when	PFV.enter=**PLZ=1**		DISC
Estados_Unidos		ra	ñàà	
United_States		TOP	DISC	
káchì	páá=yù	ná	kù'ùn=**ó**	kàtsá'an=**kó**
IPFV.say	father=1	DEO	IRR.go=**1PL.INCL**	IRR.eat=**1PL.INCL**

káchì=rà
IPFV.say=3M

'And when he had entered the US, my dad said: Let's go eat something, he said.' [Nikitsaa-yu_EEUU; JS; 01:59]

The first person plural exclusive is most commonly marked with a combination of the pluralizer *=kue* (§5.1.7) and the first person marking Low tone (=^{L}) (§5.1.1). This combination results in the form *=kuê*, with a falling tone, which is commonly reduced to [we^{31}] in fast speech. However, the first person plural exclusive can also be expressed without the pluralizer *=kue* if the plural reading is established in the context, in which case it may be marked either with the clitic *=yù* or a Low tone (=^{L}) as detailed in §5.1.1 and shown in example (101) (page 128). Note that this is not possible with the first person plural inclusive, as described in the previous section.

Example set (104) shows the first person plural exclusive modifying nouns, and example (105) shows the first person plural exclusive modifying verbs.

(104) Examples of *=kuê* marking the first person plural exclusive in nouns

ità [i^{3}.ʈa^{1}] 'flower' ➔ *ità-kuê* [i^{3}.ʈa^{1}.we^{31}] 'our flower'

ñuù [ɲu^{3}u^{1}] 'village' ➔ *ñuù-kuê* [ɲu^{3}u^{1}.we^{31}] 'our village'

vílú [βi̤^{4}.lu^{4}] 'cat' ➔ *vílú-kûe* [βi̤^{4}.lu^{4}.we^{31}] 'our cat'

kuà'a [k^{w}a^{1}.ʔa^{3}] 'sibling' ➔ *kuà'a-kuê* [k^{w}a^{1}.ʔa^{3}.we^{31}] 'our sibling'

(105) Examples of *=kuê* marking the first person plural exclusive in verbs

kúnì [ku^{4}.ni^{1}] 'IPFV.want' ➔ *kúnì-kuê* [ku^{4}.ni^{1}.we^{31}] 'we want'

xíko [ʃi^{4}.ko^{3}] 'IPFV.sell' ➔ *xíko-kuê* [ʃi^{4}.ko^{3}.we^{31}] 'we sell'

ntúkú [^{n}du^{4}.ku^{4}] 'IPFV.look_for' ➔ *ntúkú-kuê* [^{n}du^{4}.ku^{4}.we^{31}] 'we look for'

sáchúun [sa^{4}.t͡ʃũ^{4}ũ^{3}] 'IPFV.work' ➔ *sáchúun-kuê* [sa^{4}.t͡ʃũ^{4}ũ^{3}.we^{31}] 'we work'

sá'a [sa^{4}.ʔa^{3}] 'IPFV.do' ➔ *sá'a-kuê* [sa^{4}.ʔa^{3}.we^{31}] 'we do'

Example (106) shows the use of *=kuê* to mark the A arguments of the verbs *né'ě* 'get' and *tsósò* 'water', as well as the possessor of the noun *kulándrù* 'cilantro'.

(106) *Né'ě-**kuê** chìkuiî luu tsósò-**kuê** ra káa kulándrù-**kuê**.*

né'ě=**kue=^{L}**	chìkuiî=lu
IPFV.get=**PLZ=1**	water=DIM
tsósò=**kue=^{L}**	ra
IPFV.water=**PLZ=1**	TOP
káa	kulándrù=**kue=^{L}**
IPFV.be_seen	cilantro=**PLZ=1**

'Wet get a bit of water and we water what is our cilantro.' [Ta_tsaa_naa_Yukunani; HVL; 07:44]

The pluralizer *=kue* and the first person marking Low tone (=^{L}) can appear together after adverbs in the verbal complex, as in example (107), or be separated by them, as in example (108). Note how the first person plural exclusive is expressed solely by a Low tone (=^{L}) in the second clause of example (108).

(107) *¿Cha nchíì tsà'ă kúu-ñà ntànchikó tuku-**kuê** yó'o?*

cha	nchíì	tsà'ă	kúuñà	ntànchikó	tuku=**kue=^{L}**	yó'o
CONJ	what	due_to	FOC	PFV.come_back	also=**PLZ=1**	PROX

'And why did we also come back here?' [Ntanchiko_Yukunani; A; 13:47]

(108) *Tá kuáchi-**kue** tukù saán ra ntsìo trómpà-tù.*

tá	kuáchi=**kue**	tuku=^{L}	saán	ra
when	small=**PLZ**	also=**1**	MED	TOP

ntsìo	trómpà=tu=^{L}
PFV.exist	spinning_top=also=**1**

'When we were small we also had spinning tops.' [Kue_nivi_yata; NHG; 07:00]

Finally, the enclitic *=kuê* can also be used to express O arguments in the verbal complex, as in example (109).

(109) *¿A ná'a-kue-yú tá ntsìsă' ganâr-kue-yú-**kuê**?*

a	ná'a=kue=yú	tá	ntsì	să'-ganâr=kue=yú=**kue=**^{L}
QT	IPFV.remember=PLZ=2NFORM	when	PFV.HAB	do-win=PLZ=2NFORM=PLZ=1

'Do you remember when you (pl.) used to beat us (at something)?' [Elicited; JS]

5.1.3. First person plural inclusive *-kó*, *-ó*, *-á*, or *-*^{H}

The first person plural inclusive in Sà'án Sàvĭ ñà ñuù Xnúvíkó can be marked in four different ways: a) the enclitic *=kó*; b) the enclitic *=ó*; c) the enclitic *=á*; and d) a High tone (=^{H}).

The enclitic *=kó* can be used to modify any element, and it surfaces with a Rising tone (R) *=kŏ* when the element it attaches to ends in either a Low (L) or a Falling tone (F) (see example sets (110) and (111), for nouns and verbs, respectively). The /k/ in *=kó* is usually lenited to [ɣ] (§3.2.1).[83]

(110) Examples of *=kó* marking first person plural inclusive in nouns

ità [i^{3}.t̪a^{1}] 'flower' ➔ *ità-kŏ* [i^{3}.t̪a^{1}.ɣo^{14}] 'our flower'

vílú [βi̤^{4}.lu^{4}] 'cat' ➔ *vílú-kó* [βi̤^{4}.lu^{4}.ɣo^{4}] 'our cat'

[83] Lenition patterns for stops such as this one have been attested in other Mixtec languages (e.g., DiCanio et al. 2022).

ñanì [ɲa^{3}.ni^{1}] ‘brother (of male)’ ➔ *ñanì-kǒ* [ɲa^{3}.ni^{1}.ɣo^{14}] ‘our brother (of male)’

nùǔ [nu^{1}u^{14}] ‘face’ ➔ *nùǔ-kó* [nu^{1}u^{14}.ɣo^{4}] ‘our face’

(111) Examples of *=kó* marking first person plural inclusive in verbs

ntásama [^{n}da^{4}.sa^{3}.ma^{2}] ‘IPFV.exchange’ ➔ *ntásama-kó* [^{n}da^{4}.sa^{3}.ma^{2}.ɣo^{4}] ‘we exchange’

sá'a [sa^{4}.ʔa^{3}] ‘IPFV.do’ ➔ *sá'a-kó* [sa^{4}.ʔa^{3}.ɣo^{4}] ‘we do’

tsîni [t͡si^{42}.ni^{3}] ‘IPFV.get_drunk’ ➔ *tsîni-kó* [t͡si^{42}.ni^{3}.ɣo^{4}] ‘we get drunk’

chíkàsè'ê [t͡ʃi^{4}.ka^{1}.se^{1}.ʔe^{41}] ‘IPFV.hide’ ➔ *chíkàsè'ê-kǒ* [t͡ʃi^{4}.ka^{1}.se^{1}.ʔe^{41}.ɣo^{41}] ‘we hide’

ká'àn [kã^{4}.ʔã^{1}] ‘IPFV. speak’ ➔ *ká'àn-kǒ* [kã^{4}.ʔã^{1}.ɣo^{14}] ‘we speak’

However, in naturalistic connected speech, *=kó* is more commonly used when the modified element does not express the S or A argument in a verbal complex or when the host does not end in a high vowel.[84] That is, when attached to a verbal complex ending in a high vowel, the enclitic *=ó* is preferred (see example set (112)). The enclitic *=ó* substitutes the vowel of the last syllable of the modified element. In bimoraic syllables it replaces the last mora of the high front vowel /i/ but both morae of the high back vowel /u/. In words ending in /u/, the enclitic *=ó* may also change the vowel in the preceding syllable if it is also /u/. In fusing with the element it modifies, the enclitic *=ó* takes on the suprasegmental features of nasality and tone, keeping the former and interacting with the latter—surfacing as a Rising tone (R) if the modified element ends in a Low (L) or a Falling tone (F).[85]

[84] The only attested noun that consistently takes *=ó* instead of *=kó* in our corpus is *ñuù* ‘village’, which becomes *ñoǒ* ‘our village’. The form *ñoǒ* is in fact also used with the sense of ‘traditional’ or ‘(of) our community’, and it is possibly due to its frequency that it is a fused form.

[85] There are some verbs in which the resulting tone does not follow this generalization and it is not predictable. It remains to be determined whether these are exceptions, inflectional classes, or there is another explanation.

(112) Examples of =*ó* marking first person plural inclusive

chákù [t͡ʃa^{4}.ku^{1}] ‘IPFV.be_alive’ ➔ *chákǒ* [t͡ʃa^{4}.ko^{14}] ‘we are alive’

káchì [ka^{4}.t͡ʃi^{1}] ‘IPFV.say’ ➔ *káchǒ* [ka^{4}.t͡ʃo^{14}] ‘we say’

tsítú nǐnì [t͡si^{4}.ʉ^{4}.ni^{13}.ni^{1}] ‘IPFV.understand’ ➔ *tsítú nǐnǒ* [t͡si^{4}.ʉ^{4}.ni^{13}.no^{14}] ‘we understand’

sáchúun [sa^{4}.t͡ʃũ^{4}ũ^{3}] ‘IPFV.work’ ➔ *sáchóón* [sa^{4}.t͡ʃõ^{4}õ^{4}] ‘we work’

tsíkanuu [t͡si^{4}.ka^{3}.nu^{3}u^{3}] ‘IPFV.wander’ ➔ *tsíkanóó* [t͡si^{4}.ka^{3}.no^{4}o^{4}] ‘we wander’

tíín [ʉ̃^{4}ĩ^{4}] ‘IPFV.grab’ ➔ *tíón* [ʉ̃^{4}õ^{4}] ‘we grab’

ntátù'un [^{n}da^{4}.ʉ̃^{1}.ʔũ^{3}] ‘IPFV.chat’ ➔ *ntató'ón* [^{n}da^{4}.ʉ̃^{4}.ʔõ^{4}] ‘we chat’

tuku [ʉ^{3}.ku^{3}] ‘also’ ➔ *tokó* [ʉ^{3}.ko^{4}] ‘us too’

This enclitic takes the shape =*á* when attached to roots whose last syllable starts with either /β̤/ or /m/, or when attached to roots that contain the high back vowel /u/ in the first syllable followed by /n/ (see examples (113)). It seems, however, that /β̤/ may also co-occur with =*ó* (see example (120), p. 138). As for the realization of this clitic, just like =*ó*, it substitutes the last mora of the modified element and interacts with the suprasegmental features of nasality and tone, keeping nasality when present and surfacing as a Rising tone (R) if the modified element ends in a Low (L) or a Falling tone (F).

(113) Examples of =*á* marking first person plural inclusive

ntátí'vǐ [^{n}da^{4}.ʉ̤ʔ^{4}.β̤i^{14}] ‘IPFV.sweep’ ➔ *ntátí'vă* [^{n}da^{4}.ʉ̤ʔ^{4}.β̤a^{14}] ‘we sweep’

kí'vi [kiʔ^{4}.β̤i^{3}] ‘IPFV.enter’ ➔ *kí'vă* [kiʔ^{4}.β̤a^{14}] ‘we enter’[86]

kú'mí [kuʔ^{4}.mi^{4}] ‘IPFV.have’ ➔ *kú'má* [kuʔ^{4}.ma^{4}] ‘we have’

[86] Note, however, that the form *kí'vǒ* [kiʔ^{4}.β̤o^{14}] has also been attested.

kúnì [ku^{4}.ni^{1}] ‘IPFV.want’ ➔ *kúnă* [ku^{4}.na^{14}] ‘we want’

Finally, the first person plural inclusive can be expressed in fast speech with a High tone (=^{H}) when the modified element is expressing the S or A argument in a verbal complex and does not end in a high vowel (see examples (114)).[87] When the modified element ends in a Low tone (L) or a Falling tone (F), the first person plural inclusive marking High tone (=^{H}) is realized as a Rising tone (R).

(114) Examples of a High tone (=^{H}) marking first person plural inclusive

ntásama [^{n}da^{4}.sa^{3}.ma^{2}] ‘IPFV.exchange’ ➔ *ntásamá* [^{n}da^{4}.sa^{3}.ma^{4}] ‘we exchange’

sá'a [sa^{4}.ʔa^{3}] ‘IPFV.do’ ➔ *sá'á* [sa^{4}.ʔa^{4}] ‘we do’

chíkàsè'ê [t͡ʃi^{4}.ka^{1}.se^{1}.ʔe^{41}] ‘IPFV.hide’ ➔ *chíkàsè'ĕ* [t͡ʃi^{4}.ka^{1}.se^{1}.ʔe^{14}] ‘we hide’

ká'àn [kã^{4}.ʔã^{1}] ‘IPFV. speak’ ➔ *ká'ăn* [kã^{4}.ʔã^{14}] ‘we speak’

These irregular reductions of clitics in fast speech pattern in ways similar to those observed for the neighboring related language Itunyoso Triqui (DiCanio 2022). Determining the exact constraints of these reductions in Sà'án Sàvĭ ñà ñuù Xnúvíkó, however, will require more study.

The following examples illustrate first person marking in natural speech. Examples (115) and (116) show the forms *=kó* and *=^{H}* in the same context, expressing the A argument of the verb *ná ntasama* ‘exchange’, as Jeremías recorded different versions of this traditional story.

[87] The only attested noun for which a first person plural inclusive possessor is marked with a High tone (=^{H}) is *tá'an* [t̪ã^{4}.ʔã^{3}] ‘relative’, which results in the form *tá'án* [t̪ã^{4}.ʔã^{4}] ‘our relatives’.

(115) *Ná ntasama-**kó** ñàà sa'mă-**kó**.*

ná	ntasama=**kó**	ñàà
DEO	IRR.exchange=**1PL.INCL**	DISC

sa'mă=**kó**
body=**1PL.INCL**

'Let's exchange our bodies.' [Lochi_tsi_ntikuntu2; JS; 01:44]

(116) *Ná ntasam**á** sa'mă-**kó**.*

ná	ntasama=**H**	sa'mă=**kó**
DEO	IRR.exchange=**1PL.INCL**	body=**1PL.INCL**

'Let's exchange our bodies.' [Lochi_tsi_ntikuntu3; JS; 02:29]

Example (117) illustrates the forms *=kó* and *=ó*, the later used with verbs ending in a high vowel.

(117) *¿Nchíì kúu tá kutù'va-**kó** ra tsítú nĭn**ǒ** nchíí vàts**ǒ**?*

nchíì	kúu	tá	kutù'va=**kó**	ra	tsítú-nĭnì=**ó**
what	COP	when	IPFV.learn=**1PL.INCL**	TOP	IPFV.fill-core=**1PL.INCL**

nchíí vàtsi=**ó**
where IPFV.come_NONBASE=**1PL.INCL**?

'What happens when we learn and understand where we come from?' [ICLDC_Speech; JS; 00:01]

Example (118) shows three different realizations of the first person plural inclusive, namely *=ó* with the verbs *kasì* 'lock' and *kani* 'throw'; *=á* with the verb *ntatí'vĭ* 'sweep'; and *=H* with the verb *chikàà* 'put'.

(118) *Kuanéjù ra kas**ǒ**-tí ve'e ra ntatí'v**ǎ**, chikà**ǎ** chàkuiî tǐ, kan**ó** nùnǐ tí.*

kuanéjù	ra				
rabbit	TOP				
kasì=**ó**=tí		ve'e	ra	ntatí'vǐ=**á**	
IRR.lock=**1PL.INCL**=3ZOO		house	TOP	IRR.sweep=**1PL.INCL**	
chi-kàà=**H**		chàkuiî=tí			
IRR.CMOT-stay=**1PL.INCL**		water=3ZOO			
kani=**ó**	nùnǐ=tí				
IRR.throw=**1PL.INCL**	corn=3ZOO				

'The rabbit, we would lock it in the house and we would sweep and we would put water for it and we would throw some corn for it.' [Koto_kue_kiti; HVB; 00:03]

Example (119) shows the form *=kó* in the verb *chikàsè'ê* 'hide' and the form *=á* in the verb *kùnì* 'see'.

(119) *Ná chikàsè'ê-**kǒ** ra ná kùn**ǎ** neě nchíì kúu… nchíì kúu-tu-nà.*

ná	chikàsè'ê=**kó**	ra		
DEO	IRR.hide=**1PL.INCL**	TOP		
ná	kùnì=**á**	neě	nchíì	kúu
DEO	IRR.see=**1PL.INCL**	EMPH	what	COP
nchíì	kúu=tu=nà			
what	COP=SURPR=3HUM.PL			

'Let's hide, let's see who they are.' [Iin_chaa_tsini_tsi_tachi; JS; 03:01]

Example (120) shows how the same speaker alternates between *=á* and *=ó* with the verb *ki'vi* 'enter'. In this example, Hilaria Velasco López is talking about the *ve'e sàvǐ* (or 'house of the rain'), a cave near the village of Yukúnanǐ that is traditionally associated with the deity of the rain.[88]

[88] Due to syncretism, the deity of the rain may also be associated by Catholics with Saint Mark.

(120) *Iká ná **ki'vǒ** kò'ǒn tìtsi lugâr-ka rì **ki'vă** kò'ǒn tìtsi lugâr-ka ra iká... iká ñàà yéè và'a nchuà'a yéè káchì-nà.*

iká	ná	**ki'vi=ó**	kù'ùn=ó	tìtsi	lugâr=ka
DIST	DEO	**IRR.enter=1PL.INCL**	IRR.go =1PL.INCL	inside	place=ANA

rì
because

ki'vi=á	kù'ùn=ó	tìtsi	lugâr=ka	ra
IRR.enter=1PL.INCL	IRR.go=1PL.INCL	inside	place=ANA	TOP

iká
DIST

iká ñàà
DIST DISC

yéè	và'a	nchuà'a
IPFV.exist	good	very

yéè	káchì=nà
IPFV.exist	IPFV.say=3HUM.PL

'We can go inside because, we can go in there... it is really good in there, they say.' [Kue_na_yata_viko; HVL; 13:04]

Finally, when the first person plural inclusive is the O argument, the pronoun is always *=kó*, and it can sometimes appear with the pluralizer *=kue* (§5.1.7). However, this is only used when the group of people referred to with the pronoun *=kó* is specific. Example (121) shows the enclitic *=kó* expressing the O argument of the verb *skăka* 'make someone walk'.

(121) *Ná'î tá skăkì-**kue-kó** kuàâ tìtsi ùtsì orà.*

ná'a=ì		tá	s-kăka=ì=**kue=kó**
IPFV.remember=3GNR		when	CAUS-PFV.walk=3GNR=PLZ=1PL.INCL
kuàâ	tìtsi	ùtsì	orà
approximately	for	ten	hour

'He remembers when he made us walk for like ten hours.' [Elicited; JS]

Moreover, the first person plural inclusive pronouns can be used with a generic meaning, without referring to a particular group of people. This impersonal use contrasts with that of the third person plural pronoun *=nà* (§5.1.6.10) in that the speakers include themselves

in this generic group when using the first plural inclusive pronouns. The examples below illustrate this function of the first person plural inclusive pronouns.

In example (122), Guillermo Martínez López is telling us about his experience with beekeeping, and he is giving us some general advice about handling bees.

(122) *Yée-nùǔ ra ntúnche'e-tí tatù ná mà kǔtù'va-**kó** ke'e-**kó**-tí ra ntúnche'e-tí.*

yéè-nùǔ	ra					
sometimes	TOP					
ntú-nche'e=tí			tatù	ná	mà	
IPFV.INCHO-aggressive=3ZOO			COND	DEO	NEG.MOD	
kutù'va=**kó**						
NEG.IRR.learn=**1PL.INCL**						
ke'e=**kó**=tí		ra	ntú-nche'e=tí			
IRR.touch=**1PL.INCL**=3ZOO		TOP	IPFV.INCHO-aggressive=3ZOO			

'Sometimes they become aggressive if one doesn't (*lit:* we don't) learn to handle them, they get aggressive.' [Sachuun_tsi_nunu; GML; 10:07]

In example (123), Fernando Víctor Morales Velasco is telling us about his experience working in the United States, using the first person plural inclusive in its generic sense.

(123) *Kuě ntítat**ǒ** kuě kíxì và'a-**kó** ñúu in**ǒ** nti'i kìǐ nti'i ñuû-ni.*

kuě	ntítatù=**ó**	kuě					
NEG	IPFV.rest=**1PL.INCL**	NEG					
kíxì	và'a=**kó**		ñúu-inì=**ó**		nti'i	kìǐ	nti'i
IPFV.sleep	well=**1PL.INCL**		IPFV.worry-core=**1PL.INCL**		all	day	all
ñuû=ni							
night=EMPH							

'One doesn't rest, one doesn't sleep well, one worries all day and night.' [Ntoo_na_tsika_ntavi; FVM; 10:56]

With this generic impersonal meaning, the O argument is expressed with the independent pronoun *yóó* (§4.1.2.2.1) rather than the enclitic *=kó*, as can be seen in example (124), in which *yóó* follows the enclitic pronoun for animals *=tí* (§5.1.6.5).

(124) *Kuà'ă nchuà'a chincheé-tí* ***yóó***.

kuà'ă	nchuà'a	chincheé=tí	**yóó**
many	very	IPFV.help=3ZOO	**1PL.INCL**

'They can help us a lot.' [Sachuun_tsi_nunu; GML; 06:49]

In example (125) we can see the independent pronoun *yóó* expressing the O argument of both *chincheé* 'help' and *chitúú* 'support'. Note that the A argument appears with *meé* (§4.1.2.3) in a focus construction preceding the verb. This example is from the specialized *tsà'vì* speech genre and displays some parallelism.

(125) *Cha mítu'un xìnĭ-ka meé-yà ná chincheé ná chitúú* ***yóó***.

cha	mítu'un	xìnĭ=ka	meé=yà
CONJ	only	among=there	INT=3DEITY

ná	chincheé	ná	chitúú	**yóó**
DEO	IRR.help	DEO	IRR.support	**1PL.INCL**

'And that only He may help us and support us.' [Nuu_Xnuviko_ta_tsaa_naa; NHG; 14:06]

5.1.4. Second person non-formal *-kú, -ú, -yô, -yú*

The second person non-formal in Sà'án Sàvĭ ñà ñuù Xnúvíkó is marked in four different ways: a) the enclitic *=kú*; b) the enclitic *=ú*; c) the enclitic *=yô*; and d) the enclitic *=yú*.

The enclitic *=kú* is used to modify nouns, expressing possession (see example set (126)), as well as with verbs borrowed from Spanish (see example set (127)) (§5.3.4.6). It surfaces with a Rising tone (R) *=kŭ* when the element it attaches to ends either in a Low (L) or a Falling tone (F). The /k/ in *=kú* is usually lenited to [ɣ] (§3.2.1).[89]

(126) Examples of *=kú* marking second person non-formal in nouns

ità [i^{3}.ʈa^{1}] 'flower' ➔ *ità-kŭ* [i^{3}.ʈa^{1}.ɣu^{14}] 'your flower'

[89] Lenition patterns for stops such as this one have been attested in other Mixtec languages (e.g., DiCanio et al. 2022).

vílú [βi̤^{4}.lu^{4}] ‘cat’ ➔ *vílú-kú* [βi̤^{4}.lu^{4}.ɣu^{4}] ‘your cat’

ñanì [ɲa^{3}.ni^{4}] ‘brother (of male)’ ➔ *ñanì-kŭ* [ɲa^{3}.ni^{4}.ɣu^{14}] ‘your brother (of male)’

nùŭ [nu^{1}u^{14}] ‘face’ ➔ *nùŭ-kú* [nu^{1}u^{14}.ɣu^{4}] ‘your face’

(127) Examples of *=kú* marking second person non-formal in verbs borrowed from Spanish

sá' ganâr [sa^{4}.ga^{3}.naɾ^{41}] ‘IPFV.do-win’ ➔ *sá' ganâr-kŭ* [sa^{4}.ga^{3}.naɾ^{41}.ɣu^{14}] ‘you win’

sá' strañâr [sa^{4}.stɾa^{3}.ɲaɾ^{41}] ‘IPFV.do-miss’ ➔ *sá' strañâr-kŭ* [sa^{4}.stɾa^{3}.ɲaɾ^{41}.ɣu^{14}] ‘you miss’

sá' visitâr [sa^{4}.βi̤^{3}.si^{3}.ʈaɾ^{41}] ‘IPFV.do-visit’ ➔ *sá' visitâr-kŭ* [sa^{4}.βi̤^{3}.si^{3}.ʈaɾ^{41}.ɣu^{14}] ‘you visit’

However, with native verbs the form *=ú* is used instead. This enclitic *=ú* substitutes the vowel of the last syllable of the modified element (see example set (128)). In fusing with the element it modifies, the enclitic *=ú* takes on any suprasegmental features of nasality and tone, keeping the former and interacting with the latter—surfacing as a Rising tone (R) if the modified element ends in a Low tone (L).[90]

(128) Examples of *=ú* marking second person non-formal with verbs

kúnì [ku^{4}.ni^{1}] ‘IPFV. want’ ➔ *kúnŭ* [ku^{4}.nu^{14}] ‘you want’

sá'a [sa^{4}.ʔa^{3}] ‘IPFV.do’ ➔ *sá'ú* [sa^{4}.ʔu^{4}] ‘you do’

xíko [ʃi^{4}.ko^{3}] ‘IPFV.sell’ ➔ *xíkú* ‘you sell’ [ʃi^{4}.ku^{4}]

sáchúun [sa^{4}.t͡ʃũ^{4}ũ^{3}] ‘IPFV.work’ ➔ *sáchúún* [sa^{4}.t͡ʃũ^{4}ũ^{4}] ‘you work’

kú'mí [kuʔ^{4}.mi^{4}] ‘IPFV.have’ ➔ *kú'mú* [kuʔ^{4}.mu^{4}] ‘you have’

[90] There are some verbs in which the resulting tone does not follow this generalization and it is not predictable. It remains to be determined whether these are exceptions, inflectional classes, or there is another explanation.

tíín [t̪ĩ^{4}ĩ^{4}] ‘IPFV.grab’ ➔ *tíún* [t̪ĩ^{4}ũ^{4}] ‘you grab’

ká'àn [kã^{4}.ʔã^{1}] ‘IPFV.speak’ ➔ *ká'ǔn* [kã^{4}.ʔũ^{14}] ‘you speak’

ká'án [kã^{4}.ʔã^{4}] ‘IPFV.think’ ➔ *ká'ún* [kã^{4}.ʔũ^{4}] ‘you think’

Nouns ending in Glottal + Vowel also take *=ú* instead of *=kú*, as can be seen in example set (129).

(129) Examples of *=ú* marking second person non-formal with nouns

ve'e [β̪e^{3}.ʔe^{3}] ‘house’ ➔ *ve'ú* [β̪e^{3}.ʔu^{4}] ‘your house’

sè'e [se^{1}.ʔe^{3}] ‘offspring’ ➔ *sè'ú* [se^{1}.ʔu^{4}] ‘your offspring’

tá'an [t̪ã^{4}.ʔã^{3}] ‘relative’ ➔ *tá'ún* [t̪ã^{4}.ʔũ^{4}] ‘your relative’

Verbs that end in the high back vowel with a high tone [u^{4}] take *=kú* instead of *=ú*. Consider the different realizations in the examples in (130).

(130) *tsíkanuu* [t͡si^{4}.ka^{3}nu^{3}u^{3}] ‘IPFV.wander’ ➔ *tsíkanuú* [t͡si^{4}.ka^{3}nu^{3}u^{4}] ‘you wander’

ntúkú [^{n}du^{4}.ku^{4}] ‘IPFV.look_for’ ➔ *ntúkú-kú* [^{n}du^{4}.ku^{4}.ɣu^{4}] ‘you look for’

Examples (131) and (132) show the enclitic *=ú* marking the S argument in a verb in the imperative mood (see example (131)) and the A argument in a verb in the perfective aspect (see example (132)). Note that the form in (131) is an irregular imperative form (see Table 58, p. 213).

(131) *¡Na'**ǔ**!*
na'à=**ú**
IMP.come_NONBASE=**2NFORM**
‘Come on in!’ [Koto_kue_kiti; HVB; 02:55]

(132) *¿A tsàà nè'**ǔ**?*

a	tsàà	nè'ě=**ú**
QT	IAM	PFV.get=**2FORM**

‘Did you get it already?’ [Ta_tsaa_naa_Yukunani; HVL; 00:03]

Example (133) illustrates the use of the enclitic *=ú* to mark a participant in the verbal complex, with the verb *ki'in* ‘grab’, as well as the possessor of the the noun *sa'mă* ‘body (or clothes)’. In this example, Jeremías Salazar was telling a traditional story about a lazy man who exchanged his body with a vulture but then regretted it and asked the vulture to change back their bodies.

(133) *Ntaki'**ún** sa'm**ǔ** ra ná ntaki'ìn sa'mâ.*

nta-ki'in=**ú**		sa'mă=**ú**	ra
IMP.ITER-grab=**2NFORM**		body=**2NFORM**	TOP
ná	nta-ki'in=^{L}	sa'mă=^{L}	
DEO	IRR.ITER-grab=1	body=1	

‘Grab your body back and I will grab my body.’ [Lochi_tsi_ntikuntu2; JS; 02:58]

The enclitic *=yô* is used to express the O argument in the verbal complex. When the A argument is expressed with a noun phrase, the enclitic *=yô* attaches to that noun phrase.[91] Example (134) illustrates the two syntactic positions of *=yô*. Note that this example comes from a translation into Sà'án Sàvĭ ñà ñuù Xnúvíkó (Salazar, Salazar, et al. 2021) of a document published by WHO (World Health Organization 2022).[92]

[91] This is true for all O-marking dependent pronouns.
[92] The translation process for this material is described and analized in Salazar et al. (2024).

(134) *Kuè'è coronavirus mà ntǎya'ì-**yô** ratù ná katsí tìkuaĭn **yô**.*

kuè'è	coronavirus	mà	ntǎ-ya'a=ì=**yô**
illness	coronavirus	NEG.MOD	NEG.IRR.ITER-pass=3GNR=**2NFORM**

ratù	ná	katsí	tìkuaĭn=**yô**
COND	DEO	IRR.eat	mosquito=**2NFORM**

'The coronavirus illness cannot be transmitted to you if a mosquito bites you.' [Tuun_ntaa_tsaa_coronavirus; JS; p. 8][93]

Finally, if the pluralizer *=kue* (§5.1.7) is used, then the second person non-formal clitic *=yú* is used instead, as can be seen in example (135). This is the only context in which the form *=yú* is used.

(135) *Kúnì-yù ká'àn-yù **tsi-kue-yú**.*

kúnì=yù	ká'àn=yù	tsi=kue=**yú**
IPFV.want=1	IPFV.speak=1	COM=PLZ=**2NFORM**

'I want to talk to you (pl.).' [Na_kaan_saan_mee-ko; CB; 01:36]

5.1.5. Second person formal *-ní*

The second person singular formal in Sà'án Sàvĭ ñà ñuù Xnúvíkó is expressed with the enclitic *=ní*. This enclitic is used to modify nouns, expressing possession (see example set (136)), as well as with verbs, expressing participants (see example set (137)). It surfaces with a Rising tone (R) *=nĭ* when the element it attaches to ends either in a Low (L) or a Falling tone (F).

(136) Examples of *=ní* marking second person formal in nouns

itá [i^{3}.ʈa^{1}] 'flower' ➔ *itá-nĭ* [i^{3}.ʈa^{1}.ni^{14}] 'your flower'

vílú [βi̤^{4}.lu^{4}] 'cat' ➔ *vílú-ní* [βi̤^{4}.lu^{4}.ni^{4}] 'your cat'

ñanì [ɲa^{3}.ni^{4}] 'brother (of male)' ➔ *ñanì-nĭ* [ɲa^{3}.ni^{4}.ni^{14}] 'your brother (of male)'

[93] Since this is a written resource, the example is identified by page number instead of timestamp.

nùǔ [nu^{1}u^{14}] ‘face’ ➔ *nùǔ-ní* [nu^{1}u^{14}.ni^{4}] ‘your face’

(137) Examples of *=ní* marking second person formal in verbs

kúnì [ku^{4}.ni^{1}] ‘IPFV. want’ ➔ *kúnì-nǐ* [ku^{4}.ni^{1}.ni^{14}] ‘you want’

sá'a [sa^{4}.ʔa^{3}] ‘IPFV.do’ ➔ *sá'a-ní* [sa^{4}.ʔa^{3}.ni^{1}] ‘you do’

xíko [ʃi^{4}.ko^{3}] ‘IPFV.sell’ ➔ *xíko-ní* [ʃi^{4}.ko^{3}.ni^{4}] ‘you sell’

sáchúun [sa^{4}.t͡ʃũ^{4}ũ^{3}] ‘IPFV.work’ ➔ *sáchúun-ní* [sa^{4}.t͡ʃũ^{4}ũ^{3}.ni^{4}] ‘you work’

kú'mí [kuʔ^{4}.mi^{4}] ‘IPFV.have’ ➔ *kú'mí-ní* [kuʔ^{4}.mi^{4}.ni^{4}] ‘you have’

tíín [ʈĩ^{4}ĩ^{4}] ‘IPFV.grab’ ➔ *tíín-ní* [ʈĩ^{4}ĩ^{4}.ni^{4}] ‘you grab’

ká'àn [kã^{4}.ʔã^{1}] ‘IPFV.speak’ ➔ *ká'àn-nǐ* [kã^{4}.ʔã^{1}.ni^{14}] ‘you speak’

ká'án [kã^{4}.ʔã^{4}] ‘IPFV.think’ ➔ *ká'án-ní* [kã^{4}.ʔã^{4}.ni^{4}] ‘you think’

Examples (138) and (139) show the enclitic *=ní* marking the A of the verb *nchàa* ‘play’ and the verb *kúnì* ‘want’.

(138) *¿Nixi naní táná yaà luu nchàa-**ní** yó'o ra nixi naní-à?*

nixi	naní	táná			
how	IPFV.be_called	like			
yaà=lu	nchàa=**ní**		yó'o	ra	
music=DIM	PFV.play=**2FORM**		PROX	TOP	
nixi	naní=à				
how	IPFV.be_called=3GNR				

‘What’s the name of the music you played here, what’s it called?’ [Kaja; JS; 06:17]

(139) *¿A kúnì kuà'ă xèě-kà-**nǐ**?*

a	kúnì	kuà'ă	xèě=kà=**ní**
QT	IPFV.want	many	much=more=**2FORM**

‘Do you want much more?’ [Koto_kue_kiti; HVB; 04:16]

Example (140) shows the enclitic *=ní* marking a participant with the verb *ka'àn* ‘speak’ and the possessor of the noun *sivǐ* ‘name’.

(140) *Ka'àn-**nǐ** sivǐ-**ní**.*
ka'àn=**ní** sivǐ=**ní**
IMP.speak=**2FORM** name=**2FORM**

'Say your name' [Consent_HVB; CS; 00:19]

In example (141), we can see both enclitics *=ní* and *=ú*. In this example, Nasario Hernández Gómez is talking to Jeremías Salazar, who is much younger, and he uses *=ú* to address Jeremías. However, he is repeating something Jeremías said to him, for which he uses the formal pronoun *=ní*.

(141) *Ntasiá'a-**ní** káchǔ.*
nta-s-yá'a=**ní** káchì=**ú**
IMP.ITER-CAUS-pass=**2FORM** IPFV.say=**2NFORM**

'Share it, you say.' [Ia_noo; NHG; 06:13]

Example (142) shows the enclitic *=ní* preceded by the pluralizer *=kue* (§5.1.7).

(142) *Tá yúchă-kue-**ní**.*
tá yúchă=kue=**ní**
when young=PLZ=**2FORM**

'When you (pl.) were young.' [Kue_nivi_yata; JS; 05:59]

Finally, example (143) shows the enclitic *=ní* marking the object of the verb *ntàkàtù'un* 'ask'.

(143) *Óò kú ntàkàtù'ĭn-**ní** á yéè deakuérdù-**nǐ** sá'a-**ní**.*
óò kúntàkàtù'un=í=**ní**
INTERJ PROSP.ask=3F=**2FORM**

á yéè deakuérdù=**ní** sá'a=**ní**
or IPFV.exist in_agreement=**2FORM** IRR.do=**2FORM**

'Oh, she will ask you if you agree to do it.' [Kue_na_yata_viko; CS; 00:32]

5.1.6. Third person

There are 10 different third person pronouns in Sà'án Sàvĭ ñà ñuù Xnúvíkó, as shown in Table 30. Note that the forms of these pronouns are similar to the classifiers presented in Table 17 (p. 94) (§4.1.1.1). The choice of pronoun depends on the referent, the level of formality and politeness that the speaker expresses towards the referent and the addressee, and the need to clarify reference. These forms can be combined with the pluralizer *=kue* (§5.1.7), but plural is often not used when a referent's plurality is already established by context or via discourse. The pronoun *=nà* is the only pronoun that cannot be used to express a singular referent, as it always refers to a group of humans.

Table 30. Summary of third person pronouns in Sà'án Sàvĭ ñà ñuù Xnúvíkó

Pronoun	Gloss	Use
=ì / =à / =ñà	3GNR	It can refer to any object or person except Speech Act Participants. Its use is very general and frequent, although it should be avoided with human referents if one wants to be polite.
=rà	3M	It can be used to refer to male humans, generally older than the speaker or to show respect.
=í / =á / =ñá	3F	It can be used to refer to female humans, generally older than the speaker or to show respect.
=tsi	3CHILD	It can be used to refer to children.
=tí	3ZOO	It can be used to refer to animals.
=tí	3ROUND	It can be used to refer to round objects, especially fruit.
=rá	3LIQ	It can be used to refer to liquids.

=tú	3TRUNK	It can be used to refer to trunk-like objects, especially for trees. It is also used to refer to vehicles.
=yà	3DEITY	It can be used to refer to God, deities, and Saints.[94]
=nà	3HUM.PL	It can be used to refer to a group of people, often older than the speaker, or to show respect. It can also be used in an impersonal manner, referring to people in generic terms.

5.1.6.1. Third person generic *-ì, -à, -ñà*

The third person generic pronoun in Sà'án Sàvĭ ñà ñuù Xnúvíkó can take three different forms: a) the enclitic *=ì*; b) the enclitic *=à*; and c) the enclitic *=ñà*.

The enclitic *=ñà* can be used to modify any element that does not end in the high front vowel /i/, although it is more common with nouns and adjectives (see example set (144)), as well as marking the O argument in a verbal phrase (see example (153), p. 152).

(144) Examples of *=ñà* marking third person generic in nouns

xitò [ʃi^{3}.ʈo^{1}] 'uncle' ➔ *xitò-ñà* [ʃi^{3}.ʈo^{1}.ɲa^{1}] 'his/her/their uncle'

vílú [βi^{4}.lu^{4}] 'cat' ➔ *vílú-ñà* [βi^{4}.lu^{4}.ɲa^{1}] 'his/her/their cat'

tĭnà [ʈi^{13}.na^{1}] 'dog' ➔ *tĭnà-ñà* [ʈi^{13}.na^{1}.ɲa^{1}] 'his/her/their dog'

kuítâ [k^{w}i^{4}.ʈa^{41}] 'tired' ➔ *kuítâ-ñà* [k^{w}i^{4}.ʈa^{41}.ɲa^{1}] 'he/she/it is tired / they are tired'

When the modified element ends in the high front vowel /i/, the form *=à* is used instead. The resulting form is often produced in fast speech as a sequence of the glide /j/ plus the enclitic *=à*, which interacts with the tone of the last mora of the modified element (see example sets

[94] Note that the use of *=yà* with Saints is typical of Catholics. Protestants only use *=yà* for God.

(145) and (146)). In addition, the verb *káchì* 'IPFV.say' presents the form *káchâ* 'he/she/it says / they say'.

(145) Examples of =*à* marking third person generic in nouns

xixì [ʃi^{3}.ʃi^{1}] 'aunt' ➔ *xixì-à* [ʃi^{3}.ʃja^{1}] 'his/her/their aunt'

sàtsì [sa^{1}.t͡si^{1}] 'nephew / niece' ➔ *sàtsì-à* [sa^{1}.t͡sja^{1}] 'his/her/their nephew / niece'

xìnǐ [ʃi^{1}.ni^{14}] 'head' ➔ *xìnǐ-à* [ʃi^{1}.nja^{41}] 'his/her/their head'

(146) Examples of =*à* marking third person generic in verbs

kúnì [ku^{4}.ni^{1}] 'IPFV.want' ➔ *kúnì-à* [ku^{4}.nja^{1}] 'he/she/it wants / they want'

kú'mí [kuʔ^{4}.mi^{4}] 'IPFV.have' ➔ *kú'mí-à* [kuʔ^{4}.mja^{41}] 'he/she/it has / they have'

tsíchi [t͡si^{4}.t͡ʃi^{3}] 'IPFV.bathe' ➔ *tsíchi-à* [t͡si^{4}.t͡ʃja^{1}] 'he/she/it bathes / they bathe'

káchì [ka^{4}.t͡ʃi^{1}] 'IPFV.say' ➔ *káchâ* [ka^{4}.t͡ʃa^{41}] 'he/she/it says / they say'

However, when the modified element ends in a nasalized high front vowel [ĩ] or with the sequence glottal stop plus high front vowel /i/, the enclitic =*à* replaces the vowel of the last syllable of the modified element and takes on the suprasegmental features of nasality and tone, keeping the former and overwriting the latter (see example set (147)).

(147) Examples of =*à* marking third person generic in verbs and fusing with the modified element

tíín [ʈ̃i^{4}˜i^{4}] 'IPFV.grab' ➔ *tíàn* [ʈ̃i^{4}ã^{1}] 'he/she/it grabs / they grab'

tsí'i [t͡si^{4}.ʔi^{3}] 'IPFV.drink' ➔ *tsí'à* [t͡si^{4}.ʔa^{1}] 'he/she/it drinks / they drink'

Even though the form =*ñà* is possible when the modified element does not end in the high front vowel /i/, the form =*ì* is preferred when expressing the S or A argument in a verbal complex. This enclitic replaces the vowel of the last syllable of the modified element, although

in some villages final /u/ in monomoraic syllables is replaced with /w/ instead.[95] In bimoraic syllables it replaces the last mora of all vowels except for the mid back vowel /e/, for which both morae get replaced. The enclitic *=ì* may be realized as a Falling tone (F) if the element it attaches to ends in a High tone (H) or a Rising tone (R), or if it ends in a Mid tone (M) or a Low-mid tone (m) preceded by a Low tone (L), or if the preceding syllable bears a Rising tone (R). In addition, in verbs ending with the syllable /ko/ the plosive maintains lip rounding and it is realized as [k^w]. Example set (148) illustrates the realization of the enclitic *=ì*.

(148) Examples of *=ì* marking third person generic in verbs

ká'àn [kã^4.ʔã^1] 'IPFV.speak' ➔ *ká'ìn* [kã^4.ʔĩ^1] 'he/she/it speaks / they speak'

ká'án [kã^4.ʔã^4] 'IPFV.think' ➔ *ká'în* [kã^4.ʔĩ^{41}] 'he/she/it thinks / they think'

ntúkú [^{n}du^4.ku^4] 'IPFV.look_for' ➔ *ntúkî* [^{n}du^4.ki^{41}] / *ntúkuî* [^{n}du^4.k^{w}i^{41}] 'he/she/it looks for / they look for'

tsá'nu [t͡saʔ^4.nu^3] 'IPFV.grow_up' ➔ *tsá'nì* [t͡saʔ^4.ni^1] / *tsá'nuì* [t͡saʔ^4.nwi^1] 'he/she/it grows up'

sáchúun [sa^4.t͡ʃũ^{4}ũ^3] 'IPFV.work' ➔ *sáchúìn* [sa^4.t͡ʃũ^{4}ĩ^1] 'he/she/it works / they work'

xíko [ʃi^4.ko^3] 'IPFV.sell' ➔ *xíkuì* [ʃi^4.k^{w}i^1] 'he/she/it sells /they sell'

chíkàsè'ê [t͡ʃi^4.ka^1.se^1.ʔe^{41}] 'IPFV.hide' ➔ *chíkàsì'î* [t͡ʃi^4.ka^1.si^1.ʔi^{41}] 'he/she/it hides / they hide'

chincheé [t͡ʃĩ^3.^{n}d͡ʒe^{3}e^4] 'IPFV.help' ➔ *chinchiî* [t͡ʃĩ^3.^{n}d͡ʒi^{3}i^{41}] 'he/she/it helps / they help'

[95] As attested so far, the enclitic *=ì* replaces word-final /u/ completely in the villages of Yukúnanĭ (Yucunani) and Tsìkĭ Ntákŭ (Independencia), but not in Ñuù Xnúvíkó (San Juan Mixtepec). It is also not clear if this applies to all syllables ending in /u/, as it has only ben observed in verbs ending in /ku/ and /nu/.

Finally, the form *=ì* can also be used with nouns ending in Glottal + Vowel as well as with a handful of very common nouns (see example set (149)).

(149) Examples of *=ì* marking third person generic in nouns

ve'e [βe^{3}.ʔe^{3}] 'house' ➔ *vi'ì* [βi^{3}.ʔi^{1}] 'his/her/its/their house'

ñu'ú [ɲu^{3}.ʔu^{4}] 'land' ➔ *ñu'î* [ɲu^{3}.ʔi^{41}] 'his/her/its/their land'

tù'un [ʈũ^{1}.ʔũ^{3}] 'word' ➔ *tù'în* [ʈũ^{1}.ʔĩ^{41}] 'his/her/its/their word'

sò'o [so^{1}.ʔo^{3}] 'ear' ➔ *sò'î* [so^{1}.ʔi^{41}] 'his/her/its/their ear'

nùǔ [nu^{1}u^{14}] 'face' ➔ *nùî* [nu^{1}i^{41}] 'his/heir/its/their face'

Examples (150), (151), (152), (153) and (154) illustrate the use of the third person generic pronoun in speech. Example (150) shows the use of *=ì* marking the S argument of the verb *ntǒ'ò* 'happen' and modifying the predicative adjective *luu* 'small'.

(150) *Ntàkani ñanì-yù nixi ntǒ'**ì** tá lu**ì**.*

ntàkani	ñanì=yù	nixi	ntǒ'ò=**ì**
PFV.tell	brother_of_male=1	how	PFV.happen=**3GNR**

tá	luu=**ì**
when	small=**3GNR**

'My brother told what happened to him when he was small.' [Ntsatsi_ntivau_chuun; JS; 00:37]

Example (151) shows the use of *=ì* in combination with the pluralizer *=kue* (§5.1.7) as well as with the relational noun *nùǔ* (§4.5).

(151) *Ntàntà'ă-kue-**ì** ra nìkìtsàà su kuáchi nùî.*

ntàntà'ă=kue=**ì**	ra	nìkìtsàà	su	kuáchi	nùǔ=**ì**
PFV.get_married=PLZ=**3GNR**	TOP	PFV.arrive	CL.CHILD	little	OBL=**3GNR**

'They got married and they had children (*lit*: children arrived to them).'
[Na_kaan_saan_mee-ko; CB; 01:45]

Example (152) illustrates the use of the allomorph *=à* marking both S and O arguments in the verbal complex, as it attaches to forms that end in the high front vowel /i/.

(152) *Kuě và'a xèě-ni tsátsí-**à** ñà xina ñú'u ntsàtsî-**à**.*

kuě	và'a	xèě=ni	tsátsí=**à**
NEG	good	much=EMPH	IPFV.eat=**3GNR**

ñà	xina_ñú'u	ntsàtsí=^{L}=**à**
CL.GNR	first_time	PFV.eat=1=**3GNR**

'It wasn't very good the first time I ate it.' [Nikitsaa-yu_EEUU; JS; 02:22]

Example (153) shows the use of the allomorph *=ñà* marking the O argument of the verb *ká'àn* 'speak'.

(153) *Kŏo ñŏ'o nítsìka'àn-yù tiàn vichi ra ká'àn-yù-**ñà** yó'o.*

kŏo	ñà-yó'o	ní	tsì	ka'àn=yù	tiàn	vichi	ra
NEG.exist	CL.GNR-PROX	CTF	HAB	speak=1	but	now	TOP

ká'àn=yù=**ñà**	yó'o
IPFV.speak=1=**3GNR**	PROX

'I didn't speak it (Mixtec) normally but now I speak it here.' [Ntanchiko_Yukunani; A; 08:53]

Finally, example (154) shows both *=ì* and *=à* marking the third person generic.

(154) *Kuáchi ìĭ-kue-**ì** ñàà ntsĭnì-**à** nixi săvà'**î** ñàà chùŭn-ka.*

kuáchi	ìĭ=kue=**ì**	ñàà
little	still=PLZ=**3GNR**	DISC

ntsĭnì=**à**	nixi	să-và'a=**ì**	ñàà
NEG.PFV.know=**3GNR**	how	PFV.CAUS-good=**3GNR**	DISC

chùŭn=ka
hen=ANA

'They were still young, they didn't know how to prepare the hen.'
[Ntsatsi_ntivau_chuun; JS; 01:49]

5.1.6.2. Third person male human *-rà*

The third person pronoun for male humans *=rà* can be used to refer to men, generally older than the speaker or to express respect towards them. This pronoun is always realized as *=rà*. Example set (155) shows the form *=rà* with nouns, and example set (156) shows the form *=rà* with verbs.

(155) Examples of *=rà* expressing a third person male human referent in nouns

ità [i^{3}.ʈa^{1}] ‘flower’ ➔ *ità-rà* [i^{3}.ʈa^{1}.ɾa^{1}] ‘his flower’

vílú [βi̤^{4}.lu^{4}] ‘cat’ ➔ *vílú-rà* [βi̤^{4}.lu^{4}.ɾa^{1}] ‘his cat’

ñanì [ɲa^{3}.ni^{4}] ‘brother (of male)’ ➔ *ñanì-rà* [ɲa^{3}.ni^{4}.ɾa^{1}] ‘his brother (of male)’

nùǔ [nu^{1}u^{14}] ‘face’ ➔ *nùǔ-rà* [nu^{1}u^{14}.ɾa^{1}] ‘his face’

(156) Examples of *=rà* expressing a third person male human referent in verbs

kúnì [ku^{4}.ni^{1}] ‘IPFV. want’ ➔ *kúnì-rà* [ku^{4}.ni^{1}.ɾa^{1}] ‘he wants’

sá'a [sa^{4}.ʔa^{3}] ‘IPFV.do’ ➔ *sá'a-rà* [sa^{4}.ʔa^{3}.ɾa^{1}] ‘he does’

xíko [ʃi^{4}.ko^{3}] ‘IPFV.sell’ ➔ *xíko-rà* [ʃi^{4}.ko^{3}.ɾa^{1}] ‘he sells’

sáchúun [sa^{4}.t͡ʃũ^{4}ũ^{3}] ‘IPFV.work’ ➔ *sáchúun-rà* [sa^{4}.t͡ʃũ^{4}ũ^{3}.ɾa^{1}] ‘he works’

kú'mí [kuʔ^{4}.mi^{4}] ‘IPFV.have’ ➔ *kú'mí-rà* [kuʔ^{4}.mi^{4}.ɾa^{1}] ‘he has’

tíín [ʈĩ^{4}ĩ^{4}] ‘IPFV.grab’ ➔ *tíín-rà* [ʈĩ^{4}ĩ^{4}.ɾa^{1}] ‘he grabs’

ká'àn [kã^{4}.ʔã^{1}] ‘IPFV.speak’ ➔ *ká'àn-rà* [kã^{4}.ʔã^{1}.ɾa^{1}] ‘he speaks’

ká'án [kã^{4}.ʔã^{4}] ‘IPFV.think’ ➔ *ká'án-rà* [kã^{4}.ʔã^{4}.ɾa^{1}] ‘he thinks’

Example (157) illustrates the use of the enclitic *=rà* to express participants, expressing the A argument with the verbs *tsînì* 'know' and *ká'àn* 'speak'.

(157) *Tsînì-**rà** nixi ká'àn-**rà**.*
tsînì=**rà** nixi ká'àn=**rà**
IPFV.know=**3M** how IPFV.speak=**3M**
'He knows how to speak.' [Tsachuun-na_tsavi; JS; 00:37]

Example (158) shows the form *=rà* expressing the S argument of the verb *ntàkuntú'ú* 're-settle'.

(158) *Kuà'â yó'o ñàà kú ntàkuntú'ú-**rà** jara iká.*
kuà'a=L yó'o ñàà
sibling=1 PROX DISC
kúntà-ku-ntú'ú=**rà** jara iká
PROSP.ITER-STA-sit_down=**3M** then DIST
'My brother was going to re-settle down there then.' [Ntanchiko_Yukunani; A; 11:08]

Example (159) illustrates the use of the enclitic *=rà* both with the verb *ntàkìtá'an* 'meet again' and with the noun *ñanì* 'brother (or friend) of a male', expressing possession with the latter.

(159) *Ntàkìtá'an-**rà** tsi ñanì-**rà**.*
ntà-kìtá'an=**rà** tsi ñanì=**rà**
PFV.ITER-meet=**3M** COM friend=**3M**
'He met up with his friends again.' [Iin_chaa_tsini_tsi_tachi; JS; 00:54]

Examples (160) and (161) show the use of the enclitic *=rà* to express the O argument with verbs.

(160) *Ntsǐnì-tà-yù-**rà**.*
ntsǐnì=tà=yù=rà
NEG.PFV.know=EMPH=1=**3M**
'I *don't* know him.' [Nuu_Xnuviko_ta_tsaa_naa; JS; 20:23]

(161) *Ntúkú-nà-**rà**.*
ntúkú=nà=rà
IPFV.look_for=3HUM.PL=**3M**

'They look for him.' [Tsachuun-na_tsavi; JS; 02:03]

Finally, examples (162) and (163) show the use of the enclitic *=rà* combined with the pluralized *=kue* (§5.1.7).

(162) *Cháa níi ñuû soo-**kue-rà** yaà.*

cháa	níi	ñuû	soo=**kue=rà**	yaà
IPFV.play	entire	night	EMPH=**PLZ=3M**	music

'They play music all night long.' [Ntavi_ntixi; FVM; 08:34]

(163) *Kuà'ă̌ xèě̌ tsio nìkìtsi-**kue-rà**.*

kuà'ă̌	xèě̌	tsio	nìkìtsi=**kue=rà**
many	much	side	PFV.come=**PLZ=3M**

'They came from many places.' [Nuu_Xnuviko_ta_tsaa_naa; NHG; 19:10]

5.1.6.3. Third person female human *-í, -á, -ñá*

The third person pronoun for female humans in Sà'án Sàvĭ ñà ñuù Xnúvíkó can take three different forms: a) the enclitic *=í*; b) the enclitic *=á*; and c) the enclitic *=ñá*. These allomorphs are segmentally identical to (but tonally different from) those of the third person generic (§5.1.6.1) and they pattern in similar ways.

The enclitic *=ñá* can be used to modify any element that does not end in the high front vowel /i/, although it is more common with nouns and adjectives (see example set (164)), as well as marking the O argument in a verbal phrase. The enclitic *=ñá* is realized with a Rising tone (R) when the element it attaches to ends in either a Low (L) or a Falling tone (F).

(164) Examples of *=ñá* marking third person female human in nouns

xitò [ʃi^{3}.ʈo^{1}] ‘uncle’ ➔ *xitò-ñă* [ʃi^{3}.ʈo^{1}.ɲa^{14}] ‘her uncle’

vílú [βi^{4}.lu^{4}] ‘cat’ ➔ *vílú-ñá* [βi^{4}.lu^{4}.ɲa^{4}] ‘her cat’

tĭnà [ʈi^{13}.na^{1}] ‘dog’ ➔ *tĭnà-ñă* [ʈi^{13}.na^{1}.ɲa^{14}] ‘her dog’

nùŭ [nu^{1}u^{14}] ‘face’ ➔ *nùŭ-ñá* ‘[nu^{1}u^{14}.ɲa^{4}] ‘her face’

ñu'ú [ɲu^{3}.ʔu^{4}] ‘land’ ➔ *ñu'ú-ñá* [ɲu^{3}.ʔu^{4}.ɲa^{4}] ‘his/her/its/their land’

kuítâ [k^{w}i^{4}.ʈa^{41}] ‘tired’ ➔ *kuítâ-ñă* [k^{w}i^{4}.ʈa^{41}.ɲa^{14}] ‘she is tired’

When the modified element ends in the high front vowel /i/, the form *=á* is used instead. The resulting form is often produced in fast speech as a sequence of the glide /j/ plus the enclitic *=á*, which interacts with the tone of the last mora of the modified element (see example sets (165) and (166)). In addition, the verb *káchì* ‘IPFV.say’ presents the form *káchă* ‘she says’.

(165) Examples of *=á* marking third person female human in nouns

xixì [ʃi^{3}.ʃi^{1}] ‘aunt’ ➔ *xixì-á* [ʃi^{3}.ʃja^{14}] ‘his/her/their aunt’

sàtsì [sa^{1}.t͡si^{1}] ‘nephew / niece’ ➔ *sàtsì-á* [sa^{1}.t͡sja^{14}] ‘her nephew / niece’

xìnĭ [ʃi^{1}.ni^{14}] ‘head’ ➔ *xìnĭ-á* [ʃi^{1}.nja^{14}] ‘her head’

(166) Examples of *=á* marking third person female human in verbs

kúnì [ku^{4}.ni^{1}] ‘IPFV.want’ ➔ *kúnì-á* [ku^{4}.nja^{14}] ‘she wants’

kú'mí [kuʔ^{4}.mi^{4}] ‘IPFV.have’ ➔ *kú'mí-á* [kuʔ^{4}.mja^{4}] ‘she has’

tsíchi [t͡si^{4}.t͡ʃi^{3}] ‘IPFV.bathe’ ➔ *tsíchi-á* [t͡si^{4}.t͡ʃja^{14}] ‘she bathes’

káchì [ka^{4}.t͡ʃi^{1}] ‘IPFV.say’ ➔ *káchă* [ka^{4}.t͡ʃa^{14}] ‘she says’

However, when the modified element ends in a nasalized high front vowel [ĩ] or with the sequence glottal stop plus high front vowel /i/, the enclitic *=á* replaces the vowel of the last

syllable of the modified element and takes on the suprasegmental features of nasality and tone, keeping the former and overwriting the latter (see example set (167)).

(167) Examples of *=á* marking third person female human in verbs and fusing with the modified element

tíín [ʈ̪ĩ˜⁴ĩ˜⁴] 'IPFV.grab' ➔ *tíán* [ʈ̪ĩ˜⁴ã˜⁴] 'she grabs'

tsí'i [t͡si⁴.ʔi³] 'IPFV.drink' ➔ *tsí'á* [t͡si⁴.ʔa⁴] 'she drinks'

Even though the form *=ñá* is possible when the modified element does not end in the high front vowel /i/, the form *=í* is preferred when expressing the S or A argument in the verbal complex. This enclitic replaces the vowel of the last syllable of the modified element, although in some villages final /u/ in monomoraic syllables is replaced with /w/ instead.[96] In bimoraic syllables it replaces the last mora of all vowels except for the mid back vowel /e/, for which both morae get replaced. The enclitic *=í* may be realized as a Rising tone (F) if the element it attaches to ends in a Low (L) or a Falling tone (F). In addition, in verbs ending with the syllable /ko/ the plosive maintains lip rounding and it is realized as [kʷ]. Example set (168) illustrates the realization of the enclitic *=í*.

(168) Examples of *=í* marking third person female human in verbs

ká'àn [kã⁴.ʔã¹] 'IPFV.speak' ➔ *ká'ĩn* [kã⁴.ʔĩ¹⁴] 'she speaks'

ká'án [kã⁴.ʔã⁴] 'IPFV.think' ➔ *ká'ín* [kã⁴.ʔĩ⁴] 'she thinks'

ntúkú [ⁿdu⁴.ku⁴] 'IPFV.look_for' ➔ *ntúkí* [ⁿdu⁴.ki⁴] / *ntúkuí* [ⁿdu⁴.kʷi⁴] 'she looks for'

[96] As is the case for the third person generic enclitic *=ì*, the enclitic *=í* replaces word-final /u/ completely in the villages of Yukúnanĭ (Yucunani) and Tsìkĭ Ntákŭ (Independencia), but not in Ñuù Xnúvíkó (San Juan Mixtepec). It is also not clear if this applies to all syllables ending in /u/, as it has only ben observed in verbs ending in /ku/ and /nu/.

tsá'nu [t͡saʔ^{4}.nu^{3}] ‘IPFV.grow_up’ ➔ *tsá'ní* [t͡saʔ^{4}.ni^{4}] / *tsá'nuí* [t͡saʔ^{4}.nwi^{4}] ‘she grows up’

sáchúun [sa^{4}.t͡ʃũ^{4}ũ^{3}] ‘IPFV.work’ ➔ *sáchúín* [sa^{4}.t͡ʃũ^{4}ĩ^{4}] ‘she works’

xíko [ʃi^{4}.ko^{3}] ‘IPFV.sell’ ➔ *xíkuí* [ʃi^{4}.k^{w}i^{4}] ‘she sells’

chíkàsè'ê [t͡ʃi^{4}.ka^{1}.se^{1}.ʔe^{41}] ‘IPFV.hide’ ➔ *chíkàsì'ĭ* [t͡ʃi^{4}.ka^{1}.si^{1}.ʔi^{14}] ‘she hides’

chincheé [t͡ʃi^{3}.^{n}d͡ʒe^{3}e^{4}] ‘IPFV.help’ ➔ *chinchií* [t͡ʃi^{3}.^{n}d͡ʒi^{3}i^{4}] ‘she helps’

Finally, the form *=í* to mark possession in nouns has only been attested in the noun *ve'e* [βe̤^{3}.ʔe^{3}] ‘house’, for which both forms *ve'e-ñá* [βe̤^{3}.ʔe^{3}.ɲa^{4}] and *vi'í* [βi̤^{3}.ʔi^{4}] ‘her house’ are possible.

Example (169) illustrate the use of the enclitic *=í* to express the S argument of the verb *ntànchikó* ‘come back’.

(169) *Má-yù ra ntànchiku**í**.*
máá=yù ra
mom=1 TOP
ntànchikó=**í**
PFV.come_back=**3F**

‘My mom had come back.’ [Nikitsaa-yu_EEUU; JS; 00:54]

Examples (170) and (171) illustrate the use of the enclitic *=í* to express the A argument of the verb *nchìncheé* ‘help’ (see example (170)) and the verbs *kutoò* ‘like’ and *kú nchăka* ‘take care’ (see example (171)).

(170) *Nchìnchií-kue-ì nixi să'a-kue-ì ñàà távî chùŭn-ka.*
nchìncheé=**í**=kue=ì
PFV.help=**3F**=PLZ=3GNR

nixi să'a=kue=ì ñàà
how PFV.do=PLZ=3GNR DISC

távă=ì chùŭn
IPFV.take_out=3GNR hen=ANA

'She helped them in how they got the hen out.' [Ntsatsi_ntivau_chuun; JS; 02:41]

(171) *Tatù kuto**ǐ**-à kú nchăk**í**-tí.*
tatù kutoò=**í**=à
COND IRR.like=**3F**=3GNR

kúnchăka=**í**=tí
PROSP.take_care=**3F**=3ZOO

'If she likes it, she will take care of them (the animals).' [Koto_kue_kiti; HVB; 09:04]

Example (172) shows both the enclitic *=á* (in the verbs *tsikuììn* 'stop' and *káchì* 'say') and the enclitic *=í* (attached to the adverbial *=kà* 'more') expressing participants in the verbal complex.

(172) *Tatù kuě kúnì-kà-nǐ ká'àn-nǐ jara ka'àn-nǐ tavà ná tsikuì**ă**n mà să' grabâr-k**ǐ** kách**ă**.*
tatù kuě kúnì=kà=ní ká'àn=ní jara
COND NEG IPFV.want=more=2FORM IPFV.speak=2FORM then

ka'àn=ní tavà ná tsikuìın=**á**
IMP.speak=2FORM so_that DEO IRR.stop=**3F**

mà să'-grabâr=kà=**í** káchì=**á**
NEG.MOD NEG.IRR.do-record=more=**3F** IPFV.say=**3F**

'If you don't want to speak any more then say it so that she stops, she won't record anymore she says.' [Kue_na_yata_viko; CS; 03:24]

Finally, example (173) shows the enclitic *=í* expressing the S argument of the verb *yéè* 'exist/live' as well as the enclitic *=ñá* expressing possession with the noun *niétò* 'grandson'.

(173) *Yíǐ tsi iin... iin ñàà niétò-**ñǎ**.*

yéè=**í**	tsi	iin	
IPFV.exist=**3F**	COM	one	
iin	ñàà		
one	DISC		
niétò=**ñá**			
grandson=**3F**			

'She is living with a... a... one of her grandsons.' [Ntoo_na_tsika_ntavi; FVM; 07:33]

5.1.6.4. Third person human children *-tsi*

The third person pronoun for children *=tsi* can be used to refer to children or people significantly younger than the speaker.[97] This pronoun is always realized as *=tsi* for most speakers, although the form *=si* has been attested in a speaker from the village of Kava Yáxí (San Juan Cahuayaxi), which is also known locally as Sà Juáâ. [98]

Example set (174) shows the form *=tsi* with nouns, and example set (175) shows the form *=tsi* with verbs.

(174) Examples of *=tsi* expressing a third person child referent in nouns

itá [i^{3}.ʈa^{1}] 'flower' ➔ *itá-tsi* [i^{3}.ʈa^{1}.t͡si^{3}] 'the child's flower'

vílú [βi̤^{4}.lu^{4}] 'cat' ➔ *vílú-tsi* [βi̤^{4}.lu^{4}.t͡si^{3}] 'the child's cat'

ñanì [ɲa^{3}.ni^{4}] 'brother (of male)' ➔ *ñanì-tsi* [ɲa^{3}.ni^{4}.t͡si^{3}] 'the child's brother (of male)'

nùǔ [nu^{1}u^{14}] 'face' ➔ *nùǔ-tsi* [nu^{1}u^{14}.t͡si^{3}] 'the child's face'

[97] Elders, particularly, may use this pronoun to refer to people even in their 40s or 50s.

[98] The variety spoken in the village of Kava Yáxí (San Juan Cahuayaxi) differs from other varieties in the municipality of San Juan Mixtepec in several ways, one of which is the semantics of the third person pronouns (for example, the third person generic is only used for inanimate objects in the village of Kava Yáxí). Therefore, the description in this grammar does not apply to the variety of Kava Yáxí.

(175) Examples of *=tsi* expressing a third person child referent in verbs

kúnì [ku^{4}.ni^{1}] ‘IPFV. want’ ➔ *kúnì-tsi* [ku^{4}.ni^{1}.t͡si^{3}] ‘the child wants’

sá'a [sa^{4}.ʔa^{3}] ‘IPFV.do’ ➔ *sá'a-tsi* [sa^{4}.ʔa^{3}.t͡si^{3}] ‘the child does’

xíko [ʃi^{4}.ko^{3}] ‘IPFV.sell’ ➔ *xíko-tsi* [ʃi^{4}.ko^{3}.t͡si^{3}] ‘the child sells’

sáchúun [sa^{4}.t͡ʃũ^{4}ũ^{3}] ‘IPFV.work’ ➔ *sáchúun-tsi* [sa^{4}.t͡ʃũ^{4}ũ^{3}.t͡si^{3}] ‘the child works’

kú'mí [kuʔ^{4}.mi^{4}] ‘IPFV.have’ ➔ *kú'mí-tsi* [kuʔ^{4}.mi^{4}.t͡si^{3}] ‘the child has’

tíín [t̪ĩ^{4}ĩ^{4}] ‘IPFV.grab’ ➔ *tíín-tsi* [t̪ĩ^{4}ĩ^{4}.t͡si^{3}] ‘the child grabs’

ká'àn [kã^{4}.ʔã^{1}] ‘IPFV.speak’ ➔ *ká'àn-tsi* [kã^{4}.ʔã^{1}.t͡si^{3}] ‘the child speaks’

ká'án [kã^{4}.ʔã^{4}] ‘IPFV.think’ ➔ *ká'án-tsi* [kã^{4}.ʔã^{4}.t͡si^{3}] ‘the child thinks’

Examples (176) and (177) illustrate the use of the enclitic *=tsi* to express participants in the verbal phrase.

(176) *Kuě sá'a-kà-**tsi** chuun ntá'vì.*

kuě	sá'a=kà=**tsi**	chuun	ntá'vì
NEG	IPFV.do=more=**3CHILD**	work	humble

‘They do not do traditional work anymore.’ [Kue_nivi_yata; NHG; 09:04]

(177) *Iin su sí'ì kúu ùvì tá'an tsi iin su sií koo-**tsi**, ntakitá'an-**tsi**, kuà'àn-**tsi** kakanuu-**tsi** nùǔ ñu'ú nchà'ì sǎvà'a Pádrè Etérnù Santísìmà Trinidâ luu*

iin	su	sí'ì			
one	CL.CHILD	young_woman			
kúu	ùvì	tá'an	tsi	su	sií
COP	two	RECIP	COM	CL.CHILD	young_boy

koo=**tsi**
IRR.exist=**3CHILD**

ntakitá'an=**tsi**
IRR.live_togther=**3CHILD**

kuà'àn=**tsi** kakanuu=**tsi**
IPFV.go=**3CHILD** IRR.wander=**3CHILD**

nùǔ	ñu'ú	nchà'ì
OBL	dirt	mud

sǎ-và'a		Pádrè	Etérnù
PFV.CAUS-good		Father	Eternal
Santísìmà	Trinidâ=lu		
Holiest	Trinity=DIM		

'A young woman unites with a young man, may they live, may they live together, may they go wandering on the Earth that the Eternal Father and the Holy Trinity created.' [Nuu_Xnuviko_ta_tsaa_naa; NHG; 06:04][99]

Example (178) illustrates the use of the enclitic *=tsi* with nouns and with verbs, expressing possessors, and both A and S arguments. Note how the referents for this pronoun are not children, since they are getting married, but they are significantly younger than the speaker.

[99] This example comes from an instance of the specialized speech genre locally known as *tsà'vì*.

(178) *Cha importántè xèě kúu ñà ká'ìn tsi sè'e lìì Sà'án Sàvĭ takuà ná kúu tá ntanchikó-**tsi** kuànŭ'ú-**tsi** sá' visitâr-**tsi** abuelítà-**tsi**, abuelítù-**tsi**, xitò-tsi, xixì-tsi.*

cha	importántè	xèě	kúu	ñà	ká'àn=ì	tsi
CONJ	important	much	COP	COMPL	IPFV.speak=3GNR	COM

sè'e=lu=ì			
offspring=DIM=3GNR			
Sà'àn_Sàvĭ	takuà	ná	kúu
Mixtec	so_that	DEO	IRR.be_able

tá	ntanchikó=**tsi**	kuànŭ'ú=**tsi**	sá'-visitâr=**tsi**
when	IPFV.come_back=**3CHILD**	IPFV.go_base=**3CHILD**	IRR.do-visit=**3CHILD**

abuelítà=**tsi**	abuelítù=**tsi**
grandma=**3CHILD**	grandpa=**3CHILD**

xitò=**tsi**	xixì=**tsi**
uncle=**3CHILD**	aunt=**3CHILD**

'And it is very important that they speak Mixtec with their children so that they can (speak) when they come back and go to visit their grandma, their grandpa, their uncle, their aunt.' [Na_kaan_saan_mee-ko; CB; 01:49]

Finally, example (179) illustrates the enclitic *=tsi* used with numerals (§4.1.1.3.1) in quantificational predicates.

(179) *Ùtsì-**tsi** tsà'ùn-**tsi** ntsìkà ntĭìn.*

ùtsi=**tsi**	tsà'ùn=**tsi**	ntsìka=^{L}	ntĭin=^{L}
ten=**3CHILD**	fifteen=**3CHILD**	PFV.walk=1	PFV.grab=1

'Ten or fifteen children I helped give birth to (*lit:* I grabbed).' [Consent_HVB; HVB; 02:52]

5.1.6.5. Third person animal *-tí*

The third person pronoun for animals is *=tí.* It can be used to refer to any animal. This pronoun is realized with a Rising tone (R), *=tĭ*, when the element it attaches to ends in a Low (L) or a Falling tone (F). In addition, in fast speech this enclitic can be realized as *=rí* (or *=rĭ*) instead.

Example set (180) shows the form *=tí* with nouns, and example set (181) shows the form *=tí* with verbs.

(180) Examples of *=tí* expressing a third person animal referent in nouns

nta'á [^{n}da^{3}.ʔa^{4}] ‘hand’ ➔ *nta'á-tí* [^{n}da^{3}.ʔa^{4}.ʈi^{4}] ‘the animal’s paw’

nchìka [^{n}d͡ʒi^{1}.ka^{3}] ‘chest’ ➔ *nchìka-tí* [^{n}d͡ʒi^{1}.ka^{3}.ʈi^{4}] ‘the animal’s chest’

nùǔ [nu^{1}u^{14}] ‘face’ ➔ *nùǔ-tí* [nu^{1}u^{14}.ʈi^{4}] ‘the animal’s face’

ve'e [βe^{3}.ʔe^{3}] ‘house’ ➔ *ve'e-tí* [βe^{3}.ʔe^{3}.ʈi^{4}] ‘the animal’s house’

sto'ò [sto^{3}.ʔo^{1}] ‘owner’ ➔ *sto'ò-tǐ* [sʈo^{3}.ʔo^{1}.ʈi^{14}] ‘the animal’s owner’

(181) Examples of *=tí* expressing a third person animal referent in verbs

kúnì [ku^{4}.ni^{1}] ‘IPFV. want’ ➔ *kúnì-tǐ* [ku^{4}.ni^{1}.ʈi^{4}] ‘the animal wants’

sá'a [sa^{4}.ʔa^{3}] ‘IPFV.do’ ➔ *sá'a-tí* [sa^{4}.ʔa^{3}.ʈi^{4}] ‘the animal does’

kú'mí [kuʔ^{4}.mi^{4}] ‘IPFV.have’ ➔ *kú'mí-tí* [kuʔ^{4}.mi^{4}.ʈi^{4}] ‘the animal has’

tíín [ʈĩ^{4}ĩ^{4}] ‘IPFV.grab’ ➔ *tíín-tí* [ʈĩ^{4}ĩ^{4}.ʈi^{4}] ‘the animal grabs’

kuà'àn [k^{w}ã^{1}.ʔã^{1}] ‘IPFV.go’ ➔ *kuà'àn-tǐ* [k^{w}ã^{1}.ʔã^{1}.ʈi^{14}] ‘the animal goes’

Examples (182) illustrate the use of *=tí* with the verbs *tuu* ‘sting’ and *ka'ní* ‘kill’.

(182) *Kúu tuu... tuu-**tí** ra ka'ní-**tí** yóó.*

kúu	tuu
IPFV.be_able	IRR.sting
tuu=**tí**	ra
IRR.sting=**3ZOO**	TOP
ka'ní=**tí**	yóó
IRR.kill=**3ZOO**	1PL.INCL

‘They can sting... they can sting and kill us.’ [Sachuun_tsi_nunu; GML; 10:11]

In our corpus, the enclitic *=tí* is more frequent when expressing O arguments, such as in examples (183) and (184).

(183) *Ntsă'nchǐ-**tí** tavà nìkuu ñàa ntavă-kue-ì-**tǐ**.*

ntsă'nchà=í=**tí**	tavà	nìkuu	ñàà
PFV.cut=3F=**3ZOO**	so_that	PFV.be_able	DISC

ntavă=kue=ì=**tí**
PFV.take_out=PLZ=3GNR=**3ZOO**

'She cut it (=the hen) so that they (=the children) could take it out.' [Ntsatsi_ntivau_chuun; JS; 02:53]

(184) *Tavă-kó-**tí** kò'ǒn tsi-**tí** yosǒ.*

tavă=kó=**tí**	kù'ùn=ó	tsi=**tí**	yosǒ
IRR.take_out=1PL.INCL=**3ZOO**	IRR.go=1PL.INCL	COM=**3ZOO**	plain

'Let's take them out and let's go with them to the plain.' [Koto_kue_kiti; HVB; 01:06]

Example (185) illustrates the realization *=rí* in fast speech.

(185) *Tavà kutù'và nixi tavâ-**rǐ**.*

tavà
so_that

kutù'va=^{L}	nixi	tavă=^{L}=**tí**
IRR.learn=1	how	IRR.take_out=1=**3ZOO**

'So that I learned how to take them out.' [Sachuun_tsi_nunu; GML; 03:19]

Finally, example (186) illustrates the enclitic *=tí* referring to one's animals, combined with the pluralizer *=kue* (§5.1.7).

(186) *Suu ntásì-kue-**tí** nti'i-ni-à.*

suu	ntásì=kue=**tí**
same	IPFV.be_locked=PLZ=**3ZOO**

nti'i=ni=à
all=EMPH=3GNR

'They also need to be locked, all of them.' [Ntanchiko_Yukunani; A; 10:15]

5.1.6.6. Third person round objects *-tí*

The third person pronoun for round objects is *=tí.*[100] It can be used to refer to any round object, particularly fruit. This pronoun is realized with a Rising tone (R), *=tǐ*, when the element it attaches to ends in a Low (L) or a Falling tone (F). In addition, in fast speech this enclitic can be realized as *=rí* (or *=rǐ*) instead. Example set (187) shows the form *=tí* with nouns, and example set (181) shows the form *=tí* with verbs.

(187) Examples of *=tí* expressing a third person round referent in nouns

sòǒ [so^{1}o^{14}] 'peel' ➔ *sòǒ-tí* [so^{1}o^{14}.ʇi^{4}] 'the fruit's peel'

sì'và [siʔ^{1}.βa̰^{1}] 'seed' ➔ *sì'và-tǐ* [siʔ^{1}.βa̰^{1}.ʇi^{14}] 'the fruit's seed'

(188) Examples of *=tí* expressing a third person round referent in verbs

kuà'àn [k^{w}ã^{1}.ʔã^{1}] 'IPFV.go' ➔ *kuà'àn-tǐ* [k^{w}ã^{1}.ʔã^{1}.ʇi^{14}] 'the ball goes'

tsátsí [t͡sa^{4}.t͡si^{4}] 'IPFV.taste' ➔ *tsátsí-tí* [t͡sa^{4}.t͡si^{4}.ʇi^{4}] 'the fruit tastes'

Examples (189), (190) and (191) illustrate the use of *=tí* in speech. In example (189), Nasario Hernández Gómez is talking about games that he used to play as a child. You can see the noun *kiti* 'ball' in the first Intonation Unit, which is then replaced with the pronoun *=tí* in the second IU.

(189) *Nchíví kúu nùǔ nìyà'a kiti-ka nchíí kúu nùǔ nìyà'a-**tí**.*

nchíví	kúu	nùǔ	nìyà'a	kiti=ka
where	COP	REL.where	PFV.cross	ball=ANA
nchíí	kúu	nùǔ	nìyà'a=**tí**	
where	COP	REL.where	PFV.cross=**3ROUND**	

'Where it is that the ball crosses, where it crosses.' [Kue_nivi_yata; NHG; 06:49]

[100] This pronoun is homophonous with the third person pronoun for animals *=ti* (§5.1.6.5) but they come from different nouns (see Table 17, p. 45) and were pronounced differently until proto-Mixtec /ɨ/ merged with /i/ in Sà'án Sàvĭ ñà ñuù Xnúvíkó.

In example (190), Hilaria Velasco López cannot remember the name of a fruit.

(190) *¿Nixi naní-**tí**?*
nixi naní=**tí**
how IPFV.be_called=**3ROUND**
'What's it called?' [Ta_tsaa_naa_Yukunani; HVL; 08:23]

Finally, in example (191), Fernando Víctor Morales is talking about the time when he was working at the mine in the village of Mínà (Los Tejocotes). At that time, he would work extracting ore and then would go give this ore to someone so they would give it a price and pay him. Since the extracted ore was usually in round-ish pieces, he uses the enclitic *=tí*.

(191) *Tá kuà'àn-yù ntakuà'â metâl luu kuyà'vi-**tí**.*
tá
when
kuà'àn=yù nta-kuà'a=^{L} metâl=lu
IPFV.go=1 IRR.ITER-give=1 metal=DIM
ku-yà'vi=**tí**
IRR.STA-priced=**3ROUND**
'When I went to deliver the metal so that it would be priced (…)' [Ntavi_ntixi; FVM; 01:37]

5.1.6.7. Third person liquids *-rá*

The third person pronoun for liquids is *=rá.* It can be used to refer to any liquid. This pronoun is realized with a Rising tone (R), *=ră*, when the element it attaches to ends in a Low (L) or a Falling tone (F). Example (192) shows the form *=rá* with a noun, and example set (193) shows the form *=rá* with verbs.

(192) *nchakà* [^{n}d͡ʒa^{3}.ka^{1}] 'bottle' ➔ *nchakà-ră* [^{n}d͡ʒa^{3}.ka^{1}.ɾa^{14}] 'the liquid's bottle'

(193) Examples of *=rá* expressing a third person liquid referent in verbs

kuà'àn [k^{w}ã^{1}.ʔã^{1}] 'IPFV.go' ➔ *kuà'àn-ră* [k^{w}ã^{1}.ʔã^{1}.ɾa^{14}] 'the liquid goes'

yá'a [ja^{4}.ʔa^{3}] 'IPFV.pass' ➔ *yá'a-rá* [ja^{4}.ʔa^{3}.ɾa^{4}] 'the liquid passes'

Examples (194), (195) and (196) illustrate the use of *=rá* in speech. In example (194), Fernando Víctor Morales uses *=rá* to refer to liquor, as he recalls how his uncle told him that drinking some liquor is good for the cold.

(194) *Ko'o iin kópà luu ná sàa-**rá** ra ku'ú-**rá** rì và'a-**rá** ñà vìtsi và'a-**rá** káchì-rà.*

ko'o	iin	kópà=lu	ná	sàa=**rá**	ra
IMP.drink	one	cup=DIM	DEO	IRR.heat=**3LIQ**	TOP

ko'o=ú=**rá**	rì
IMP.drink=2NFORM=**3LIQ**	because

và'a=**rá**	ñà	vìtsi	và'a=**rá**
good=**3LIQ**	CL.GNR	cold	good=**3LIQ**

káchì=rà
IPFV.say=3M

'Drink a little cup, it'll heat you up, drink it, it's good for the cold, it's good, he says.' [Ntavi_ntixi; FVM; 00:24]

In example (195), Guillermo Martínez López uses *=rá* to refer to honey, as he remarks how difficult it is to filter the honey and that is why he only sells unfiltered honey himself.

(195) *Meê ra tsàà yachi mikĭ xíkò ntŭxì tono ntŭxì ntŭxì ñàà kú'nî-**ră** rì tsà'ă ñà-ka vái nchuà'a tsúní-kuê-**ră**.*

meé=L	ra	tsàà_yachi	mikĭ	xíko=L
INT=1	TOP	almost	never	IPFV.sell=1

ntŭxì
honey

tono	ntŭxì
like	honey

ntŭxì	ñàà
honey	RLZ

kú'ní=L=**rá**	rì	tsà'ă	ñà=ka
IRR.squeeze=1=**3LIQ**	because	due_to	CL.GNR=ANA

vái	nchuà'a	tsú'ní=kue=L=**rá**
slow	very	IPFV.squeeze=PLZ=1=**3LIQ**

'I almost never sell filtered honey (*lit:* squeezed honey), because it takes a long time to filter it (*lit*: we squeeze it very slowly).' [Sachuun_tsi_nunu; GML; 01:21]

Finally, in example (196), Nasario Hernández Gómez uses *=rá* to refer to the water in a river, as he is telling us about a mythical giant that diverted the rivers and took the water from Huajuapan to Mixtepec.

(196) *Ñà-ka kúu-ñà nchà'nchă-ñà kúu kavă Nkuu-ka yukŭ ntsà'nchà chà yó'o skuíso-rà-**ră** kuà'àn-**ră** màa ntsà'a-kà-rà-**ră** kù'ùn-**ră** chíí Seén.*

ñà=ka	kúuñà	nchà'nchă	ñà	kúu	kavă	Nkuu=ka
CL.GNR=ANA	FOC	PFV.be_cut	RLZ	COP	ravine	Nkuu=ANA

yukŭ	ntsà'nchà	chà-yó'o
mountain	PFV.cut	CL.M-PROX

s-kuíso=rà=**rá**	kuà'àn=**rá**
CAUS-IPFV.turn=3M=**3LIQ**	IPFV.go=**3LIQ**

màa	ntsà'à=kà=rà=**rá**	kù'ùn=**rá**	chíí	Seén
NEG.MOD	PFV.give=more=3M=**3LIQ**	IRR.go=**3LIQ**	towars	Huajuapan

'That's why the Nkuu ravine was cut, this man cut the mountain and caused the river to turn, he didn't allow it to go towards Huajuapan anymore.' [Ia_noo; NHG; 03:48]

5.1.6.8. Third person trunk-like objects *-tú*

The third person pronoun for trunk-like objects is *=tú.* It can be used to refer to objects that have a trunk-like shape, particularly trees, branches, sticks, etc. It can also be used to refer to vehicles. This pronoun is realized with a Rising tone (R), *=tǔ*, when the element it attaches to ends in a Low (L) or a Falling tone (F). Example set (197) shows the realization of the enclitic *=tú*.

(197) Examples of *=tú* expressing a third person trunk-like referent

nta'á [^{n}da^{3}.ʔa^{4}] 'hand' ➔ *nta'á-tú* [^{n}da^{3}.ʔa^{4}.t̪u^{4}] 'the tree's branch'

kuà'àn [k^{w}ã^{1}.ʔã^{1}] 'IPFV.go' ➔ *kuà'àn-tǔ* [k^{w}ã^{1}.ʔã^{1}.t̪u^{14}] 'the vehicle goes'

Examples (198), (199) and (200) illustrate the use of *=tú* in speech. In example (198), Nasario Hernández Gómez is telling us the story of how a mythical giant from Huajuapan got mad at the giant from Mixtepec and threw some acorns towards Mixtepec lands, which is what the ahuehuete trees grew from.

(198) *Chà-ka nìkìskána chi'ntù tiùkú yó'o ñà-ka kúu-ñà káa-**tú** ñoǒ.*

chà=ka	nìkì-s-kána			
CL.M=ANA	PFV.come-CAUS-leave			
chi'ntù	tiùkú	yó'o		
acorn	ahuehuete	PROX		
ñà=ka	kúuñà	káa=**tú**		ñuù=ó
CL.GNR=ANA	FOC	IPFV.be_seen =**3TRUNK**		village=1PL.INCL

'This man came to throw ahuehuete acorns here, that's why there are ahuehuete trees in our village.' [Nu_Xnuviko_ta_tsaa_naa; NHG; 01:27]

In example (199), Jeremías Salazar is asking Nasario Hernández Gómez what he knows about the big ahuehuete tree (*Taxodium mucronatum*) that is said to have been at the center of Mixtepec once.

(199) *Káchì-nà ñà sàăn ñàà ntsìkàà tiùkú ntsìkàà-**tǔ** táná mímeé ñuù-ka.*

káchì=nà	ñà-sàăn	ñàà	
IPFV.say=3HUM.PL	CL.GNR-MED	DISC	
ntsìkàà	tiùkú		
PFV.stay	ahuehuete		
ntsìkàà=**tú**	táná	mímeé	ñuù=ka
PFV.stay=**3TRUNK**	like	pure	village=ANA

'They say that at that time there was an ahuehuete tree, there was a tree right in the village.' [Nuu_Xnuviko_ta_tsaa_naa; JS; 01:40]

Finally, in example (200) Nasario Hernández Gómez is talking about games he used to play as a kid, and he is describing a bent branch which they used to play the traditional sport locally known as *sékù*.[101]

(200) *Kántúkú-kuê iin yutǔ tú tìkàĭ luu ná suà'a suà'a káa-**tú**.*

ká-ntúkú=kue=^{L}		iin	yutǔ
IPFV.VPL-look_for=PLZ=1		one	tree
tú	tìkàĭ=lu		
CL.TRUNK	bent=DIM		
ná	suà'a-suà'a	káa=**tú**	
DEO	thus-RDPL	IPFV.be_seen=**3TRUNK**	

'We looked for a bent tree branch, it should look like this.' [Kue_nivi_yata; NHG; 06:27]

5.1.6.9. Third person deity *-yà*

The third person pronoun for deities is *=yà.* Protestants only use this pronoun to refer to God Himself, but Catholics use it to refer to Saints as well—many of whom are associated with pre-Hispanic deities. Example set (201) shows the realization of the enclitic *=yà*.

[101] This game resembles hockey in that players in two different teams hit a ball with a curved stick and try to hit it past a line that the other team is defending. However, the ball is normally on fire. This game is also played by other groups in Mesoamerica, notably the P'urhépecha who call it *urukua*.

(201) Examples of *=yà* expressing a third person deity referent

vikǒ [βi̤^{3}.ko^{14}] ‘celebration’ ➔ *vikǒ-yà* [βi̤^{3}.ko^{14}.ja^{1}] ‘the Saint’s celebration’

tsá'a [t͡sa^{4}.ʔa^{3}] ‘IPFV.go’ ➔ *tsá'a-yà* [t͡sa^{4}.ʔa^{3}.ja^{1}] ‘God gives’

Examples (202), (203), (204) and (205) illustrate the use of *=yà* in speech. In example (202), Hilaria Velasco López introduces the celebrations of Saint Mark, which take place on the 25th of April.[102]

(202) *Òkò ù'ùn avrîl kúu vikǒ-**yà**.*

òkò	ù'ùn	avrîl	kúu	vikǒ=**yà**
twenty	five	April	COP	celebration=**3DEITY**

‘On the twenty-fifth of April it’s his celebration.’ [Ke_na_yata_viko; HVL; 13:44]

In example (203), Nasario Hernández Gómez talks about Saint John the Baptist.[103]

(203) *Skuǎntuchǎ-**yà** maéstrù Jèsùkrístù.*

s-kuǎntuchǎ=**yà**	maéstrù	Jèsùkrístù
CAUS-PFV.be_baptized=**3DEITY**	master	Jesus_Christ

‘He baptized the lord Jesus Christ.’ [Nuu_Xnuviko_ta_tsaa_naa; NHG; 07:58][104]

In example (204), the speaker thanks God for being healthy enough to enjoy some more years in this world.

[102] Since Saint Mark is a man and he is closely associated with the prehispanic deity of the rain (*sàvǐ*), Hilaria uses *=yà* (3DEITY); *=rà* (3M), and *=rá* (3LIQ) to refer to Saint Mark. The village of Yukúnanǐ (Yucunani) has one of the many *ve'e sàvǐ* (‘house of the rain’) scattered throughout Mixtec territory. These are caves traditionally associated to the prehispanic deity of the rain and a place of worship, offering, and prayer. Because of the association between the rain (*sàvǐ*) and Saint Mark, this saint has recently come to be celebrated as the patron Saint of the village of Yukúnanǐ.

[103] Saint John the Baptist is the patron Saint of the village of Ñuù Xnúvíkó (San Juan Mixtepec), and by extension the whole municipality.

[104] This example comes from an instance of the specialized speech genre locally known as *tsà'vì*.

(204) *Cha tatù nìkǎchì Sto'ò Nchúxì nìkuu ntsà'a-**yà** kuià yù ra koo-kà-yù ñà yívǐ.*

cha	tatù	nìkǎchì	Sto'ò_Nchúxì	nìkuu
CONJ	COND	PFV.say	God	PFV.be_able

ntsà'a=**yà**	kuià=yù	ra
PFV.give=**3DEITY**	year=1	TOP

koo=kà=yù	ñà_yívǐ
IRR.exist=more=1	world

'If God were willing He could give me years to live longer in this world.' [Kue_nchai_noo; A; 01:44]

Finally, in example (205) Nasario Hernández Gómez addresses this plea to Jesus Christ and Saint John the Baptist.

(205) *Nùǔ tátà Sà Juáâ Bautístà luu, nùǔ tátà mésù Jèsùkrístù luu, ná ka'ní tsio-**yà** justísià divina, ná ka'ní tsio-**yà** justísià nùǔ Nklórià, ná kuà'a-**yà** vídà, ná kuà'a-**yà** sàlû, ná kuà'a-**yà** grásià luu nùǔ-kó.*

nùǔ	tátà	Sà	Juáâ	Bautístà
OBL	lord	Saint	John	Baptist=DIM

nùǔ	tátà	mésù	Jèsùkrístù=lu
OBL	lord	master	Jesus_Christ=DIM

ná	ka'ní	tsio=**yà**	justísià	divínà
OBL	IRR.hit	sideways=**3DEITY**	justice	divine

ná	ka'ní	tsio=**yà**	justísià	nùǔ	Nklórià
DEO	IRR.hit	sideways=**3DEITY**	justice	OBL	Glory

ná	kuà'a=**yà**	vídà
DEO	IRR.give=**3DEITY**	life

ná	kuà'a=**yà**	salû
DEO	IRR.give=**3DEITY**	health

ná	kuà'a=**yà**	grásià=lu
DEO	IRR.give=**3DEITY**	grace=DIM

nùǔ=kó
OBL=1PL.INCL

'To the lord Saint John the Baptist, to the Lord Jesus Christ, may they hit us with divine justice, may they hit us with justice in Glory, may they give us life, may they give us health, may they give us grace.' [Nuu_Xnuviko_ta_tsaa_naa; NHG; 13:47][105]

[105] This example comes from an instance of the specialized speech genre locally known as *tsà'vì*.

5.1.6.10. Third person human plural *-nà*

The third person pronoun groups of humans *=nà* can be used to refer to any group of people, without specifying gender, expressing respect towards them usually because they are older than the speaker. This pronoun is always realized as *=nà*. Example set (206) shows the form *=nà* with nouns, and example set (207) shows the form *=nà* with verbs.

(206) Examples of *=nà* expressing a third person human plural in nouns

ità [i^{3}.ʈa^{1}] 'flower' ➔ *ità-rà* [i^{3}.ʈa^{1}.na^{1}] 'their flower'

vílú [βi̤^{4}.lu^{4}] 'cat' ➔ *vílú-nà* [βi̤^{4}.lu^{4}.na^{1}] 'their cat'

nùǔ [nu^{1}u^{14}] 'face' ➔ *nùǔ-nà* [nu^{1}u^{14}.na^{1}] 'their face'

(207) Examples of *=nà* expressing a third person human plural in verbs

kúnì [ku^{4}.ni^{1}] 'IPFV. want' ➔ *kúnì-nà* [ku^{4}.ni^{1}.na^{1}] 'they want'

sá'a [sa^{4}.ʔa^{3}] 'IPFV.do' ➔ *sá'a-nà* [sa^{4}.ʔa^{3}.na^{1}] 'they do'

xíko [ʃi^{4}.ko^{3}] 'IPFV.sell' ➔ *xíko-nà* [ʃi^{4}.ko^{3}.na^{1}] 'they sell'

sáchúun [sa^{4}.t͡ʃũ^{4}ũ^{3}] 'IPFV.work' ➔ *sáchúun-nà* [sa^{4}.t͡ʃũ^{4}ũ^{3}.na^{1}] 'they work'

kú'mí [kuʔ^{4}.mi^{4}] 'IPFV.have' ➔ *kú'mí-nà* [kuʔ^{4}.mi^{4}.na^{1}] 'they have'

tíín [ʈĩ^{4}ĩ^{4}] 'IPFV.grab' ➔ *tíín-nà* [ʈĩ^{4}ĩ^{4}.na^{1}] 'they grab'

ká'àn [kã^{4}.ʔã^{1}] 'IPFV.speak' ➔ *ká'àn-nà* [kã^{4}.ʔã^{1}.na^{1}] 'they speak'

ká'án [kã^{4}.ʔã^{4}] 'IPFV.think' ➔ *ká'án-nà* [kã^{4}.ʔã^{4}.na^{1}] 'they think'

Examples (208), (209) and (210) illustrate the use of the enclitic *=nà* to refer to a specific group of people that has been previously established in the discourse. In example (208) Jeremías Salazar uses *=nà* to refer to the people of his village.

(208) *Nà ñoǒ ra tá ntsìkee-**nà** ntsìtsà'àn-**nà** táná Ñuù.*

nà	ñuù=ó	ra	tá	ntsì	kee=**nà**
CL.HUM.PL	village=1PL.INCL	TOP	when	PFV.HAB	leave=**3HUM.PL**

ntsì	tsà'àn=**nà**
PFV.HAB	go=**3HUM.PL**

táná	Ñuù
like	Mixtepec

'Those from our village, when they used to leave to go to Mixtepec.'
[Iin_chaa_tsini_tsi_tachi; JS; 03:08]

In example (209) Celia Bautista uses *=nà* to refer to Mixtec parents living in the United States.

(209) *Viĭ xná'a-**nà** nùǔ sè'e luu-**nà**.*

viĭ	xná'a=**nà**	nùǔ	sè'e=lu=**nà**
beautiful	IPFV.teach=**3HUM.PL**	OBL	offspring=DIM=**3HUM.PL**

'May they teach their children well.' [Na_kaan_saan_mee-ko; CB; 02:29]

Example (210) illustrates that the enclitic *=nà*, even though it is always plural, can also appear with the pluralizer *=kue* (§5.1.7).

(210) *Pá-yù, má-yù ntàkani inì-kue-**nà**, ntàkuǎan-kue-**nà** ñu'ú luu.*

páá=yù
father=1

máá=yù
mother=1

ntàkani-inì=kue=**nà**
PFV.tell-core=PLZ=**3HUM.PL**

ntàkuǎan=kue=**nà**	ñu'ú=lu
PFV.buy=PLZ=**3HUM.PL**	land=DIM

'My dad, my mom, they worried, they bought some land.' [Ntanchiko_Yukunani; A; 11:43]

Finally, the enclitic *=nà* can also be used in an impersonal manner, referring to people in general, as can be seen in example (211). This use is similar to the impersonal use of the first person plural inclusive pronoun (§5.1.3).

(211) *Kuě tsáchúun nchuà'a-kà-**nà** tsà'vì.*

kuě	tsáchúun	nchuà'a=kà=**nà**	tsà'vì
NEG	IPFV.use	very=more=**3HUM.PL**	tsà'vì

'People don't use the tsà'vì much anymore / The tsà'vì is not used much anymore.' [Tsachuun-na_tsavi; JS; 01:03]

5.1.7. The pluralizer *-kue*

An important characteristic of the pronominal system of Sà'án Sàvĭ ñà ñuù Xnúvíkó is the existence of the pluralizer *=kue*, which is a dependent form often reduced to [we] in fast speech. It precedes the pronoun for which it expresses plurality (§5.3.1 for the slots *=kue* can occupy in the verbal complex). This pluralizer can be used to emphasize plurality (see example (212)), but plurality is often understood by context without the need to mark it morphologically (see example (213)).

Example (212) shows the quantifier *kue* (§4.1.1.3) pluralizing the noun *kuà'a* 'sibling' establishing a plural referent which is then expressed with the pluralizer *=kue* in the verb *kú ntàsăchúun* 'work again'.

(212) *Tatù ná ntitsàà nti'i kue kuà'â ra kú ntàsăchúun-**kue-ì** kue ñà kú nkŭnì sáchúun nùî.*

tatù	ná	ntitsàà	nti'i	kue	kuà'a=^{L}	ra
COND	DEO	IRR.arrive_here	all	PLZ	sibling=1	TOP

kúntà-săchúun=**kue=ì**	kue	ñà
PROSP.ITER-work=**PLZ=3GNR**	PLZ	RLZ

kúnkŭnì	sáchúun	nùŭ=ì
PROSP.want	IPFV.work	OBL=3GNR

'If all my brothers arrived, they would work again, those who want to work on it (the lands).' [Ntanchiko_Yukunani; A; 12:12]

Example (213) shows the quantifier *kue* pluralizing the nominal expression *ñà kuáchi* ‘children’ establishing a plural referent which is then expressed without a pluralizer in the verb *kuà'àn* ‘go’.

(213) ***Kue*** *ñà kuáchi ntákua'nu vichi kuà'**ì**n nùǔ iñǔ kuà'**ì**n.*

kue	ñà	kuáchi	ntá-kua'nu	vichi
PLZ	CL.GNR	little	IPFV.ITER-grow_up	now

kuà'àn=**ì**	nùǔ	iñǔ	kuà'àn=**ì**
IPFV.go=**3GNR**	OBL	vaccine	IPFV.go=**3GNR**

‘The children that grow up now, they go to get vaccine, they go.’ [Ta_tsaa_naa_Yukunani; HVL; 05:08]

Other Mixtec languages have been described as having pluralizers in the verbal complex, such as the prefix *ká-* in Chalcatongo Mixtec which indicates that the subject of a verb is plural (Macaulay 1996). However, pluralizer enclitics are not common among Mixtec languages.

Yet, Santo Tomás Ocotepec Mixtec has been described as having a pluralized enclitic *=nda* (Cruz López 2022), which seems to have a similar distribution to that of *=kue* in Sà'án Sàvĭ ñà ñuù Xnúvíkó. These two municipalities are located geographically close to each other, and the similar syntactic distribution of the pluralizer clitics (which do not seem to be cognates) suggest convergence through language contact. A possible source may be the neighboring and (more distantly) related Itunyoso Triqui, which presents a form *nùkwèj* with the meaning of ‘both / several’ with the same distribution as the pluralizer *=kue* in Sà'án Sàvĭ ñà ñuù Xnúvíkó (p.c. Christian DiCanio).

5.1.8. Person marking: summary

In §5.1 I described paradigms for person marking in Sà'án Sàvĭ ñà ñuù Xnúvíkó (see Table 31, repeated here from Table 29, p. 121 for convenience), including the complex ways in which allomorphy interacts with the phonological characteristics of the modified element as well as the syntactic function of the pronominal enclitic. These paradigms for person marking are extremely important for the description of Sà'án Sàvĭ ñà ñuù Xnúvíkó, as overt pronouns are mandatory in almost all contexts where a participant is referred to in the discourse. The dependent pronouns described in this section are the most common ones, as they are pragmatically neutral as opposed to the independent pronouns (§4.1.2.2 and §4.1.2.3), which express emphasis or contrast. It is precisely the high frequency of these forms (Bybee, Perkins & Pagliuca 1994: 19-21), together with the high accessibility of the element they refer to, that triggered the segmental erosion that created much of the allomorphy found synchronically in the language (Belmar, Vásquez-Aguilar & Salazar 2021).

Table 31. Dependent pronouns in Sà'án Sàvĭ ñà ñuù Xnúvíkó

		Subject (S/A)		Object (O)		Possession	
		SG	**PL**	**SG**	**PL**	**SG**	**PL**
1	EXCL	=yù /=^{L}	=kuê	=yù	=kuê	=yù /=^{L}	=kuê
	INCL		=kó / =ó /=^{H} /=á		=(kue-)kó		=kó /=ó /=^{H}
2	NFORM	=ú /=kú	=kue-yú	=yô	=kue=yú	=kú /=ú	=kue-yú
	FORM	=ní	=kue-ní	=ní	=kue-ní	=ní	=kue-ní
3	GNR	=ì /=à	=kue-ì	=à /=ñà	=kue-ì	=ñà /=à /=í	=kue-ì
	M	=rà	=kue-rà	=rà	=kue-rà	=rà	=kue-rà
	F	=í /=á	=kue-ñá	=á /=ñá	=kue-ñá	=í /=á /=ñá	=kue-ñá
	CHILD	=tsi[106]	=kue-tsi	=tsi	=kue-tsi	=tsi	=kue-tsi
	ZOO	=tí	=kue-tí	=tí	=kue-tí	=tí	=kue-tí
	ROUND	=tí	=kue-tí	=tí	=kue-tí	=tí	=kue-tí
	LIQ	=rá		=rá		=rá	
	TRUNK	=tú	=kue-tú	=tú	=kue-tú	=tú	=kue-tú
	DEITY	=yà	=kue-yà	=ya	=kue-yà	=yà	=kue-yà
	HUM.PL		=(kue-)nà		=(kue-)nà		=(kue-)nà

5.2. Nominal morphology

There is not much nominal morphology in Sà'án Sàvĭ ñà ñuù Xnúvíkó. In this section, I introduce possession with dependent pronouns (§5.2.1) and derivational morphology applied to nominal stems (§5.2.2).

5.2.1. Possession with dependent pronouns

Nouns in Sà'án Sàvĭ ñà ñuù Xnúvíkó can bear person marking (§5.1), which expresses the possessor in a possession relation. Example (214) illustrates the use of the dependent personal pronoun (§4.1.2.1) *=nà* (§5.1.6.10) marking possession with the noun *ve'e* 'house'.

[106] The form *=si* has been attested in the village of Kava Yáxí (San Juan Cahuayaxi), also known as Sà Juáâ.

(214) *Kuà'àn-yù ve'e-**nà.***
kuà'àn=yù ve'e=**nà**
IPFV.go=1 house=3HUM.PL

'I went to their house.' [Ta_tsaa_naa_Yukunani; HVL; 00:20]

5.2.2. Nominal derivation

There are two morphological strategies that can be considered derivational morphology applied to nouns in Sà'án Sàvĭ ñà ñuù Xnúvíkó. In this section I present the use of tonal alternation to create adjectives from nouns §5.2.2.1, which has been called *adjectival high* (Hinton et al. 1991); and expressive derivation through the use of the diminutive *luu* (§5.2.2.2).

5.2.2.1. Adjectival high

Sà'án Sàvĭ ñà ñuù Xnúvíkó presents some adjectives that seem to be derived from nouns through tonal alternation. This process has been observed and described in Chalcatongo Mixtec by Hinton et al. (1991), who referred to it as 'adjectival high'. Macaulay (1996) considers this process to be somewhat productive in Chalcatongo Mixtec. A similar, but irregular, tonal alternation to derive adjectives has also been observed in Yoloxóchitl Mixtec by Palancar, Amith & Castillo García (2016).

This process is not very productive in Sà'án Sàvĭ ñà ñuù Xnúvíkó, and the alternations are also irregular. There are, however, some examples as can be seen in Table 32. Note that the mening is not semantically predictable.

Table 32. Examples of Adjectival High in Sà'án Sàvĭ ñà ñuù Xnúvíkó

Noun	**(Derived) Adjective**
sàvĭ [sa^{1}βi^{14}] ‘rain’	*sáví* [sa^{4}βi^{4}] ‘pretty, green (of a landscape after rain)’
vìkŏ [βi^{1}.ko^{14}] ‘cloud’	*víkŏ* [βi^{4}.ko^{14}] ‘cloudy’
yùŭ [ju^{1}u^{14}] ‘rock / stone’	*yúú* [ju^{4}u^{4}] ‘solid / hard’
sùkŭ [su^{1}.ku^{14}] ‘neck’	*súkú* [su^{4}.ku^{4}] ‘tall’
tùŭn [t̪ũ^{1}ũ^{14}] ‘charcoal’	*tuún* [t̪ũ^{3}ũ^{4}] ‘dark’
che'ĕ [t͡ʃe^{3}.ʔe^{14}] ‘shell’	*ché'é* [t͡ʃe^{4}.ʔe^{4}] ‘hard (with a hard exterior)’
ntùkù [^{n}du^{1}.ku^{1}] ‘cochineal’[107]	*ntukú* [^{n}du^{3}.ku^{4}] ‘dark purple’

In addition, similar tonal alternations can be found in compounds, such as *ve'e chúun* [βe^{3}.ʔe^{3}.t͡ʃũ^{4}ũ^{3}] ‘city hall’, from *ve'e* [βe^{3}.ʔe^{3}] ‘house’ and *chuun* [t͡ʃũ^{3}ũ^{3}] ‘work’, where the second element, which is a noun functioning as a modifier of another noun, seems to feature this adjectival high. Other examples may include: *kòŏ káâ* [ko^{1}.ka^{4}a^{41}] ‘rattle snake’,[108] from *kòŏ* [ko^{1}o^{14}] ‘snake’ and *kàa* [ka^{1}a^{3}] ‘metal / bell’; or *kiché'é xínĭ* [ki^{3}.t͡ʃe^{4}.ʔe^{4}.ʃi^{4}.ni^{14}] ‘skull’, from *kiché'é* [ki^{3}.t͡ʃe^{4}.ʔe^{4}] ‘bone’ and *xìnĭ* [ʃi^{1}.ni^{14}] ‘head’.[109] It is not clear, however, if these are the same processes.

5.2.2.2. The diminutive *luu*

The diminutive =*lu* is extremely common in Sà'án Sàvĭ ñà ñuù Xnúvíkó natural speech. It is a reduced form of the adjective *luu* ‘small’, that encliticizes to either nouns or adjectives in the noun phrase. As such, it can be the host of dependent personal pronouns (§4.1.2.1 and §5.1) expressing possession. The diminutive =*lu* is used to express affection, rather than actual small

[107] Dactylopius coccus. Dark purple pigment was traditionally made by crushing cochineals.
[108] See §3.4.3.1 for an explanation of the reduction of the first element of this compound.
[109] *Kiché'é* [ki^{3}.t͡ʃe^{4}.ʔe^{4}] ‘bone’, for which the form *ikiché'é* [i^{3}.ki^{3}.t͡ʃe^{4}.ʔe^{4}] has also been attested, is in turn a lexicalization of the phrase *iki ché'é* [i^{3}.ki^{4}.t͡ʃe^{4}.ʔe^{4}] , from the nowadays archaic *iki* [i^{3}.ki^{4}] meaning ‘bone’ and the adjective *ché'é* [t͡ʃe^{4}.ʔe^{4}] meaning ‘hard (with a hard exterior)’, which in turn seems to be derived from the noun *che'ĕ* [t͡ʃe^{3}.ʔe^{14}] ‘shell’.

size. Example (215) shows the diminutive *=lu* modifying the nominal expression *kue tò'ò* 'the saints'. Example (216) illustrates the diminutive *=lu* as the host of the third person generic dependent pronoun *=ì* (§5.1.6.1) modifying the noun *máá* 'mother'.

(215) *Kuà'àn-nà prosisiôn tsi kue tò'ò* ***luu***

kuà'àn=nà	prosisiôn	tsi	kue	tò'ò=**lu**
IPFV.go=3HUM.PL	procession	COM	PLZ	saint=**DIM**

'They go on a procession with the Saints' [Kaja; NHG; 03:39]

(216) *Ntsì'i máá* ***lìì***.

ntsì'i	máá=**lu=ì**
PFV.die	mum=**DIM**=**3GNR**

'Its mom (the little goat's mom) had died' [Vaa_chinchee_ntucha; AOC; 03:18]

The enclitic nature of this diminutive is not represented in the practical orthography, and it is always written as a separate word *luu*. However, since the enclitic interacts differently from the adjective with some dependent personal pronouns, that is reflected in the orthography by only replacing the last vowel of the adjective (*luì* [lu^{3}i^{1}] 'he/she/it is small') while replacing both orthographic vowels for the diminutive (*vílú lìì* [βi̤^{4}.lu^{4}.li^{1}] 'his/her/its little cat').

5.3. Verbal morphology

In this section I introduce verbal morphology in Sà'án Sàvĭ ñà ñuù Xnúvíkó. I begin by defining the verb root and the verb stem (§5.3.1) and their relation to the verbal complex (see Figure 26, p. 185). I move on to show that Sà'án Sàvĭ ñà ñuù Xnúvíkó makes use of Aspect and Mood, not tense, and then I describe the morphological processes to express the main Tense-Aspect-Mood categories (§5.3.2) in Sà'án Sàvĭ ñà ñuù Xnúvíkó: Imperfective aspect (§5.3.2.1); Perfective aspect (§5.3.2.2); Irrealis mood (§5.3.2.3); Prospective aspect (§5.3.2.4); Counterfactual mood (§5.3.2.5); Deontic mood (§5.3.2.6); Imperative mood (§5.3.2.7);

Prohibitive mood (§5.3.2.8); Habitual aspect (§5.3.2.9); and Progressive aspect (§5.3.2.10). These are then summarized in §5.3.2.11.

After discussing TAM, I move on to discuss the next slot in the verbal complex, that of the auxiliaries (§5.3.3): Habitual (§5.3.3.1); Ability or possibility (§5.3.3.2); and Pluractionality (§5.3.3.3). I also discuss the ways in which these auxiliaries interact with the TAM categories mentioned in the paragraph above. These are summarized in §5.3.3.4.

Finally, I move on to discuss the six main verbal prefixes Sà'án Sàvĭ ñà ñuù Xnúvíkó (§5.3.4), which occupy the next slot in the verbal complex, as well as their combinations (§5.3.4.7) and their interactions with both auxiliaries (§5.3.3) and main TAM inflection (§5.3.2). These prefixes are used to express iterativity (§5.3.4.1), inchoativity (§5.3.4.2), causatives (§5.3.4.4), caused motion (§5.3.4.5), and to derive stative verbs (§5.3.4.3) and verbs from loanwords from Spanish (§5.3.4.6). These are all summarized in §5.3.4.8.

5.3.1. The verb root and the verb stem

Verb roots in Sà'án Sàvĭ ñà ñuù Xnúvíkó are the semantic head of the verbal complex (see Figure 26), which may contain up to 15 elements (note that adverbials and the subject pluralizer can occur in more than one slot). The slots shaded and in bold (namely the auxiliaries + the prefixes + the root) constitute a unit that I will be referring to as '**the verb stem'** in subsequent sections. This is because they constitute the unit to which TAM inflection is applied.

5.3.2. TAM Inflection

Verb stems in Sà'án Sàvĭ ñà ñuù Xnúvíkó inflect for aspect and mood. Consider the form *yéè* in example (217). In this example, Jeremías Salazar is describing the first time he arrived in

the US and is therefore setting the events in the past. The first two verbs, both in the first Intonation Unit, appear in the perfective aspect to denote that it was a punctual and completed action (*nìkìtsàà* 'arrive' and *ntàkìtá'an* 'meet with'). However, the from *yéè* appears in the imperfective aspect because the action, albeit in the past, was not complete but ongoing (note the translation "my dad was living").

(217) ***Nìkìtsàà-yù*** *frontérà sáná* ***ntàkìtá'àn*** *tsi ñàà pá-yù rì ñàà táná tiémpù sàăn ra ñàà Estados Unidos yó'o* ***yéè*** *pá-yù.*

nìkìtsàà=yù	frontérà	sáná	**ntàkìtá'an=^{L}**	tsi	ñàà
PFV.arrive=1	border	then	**PFV.meet_with=1**	COM	DISC

páá=yù	rì	ñàà
father=1	because	DISC

táná	tiémpù	sàăn	ra	ñàà
like	time	MED	TOP	DISC

Estados_Unidos	yó'o	**yéè**	páá=yù
United_States	PROX	**IPFV.exist**	father=1

'**I arrived** at the border and then **I met** with my dad because at that time **my dad was living** in the United States.' [Nikitsaa-yu_EEUU; JS; 00:46]

NEG IAM	MOD	TAM	**AU X**	**PREF**	**root**	ADV	S.PLZ	INC	RECIP	ADV	S.PLZ	ADV	S	EMPH	O.PLZ	O	S.PART

Figure 26. The verbal complex in Sà'án Sàvĭ ñà ñuù Xnúvíkó

NEG ‘negation’; IAM ‘iamitive’; MOD ‘modal particle’; TAM ‘Tense-Aspect-Mood inflection’; AUX ‘auxiliary’; PREF ‘verbal prefixes’; INC ‘incorporated noun / element’; RECIP ‘reciprocal’; S.PLZ ‘pluralizer of the subject’; ADV ‘adverb’; S ‘subject (A/S)’, EMPH ‘emphatic’; O.PLZ ‘pluralizer of the object’; O ‘object (O)’, S.PART ‘sentence (or clause) final particle’

Some verbs present alternation between two different stems, using one stem for a set of forms and another stem for another set of forms. These stems have often been called the *realis* and the *irrealis* stems in descriptions of Mixtec languages (Hollenbach 2015) because the main forms they are associated with are the imperfective[110] (realis) and the irrealis (see Table 33).[111] However, not every form built off of one stem necessarily belongs to that mood (see Table 34).

Table 33. Examples of verbs that present different stems in the imperfective and irrealis forms

IPFV verb	**IRR verb**	**Meaning**
tsákì [t͡sa^{4}.ki^{1}]	kakì [ka^{3}.ki^{1}]	SOW
tsíkó [t͡si^{4}.ko^{4}]	kuikó [k^{w}i^{3}.ko^{4}]	SPIN
nchíso [^{n}d͡ʒi^{4}.so^{3}]	kuiso [k^{w}i^{3}.so^{3}]	CARRY (on your back)
tsátsí [t͡sa^{4}.t͡si^{4}]	katsí [ka^{3}.t͡si^{4}]	EAT (tr.)
tsítsá'an [t͡si^{4}.t͡sã^{4}.ʔã^{3}]	kàtsá'an [ka^{1}.t͡sã^{4}.ʔã^{3}]	EAT (itr.)
tsísinì [t͡si^{4}.si^{3}.ni^{1}]	kasinì [ka^{3}.si^{3}.ni^{1}]	HAVE LUNCH
tsá'nchà [t͡saʔ^{4}.^{n}d͡ʒa^{1}]	ká'nchà [kaʔ^{4}.^{n}d͡ʒa^{1}]	CUT
tsînì [t͡si^{42}.ni^{1}]	kùnì [ku^{1}.ni^{1}]	KNOW
tsíchi [t͡si^{4}.t͡ʃi^{3}]	kuchi [ku^{3}.t͡ʃi^{3}]	BATHE
yéè [je^{4}e^{1}] / tsíǒ [t͡si^{4}.o^{14}]	koo [ko^{3}o^{3}]	EXIST
tsósò [t͡so^{4}.so^{1}]	kòsò [ko^{1}.so^{1}]	WATER
kíxí [ki^{4}.ʃi^{1}]	kùsù [ku^{1}.su^{1}]	SLEEP
tsíka [t͡si^{4}.ka^{3}]	kaka [ka^{3}.ka^{3}]	WALK
tsá'a [t͡sa^{4}.ʔa^{3}]	kua'a [k^{w}a^{3}.ʔa^{3}]	GIVE
tsí'ì [t͡si^{4}.ʔi^{1}]	kùu [ku^{1}u^{3}]	DIE
tsá'ní [t͡saʔ^{4}.ni^{4}]	ka'ní [kaʔ^{3}.ni^{4}]	KILL
tsíkà [t͡si^{4}.ka^{1}]	kàkà [ka^{1}.ka^{1}]	ASK FOR

[110] Note that other descriptions of Mixtec languages may call this form the 'Incompletive' or 'Continuative'.
[111] Note that other descriptions of Mixtec languages call this form the 'Potential'.

káǐ [ka^{4}i^{14}]	kaxǎ [ka^{3}.ʃa^{14}]	COUGH
tsá'nu [t͡saʔ^{4}.nu^{3}]	kua'nu [k^{w}aʔ^{3}.nu^{3}]	GROW UP
tsí'i [t͡si^{4}.ʔi^{3}]	ko'o [ko^{3}.ʔo^{3}]	DRINK
tsásì [t͡sa^{4}.si^{1}]	kasì [ka^{3}.si^{1}]	LOCK (tr.)
tsíto [t͡si^{4}.t̪o^{3}]	koto [ko^{3}.t̪o^{3}]	TAKE CARE
tsísíkí [t͡si^{4}.si^{4}.ki^{4}]	kusíkí [ku^{3}.si^{4}.ki^{4}]	PLAY
tsítú [t͡si^{4}.t̪u^{4}]	kutú [ku^{3}.t̪u^{4}]	FILL
tsáìn [t͡sã^{4}ĩ^{1}]	kuaìn [k^{w}ã^{3}ĩ^{1}]	STEP
tsáchúun [t͡sa^{4}.t͡ʃũ^{4}ũ^{3}]	kuàchúun [k^{w}a^{1}.t͡ʃũ^{4}ũ^{3}]	USE
tsú'ní [t͡suʔ^{4}.ni^{4}]	kú'ní [kuʔ^{4}.ni^{4}]	SQUEEZE
tsîso [t͡si^{42}.so^{3}]	kuìso [k^{w}i^{1}.so^{3}]	ITCH
tsíta [t͡si^{4}.t̪a^{3}]	kata [ka^{3}.t̪a^{3}]	SING

Table 34. TAM categories in Sà'án Sàvǐ ñà ñuù Xnúvíkó and the stem they are based on

	Realis Stem	***Irrealis stem***
Realis mood	Imperfective Aspect	*Habitual Aspect*
	General imperfective	
	Habitual imperfective	*Progressive Aspect*
	Perfective Aspect	
Irrealis mood	Counterfactual mood	Irrealis mood
	Deontic mood	Prospective Aspect
Imperative mood		Imperative mood
Prohibitive mood		Prohibitive mood

As can be seen in Table 34, the main TAM categories in Sà'án Sàvǐ ñà ñuù Xnúvíkó are the imperfective aspect (§5.3.2.1); the perfective aspect (§5.3.2.2); the irrealis mood (§5.3.2.3); the prospective aspect (§5.3.2.4); the counterfactual mood (§5.3.2.5); the deontic mood (§5.3.2.6); the imperative mood (§5.3.2.7); and the prohibitive mood (§5.3.2.8). In addition, some rarer forms (in *italics* in Table 34) have been attested which can be analyzed as habitual aspect (§5.3.2.9) and progressive aspect (§5.3.2.10). Finally, verbs of 'go' and 'come' and some

positional and existential verbs present two forms (and two stems) for the imperfective aspect: a generic imperfective form and a habitual imperfective form (§5.3.2.1.1).

5.3.2.1. Imperfective aspect

The Imperfective Aspect in Sà'án Sàvĭ ñà ñuù Xnúvíkó is generally used to express an incomplete or habitual action (but, see §5.3.2.1.1 and §5.3.2.4 for other strategies for marking imperfective aspects). Example (218) illustrates the verb stem *sávà'a* 'prepare', used in the Imperfective Aspect which is marked with a High tone (H) in the first mora of the verb stem. This form is used, in this case, to express an action that is repeated frequently (*every day*).

(218) *Nti'i kìĭ-ni **sá**và'â nchaĭ **sá**và'â.*

nti'i	kìĭ=ni	**sá**-và'a=^{L}	nchaĭ	**sá**-và'a=^{L}
all	day=EMPH	**IPFV**.CAUS-good=1	food	**IPFV**.CAUS-good=1

'Every day I prepare food, I prepare.' [Kue_nchai_noo; A; 00:18]

Example (219) illustrates the verb *tsíkanuu* 'wonder' in the Imperfective Aspect, which is also marked with a High tone (H) in the first mora of the verb stem. This form is used to express that these people asked for a small bee (so it could sting them for medicinal purposes) while they were strolling in the square, emphasizing that the action of strolling was not completed.

(219) *Tá ntsà'àn-yù Ñuù ra kuà'ă nchuà'a kue nà* ***tsíkanuu*** *nùŭ yà'vi-ka ntsìkà kánkúun-nà ñùñŭ luu (...).*

tá	ntsà'àn=yù	Ñuù	ra
when	PFV.go=1	Mixtepec	TOP

kuà'ă	nchuà'a	kue	nà
many	very	PLZ	REL.HUM.PL

tsíkanuu	nùŭyà'i=ka	ra
IPFV.stroll	square=ANA	TOP

ntsìkà	kánkúun=nà	ñùñŭ=lu
PFV.ask_for	special=3HUM.PL	bee=DIM

'When I went to Mixtepec, many that were strolling in the square asked particularly for a small bee (...)' [Sachuun_tsi_nunu; GML; 06:18]

The imperfective aspect in Sà'án Sàvĭ ñà ñuù Xnúvíkó is generally marked with a High tone (H) in the first mora of the verb stem (see Table 35), although some verbs present a Falling tone (F) realized as a contour from High tone (H) to Low-mid tone (m) [^{42}] instead (see Table 36). For verbs with different stems for *realis* and *irrealis* moods (see Table 33), the realis stem is used for the imperfective aspect.

Table 35. Examples of verbs in the Imperfective Aspect, with a High tone in the first mora[112]

IPFV verb	Meaning
tsátsí [**t͡sa^{4}**.t͡si^{4}]	EAT (tr.)
káchì [**ka^{4}**.t͡ʃi^{1}]	SAY
tíín [**tĩ^{4}**ĩ^{4}]	GRAB
tsíkó [**t͡si^{4}**.ko^{4}]	SPIN
yú'ù [**ju^{4}**.ʔu^{1}]	BE AFRAID
ntává [**^{n}da^{4}**.βa^{4}]	FLY
chákù [t͡ʃa^{4}.ku^{1}]	BE ALIVE
t**só**sò [**t͡so^{4}**.t͡so^{1}]	WATER
ntúnche'e [**^{n}du^{4}**.^{n}d͡ʒe^{3}.ʔe^{3}]	BECOME AGGRESSIVE
tsíkuntú'ú [**t͡si^{4}**.ku^{3}.^{n}du^{4}.ʔu^{4}]	BE SITTING DOWN (usually)
ntákí'in [**^{n}da^{4}**.kĩ^{4}.ʔĩ^{3}]	GRAB AGAIN
ntó'o inì [**^{n}do^{4}**.ʔo^{3}.i^{3}.ni^{1}]	FEEL

Table 36. Examples of verbs in the Imperfective Aspect, with a Falling tone in the first mora

IPFV verb	Gloss
tûǔ [**t̪u^{42}**u^{34}]	SLIP
ntûu [**^{n}du^{42}**u^{3}]	EMERGE
kêe [**ke^{42}**e^{3}]	BE THROWN
tâăn [**tã^{42}**ã^{34}]	PUT
tsînì [**t͡si^{42}**.ni^{1}]	KNOW
tsînù inì [**t͡si^{42}**.nu^{1}.i^{3}.ni^{1}]	BELIEVE
ntêta [**^{n}de^{42}**.t̪a^{3}]	DESCEND
tsîsǒ [**t͡si^{42}**.so^{14}]	GET A CRAMP
tsôsǒ [**t͡so^{42}**.so^{14}]	RIDE
châkù [t͡ʃa^{42}.ku^{1}]	BE HEARD
snâa [**sna^{42}**a^{3}]	END (tr.)

[112] The examples in these tables are not semantically based.

However, there are a few verbs that in the imperfective aspect appear with a Mid tone (M) or even a Low tone (L) in the first mora (see Table 37). These are not predictable. Another set of verbs that presents unexpected tones in the imperfective aspect are the verbs of movement, which are discussed in the next sub-section (§5.3.2.1.1).

Table 37. Examples of verbs in the Imperfective Aspect with either a Mid or a Low tone in the first mora

IPFV verb	**Gloss**
naní [na^{3}.ni^{4}]	BE CALLED
chincheé [t͡ʃi^{3}.^{n}d͡ʒe^{3}e^{4}]	HELP
ntanchikó [^{n}da^{3}.^{n}d͡ʒi^{3}.ko^{4}]	COME BACK
chichúun [t͡ʃi^{3}.t͡ʃũ^{4}ũ^{3}]	ORDER
sàa [sa^{1}a^{3}]	HEAT UP
tù'va [tuʔ^{1}.βa̤^{3}]	DO (usually)
kutù'va [ku^{3}.tuʔ^{1}.βa̤^{3}]	LEARN

5.3.2.1.1. Imperfective and Imperfective Habitual: verbs of movement and positional verbs

There are four verbs of movement in Sà'án Sàvĭ ñà ñuù Xnúvíkó that present two forms for the imperfective aspect: verbs of 'go' and 'come'. These forms correspond to forms in other Mixtec languages, which have been described as *habitual* and *incompletive* (in progress), for example, in Alcatlatzala Mixtec (Zylstra 2012: 88). In Sà'án Sàvĭ ñà ñuù Xnúvíkó one of the forms is specialized as *habitual* (§5.3.2.3 on the general habitual marker), whereas the other form is used as a general imperfective and, as such, is much more common in speech. Table 38 presents the general imperfective and the imperfective habitual forms of these verbs.

Table 38. Imperfective forms of the verbs 'go' and 'come'[113]

IPFV verb	**IPFV.HAB verb**	**Meaning**
kuà'àn [$k^{w}ã^{1}.ʔã^{1}$]	tsá'àn [$\widehat{ts}ã^{4}.ʔã^{1}$]	GO (non-base)
kuànǔ'ú [$k^{w}a^{1}.nu^{14}.ʔu^{4}$]	nú'ù [$nu^{4}.ʔu^{1}$]	GO (base)
vàtsi [$βa^{1}.\widehat{ts}i^{3}$]	kítsi [$ki^{4}.\widehat{ts}i^{3}$]	COME (non-base)
vàtsi ntítsi [$βa^{1}.\widehat{ts}i^{3}.{}^{n}di^{4}.\widehat{ts}i^{3}$]	ntítsi [$^{n}di^{4}.\widehat{ts}i^{3}$]	COME (base)

Example (220) shows the use of the form *kuà'àn* ‘go’. The verb *ntànta'ă* ‘get married’ in the example appears in the perfective aspect (§5.3.2.2) but since the speaker ‘went’ but did not come back, the action of the verb *kuà'àn* ‘go’ is not complete and therefore the imperfective aspect is used. The ways in which the semantics of the verbs of movement interact with TAM in Sà'án Sàvĭ ñà ñuù Xnúvíkó has not been studied in-depth yet.

(220) *Ntànta'â jara **kuà'àn**-yù ñuù tò'ò ra kuĕ níntànchikó-kà-yù*

ntànta'ă=^{L}	jara		
PFV.get_married=1	then		
kuà'àn=yù	ñuù	tò'ò	ra
IPFV.go_NONBASE=1	village	foreigner	TOP

kuĕ	ní	ntànchikó=kà=yù
NEG	CTF	come_back=more=1

‘I got married and I went abroad, and I didn’t come back.’ [Kue_nchai_noo; A; 03:50]

In addition, some positional verbs also seem to present two forms for the imperfective aspect, such as *ínkáà* [$i^{4}.nga^{4}a^{1}$] (IPFV) and *tsíkàà* [$\widehat{ts}i^{4}.ka^{1}a^{1}$] (IPFV.HAB) ‘stay’; or *yéè* [$je^{4}e^{1}$] (IPFV) and *tsíǒ* [$\widehat{ts}i^{4}o^{14}$] (IPFV.HAB) ‘be (in a place) / exist’.

[113] The labels ‘base’ and ‘non-base’ refer to whether the movement is towards a place that the subject of the verb usually goes/comes to (base) or not (non-base) (Kuiper & Merrifield 1975).

5.3.2.2. Perfective aspect

The Perfective Aspect in Sà'án Sàvĭ ñà ñuù Xnúvíkó is used to refer to a complete action (Comrie 1976: 21) as can be seen in example (221). In this example the verb *ntìtsàà* 'arrive' appears in the perfective form to refer to the action of arriving as a complete event, as opposed to the action of seeing (again), *ntákunì*, which is referred to as an ongoing action.

(221) *Ñŏ'o-ni kúu-ñà ntákunì-yù* ***ntìtsàà****-yù.*

ñà=yó'o=ni	kúuñà
CL.GNR=PROX=EMPH	FOC
ntá-kunì=yù	**ntìtsàà**=yù
IPFV.ITER-see=1	**PFV.arrive**=1

'This is what I am seeing after I arrived here.' [Ntoo_na_tsika_ntavi; FVM; 10:00]

The Perfective Aspect in Sà'án Sàvĭ ñà ñuù Xnúvíkó can be expressed by modifying the verb in different ways. For verbs that have different *realis* and *irrealis* stems (see Table 33, p. 186), the realis stem is used for the perfective aspect. The ways in which the perfective aspect is marked can be categorized into three main strategies: with a prefix and a tone change, with prenasalization of the onset consonant and a tone change, or via tone change alone.

Table 39 shows examples of verbs that form the Perfective aspect by adding the prefix *nì-* to the stem, and a Low (L), a Low-mid (m) or a Rising tone (R) in the first mora of the verb stem. All verbs with the prefix *ku-* (§5.3.4.3) mark the perfective aspect with the prefix *nì-* and a Low tone (L), that is, with *nìkù-*.

Table 39. Examples of verbs that use the prefix nì- to mark the perfective aspect. The Imperfective form is included for comparison

PFV verb	**Meaning**	**IPFV verb**
nìkìxì [**ni^{1}.ki^{1}**.ʃi^{1}]	SLEEP	kíxì [ki^{4}.ʃi^{1}]
nìkàna [**ni^{1}.ka^{1}**.na^{3}]	LEAVE	kána [ka^{4}.na^{3}]
nìntòo [**ni^{1}.^{n}do^{1}**o^{3}]	REMAIN	ntôo [^{n}do^{42}o^{3}]
nìkìtsáá [**ni^{1}.ki^{1}**.t͡sa^{4}a^{4}]	START	kítsáá [ki^{4}.t͡sa^{4}a^{4}]
nìkùnu [**ni^{1}.ku^{1}**.nu^{3}]	WEAVE	kúnu [ku^{4}.nu^{3}]
nìyà'a [**ni^{1}.ja^{1}**.ʔa^{2}]	PASS	yá'a [ja^{4}.ʔa^{2}]
nìkaa [**ni^{1}.ka^{2}**a^{3}]	SWELL	káa [ka^{4}a^{3}]
nìka'àn [**ni^{1}.kã^{2}**.ʔã^{1}]	SPEAK	ká'àn [kã^{4}.ʔã^{1}]
nìkaì [**ni^{1}.ka^{2}**i^{1}]	BURN (itr.)	káì [ka^{4}i^{1}]
nìyǔ'ù [**ni^{1}.ju^{13}**.ʔu^{1}]	BE AFRAID	yú'ù [ju^{4}.ʔu^{1}]
nìkǎku [**ni^{1}.ka^{14}**.ku^{3}]	BE BORN	káku [ka^{4}ku^{3}]
nìkǎchì [**ni^{1}.ka^{14}**.t͡ʃi^{1}]	SAY	káchì [ka^{4}.t͡ʃi^{1}]
nìkǎna [**ni^{1}.ka^{14}**.na^{3}]	CALL	kána [ka^{4}.na^{3}]
nìxǐko [**ni^{1}.ʃi^{14}**.ko^{3}]	SELL	xíko [ʃi^{4}.ko^{3}]
nìkùntìî [**ni^{1}.ku^{1}**.^{n}di^{1}i^{41}]	BE FAT	kúntìî [ku^{4}.^{n}di^{1}i^{41}]

Table 40 shows examples of verbs that form the Perfective Aspect by turning plain /t̪, t͡s, t͡ʃ/ into their prenasalized[114] counterparts /^{n}t̪, ^{n}t͡s, ^{n}t͡ʃ/ (§3.2.1 and §3.2.2) and with a Low (L), a Low-mid (m) or a Rising tone (R) in the first mora of the verb stem. All verbs with the auxiliary *tsí-* (§5.3.3.1) and the prefix *chi-* (§5.3.4.5) mark the perfective aspect with pre-nasalization and a Low tone (L), that is, with *nchì-*.

[114] See Belmar & Salazar 2023 on the phonetic realization of morphological pre-nasalization.

Table 40. Examples of verbs that use pre-nasalization to mark the perfective aspect. The Imperfective form is included for comparison.

PFV verb	**Meaning**	**IPFV verb**
ntà'vǐ [**ⁿda²¹**.βi̤^{14}]	BREAK OPEN	tá'vǐ [t̪aʔ^{4}.βi̤^{14}]
ntàan [**ⁿdã¹**ã^{3}]	QUAKE	tâan [t̪ã^{42}ã^{3}]
ntànta'ă [**ⁿda¹**.ⁿda^{3}.ʔa^{14}]	GET MARRIED	tánta'ă [t̪a^{4}.ⁿda^{3}.ʔa^{14}]
ntànchaâ [**ⁿda¹**.ⁿd͡ʒa^{2}a^{41}]	GET CLOSER	tánchaâ [t̪a^{4}.ⁿd͡ʒa^{3}a^{41}]
ntùtsǐ [**ⁿdu¹**.t͡si^{14}]	GET HURT	túts̆ǐ [t̪u^{4}.t͡si^{14}]
ntàăn [**ⁿdã¹**ã^{14}]	PUT	tâăn [t̪ã^{42}ã^{34}]
ntsìka [**ⁿd͡zi¹**.ka^{3}]	WALK	tsíka [t͡si4.ka3]
ntsà'a [**ⁿd͡za¹**.ʔa^{3}]	GIVE	tsá'a [t͡sa^{4}.ʔa^{3}]
ntsì'ì [**ⁿd͡zi¹**.ʔi^{1}]	DIE	tsí'ì [t͡si^{4}.ʔi^{1}]
ntsì'i [**ⁿd͡zi¹**.ʔi^{3}]	DRINK	tsí'i [t͡si^{4}.ʔi^{3}]
ntsìkà [**ⁿd͡zi¹**.ka^{1}]	ASK FOR	tsíkà [t͡si^{4}.ka^{1}]
ntsà'nu [**ⁿd͡zaʔ¹**.nu^{3}]	GROW UP	tsá'nu [t͡saʔ^{4}.nu^{3}]
ntsìnì [**ⁿd͡zi¹**.ni^{1}]	KNOW	tsînì [t͡si^{42}.ni^{1}]
ntsìni [**ⁿd͡zi¹**.ni^{3}]	GET DRUNK	tsîni [t͡si^{42}.ni^{3}]
nchàa [**ⁿd͡ʒa¹**a^{3}]	WRITE	cháa [t͡ʃa^{4}a^{3}]
nchì'i [**ⁿd͡ʒi¹**.ʔi^{3}]	PLANT	chí'i [t͡ʃi^{4}.ʔi^{3}]
nchìntă'á [**ⁿd͡ʒi¹**.ⁿda^{13}.ʔa^{4}]	SEND	chínta'á [t͡ʃi^{4}.ⁿda^{3}.ʔa^{4}]
nchìkătú [**ⁿd͡ʒi¹**.ka^{13}.t̪u^{4}]	TIE	chíkatú [t͡ʃi^{4}.ka^{3}.t̪u^{4}]
nchìncheé [**ⁿd͡ʒi¹**.ⁿd͡ʒe^{3}e^{4}]	HELP	chincheé [t͡ʃi^{3}.ⁿd͡ʒe^{3}e^{4}]
ntavă [**ⁿda²**.βa^{14}]	TAKE OUT	távă [t̪a^{4}.βa^{14}]
ntsanĭ [**ⁿd͡za²**.ni^{14}]	POUT	tsánĭ [t͡sa^{4}.ni^{14}]
ntŭ'un [**ndũ¹⁴**.ʔũ^{3}]	PULL OUT	tú'un [t̪ũ^{4}.ʔũ^{3}]
ntĭin [**ⁿdĩ¹⁴**ĩ^{3}]	GRAB	tíín [t̪ĩ^{4}ĩ^{4}]
ntĭvì [**ⁿdi²³**.βi̤^{1}]	BLOW	tívì [t̪i^{4}.βi̤^{1}]
ntsă'nchà [**ⁿd͡zaʔ¹³**.ⁿd͡ʒa^{1}]	CUT (tr.)	tsá'nchà [t͡saʔ^{4}.ⁿd͡ʒa^{1}]
ntsănì [**ⁿd͡za¹³**.ni^{1}]	DREAM	tsánì [t͡sa^{4}.ni^{1}]

Table 41 shows examples of verbs that form the Perfective Aspect by adding a Low (L), a Low-mid (m), or a Rising tone (R) in the first mora of the verb stem. All verbs with the prefixes *ntá-* (§5.3.4.1) and *ntú-* (§5.3.4.2) mark the perfective aspect with a Low tone (L), that is, with *ntà-* and *ntù-* respectively. All verbs with the causative prefixes *s-* and *sá-* (§5.3.4.4 and §5.3.4.6) mark the perfective aspect with a Rising tone (R). Other verbs that express the perfective aspect solely with tone changes are not predictable.

Table 41. Examples of verbs that mark the perfective aspect solely through tone. The Imperfective form is included for comparison.

PFV verb	**Meaning**	**IPFV verb**
ntùtsa [**^{n}du^{1}**.t͡sa^{3}]	VOMIT	ntútsa [^{n}du^{4}.t͡sa^{3}]
nchàtu [**^{n}d͡ʒa^{1}**.tu^{3}]	WAIT (tr.)	nchátu [^{n}d͡ʒa^{4}.tu^{3}]
kìsúǔ [**ki^{1}**.su^{4}u^{14}]	WHISTLE	kísúǔ [ki^{4}.su^{4}u^{14}]
ntà'ì [**^{n}da^{1}**.ʔi^{1}]	CRY; WAIL	ntá'ì [^{n}da^{4}.ʔi^{1}]
làlá [**la^{1}**.la^{4}]	PEE	lálá [la^{4}.la^{4}]
nàa [**na^{1}**a^{3}]	CARRY	náa [na^{4}a^{3}]
ntùkú [**^{n}du^{1}**.ku^{4}]	LOOK FOR	ntúkú [^{n}du^{4}.ku^{4}]
nè'ě [**ne^{1}**.ʔe^{14}]	GET	né'ě [ne^{4}.ʔe^{14}]
kè'e [**ke^{1}**.ʔe^{3}]	TOUCH	ké'e [ke^{4}.ʔe^{3}]
nuu [**nu^{2}**u^{3}]	GO DOWN	núu [nu^{4}u^{3}]
kǎntà [**ka^{13}**.^{n}da^{1}]	MOVE	kántà [ka^{4}.^{n}da^{1}]
ntǎvá [**^{n}da^{14}**.βa^{4}]	FLY	ntává [^{n}da^{4}.βa^{4}]
tǎtsí [**ta^{14}**.t͡si^{4}]	UNTIE	tátsí [ta^{4}.t͡si^{4}]
nǎa [**na^{13}**a^{2}]	END (itr.); FADE	nâa [na^{42}a^{3}]
sǎ'a [**sa^{14}**.ʔa^{3}]	DO	sá'a [sa^{4}.ʔa^{3}]
sǎchúun [**sa^{14}**.t͡ʃũ^{4}ũ^{3}]	WORK	sáchúun [sa^{4}.t͡ʃũ^{4}ũ^{3}]
skuǐ'ná [**sk^{w}iʔ^{14}**.na^{4}]	STEAL	skuí'ná [sk^{w}iʔ^{4}.na^{4}]
skǎtsá'an [**ska^{14}**.t͡sã^{4}.ʔã^{3}]	FEED	skátsá'an [ska^{4}.t͡sã^{4}.ʔã^{3}]
sǐ'ù [**si^{13}**.ʔu^{1}]	FRIGHTEN	sí'ù [si^{4}.ʔu^{1}]

Examples (222), (223), and (224) illustrate the different strategies for marking the perfective aspect in speech. In example (222) the verb *nìxǐko* ‘sell’ appears in the perfective aspect, marked with the prefix *nì-* and a Rising tone (R) in the first mora of the verb. Example (223) shows the verb *ntsà'nu*, which markes the perfective aspect with pre-nasalization of word-initial affricate and a Low tone (L) in the first mora. Finally, example (224) shows the verb *sǎ'a* ‘do’, which marks the perfective aspect with a Rising tone (R) in the first mora.

(222) *Tá* ***nìxǐkô*** *ntúchá luù*
tá **nìxǐko**=L ntúchá=lu=L
when **PFV.sell**=1 goat=DIM=1
‘When I had sold my little goat then (...).’ [Vaa_chinchee_ntucha; AOC; 05:03]

(223) *Nùǔ* ***ntsà'nû*** *ra ntsìkà-nà-yù.*
nùǔ **ntsà'nu**=L ra ntsìkà=nà=yù
when **PFV.grow_up**=1 TOP PFV.ask_for=3HUM.PL=1
‘When I had grown up they asked for me (my hand).’ [Ta_tsaa_naa_Yukunani; HVL; 00:18]

(224) ***Sǎ'í*** *mólì*
sǎ'a=í mólì
PFV.do=3F mole
‘She made *mole*.’ [Tantaa-na_Yukunani; A; 07:38]

For verbs of movement and positional verbs that present two imperfective forms, the perfective form is based on the imperfective habitual form (§5.3.2.1.1).

Table 42. Examples of Perfective forms for verbs of 'go' and 'come' and positional verbs. The Imperfective forms are included for comparison.

PFV verb	**Meaning**	**IPFV verb**	**IPFV.HAB verb**
ntsà'àn [**ⁿd͡zã¹**.ʔã¹]	GO (non-base)	kuà'àn [kʷã¹.ʔã¹]	tsá'àn [t͡sã⁴.ʔã¹]
nìnǔ'ú [**ni¹.nu¹⁴**.ʔu⁴]	GO (base)	kuànǔ'ú [kʷa¹.nu¹⁴.ʔu⁴]	nú'ù [nu⁴.ʔu¹]
nìkìtsi [**ni¹.ki¹**.t͡si³]	COME (non-base)	vàtsi [βa̤¹.t͡si³]	kítsi [ki⁴.t͡si³]
ntìtsi [**ⁿdi¹**.t͡si³]	COME (base)	vàtsi ntítsi [βa̤¹.t͡si³.ⁿdi⁴.t͡si³]	ntítsi [ⁿdi⁴.t͡si³]
ntsìkàà [**ⁿd͡zi¹**.ka¹a¹]	STAY	ínkáà [i⁴.ᵑga⁴a¹]	tsíkàà [t͡si⁴.ka¹a¹]
ntsìo [**ⁿd͡zi¹**.o³]	BE (in a place); EXIST	yéè [je⁴e¹]	tsíǒ [t͡si⁴.o¹⁴]

However, there are a handful of verbs (see Table 43) that cannot take perfective marking without the habitual auxiliary (§5.3.3.1), resulting in the form *ntsì*. In addition, there is at least one verb with the prefix *nì-* followed by a High tone (H) in the first mora of the verb: *nìká'án* [ni¹.kã⁴.ʔã⁴], from *ká'án* [kã⁴.ʔã⁴] 'think'.

Table 43. Examples of verbs that mark the perfective aspect together with the habitual marker. The Imperfective form is included for comparison.

PFV verb	**Meaning**	**IPFV verb**
ntsìnchèě [**ⁿd͡zi¹**.ⁿd͡ʒe¹e¹⁴]	LOOK	nché'e [ⁿd͡ʒe⁴.ʔe³]
ntsìtàvi [**ⁿd͡zi¹**.t̪a¹.βi̤³]	TOAST	távi [t̪a⁴.βi̤³]
ntsìnaní [**ⁿd͡zi¹**.na³.ni⁴]	BE CALLED	naní [na³.ni⁴]
ntsìchakù [**ⁿd͡zi¹**.t͡ʃa³.ku¹]	BE ALIVE[115]	chákù [t͡ʃa⁴.ku¹]

Finally, as we analyzed our corpus it was noticeable that forms that can mark the perfective aspect solely through tone change (see Table 41) can sometimes appear with the prefix *nì-* as well (see Table 44 for some examples). It is not clear yet whether there is a

[115] However, the verb *chákù inì* [t͡ʃa⁴.ku¹.i³.ni¹] (IPFV) 'be self-aware' corresponds to the form *nchàkù inì* [ⁿd͡ʒa¹.ku¹.i³.ni¹] (PFV).

distinction between these forms or what motivates speakers to use one or the other, and even alternate between them, in discourse.

Table 44. Some examples of verbs for which two perfective forms (marked solely by tone or with the prefix *nì-*) have been attested. The imperfective form is included for comparison.

PFV verb (nì-)	PFV verb (tone)	Meaning	IPFV verb
nìnè'ě [**ni^{1}.ne^{1}**.ʔe^{14}]	**nè**'ě [**ne^{1}**.ʔe^{14}]	GET	né'ě [ne^{4}.ʔe^{14}]
nìkùnì [**ni^{1}.ku^{1}**.ni^{1}]	**kù**nì [**ku^{1}**.ni^{1}]	WANT	kúnì [ku^{4}.ni^{1}]
nìsă'a [**ni^{1}.sa^{14}**.ʔa^{3}]	**să**'a [**sa^{14}**.ʔa^{3}]	DO	sá'a [sa^{4}.ʔa^{3}]
nìskua'a [**ni^{1}.sk^{w}a^{14}**.ʔa^{3}]	**skuă**'a [**sk^{w}a^{14}**.ʔa^{3}]	LEARN	skuá'a [sk^{w}a^{4}.ʔa^{3}]
nìntàkàtù'un [**ni^{1}.^{n}da^{1}**.ka^{1}.tũ^{1}.ʔũ^{3}]	**ntà**kàtù'un [**^{n}da^{1}**.ka^{1}.tũ^{1}.ʔũ^{3}]	ASK	ntákàtù'ùn [^{n}da^{4}.ka^{1}.tũ^{1}.ʔũ^{3}]

5.3.2.3. Irrealis mood

Verbs in Sà'án Sàvĭ ñà ñuù Xnúvíkó present an irrealis form, which is used in a wide range of types of subordinate clauses. This form is often referred to as the *potential* form in descriptions of other Mixtec languages (Brickford & Marlett 1988; Zylstra 2012; Hollenbach 2015; Eischens 2024).[116] However, since its uses extend beyond expressing possibility, I opt for the generic label of *irrealis* in this dissertation. Consider example (225). In this example the irrealis forms *ntakuà'a* 'deliver' and *kuyà'vi* 'be priced' are used to express the purpose of the action of going. Clauses of purpose, whether they are introduced with a subordinator or not, are often expressed with the irrealis form.

[116] Alternatively, some descriptions use the term potential to describe what I call the Prospective Aspect in this dissertation (e.g., Costello 2014) including work on Sà'án Sàvĭ ñà ñuù Xnúvíkó (Bowers 2020).

(225) *Tá kuà'àn-yù* ***ntakuà'â*** *metâl luu* ***kuyà'vi-tí****.*
tá
when

kuà'àn=yù **nta-kuà'a=L** metâl luu
IPFV.go =1 **IRR.ITER-give=1** metal small

ku-yà'vi=tí
IRR.STA-priced=3ROUND

'When I went to deliver the metal so that it would be priced (…)' [Ntavi_ntixi; FVM; 01:37]

The Irrealis Mood in Sà'án Sàvĭ ñà ñuù Xnúvíkó is generally marked with a Mid tone (M) in the first mora of the verb stem (see Table 45).

Table 45. Examples of verbs in the Irrealis Mood, marked with a Mid tone (M) in the first mora. Imperfective and Perfective forms added for comparison.

IRR verb	**Meaning**	**IPFV verb**	**PFV verb**
tiin [**ṯĩ^{3}**ĩ^{3}]	GRAB	tíín [ṯĩ̃^{4}ĩ̃^{4}]	ntĭin [^{n}dĩ^{14}ĩ̃^{3}]
tivì [**ṯi^{3}**.βi̤^{1}]	BLOW	tívì [ṯi^{4}.βi̤^{1}]	ntĭvì [^{n}di^{13}.βi̤^{1}]
yu'ù [**ju^{3}**.ʔu^{1}]	BE AFRAID	yú'ù [ju^{4}.ʔu^{1}]	nìyŭ'ù [ni^{1}.ju^{13}.ʔu^{1}]
chaa [**t͡ʃa^{3}**a^{3}]	WRITE	cháa [t͡ʃa^{4}a^{3}]	nchàa [^{n}d͡ʒa^{1}a^{3}]
lalá [**la^{3}**.la^{4}]	PEE	lálá [la^{4}.la^{4}]	làlá [la^{1}.la^{4}]
ntukú [**^{n}du^{3}**.ku^{4}]	LOOK FOR	ntúkú [^{n}du^{4}.ku^{4}]	ntùkú [^{n}du^{1}.ku^{4}]
ne'ĕ [**ne^{3}**.ʔe^{14}]	GET	né'ĕ [ne^{4}.ʔe^{14}]	nè'ĕ [ne^{1}.ʔe^{14}]
ka'àn [**kã^{3}**.ʔã^{1}]	SPEAK	ká'àn [kã^{4}.ʔã^{1}]	nìka'àn [ni^{1}.kã^{2}.ʔã^{1}]
kaì [**ka^{3}**i^{1}]	BURN (itr.)	káì [ka^{4}i^{1}]	nìkaì [ni^{1}.ka^{2}i^{1}]
tsikuìin [**t͡si^{3}**.k^{w}ĩ^{1}ĩ^{1}]	STOP	tsíkuìin [t͡si^{4}.k^{w}ĩ^{1}ĩ^{1}]	ntsìkuìin [^{n}d͡zi^{1}.k^{w}ĩ^{1}ĩ^{1}]
tuu [**ṯu^{3}**u^{3}]	STING	túu [ṯu^{4}u^{3}]	ntùu [^{n}du^{1}u^{3}]
nuu [nu^{3}u^{3}] [117]	GO DOWN	núu [nu^{4}u^{3}]	nuu [nu^{2}u^{3}]
kincháà [**ki^{3}**.^{n}d͡ʒa^{4}a^{1}]	SPEND	kíncháà [ki^{4}.^{n}d͡ʒa^{4}a^{1}]	nìkìncháà [ni^{1}.ki^{1}.^{n}d͡ʒa^{4}a^{1}]
kitsi [ki^{3}.t͡si^{3}]	COME	vàtsi [βa^{1}.t͡si^{3}] / kítsi [ki^{4}.t͡si^{3}]	nìkìtsi [ni^{1}.ki^{1}.t͡si^{3}]

[117] Since the practical orthography does not distinguish between mid (M) and low-mid tones (m), the perfective and the irrealis forms of this verb are spelled the same. Noticee, however, the different tones in the first mora of each form.

However, monosyllabic bimoraic stems with a Falling tone (F) in the first mora of the Imperfective aspect (see Table 36, p. 190) take a Low-mid tone (m) in the first mora of the Irrealis form (see Table 46).

Table 46. Examples of verbs marking the Irrealis form with a Low-mid tone (m). Imperfective and Perfective forms added for comparison.

IRR verb	**Meaning**	**IPFV verb**	**PFV verb**
taan [**t̪ã²**ã³][118]	QUAKE	tâan [t̪ã⁴²ã³]	ntàan [ⁿdã¹ã³]
taăn [**t̪ã²**ã¹⁴]	PUT	tâăn [t̪ã⁴²ã³⁴]	ntàăn [ⁿdã¹ã¹⁴]
tuu [**t̪u²**u³][119]	RISE (sun)	tûu [t̪u⁴²u³]	ntùu [ⁿdu¹u³]
kee [**ke²**e³]	BE THROWN	kêe [ke⁴²e³]	nìkee [ni¹.ke²e³]
naa [**na²**a³]	END (itr.)	nâa [na⁴²a³]	năa [na¹³a²]
ntoo [**ⁿdo²**o³]	REMAIN	ntôo [ⁿdo⁴²o³]	nìntòo [ni¹.ⁿdo¹o³]
tuŭ [**t̪u²**u¹⁴]	SLIP	tûŭ [t̪u⁴²u³⁴]	ntùŭ [ⁿdu¹.u¹⁴]

In addition, the verb *sá'a* ‘do’ and verbs with the causative prefixes *s-*, *sá-*, or *skú-* take a High tone (H) in the first mora instead, which makes the irrealis form phonetically the same as the imperfective aspect form (see Table 47). This is also true for verbs borrowed from Spanish with the prefix *sá-* (see Table 48).

[118] Since the practical orthography used in this dissertation does not distinguish the mid (M) and the low-mid tone (m) these forms appear to be simple sequences of mid-mid tones. Notice, however, the different tones in the different morae. This tonal melody (mM) is extremely uncommon in uninflected lexical words (see Table 8, p. 50), which is why it is not captured in the orthography.

[119] Notice how despite being spelled in the same way, the irrealis forms of the verbs *túu* (IPFV) [t̪u⁴u³] ‘sting’ and *tûu* (IPFV) [t̪u⁴²u³] ‘rise (the sun)’ are pronounced differently: *tuu* (IRR) [t̪u³u³] ‘sting’ and *tuu* (IRR) [t̪u²u³] ‘rise (the sun)’.

Table 47. Examples of verbs with causative prefixes marking the Irrealis form with a High tone (H) in the first mora. Imperfective and Perfective forms added for comparison.

IRR verb	**Meaning**	**IPFV verb**	**PFV verb**
sá'a [**sa^{4}**.ʔa^{3}]	DO	**sá**'a [**sa^{4}.**ʔa^{3}]	să'a [sa^{14}.ʔa^{3}]
skuí'ná [**sk^{w}iʔ^{4}**.na^{4}]	STEAL	**skuí'**ná [**sk^{w}iʔ^{4}**.na^{4}]	skuĭ'ná [sk^{w}iʔ^{14}.na^{4}]
skuíko [**sk^{w}i^{4}**.ko^{3}]	TURN (tr.)	**skuí**ko [sk^{w}i^{4}.ko^{3}]	skuĭko [sk^{w}i^{14}.ko^{3}]
skátsá'an [**ska^{4}**.t͡sã^{4}.ʔã^{3}]	FEED (tr.)	**ská**tsá'an [**ska^{4}**.t͡sã^{4}.ʔã^{3}]	skătsá'an [ska^{14}.t͡sã^{4}.ʔã^{3}]
sí'ù [**si^{4}**.ʔu^{1}]	FRIGHTEN	**sí**'ù [**si^{4}**.ʔu^{1}]	sĭ'ù [si^{13}.ʔu^{1}]
skáku [**ska^{4}**.ku^{3}]	FREE (tr.)	**ská**ku [**ska^{4}**.ku^{3}]	skăku [ska^{14}.ku^{3}]
skuíĩ [**sk^{w}i^{4}**i^{14}]	SKIN (tr.)	**skuí**ĩ [**sk^{w}i^{4}**i^{14}]	skuìĭ [sk^{w}i^{1}i^{14}]
stéě [**sn̪e^{4}**e^{14}]	RE-PLANT (tr.)	**sté**ě [**sn̪e^{4}**e^{14}]	stèě [sn̪e^{1}e^{14}]
skáka [**ska^{4}**.ka^{3}]	MOVE (tr.)	**ská**ka [**ska^{4}**.ka^{3}]	skăka [ska^{14}.ka^{3}]
skuá'nu [**sk^{w}aʔ^{4}**.nu^{3}]	RAISE UP (tr.)	**skuá'**nu [**sk^{w}aʔ^{4}**.nu^{3}]	skuă'nu [sk^{w}aʔ^{14}.nu^{3}]
stíî [**sn̪i^{4}**i^{41}]	FATTEN (tr.)	**stí**î [**sn̪i^{4}**i^{41}]	stìî [sn̪i^{1}i^{41}]
stútù [**sn̪u^{4}**.n̪u^{1}]	FRY (tr.)	**stú**tù [**sn̪u^{4}**.n̪u^{1}]	stŭtù [sn̪u^{13}.n̪u^{1}]
skúnaní [**sku^{4}**.na^{3}.ni^{4}]	NAME (tr.)	**skú**naní [**sku^{4}**.na^{3}.ni^{4}]	skŭnaní [sku^{14}.na^{3}.ni^{4}]
skútú [**sku^{4}**.n̪u^{4}]	FILL (tr.)	**skú**tú [**sku^{4}**.n̪u^{4}]	skŭtú [sku^{14}.n̪u^{4}]
sáchúun [**sa^{4}**.t͡ʃũ^{4}ũ^{3}]	WORK (tr.)	**sá**chúun [**sa^{4}**.t͡ʃũ^{4}ũ^{3}]	săchúun [sa^{14}.t͡ʃũ^{4}ũ^{3}]
stá'vì [**sn̪aʔ^{4}**.βi̪^{1}]	LIE (tr.)	**stá'**vì [**sn̪aʔ^{4}**.βi̪^{1}]	stă'vì [sn̪aʔ^{13}.βi̪^{1}]
skáa [**ska^{4}**a^{3}]	MOVE UP (tr.)	**ská**a [**ska^{4}**a^{3}]	skăa [ska^{14}a^{3}]

Table 48. Examples of the Irrealis form in verbs borrowed from Spanish with the prefix *sá'-*. Imperfective and Perfective forms added for comparison.

IRR verb	**Meaning**	**IPFV verb**	**PFV verb**
sá' ganâr [**sa^{4}**.ga^{3}.naɾ^{41}]	WIN	**sá'** ganâr [**sa^{4}**.ga^{3}.naɾ^{41}]	să' ganâr [sa^{14}.ga^{3}.naɾ^{41}]
sá' strañâr [**sa^{4}**.stɾa^{3}.ɲaɾ^{41}]	MISS	**sá'** strañâr [**sa^{4}**.stɾa^{3}.ɲaɾ^{41}]	să' strañâr [sa^{14}.stɾa^{3}.ɲaɾ^{41}]
sá' visitâr [**sa^{4}**.βi̯^{3}.si^{3}.ʈaɾ^{41}]	VISIT	**sá'** visitâr [**sa^{4}**.βi̯^{3}.si^{3}.ʈaɾ^{41}]	să' visitâr [sa^{14}.βi̯^{3}.si^{3}.ʈaɾ^{41}]

A handful of monosyllabic bimoraic causative verbs which take a Falling tone (F) for the imperfective aspect mark the irrealis form with a Low-mid tone (m) instead (see Table 49), similar to the verbs in Table 46 (p. 201).

Table 49. Examples of causative verbs marking the Irrealis form with a Low-mid (m) tone in the first mora. Imperfective and Perfective forms added for comparison.

IRR verb	**Meaning**	**IPFV verb**	**PFV verb**
snaa [**sna^{2}**a^{3}]	END (tr.)	snâa [sna^{42}a^{3}]	snăa [sna^{14}a^{3}]
snuu [**snu^{2}**u^{3}]	MOVE DOWN (tr.)	snûu [snu^{42}u^{3}]	snŭu [snu^{14}u^{3}]
stuu [**sʈu^{2}**u^{3}]	CREATE	stûu [sʈu^{42}u^{3}]	stŭu [sʈu^{14}u^{3}]

Moreover, as mentioned in §5.3.2, some verbs present an alternate stem in the irrealis form (see Table 50 illustrating a subset of Table 33, p. 186, for convenience). There tends to

be correspondence of word-initial /ts/ in the imperfective forms with word-initial /k/ in the irrealis forms.[120]

Table 50. Examples of verbs with alternating realis and irrealis stems

IPFV verb (*realis* stem)	**IRR verb (*irrealis* stem)**	**Meaning**
tsákì [t͡sa^{4}.ki^{1}]	kakì [ka^{3}.ki^{1}]	SOW
tsíkó [t͡si^{4}.ko^{4}]	kuikó [k^{w}i^{3}.ko^{4}]	SPIN
tsátsí [t͡sa^{4}.t͡si^{4}]	katsí [ka^{3}.t͡si^{4}]	EAT (tr.)
tsítsá'an [t͡si^{4}.t͡sã^{4}.ʔã^{3}]	kàtsá'an [ka^{1}.t͡sã^{4}.ʔã^{3}]	EAT (itr.)
tsísinì [t͡si^{4}.si^{3}.ni^{1}]	kasinì [ka^{3}.si^{3}.ni^{1}]	HAVE LUNCH
tsá'nchà [t͡saʔ^{4}.^{n}d͡ʒa^{1}]	ká'nchà [kaʔ^{4}.^{n}d͡ʒa^{1}]	CUT
tsînì [t͡si^{42}.ni^{1}]	kùnì [ku^{1}.ni^{1}]	KNOW
tsíchi [t͡si^{4}.t͡ʃi^{3}]	kuchi [ku^{3}.t͡ʃi^{3}]	BATHE
tsósò [t͡so^{4}.so^{1}]	kòsò [ko^{1}.so^{1}]	WATER
tsíka [t͡si^{4}.ka^{3}]	kaka [ka^{3}.ka^{3}]	WALK
kuà'àn [k^{w}ã^{1}.ʔã^{1}] / tsá'àn [t͡sã^{4}.ʔã^{1}]	kù'ùn [kũ^{1}.ʔũ^{1}]	GO (non-base)
kuànŭ'ú [k^{w}a^{1}.nu^{14}.ʔu^{4}]	nŭ'ù [nu^{13}.ʔu^{1}]	GO (base)

In addition, some verbs present a Low tone in the first mora of the irrealis form, such as *yàvà* [ja^{1}.βa^{1}] (IRR) 'spread' (compare to *yávà* [ja^{4}.βa^{1}] (IPFV) and *nìyàvà* [ni^{1}.ja^{1}.βa^{1}] (PFV)); or *tsàà* [t͡sa^{1}a^{1}] (IRR) 'arrive there (non-base)' (compare to *tsáà* [t͡sa^{4}a^{1}] (IPFV) and *ntsàà* [^{n}d͡za^{1}a^{1}] (PFV)). Finally, Irrealis forms in Sà'án Sàvĭ ñà ñuù Xnúvíkó also present tonally different negative forms (Belmar & Salazar 2023). In general, these are characterized by a Rising tone (R) in the first mora of the verb.

[120] Some verbs do not alternate, and they may begin with /ts/, such as ***tsí**kuìin* [**t͡si^{4}**.k^{w}ĩ^{1}ĩ^{1}] (IPFV) 'stop' and ***tsi**kuìin* [**t͡si^{3}**.k^{w}ĩ^{1}ĩ^{1}] (IRR) 'stop'.

5.3.2.4. Prospective aspect

The Prospective Aspect in Sà'án Sàvĭ ñà ñuù Xnúvíkó is used to express an action that is a) going to happen in the near future; b) the speaker is pretty certain that it will take place; or c) as a 'future in the past'. Consider examples (226) and (227). In example (226) Claudia Salazar is interpreting Verónica Aguilar's words when informing Hilaria Velasco López about consent. In this example, the prospective aspect is expressing an action that is about to happen. Example (227), on the other hand, illustrates the use of the prospective aspect as a future in the past.

(226) *Óò,* ***kú ntàkàtù'ĭn-ní*** *á yéè deakuérdù nĭ sá'a-ní ka'àn-nĭ tavà ná kúu sá' grabâr-ñă káchă*

óò	**kúntà-kàtù'un=í=ní**			
INTERJ	**PROSP.ITER-ask=3F=2FORM**			
á	yéè	deakuérdù=ní	sá'a=ní	
whether	IPFV.exist	in_agreement=2FORM	IRR.do=2FORM	
ka'àn=ní				
IRR.speak=2FORM				
tavà	ná	kúu	sá'-grabâr=ñá	káchì=á
so_that	DEO	IRR.be_able	IRR.do-record=3F	IPFV.say=3F

'Oh, she is going to ask you if you agree to speak so that she can record, she says.' [Kue_na_yata_viko; CS; 00:32]

(227) *Tatù nìkì'vi ntúchá-nà nùŭ ntúchá-ñà ra* ***kú ntàvî-tĭ****.*

tatù	nìkì'vi	ntúchá=nà
COND	PFV.enter	goat=3HUM.PL
nùŭ	ntúchá=ñà	ra
where	goat=3GNR	TOP

kúntàvă=ì=tí
PROSP.take_out=3GNR=3ZOO

'If their [other people's] goats entered where its [the dog's] goats are, it [the dog] would take them [other people's goats] out.' [Vaa_chinchee_ntucha; AOC; 08:24]

The Prospective Aspect in Sà'án Sàvĭ ñà ñuù Xnúvíkó is expressed with the verbal particle *kú* and the irrealis stem of the verb, which also undergoes pre-nasalization if it begins with a

stop or an affricate. In addition, the verbal particle *kú* changes the tone of the first mora of the verb, which becomes either a Low (L), a Low-mid (m), or a Rising tone (R) (see Table 51). In addition, the verbal particle *kú* /ku^{4}/ can be realized as [ɣu^{4}] and is sometimes reduced to *ú* [u^{4}] or *ún* [ũ^{4}]. Table 51 presents some examples.

Table 51. Examples of verbs in the Prospective Aspect. Imperfective and perfective forms added for comparison

PROSP verb	**Meaning**	**IPFV verb**	**IRR verb**
kú nkìtì [**ku^{4}.ᵑ$^{}$gi^{1}**.ʈi^{1}]	BE BOILED	kítì [ki^{4}.ʈi^{1}]	kitì [ki^{3}.ʈi^{1}]
kú ntǐin [**ku^{4}.ⁿ$^{}$dī^{14}**ĩ^{3}]	GRAB	tíín [ʈĩ^{4}ĩ^{4}]	tiin [ʈĩ^{3}ĩ^{3}]
kú ntǐvì [**ku^{4}.ⁿ$^{}$di^{23}**.βi^{1}]	BLOW	tívì [ʈi^{4}.βi^{1}]	tivì [ʈi^{3}.βi^{1}]
kú nchàa [**ku^{4}.ⁿ$^{}$d͡ʒa^{1}**a^{3}]	WRITE	cháa [t͡ʃa^{4}a^{3}]	chaa [t͡ʃa^{3}a^{3}]
kú ntùu [**ku^{4}.ⁿ$^{}$du^{1}**u^{3}]	RISE (sun)	tûu [ʈu^{42}u^{3}]	tuu [ʈu^{2}u^{3}]
kú nkù'mí [**ku^{4}.ᵑ$^{}$gu$^{}$ʔ^{4}**.mi^{4}]	HAVE	kú'mí [kuʔ^{4}.mi^{4}]	ku'mí [kuʔ^{3}.mi^{4}]
kú nkǎì [**ku^{4}.ᵑ$^{}$ga^{13}**i^{1}]	BURN (itr.)	káì [ka^{4}i^{1}]	kaì [ka^{3}i^{1}]
kú nkee [**ku^{4}.ᵑ$^{}$ge^{2}**e^{3}]	BE THROWN	kêe [ke^{42}e^{3}]	kee [ke^{2}e^{3}]
kú nkàta [**ku^{4}.ᵑ$^{}$ga1**.ʈa3]	SING	tsíta [t͡si^{4}.ʈa^{3}]	kata [ka^{3}.ʈa^{3}]
kú nkùsíkí [**ku^{4}.ᵑ$^{}$gu^{1}**.si^{4}.ki^{4}]	PLAY	tsísíkí [t͡si^{4}.si^{4}.ki^{4}]	kusíkí [ku^{3}.si^{4}.ki^{4}]
kú nkuaìn [**ku^{4}.ᵑ$^{}$gʷã^{2}**ĩ^{1}]	STEP	tsáìn [t͡sã̀^{4}i^{1}]	kuaìn [kʷã^{3}ĩ^{1}]
kú nkùsù [**ku^{4}.ᵑ$^{}$gu^{1}**.su^{1}]	SLEEP	kíxì [ki^{4}.ʃi^{1}]	kùsù [ku^{1}.su^{1}]
kú nkòo [**ku^{4}.ᵑ$^{}$go^{1}**o^{3}]	EXIST	yéè [je^{4}e^{1}] / tsíǒ [t͡si^{4}.o^{14}]	koo [ko^{3}o^{3}]
kú nkùchi [**ku^{4}.ᵑ$^{}$gu^{1}**.t͡ʃi^{3}]	BATHE	tsíchi [t͡si^{4}.t͡ʃi^{3}]	kuchi [ku^{3}.t͡ʃi^{3}]
kú ntǎvá [**ku^{4}.ⁿ$^{}$da^{14}**.βa^{4}]	FLY	ntává [ⁿda^{4}.βa^{4}]	ntava [ⁿda^{3}.βa^{3}]
kú ntùkú [**ku^{4}.ⁿ$^{}$du^{1}**.ku^{4}]	LOOK FOR	ntúkú [ⁿdu^{4}.ku^{4}]	ntukú [ⁿdu^{3}.ku^{4}]
kú làlá [**ku^{4}.la^{1}**.la^{4}]	PEE	lálá [la^{4}.la^{4}]	lalá [la^{3}.la^{4}]
kú nùu [**ku^{4}.nu^{1}**u^{3}]	GO DOWN	núu [nu^{4}u^{3}]	nuu [nu^{3}u^{3}]
kú xǐko [**ku^{4}.ʃi^{14}**.ko^{3}]	SELL	xíko [ʃi^{4}.ko^{3}]	xiko [ʃi^{14}.ko^{3}]
kú skuǐko [**ku^{4}.skʷi^{14}**.ko^{3}]	TURN (tr.)	skuíko [skʷi^{4}.ko^{3}]	skuíko [skʷi^{4}.ko^{3}]
kú skǔtú [**ku^{4}.sku^{14}**.ʈu^{4}]	FILL (tr.)	skútú [sku^{4}.ʈu^{4}]	skútú [sku^{4}.ʈu^{4}]
kú sǎ'a [**ku^{4}.sa^{14}**.ʔa^{3}]	DO	sá'a [sa^{4}.ʔa^{3}]	sá'a [sa^{4}.ʔa^{3}]

However, verbs that begin with the glide /j/ use the perfective form after *kú* instead (see Table 52). There is also a handful of verbs that begin with /ⁿd/ that take a form with *nì-*, such as *kú nìntòo* [ku^{4}.ni^{1}.ⁿdo^{1}o^{3}] (PROSP) 'remain' (compare with *ntôo* [ⁿdo^{42}o^{3}] (IPFV) and *nìntòo* [ni^{1}.ⁿdo^{1}o^{3}] (PFV).

Table 52. Verbs that use the perfective form in combination with *kú* to mark the prospective aspect

PROSP verb	**Meaning**	**IRR verb**	**PFV verb**
kú nìyù'ù [**ku^{4}.ni^{1}**.ju^{1}.ʔu^{1}]	BE AFRAID	yu'ù [ju^{3}.ʔu^{1}]	nìyù'ù [ni^{1}.ju^{1}.ʔu^{1}]
kú nìyà'a [**ku^{4}.ni^{1}**.ja^{1}.ʔa^{2}]	PASS	yu'a [ja^{3}.ʔa^{2}]	nìyà'a [ni^{1}.ja^{1}.ʔa^{2}]
kú nìyàvà [**ku^{4}.ni^{1}**.ja^{1}.β̤a^{1}]	SPREAD (itr.)	yàvà [ja^{1}.β̤a^{1}]	nìyàvà [ni^{1}.ja^{1}.β̤a^{1}]

Finally, in addition to the expected form, some verbs present an alternative form with the stative prefix *ku-* (§5.3.4.3) (see Table 53).

Table 53. Examples of verbs with an alternative form with *ku-* in the Prospective Aspect

PROSP verb	**Meaning**	**IPFV verb**	**IRR**
kú nchǎtu [**ku^{4}.ⁿd͡ʒa^{14}**.t̤u^{3}] / **kú nkùnchǎ**tu [**ku^{4}.ᵑgu^{1}.ⁿd͡ʒa^{14}**.t̤u^{3}]	WAIT (tr.)	nchátu [ⁿd͡ʒa^{4}.t̤u^{3}]	nchatu [ⁿd͡ʒa^{3}.t̤u^{3}]
kú nkàà [**ku^{4}**. ᵑ**ga^{1}**a^{1}] / **kú nkùnkà**à [**ku^{4}.ᵑgu^{1}.** ᵑ**ga^{1}**a^{1}]	STAY	ínkáà [i̤^{4}.ᵑga^{4}a^{1}] / tsíkàà [t͡si̤^{4}.ka^{1}a^{1}]	ntsìkàà [ⁿd͡zi^{1}.ka^{1}a^{1}]

5.3.2.5. Counterfactual mood

Sà'án Sàvǐ ñà ñuù Xnúvíkó presents a counterfactual particle *ní*, which expresses a non-realized past. Consider example (228), where the verb *katù'un* 'warn' appears with the counterfactual

particle *ní* indicating that the action of warning never took place (and, therefore, nor did the action of coming to your party).

(228) ***Ní**katù'ǔn nùû ra kitsì vikǒ-kú.*

ní	katù'un=ú	nùǔ=^{L}	ra	kitsi=^{L}	vikǒ=kú
CNTF	warn=2NFORM	OBL=1	TOP	IRR.come=1	party=2NFORM

'Had you warned me, I would have come to your party' [Elicited; JS]

This counterfactual particle always bears a High tone (H) and it is followed by the realis stem of the verb (§5.3.2), which corresponds to the imperfective form (§5.3.2.1), but usually with a Mid tone (M) in the first mora (see Table 54).[121]

Table 54. Examples of verbs in the Counterfactual Mood. Imperfective and Irrealis forms are shown for comparison

CNTF verb	**Meaning**	**IPFV verb**	**IRR verb**
nítsakì [ni^{4}.t͡sa^{3}.ki^{1}]	SOW	tsákì [t͡sa^{4}.ki^{1}]	kakì [ka^{3}.ki^{1}]
nítsikó [ni^{4}.t͡si^{3}.ko^{4}]	SPIN	tsíkó [t͡si^{4}.ko^{4}]	kuikó [k^{w}i^{3}.ko^{4}]
nítsatsí [ni^{4}.t͡sa^{3}.t͡si^{4}]	EAT (tr.)	tsátsí [t͡sa^{4}.t͡si^{4}]	katsí [ka^{3}.t͡si^{4}]
nítsa'nchà [ni^{4}.t͡saʔ^{3}.^{n}d͡ʒa^{1}]	CUT	tsá'nchà [t͡saʔ^{4}.^{n}d͡ʒa^{1}]	ká'nchà [kaʔ^{4}.^{n}d͡ʒa^{1}]
nítsìnì [ni^{4}.t͡si^{1}.ni^{1}]	KNOW	tsînì [t͡si^{42}.ni^{1}]	kùnì [ku^{1}.ni^{1}]
nítsichi [ni^{4}.t͡si^{3}.t͡si^{3}]	BATHE	tsíchi [t͡si^{4}.t͡ʃi^{3}]	kuchi [ku^{3}.t͡ʃi^{3}]
nítsosò [ni^{4}.t͡so^{3}.t͡so^{1}]	WATER	tsósò [t͡so^{4}.so^{1}]	kòsò [ko^{1}.so^{1}]
nítsika [ni^{4}.t͡si^{3}.ka^{3}]	WALK	tsíka [t͡si^{4}.ka^{3}]	kaka [ka^{3}.ka^{3}]
nítsa'àn [ni^{4}.t͡sã^{3}.ʔã^{1}]	GO (non-base)	kuà'àn [k^{w}ã^{1}.ʔã^{1}] / tsá'àn [t͡sã^{4}.ʔã^{1}]	kù'ùn [kũ^{1}.ʔũ^{1}]

This particle has been described for other Mixtec languages (Dyk 1959; Ferguson de Williams 2006; Uchihara & Mendoza Ruiz 2022). Hollenbach (2015: 11) noted that it could

[121] For verbs with a Falling tone (F) in the Imperfective Aspect, *ní* is usually followed by a Low tone (L) in the first mora of the verb.

be under-reported, however, as some researchers mistakenly analyze it as an irregular tone sandhi form of the perfective prefix *nì-* (§5.3.2.2), since both may occur right before the verb, and they do not co-occur. In Sà'án Sàvĭ ñà ñuù Xnúvíkó these are two different particles which diverge in the grammatical contexts in which they occur, the counterfactual particle *ní* appearing in counterfactual conditionals (such as in example (228)).

5.3.2.6. Deontic mood

Sà'án Sàvĭ ñà ñuù Xnúvíkó presents a deontic mood particle *ná*, which can be used to express commissive modality (229), directive modality (230), and volitive modality (230). Consider example (229), in which Hermelina Velasco Bautista commits herself to speaking.

(229) *Ná ka'àn-yù.*
ná ka'àn=yù
DEO IRR.speak=1
'I shall speak.' [Consent_HVB; HVB; 01:48]

Consider also example (230), in which the expressions *ná chincheé* and *ná sná'a* are hortatives that express a suggestion (directive modality) and a wish (volitive modality).

(230) *Kúu kitsi-kue-ní ra* ***ná chincheé*** *tá'ăn* ***ná sná'a*** *nùŭ tsi tá'ăn.*

kúu	kitsi=kue=ní		ra	**ná**		
IPFV.be_able	IRR.come=PLZ=2FORM		TOP	**DEO**		
chincheé	tá'àn=H	**ná**	**s-ná'a**		nùŭ	tsi
IRR.help	RECIP=1PL.INCL	**DEO**	**CAUS-IRR.remember**		OBL	COM

tá'àn=H
RECIP=1PL.INCL

'You can come and let's help each other, let's teach each other.' [Sachuun_tsi_nunu; GML; 07:23]

This deontic particle always bears a High tone (H) and it is followed by the irrealis form of the verb (§5.3.2.3) (see Table 55).

Table 55. Examples of verbs in the Deontic Mood. Imperfective and Irrealis forms are shown for comparison

DEO verb	**Meaning**	**IPFV verb**	**IRR verb**
ná kakì [na^{4}.ka^{3}.ki^{1}]	SOW	tsákì [t͡sa^{4}.ki^{1}]	kakì [ka^{3}.ki^{1}]
ná kuikó [na^{4}.k^{w}i^{3}.ko^{4}]	SPIN	tsíkó [t͡si^{4}.ko^{4}]	kuikó [k^{w}i^{3}.ko^{4}]
ná katsí [na^{4}.ka^{3}.t͡si^{4}]	EAT (tr.)	tsátsí [t͡sa^{4}.t͡si^{4}]	katsí [ka^{3}.t͡si^{4}]
ná ká'nchà [na^{4}.kaʔ^{4}.^{n}d͡ʒa^{1}]	CUT	tsá'nchà [t͡saʔ^{4}.^{n}d͡ʒa^{1}]	ká'nchà [kaʔ^{4}.^{n}d͡ʒa^{1}]
ná kùnì [na^{4}.ku^{1}.ni^{1}]	KNOW	tsînì [t͡si^{42}.ni^{1}]	kùnì [ku^{1}.ni^{1}]
ná kuchi [na^{4}.ku^{3}.t͡ʃi^{3}]	BATHE	tsíchi [t͡si^{4}.t͡ʃi^{3}]	kuchi [ku^{3}.t͡ʃi^{3}]
ná kòsò [na^{4}.ko^{1}.so^{1}]	WATER	tsósò [t͡so^{4}.so^{1}]	kòsò [ko^{1}.so^{1}]
ná kaka [na^{4}.ka^{3}.ka^{3}]	WALK	tsíka [t͡si^{4}.ka^{3}]	kaka [ka^{3}.ka^{3}]
ná kù'ùn [na^{4}.kũ^{1}.ʔũ^{1}]	GO (non-base)	kuà'àn [k^{w}ã^{1}.ʔã^{1}] / tsá'àn [t͡sã^{4}.ʔã^{1}]	kù'ùn [kũ^{1}.ʔũ^{1}]

This particle has been described for other Mixtec languages, most notably by Macaulay (1990: 212) who described it as the positive counterpart of the deontic mood negative particle *mà* in Chalcatongo Mixtec. Sà'án Sàvĭ ñà ñuù Xnúvíkó presents both *ná* and *mà*, but the latter seems to pattern differently from the particle described by Macaulay. The deontic particle *ná*, on the other hand, patterns similarly, expressing deontic modality and even appearing together with *mà* to express apprehensives (see example (231)).

(231) ***Ná mà năa*** *sà'án meé-kó.*

ná	**mà**	**năa**	sà'án	meé=kó
DEO	**NEG.MOD**	**NEG.IRR.fade_away**	language	INT=1PL.INCL

'So that our language does not disappear.' [Kue_nivi_yata; JS; 09:43]

In addition to the forms with the deontic particle *ná*, Sà'án Sàvĭ ñà ñuù Xnúvíkó presents separate Imperative (§5.3.2.7) and Prohibitive (§5.3.2.8) forms.

5.3.2.7. Imperative mood

The imperative mood is used to give commands. It can be used without 2nd person marking (see example (232)) or, to show respect, it can be used together with the second person formal pronoun =*ní* (see example (233)).

(232) ***Ki'in*** *chaì* ***kuntú'ú*** *núù*

ki'in	chaì	**ku-ntú'ú**	núù
IMP.grab	chair	**IMP.STA-sit_down**	a_jiff

'Grab the chair and sit a bit.' [Consent_HVB; HVB; 01:59]

(233) ***Ka'àn****-nĭ sivĭ-ní*.

ka'àn=ní	sivĭ=ní
IMP.speak=2FORM	name=2FORM

'Say your name' [Consent_HVB; CS; 00:19]

For most verbs in Sà'án Sàvĭ ñà ñuù Xnúvíkó the imperative form is the same as the irrealis form (see Table 56). However, some verbs present a High tone (H) in the Imperative mood, which makes some forms look like the Imperfective forms (see Table 57).

Table 56. Imperative mood forms. Imperfective and irrealis forms are added for comparison

IMP verb	**Meaning**	**IPFV verb**	**IRR**
tivì [ʈi^{3}.βi^{1}]	BLOW	tívì [ʈi^{4}.βi^{1}]	tivì [ʈi^{3}.βi^{1}]
chaa [t͡ʃa^{3}a^{3}]	WRITE	cháa [t͡ʃa^{4}a^{3}]	chaa [t͡ʃa^{3}a^{3}]
kú'ní [kuʔ^{4}.ni^{4}]	SQUEEZE	tsú'ní [t͡suʔ^{4}.ni^{4}]	kú'ní [kuʔ^{4}.ni^{4}]
kata [ka^{3}.ʈa^{3}]	SING	tsíta [t͡si^{4}.ʈa^{3}]	kata [ka^{3}.ʈa^{3}]
kusíkí [ku^{3}.si^{4}.ki^{4}]	PLAY	tsísíkí [t͡si^{4}.si^{4}.ki^{4}]	kusíkí [ku^{3}.si^{4}.ki^{4}]
kuaìn [k^{w}ã^{3}ĩ^{1}]	STEP	tsáìn [t͡sã^{4}i^{1}]	kuaìn [k^{w}ã^{3}ĩ^{1}]
kùsù [ku^{1}.su^{1}]	SLEEP	kíxì [ki^{4}.ʃi^{1}]	kùsù [ku^{1}.su^{1}]
sá'a [sa^{4}.ʔa^{3}]	DO	sá'a [sa^{4}.ʔa^{3}]	sá'a [sa^{4}.ʔa^{3}]

Table 57. Imperative mood forms with a High tone (H). Imperfective and irrealis forms are added for comparative

IMP verb	**Meaning**	**IPFV verb**	**IRR**
tíín [ʈĩ^{4}ĩ^{4}]	GRAB	tíín [ʈĩ^{4}ĩ^{4}]	tiin [ʈĩ^{3}ĩ^{3}]
xíko [ʃi^{4}.ko^{3}]	SELL	xíko [ʃi^{4}.ko^{3}]	xiko [ʃi^{3}.ko^{3}]
kávà [ka^{4}.βa^{1}]	TWIST	kávà [ka^{4}.βa^{1}]	kàvà [ka^{1}.βa^{1}]
távă [ʈa^{4}.βa^{14}]	TAKE OUT	távă [ʈa^{4}.βa^{14}]	tavă [ʈa^{3}.βa^{14}]
kátsí [ka^{4}.t͡si^{4}]	EAT (tr.)	tsátsí [t͡sa^{4}.t͡si^{4}]	katsí [ka^{3}.t͡si^{4}]

For verbs of ‘go’, the imperative form is the same as the generic imperfective forms. For verbs of ‘come’, the verb *ntítsi* [^{n}di^{4}.t͡si^{3}] ‘come (base)’ uses the same form as the irrealis form, but the verb *vàtsi* [βa^{1}.t͡si^{3}] ‘come (non-base)’ is the only verb with a different stem for the imperative form: *na'à* [na^{3}.ʔa^{1}]. Table 58 presents the imperative forms of the verbs of ‘go’ and ‘come’.

Table 58. Imperative forms of verbs of 'go' and 'come'. General imperfective and irrealis forms added for comparison

IMP verb	**Meaning**	**IPFV verb**	**IRR**
kuà'àn [$k^{w}\tilde{a}^{1}.ʔ\tilde{a}^{1}$]	GO (non-base)	kuà'àn [$k^{w}\tilde{a}^{1}.ʔ\tilde{a}^{1}$]	kù'ùn [$k\tilde{u}^{1}.ʔ\tilde{u}^{1}$]
kuànǔ'ú [$k^{w}a^{1}.nu^{14}.ʔu^{4}$]	GO (base)	kuànǔ'ú [$k^{w}a1.nu^{14}.ʔu^{4}$]	nǔ'ù [$nu^{13}.ʔu^{1}$]
na'à [$na^{3}.ʔa^{1}$]	COME (non-base)	vàtsi [$\beta̰a^{1}.\widehat{ts}i^{3}$]	kitsi [$ki^{3}.\widehat{ts}i^{3}$]
ntitsi [$^{n}di^{3}.\widehat{ts}i^{3}$]	COME (base)	vàtsi ntítsi [$\beta̰a^{1}.\widehat{ts}i^{3}.^{n}di^{4}.\widehat{ts}i^{3}$]	ntitsi [$^{n}di^{3}.\widehat{ts}i^{3}$]

Some verbs add the prefix *ki-* in the imperative mood, such as *ki nuu* [$ki^{3}.nu^{1}u^{3}$] ‘move upwards’ (IMP) (compare to *nuu* [$nu^{3}u^{3}$] (IRR)) or *ki ntòo* [$ki^{3}.^{n}do^{1}o^{3}$] ‘remain’ (IMP) (compare to *ntoo* [$^{n}do^{3}o^{3}$] (IRR)); or the prefix *ku-*, such as *kuchaa sò'o* ‘listen’ (IMP) (compare to *chaa sò'o* [$\widehat{tʃ}a^{3}a^{3}.so^{1}.ʔo^{3}$] (IRR)). Other verbs present unexpected forms, such as *ka'nchà* [$kaʔ^{3}.^{n}\widehat{dʒ}a^{1}$] (IMP) ‘cut (tr.)’ (compare to *tsá'nchà* [$\widehat{ts}aʔ^{4}.^{n}\widehat{dʒ}a^{1}$] (IPFV) and *ká'nchà* [$kaʔ^{4}.^{n}\widehat{dʒ}a1$] (IRR)); or *katsá'an* [$ka^{3}.\widehat{ts}\tilde{a}^{4}.ʔ\tilde{a}^{3}$] (IMP) ‘eat (itr.)’ (compare to *tsítsá'an* [$\widehat{ts}i^{4}.\widehat{ts}\tilde{a}^{4}.ʔ\tilde{a}^{3}$] (IPFV) and *kàtsá'an* [$ka^{1}.\widehat{ts}\tilde{a}^{4}.ʔ\tilde{a}^{3}$] (IRR)).

5.3.2.8. Prohibitive mood

Consider example (234), which illustrates a prohibitive directive in Sà'án Sàvǐ ñà ñuù Xnúvíkó.

(234) ***Mà kě'ú*** *nùǔ-kú.*

mà	**kě'e=ú**	nùǔ=kú
NEG.MOD	**NEG.IRR.touch=2NFORM**	face=2NFORM

‘Don’t touch your face!’ [Offered; JS]

The prohibitive mood in Sà'án Sàvĭ ñà ñuù Xnúvíkó is expressed by the means of the negative particle *mà* and the irrealis form,[122] with second person marking (§5.1.4 and §5.1.5). This triggers a change in the first mora of the verb, which becomes a Rising tone (R).[123] Table 59 shows some examples:

Table 59. Examples of verbs in the Prohibitive Mood, with second person non-formal. Irrealis and Imperative forms are shown for comparison

PROH verb	**Meaning**	**IRR**	**IMP verb**
mà kŭ'ŭn [ma^{1}.kũ^{13}.ʔũ^{14}]	GO (non-base)	kù'ùn [kũ^{1}.ʔũ^{1}]	kuà'àn [k^{w}ã^{1}.ʔã^{1}]
mà nŭ'ŭ [ma^{1}.nu^{13}.ʔu^{14}]	GO (base)	nŭ'ù [nu^{13}.ʔu^{1}]	kuànŭ'ú [k^{w}a^{1}.nu^{14}.ʔu^{4}]
mà kĭtsú [ma^{1}.ki^{13}.t͡su^{4}]	COME (non-base)	kitsi [ki^{3}.t͡si^{3}]	na'à [na^{3}.ʔa^{1}]
mà ntĭtsú [ma^{1}.^{n}di^{13}.t͡su^{4}]	COME (base)	ntitsi [^{n}di^{3}.t͡si^{3}]	ntitsi [^{n}di^{3}.t͡si^{3}]
mà tŭ'ún [ma^{1}.t̪ũ^{13}.ʔũ^{4}]	PULL OUT	tu'un [t̪ũ^{3}.ʔũ^{3}]	tu'un [t̪ũ^{3}.ʔũ^{3}]
mà tĭvŭ [ma^{1}.t̪i^{13}.βu̯^{14}]	BLOW	tivì [t̪i^{3}.βi̯^{1}]	tivì [t̪i^{3}.βi̯^{1}]
mà chăú [ma^{1}.t͡ʃa^{13}u^{4}]	WRITE	chaa [t͡ʃa^{3}a^{3}]	chaa [t͡ʃa^{3}a^{3}]
mà kŭ'nú [ma^{1}.kuʔ^{13}.nu^{4}]	SQUEEZE	kú'ní [kuʔ^{4}.ni^{4}]	kú'ní [kuʔ^{4}.ni^{4}]
mà kătú [ma^{1}.ka^{13}.t̪u^{4}]	SING	kata [ka^{3}.t̪a^{3}]	kata [ka^{3}.t̪a^{3}]

5.3.2.9. Habitual aspect

With the exception of the verbs of movement and the positional verbs discussed in §5.3.2.1.1, verbs in Sà'án Sàvĭ ñà ñuù Xnúvíkó do not inflect directly for the habitual aspect. Nevertheless, the language presents an auxiliary that expresses a habitual meaning (§5.3.3.1).

In addition, another verbal particle has been attested in our corpus, although it is very rare, and it is not clear how productive it may be. The verbal particle *tsá* is used to mark a habitual action that requires movement, and it is likely a reduced form of *tsá'àn* the

[122] The form *màa* is much rarer, but has also been attested in speech. This lengthened form does not trigger any tonal alternation in the irrealis form of the verb.
[123] This is generally realized as a Low to Mid Rise.

imperfective habitual form of the verb ‘go (non-base)’ (§5.3.2.4 and §5.3.2.10 for more examples of the verb ‘go (non-base)’ grammaticalizing into a verbal particle). This verbal particle is used in combination with the *irrealis* stem of the verb, which similarly to the forms in the prospective aspect (§5.3.2.4) will also undergo pre-nasalization if it begins with a stop or an affricate. In addition, the verbal particle *tsá* changes the tone of the first mora of the *irrealis* stem of the verb, which becomes a Low (L) or a Rising tone (R). Unlike auxiliaries or verbal prefixes (§5.3.3 and §5.3.4), *tsá* does not seem to interact with other TAM markers. Consider example (235), where the speaker is describing how in weddings, the groom and the bride usually go and grab their parents and their godparents to go and enjoy the fireworks. Note that the speaker also uses both the imperfective habitual form of the verb ‘go (non-base)’ (*tsá'àn*) and the verbal particle *tsá* with the verb stem *ki'in* ‘grab’.

(235) *Ntítsi yaa-nà tánta'ă-nà tiàn tono suu* ***tsá nkǐ'in*** *tá'an-nà,* ***tsá'àn-nà tsá nkǐ'in-nà*** *nà xiín sè'-ka,* ***tsá'àn-nà tsá'àn-nà tsá nkǐ'in-nà*** *padrínù kuà'àn-nà tsi kuétè-nà.*

ntítsi	yaa=nà	tánta'ă=nà	tiàn	tono
IPFV.wear	white=3HUM.PL	IPFV.get_married=3HUM.PL	but	like

suu	**tsánkǐ'in**	tá'an=nà
same	**IPFV.HAB.grab**	RECIP=3HUM.PL

tsá'àn=nà	**tsánkǐ'in**=nà	nà
IPFV.HAB.go_NONBASE=3HUM.PL	**IPFV.HAB.grab**=3HUM.PL	CL.HUM.PL

xiín	sè'e=ka
owner	offspring=ANA

tsá'àn=nà	**tsá'àn=nà**
IPFV.HAB.go_NONBASE=3HUM.PL	**IPFV.HAB.go_NONBASE=3HUM.PL**

tsánkǐ'in=nà	padrínù
IPFV.HAB.grab=3HUM.PL	godparents

kuà'àn=nà	tsi	kuétè=nà
IPFV.go_NONBASE=3HUM.PL	COM	fireworks=3HUM.PL

‘They wear white when they get married but like, they still take each other and go get their parents and go grab their godparents and go see the fireworks (*lit:* go with their fireworks).’ [Tantaa-na_Yukunani; A; 05:51]

5.3.2.10. Progressive aspect

Some verbs have been attested with a progressive aspect, consisting of the verbal particle *kuà* and the *irrealis* stem of the verb. If the *irrealis* stem begins in a stop or an affricate, it will appear with pre-nasalization after the verbal particle *kuà*. In addition, the verbal particle *kuà* also changes the tone of the first mora of the *irrealis* stem of the verb, which becomes a Low (L) or a Rising tone (R).

Examples (236) and (237) illustrate the use of the progressive aspect in speech. Note that an imperfective form (§5.3.2.1) could be used in both cases. In example (236) Nasario Hernández Gómez is emphasizing that the time to play a particular musical piece is right at the moment when the people are going back to their house, for which he uses the verbal particle *kuà* with the verb *nti'vi* 'enter'. Note that in the resulting form, the first mora of the verb stem has a Low tone (L).

(236) ***Kuàntì'vi**-kue-nà ve'e-nà **kuàntì'vi**-nà ntákí'in tuku piésà yó'o.*

kuàntì'vi=kue=nà		ve'e=nà	
PROG.enter=PLZ=3HUM.PL		house=3HUM.PL	
kuàntì'vi=nà			
PROG.enter=3HUM.PL			
ntá-kí'in	tuku	piésà	yó'o
IPFV.ITER-grab	also	piece	PROX

'When they are going back home, as they are going back, it's also time for this piece again.' [Kaja; NHG; 04:54]

In example (237), the speaker is describing some steps to follow when sowing corn, and she specifies that when the corn is growing, one should throw some fertilizer on it to help it grow. The form *kuà nkuă'nu* is used, consisting of the verbal particle *kuà* and the irrealis stem (*kua'nu*) of the verb to grow (the imperfective form of which is *tsá'nu*). Notice that the

resulting form contains the pre-nasalized stop /ᵑk/ and that the first mora of the verb stem appears with a Rising tone (R).

(237) *Tá **kuà nkuă'nu** itù-ka (...) kee tàtă tsà'î.*
tá **kuànkuă'nu** itù=ka
when **PROG.grow** milpa=ANA

kee tàtă tsà'ă=ì
IMP.throw fertilizer around=3GNR

'When the milpa is growing, (...) throw fertilizer to it.' [Ntanchiko_Yukunani; A; 06:43]

These forms only occur a handful of times in our corpus and, together with the prospective aspect (§5.3.2.4) and the habitual aspect (§5.3.2.9) point to a process of grammaticalization of different forms of the verb 'go (non-base)' to express nuances in TAM. It is not yet clear how widespread these forms are and whether they are productive with all verb stems.

5.3.2.11. TAM summary

In §5.3.2 I described the ways in which the TAM categories in Sà'án Sàvĭ ñà ñuù Xnúvíkó (see Table 60, repeated here from Table 34, p. 187 for convenience) are expressed, including tone changes, prefixes, and stem alternation.

Table 60. TAM categories in Sà'án Sàvĭ ñà ñuù Xnúvíkó and the stem they are based on

	Realis Stem	***Irrealis stem***
Realis mood	Imperfective Aspect	*Habitual Aspect*
	General imperfective	
	Habitual imperfective	*Progressive Aspect*
	Perfective Aspect	
Irrealis mood	Counterfactual mood	Irrealis mood
	Deontic mood	Prospective Aspect
Imperative mood		Imperative mood
Prohibitive mood		Prohibitive mood

The main strategies are summarized in the following Tables. Since some verbs present two alternate stems, the strategies are divided considering whether the forms are built off of the *realis* stem or the *irrealis* stem. Table 61 presents a summary of the main morphological strategies to express TAM in Sà'án Sàvĭ ñà ñuù Xnúvíkó, for forms based off of the *realis* stem. Note the complex ways in which the perfective prefix *nì* interacts with the tonal melody of the verb stem, even in instances in which the prefix *nì-* has arguably disappeared, a process that has been described for other Mixtec languages (see Uchihara & Mendoza Ruiz 2022: 600). In Sà'án Sàvĭ ñà ñuù Xnúvíkó, however, the nasal closure is maintained in certain environments giving rise to morphological prenasalization (Belmar & Salazar 2023).

Table 61. Main morphological strategies to express TAM (with *realis* stems)

Form	Strategy	Example
Imperfective Aspect	High tone in the first mora	**ntá**vá [^{n}**da^{4}**.βa̤^{4}] FLY
	Falling tone in the first mora	**tsî**nì [**t͡si^{42}**.ni^{1}] KNOW
Perfective Aspect	Prefix *nì-* and Low tone in the first mora	**nìkì**xì [**ni^{1}.ki^{1}**.ʃi^{1}] SLEEP
	Prefix *nì-* and Low-mid tone in the first mora	**nìka**a [**ni^{1}.ka^{2}**a^{3}] SWELL
	Prefix *nì-* and Rising tone in the first mora	**nìkă**chì [**ni^{1}.ka^{14}**.t͡ʃi^{1}] SAY
	Prenasalization of /t̤, t͡s, t͡ʃ/ and a Low tone in the first mora	**ntà**an [^{n}**dã^{1}**ã^{3}] QUAKE
	Prenasalization of /t̤, t͡s, t͡ʃ/ and a Low-mid tone in the first mora	**nta**vă [^{n}**da^{2}**.βa̤^{14}] TAKE OUT
	Prenasalization of /t̤, t͡s, t͡ʃ/ and a Rising tone in the first mora	**ntĭ**in [^{n}**dĩ^{14}**ĩ^{3}] GRAB
	Low tone in the first mora	**ntà'**ì [^{n}**da^{1}**.ʔi^{1}] CRY
	Low-mid tone in the first mora	**nu**u [**nu^{2}**u^{3}] GO DOWN
	Rising tone in the first mora	**să'**a [**sa^{14}**.ʔa^{3}] DO
Counterfactual mood	Particle *ní* and a Mid tone in the first mora	**nítsi**ka [**ni^{4}.t͡si^{3}**.ka^{3}] WALK

Table **62** presents a summary of the main morphological strategies to express TAM in Sà'án Sàvĭ ñà ñuù Xnúvíkó, for forms based off of the *irrealis* stem. Note the complex ways in which the verbal particles derived from the verb 'go (non-base)'—*kú*, *tsá* and *kuà*— interact with the tonal melody of the stem and how the nasal feature of the verb triggers morphological prenasalization (Belmar & Salazar 2023).

Table 62. Main morphological strategies to express TAM (with irrealis stems)

Form	Strategy	Example
Irrealis Mood	Mid tone in the first mora	**cha**a [**t͡ʃa^{3}**a^{3}] WRITE
	Low-mid tone in the first mora	**ke**e [**ke^{2}**e^{3}] BE THROWN
	High tone in the first mora (CAUS)	**stú**tù [**st̪u^{4}.t̪u^{1}**] FRY (tr.)
Prospective Aspect	Particle *kú* and Low tone in the first mora	**kú là**lá [**ku^{4}.la^{1}**.la^{4}] PEE
	Particle *kú* and Rising tone in the first mora	**kú sǎ**'a [**ku^{4}.sa^{14}**.ʔa^{3}] DO
	Particle *kú*, prenasalization of /t̪, k, k^{w}, t͡s, t͡ʃ/ and a Low tone in the first mora	**kú nkà**ta [**ku^{4}.^{ŋ}ga^{1}**.t̪a3] SING
	Particle *kú*, prenasalization of /t̪, k, k^{w}, t͡s, t͡ʃ/ and a Low-mid tone in the first mora	**kú nkua**ìn [**ku^{4}.^{ŋ}g^{w}ã^{2}**ĩ^{1}] STEP
	Particle *kú*, prenasalization of /t̪, k, k^{w}, t͡s, t͡ʃ/ and a Rising tone in the first mora	**kú nkǎ**ì [**ku^{4}.^{ŋ}ga^{13}**i^{1}] BURN (itr.)
Deontic mood	Particle *ná* and Mid tone in the first mora	**ná ka**kì [**na^{4}.ka^{3}**.ki^{1}] SOW
Imperative mood	Mid tone in the first mora	**ti**vì [**t̪i^{3}**.βi^{1}] BLOW
	High tone in the first mora	**ká**tsí [**ka^{4}**.t͡si^{4}] EAT (tr.)
	Stem alternation	**kuà'àn** [**k^{w}ã^{1}.ʔã^{1}**] GO (non-base) **na'à** [**na^{3}.ʔa^{1}**] COME (non-base)
Prohibitive mood	Particle *mà;* Rising tone in the first mora; and second person marking	**mà chǎú** [**ma^{1}.t͡ʃa^{13}u^{4}**] WRITE

Habitual Aspect	Particle *tsá,* prenasalization of /t̪, k, kʷ, t͡s, t͡ʃ/ and a Rising tone in the first mora	**tsá nkǐ'**in [**t͡sa⁴.ᵑgĩ¹⁴**.ʔĩ³] GRAB
Progressive Aspect	Particle *kuà,* prenasalization of /t̪, k, kʷ, t͡s, t͡ʃ/ and a Low tone in the first mora	**kuà ntì'**vi [**kʷa¹.ⁿdiʔ¹**.βi̪³] ENTER
	Particle *kuà,* prenasalization of /t̪, k, kʷ, t͡s, t͡ʃ/ and a Rising tone in the first mora	**kuà nkuǎ'**nu [kʷa¹.ᵑgʷaʔ¹⁴.nu³] GROW UP

5.3.3. Auxiliaries

Auxiliaries in Sà'án Sàvĭ ñà ñuù Xnúvíkó appear before a (derived) verb stem and, when present, are the host of TAM morphology in the verbal complex (see Figure 26, p. 185). There are three main auxiliaries in Sà'án Sàvĭ ñà ñuù Xnúvíkó: *tsí* (§5.3.3.1); *kúu* (§5.3.3.2); and *ká-* (§5.3.3.3).[124] These express nuances in TAM, namely habituality, ability/possibility, and pluractionality. Both *tsí* and *kúu* are not bound to the verb stem, and they can appear in the previous Intonation Unit (see example (240), p. 222). However, *ká-* is a bound form.

5.3.3.1. Habitual

The auxiliary *tsí*[125] works in Sà'án Sàvĭ ñà ñuù Xnúvíkó as a habitual marker, as it indicates that an action usually takes place, routinely or customarily. Consider example (238), where the verb stem *kú'mí* 'have' appears with the verbal particle *tsí* indicating that it is normal for these boxes to have one queen bee. This could have been expressed with imperfective aspect marking on the verb stem *kú'mí* 'have', but the addition of the verbal particle *tsí* emphasizes the habitualness of the action.

[124] Note that *ká-* is a bound prefix. The terminology *auxiliary* vs. *verbal prefixes* refers to their slot in the verbal complex (see Figure 26, p. 171).
[125] This verbal particle seems to originate in the imperfective habitual form *tsíǒ* 'be (at a place) / exist'.

(238) *Nti'i-ni kue kájà yó'o ra **tsí**ku'mí-à iin ñùñŭ luu kitĭ... kitĭ naní réinà.*

nti'i=ni	kue	kájà	yó'o	ra	**tsí**	ku'mí=à
all=EMPH	PLZ	box	PROX	TOP	**IPFV.HAB**	have=3GNR

iin	ñùñŭ=lu	kitĭ
one	bee=DIM	animal

kitĭ	naní	réinà
animal	IPFV.be_called	queen

'All these boxes usually have a bee called queen.' [Sachuun_tsi_nunu; GML; 04:15]

In addition, the auxiliary *tsí* interacts phonologically with TAM marking in the same ways derivational prefixes do (§5.3.4). The High tone (H) in the verbal particle *tsí* indicates the imperfective aspect, but it can also co-occur with perfective aspect marking. In this case, the particle-initial affricate becomes pre-nasalized, and the tone is changed to a Low tone (L), resulting in the form *ntsì*. This form is extremely common in our corpus, and it indicates that an action used to be usual or customary at a point in the past, but it is not anymore. Consider example (239), where the speaker, who is now retired, narrates a time when he was young, and he used to work in the mines of the village of Mínà (Los Tejocotes). The verb *sáchúun* 'work' appears with the form *ntsì*, indicating that the action of working took place usually and customarily, but that it is not happening anymore.

(239) ***Ntsì**sáchúùn ñà kúu mínà **ntsì**sáchúùn.*

ntsì	sáchúun=^{L}	ñà	kúu	mínà	**ntsì**	sáchúun=^{L}
PFV.HAB	work=1	RLZ	COP	mine	**PFV.HAB**	work=1

'I used to work at the mine, I used to work.' [Ntavi_ntixi; FVM; 01:31]

Even though these forms are generally spelled as a unit with the verb stem in the practical orthography used for this dissertation, it is worth noting that they do not seem to be bound forms, as they can appear in different Intonation Units. Example (240) illustrates how the form *ntsì* can be uttered in isolation, separate from the verb stem it modifies. However, the presence

of this form, even separated from the verb stem with a pause, still affects the tonal melody of the verb stem.

(240) *Táni inì tienda-ka-ni ntsìkìtsàà kue sa'mă ra* ***ntsì****... táná* ***ntsì*** *ñàà să' acomodar-kuê-ñà.*

táni	inì	tiéndà=ka=ni	ntsì	kìtsàà	kue	sa'mă	ra
only	inside	shop=ANA=EMPH	PFV.HAB	arrive	PLZ	clothes	TOP

ntsì
HAB.PFV

táná	**ntsì**	ñàà
like	**HAB.PFV**	DISC

să'-acomodar=kue=^{L}=ñà
do-put_away=PLZ=1=3GNR

'Inside the shop the clothes used to arrive only and we used to put them away.' [California; JS; 04:52]

5.3.3.2. Ability or possibility

The auxiliary *kúu* works in Sà'án Sàvĭ ñà ñuù Xnúvíkó to express that action is possible or that the subject has the ability, skills, or knowledge to carry out the action described by the verb. Consider example (241), where Almadelia Ortiz Cruz expresses that she has the knowledge to talk about these animals.

(241) ***Kúu*** *ntakanì nùŭ-kue-ní tsà'ă kue kitĭ luu yó'o*

kúu	ntakani=^{L}	nùŭ=kue=ní	tsà'ă	kue	kitĭ	yó'o
IPFV.be_able	IRR.tell=1	OBL=PLZ=2FORM	about	PLZ	animal	PROX

'I can tell you about the animals.' [Vaa_chinchee_ntucha; AOC; 02:43]

Example (242), on the other hand, illustrates the use of the auxiliary *kúu* to express that the speaker has now the possibility of getting particular products, as most Mexican products now reach the supermarkets in the US.

(242) ***Kúu*** *ne'ě-kó-ñà varì tsáì.*

kúu	ne'ě=kó=ñà	varì
IPFV.be_able	IRR.get=1PL.INCL=3GNR	because

tsáà=ì
IPFV.arrive_there_to_unusual_place=3GNR

'We can get them (Mexican products) because they arrive there (the US).'
[Kue_nchai_noo; A; 05:52]

In addition, the auxiliary *kúu* interacts phonologically with TAM marking in the same ways derivational prefixes do (§5.3.4). The High tone (H) in the auxiliary *kúu* indicates the imperfective aspect, but it can also co-occur with perfective aspect marking. In this case, the auxiliary takes the prefix *nì-*, and the tone of the first mora is changed to a Low-mid tone (m), resulting in the form *nìkuu*. Notice that the verb stem also appears in the perfective form. Consider example (243). In this example, the speaker is saying that they knew how to do these things, as their mom taught them, but they do not remember how to do these anymore.

(243) ***Nìkuu*** *nchàâ stàă,* ***nìkuu*** *ntàân tsá'à* ***nìkuu****.*

nìkuu
PFV.be_able

nchàa=L stàă
PFV.do=1 tortilla

nìkuu	ntàăn=L	tsá'à
PFV.be_able	PFV.put=L	nixtamal

nìkuu
PFV.be_able

'I could make tortillas, I could put the nixtamal, I could.' [Kue_nchai_noo; A; 08:23]

5.3.3.3. Pluractionality

The auxiliary prefix *ká-* works in Sà'án Sàvĭ ñà ñuù Xnúvíkó to express pluractionality, or verbal number. Verbal number can be used to indicate that an action is done more than once, either by different agents or on different objects (Mithun 1988). Consider the following

examples. In example (244), Nasario Hernández Gómez is explaining how he and his friends used to look for bent sticks (each one of the kids would look for a bent stick of their own) so that they could play the traditional game locally known as *sékù*.[126]

(244) ***Ká****ntúkú-kuê iin yutŭ tú tìkàĭ luu ná suà'a suà'a káa-tú.*
ká-ntúkú=kue=^{L} iin yutŭ
IPFV.VPL-look_for=PLZ=1 one tree

tú tìkàĭ=lu
CL.TRUNK bent=DIM

ná suà'a-suà'a káa=tú
DEO thus-RDPL IPFV.be_seen=3TRUNK

'We looked for a bent tree branch, it should look like this.' [Kue_nivi_yata; NHG; 06:27]

In example (245), Hilaria Velasco López is explaining that people drink sodas during the celebrations of Saint Mark (each one drinks their own sodas). Note that the prefix *ká-* attaches to the *realis* stem of the verb *tsí'i* 'drink' (§5.3.2).

(245) ***Ká****tsí'i-nà nchá vìxì* ***ká****tsí'i-nà.*
ká-tsí'i=nà nchá vìxì
IPFV.VPL-drink=3HUM.PL CL.LIQ sweet

ká-tsí'i=nà
IPFV.VPL-drink=3HUM.PL

'They drink sodas, they drink.' [Kue_na_yata_viko; HVL; 06:04]

In example (246), Nasario Hernández Gómez is telling us about life in the municipality of Mixtepec when he was young. He mentions that many products could not be found in the municipality, but that they grew beans and corn and people would go to Tlaxiaco and sell these everywhere in the city.

[126] This game, common in other Mesoamerican cultures, resembles hockey.

(246) *Cha kána ntuchĭ, kána nùnĭ kána táná kuà'àn-nà iinkàâ ñuù yó'o, níi-ka Ntisnuŭ yó'o,* ***ká****xíko-nà-ñà.*

cha	kána	ntuchĭ					
CONJ	IPFV.sprout	bean					
kána	nùnĭ	kána					
IPFV.sprout	corn	IPFV.sprout					
táná							
like							
kuà'àn=nà							
IPFV.go=3HUM.PL							
iinkàâ	ñuù=yô						
other	village=PROX						
níi=ka	Ntisnuŭ=yô						
entire=ANA	Tlaxiaco=PROX						
ká-xíko=nà=ñà							
IPFV.VPL-sell=3HUM.PL=3GNR							

'And beans and corn are produced, they went to this other village, through all of Tlaxiaco, selling these.' [Kue_nivi_yata; NHG; 02:06]

As is the case for other prefixes, the pluractional *ká-* interacts phonologically with the TAM morphology explained in §5.3.2. Consider example (247), where Claudia Salazar is explaining the transcription process that will folow the recordings, telling the speakers that us, the researchers, will write down each and every word that the speaker said in the recording. The verb *cháa* 'write' appears with the pluractional prefix *ká-*, which in turn appears in its prospective aspect (§5.3.2.4) form.

(247) *Tá iin tá iin kue tù'un (...) ra* ***kú nkà****chàa-vì-à.*

tá	iin	tá	iin	kue	tù'un	(...)	ra
when	one	when	one	PLZ	word		TOP
kúnkà-chàa=kue=ì=à							
PROSP.VPL-write=PLZ=3GNR=3GNR							

'One by one the words, they will write them.' [Tantaa-na_Yukunani; CS; 05:18]

Finally, consider example (248). In this example, Nasario Hernández Gómez is describing a game he used to play with his friends as a kid. In this game, the group of friends would draw a circle on the ground (just one circle, no pluractionality) and would put some money (coins) inside the circle. Then, each of the kids would make their spinning tops spin into the circle (pluractionality) with the aim of hitting as many coins as possible (pluractionality) to push them out of the circle (pluractionality). Each kid was then allowed to take the money that had been pushed out of the circle by their spinning top. Note that the prefix *ká-* appears with both Imperfective Aspect (§5.3.3.3) and Irrealis mood (§5.3.2.3) morphology.

(248) *Ta sá'a-tó iin sírkulo suà'a suà'a ra kuntee-tu xŭ'un kuntee-tu suà'a ra* ***ká****skuíkó-kue-tù trómpò ra* ***ka****kani-kue-tù* ***ka****tavă-tù xŭ'un.*

ta	sá'a=tu=ó	iin	sírkulo	suà'a-suà'a	ra
CONJ	IPFV.do=also=1PL.INCL	one	circle	thus-RDPL	TOP

ku-ntee=tu	xŭ'un	ku-ntee=tu	suà'a	ra
IRR.STA-live=also	money	IRR.STA-live=also	thus	TOP

ká-s-kuíkó=kue=tu=^{L}	trómpò	ra
IPFV.VPL-CAUS-spin=PLZ=also=1	spinning_top	TOP

ka-kani=kue=tu=^{L}	**ka**-tavă=tu=^{L}	xŭ'un
IRR.VPL-hit=PLZ=also=1	**IRR.VPL**-take_out=also=1	money

'And we made a circle like this, there should be money there like this, and then we would make our spinning tops spin so that they would hit and take the money out (of the circle).' [Kue_nivi_yata; NHG; 07:09]

The pluractional prefix *ká-* in Sà'án Sàvĭ ñà ñuù Xnúvíkó appears to be a cognate of the prefix *ká-* in Chalcatongo Mixtec, described by Macaulay (1996). However, in Chalcatongo Mixtec it is described as a pluralizer for the subject of the verb, a function that is fulfilled by the pluralizer *=kue* in Sà'án Sàvĭ ñà ñuù Xnúvíkó (§5.1.7). Perhaps the innovation of the pluralizer *=kue* led to the specialization of the prefix *ká-* as a pluractional in this Mixtec language.

5.3.3.4. Auxiliaries: summary

In §5.3.3 I presented the three main auxiliaries in Sà'án Sàvĭ ñà ñuù Xnúvíkó, which are used to express nuances in TAM and modality. These auxiliaries, in turn, interact with the main TAM categories described in §5.3.2. Table 63 presents a summary of the main auxiliaries used in Sà'án Sàvĭ ñà ñuù Xnúvíkó in the three basic TAM forms: Imperfective (§5.3.2.1); Perfective (§5.3.2.2); and Irrealis (§5.3.2.3).

Table 63. Summary of the main auxiliaries in Sà'án Sàvĭ ñà ñuù Xnúvíkó

Auxiliary	**IPFV**	**PFV**	**IRR**
Habitual	tsí + *realis* stem	ntsì + *realis* stem	tsi + *realis* stem
Ability or possibility	kúu + *irrealis* stem	nìkuu + pfv	kúu + *irrealis* stem
Pluractional	ká + *realis* stem	nìkà + *realis* stem	ka + *realis* stem

5.3.4. Verbal prefixes

Verbal prefixes in Sà'án Sàvĭ ñà ñuù Xnúvíkó appear right before the verb stem and after auxiliaries (§5.3.3). Syllabic prefixes may be the host of TAM morphology in the verbal complex (see Figure 26, p. 185) if no auxiliary is present. There are six main verbal prefixes in Sà'án Sàvĭ ñà ñuù Xnúvíkó: *nta-* (§5.3.4.1); *ntu-* (§5.3.4.2); *ku-* (§5.3.4.3); *s-/sá-* (§5.3.4.4); *chi-* (§5.3.4.5); and *sá'* (§5.3.4.6). These can be used to derive verbs with nuances in TAM, such as iterativity (§5.3.4.1) or inchoativity (§5.3.4.2); to mark verbs as stative (§5.3.4.3); or to increase a verb's valency (§5.3.4.4 and §5.3.4.5). They may also be used to create verbs out of adjectives (§5.3.4.2; §5.3.4.3; and §5.3.4.4) or nouns (§5.3.4.5), or to adapt Spanish loanwords (§5.3.4.6) into the verbal complex of Sà'án Sàvĭ ñà ñuù Xnúvíkó (see Figure 26, p. 185). In addition, one verb may have more than one prefix at a time (§5.3.4.7).

5.3.4.1. The iterative prefix *nta-*

The prefix *nta-* in Sà'án Sàvĭ ñà ñuù Xnúvíkó is glossed in this dissertation as *iterative*, as it derives verbs by adding the meaning of repetitive or distributive action. Consider example (249), where Fernando Victor Morales is expressing the action of seeing his family again, after having spent many years working abroad. Note that for verbs with stem alternation (see Table 33, p.186 for some examples), the prefix *nta-* attaches to the *irrealis* stem (*kùnì*) of the verb.[127]

(249) ***Ntà****kùnì-yù nùŭ-nà cha kuáchâ*

ntà-kùnì=yù	nùŭ=nà	cha	kuáchá=^{L}
PFV.ITER-see=1	OBL=3HUM.PL	and	IPFV.be_happy=1

'I saw them again and I was happy.' [Ntoo_na_tsika_ntavi; FVM; 08:25]

Example (250) illustrates the use of the iterative prefix *nta-* with a distributive meaning, as the speaker explains that the *tà'vĭ* consists of a package of mostly food that is offered to each of the attendees at a celebration, especially those that came to help with the preparations.

(250) *Ñà* ***ntá****kuà'a-nà nùŭ kue nivĭ luu nà tsáà chincheé-ka*

ñà	**ntá**-kuà'a=nà	nùŭ	kue	nivĭ=lu	nà
RLZ	**IPFV.ITER**-give=3HUM.PL	OBL	PLZ	people=DIM	REL.HUM.PL

tsáà	chincheé=ka
IPFV.arrive_there	IRR.help=ANA

'What they give to the people who arrived there to help.' [Kue_nchai_noo; A; 07:41]

As can be seen in the examples, the prefix *nta-* takes TAM marking (§5.3.2), as is expected from its position on the verbal complex (see Figure 26, p. 185). Consider example (251), where the speaker is expressing her brother's intention to settle down in the village again. In this example, the iterative prefix *nta-* appears with a Low tone (L) and preceded by *kú*, marking the prospective aspect (§5.3.2.4).

[127] The form *kùnì* is the *irrealis* form of the verb *tsînì* 'see'.

(251) *Kuà'â yó'o ñàà kú* ***ntà****kuntú'ú-rà jara iká.*

kuà'a=L	yó'o	ñàà
sibling=1	PROX	DISC

kú**ntà**-ku-ntú'ú=rà		jara	iká
PROSP.**ITER**-STA-sit_down=3M		then	DIST

'My brother was going to re-settle down there then.' [Ntanchiko_Yukunani; A; 11:08]

Finally, note also that some verbs with the iterative prefix are highly lexicalized and the iterative meaning is not transparent anymore, such as *ntákuaan* 'sell', *ntáné'ě* 'find'; or *ntákani* 'tell' among others.

5.3.4.2. The inchoative prefix *ntu-*

The prefix *ntu-* in Sà'án Sàvĭ ñà ñuù Xnúvíkó is glossed in this dissertation as *inchoative*, as it derives intransitive verbs from adjectives to express the beginning of a state. Consider example (252), where the speaker explains that the soup that she was cooking becomes red (*ntu-* 'become' *kuá'à* 'red') when she adds in some tomato sauce.

(252) *Kú nchìkàà-yù ñàà nchá tìnană jara kú* ***ntù****kuá'à-ñà.*

kúnchì-kàà=yù		ñàà
PROSP.CMOT-stay=1		DISC

nchá	tìnană
CL.LIQ	tomato

jara	kú**ntù**-kuá'à=ñà
then	PROSP.**INCHO**-red=3GNR

'I'll add in the tomato sauce and then it will become red.' [Kue_nchai_noo; A; 03:09]

As can be seen in the example, the prefix *ntu-* takes TAM marking (§5.3.2), as is expected from its position on the verbal complex (see Figure 26, p. 185). Consider example (253), where Guillermo Martínez López warns us that bees can become aggressive when

handled incorrectly. Note that in the form *ntúnche'e* ‘become aggressive’, the prefix *ntu-* carries a High tone (H) to mark the Imperfective Aspect (§5.3.2.1).

(253) *Yée-nùǔ ra **ntú**nche'e-tí tatù ná mà kǔtù'va-kó ke'e-kó-tí ra **ntú**nche'e-tí.*

yéè-nùǔ	ra					
sometimes	TOP					
ntú-nche'e=tí			tatù	ná	mà	
IPFV.INCHO-aggressive=3ZOO			COND	DEO	NEG.MOD	
kutù'va=kó						
NEG.IRR.learn=1PL.INCL						
ke'e=kó=tí		ra	**ntú**-nche'e=tí			
IRR.touch=1PL.INCL=3ZOO		TOP	**IPFV.INCHO**-aggressive=3ZOO			

‘Sometimes they become aggressive if one doesn’t (*lit:* we don’t) learn to handle them, they get aggressive.’ [Sachuun_tsi_nunu; GML; 10:07]

5.3.4.3. The stative prefix *ku-*

The prefix *ku-* in Sà'án Sàvǐ ñà ñuù Xnúvíkó is glossed in this dissertation as *stative*, as it derives intransitive verbs from adjectives or nouns to express a state of being. Note, however, that the meaning is not entirely predictable. Consider the examples below. In example (254), Fernando Victor Morales is telling us about working at the mine in Mínà (Los Tejocotes), and how he would have to go somewhere to deliver the pieces of metal that he had found so that they could be priced. Notice the use of the stative prefix *ku-* with the noun *yà'vi* ‘price’ to create the intransitive verb ‘be priced’.

(254) *Tá kuà'àn-yù ntakuà'â metâl luu **ku**yà'vi-tí.*
tá
when

kuà'àn=yù nta-kuà'a=^{L} metâl=lu
IPFV.go=1 IRR.ITER-give=1 metal=DIM

ku-yà'vi=tí
IRR.STA-be_priced=3ROUND

'When I went to deliver the metal so that it would be priced (…)' [Ntavi_ntixi; FVM; 01:37]

In example (255), the speaker is letting us know that her house was ready when she moved back to Yukúnanĭ (Yucunani). Note the stative prefix *ku-* modifying the adjective *và'a* 'good' to create the intransitive verb 'be prepared'.

(255) ***Kú**và'a ve'è.*
kú-và'a ve'e=^{L}
IPFV.STA-good house=1

'My house was ready.' [Kue_nchai_noo; A; 00:16]

In example (256), Fernando Victor Morales is talking about wedding celebrations in the municipality of Ñuù Xnúvíkó (San Juan Mixtepec), and how people are happy with all the dancing and drinking involved.

(256) *Nùŭ yéè yaà-ka ra **kú**sìĭ inì-nà.*
nùŭ yéè yaà=ka ra
where IPFV.exist dance=ANA TOP

kú-sìĭ inì=nà
IPFV.STA-happy core=3HUM.PL

'Wherever there's dancing, they are happy.' [Ntavi_ntixi; FVM; 07:34]

As can be seen in the glosses, the prefix *ku-* takes TAM marking (§5.3.2), as is expected from its position on the verbal complex (see Figure 26, p. 185). Consider example (257), where the speaker has been listing some instructions to cut spaghetti and, at the end of the instructions,

she says that once all these steps are complete, the pasta will be ready. Note the morphological markers for the Prospective Aspect (§5.3.2.4).

(257) *Kú n**kù**và'î ra kú nchìkàà-yù késù.*

kún**kù**-và'a=ì	ra
PROSP.**STA**-good=3GNR	TOP
kúnchì-kàà=yù	késù
PROSP.CMOT-stay=1	cheese

'It will be ready, and I will add cheese to it.' [Kue_nchai_noo; A; 03:17]

Example (258) illustrates the stative prefix *ku-* interacting with the Perfective Aspect marking (§5.3.2.2). In these cases, the meaning is similar to that expressed with the inchoative prefix *ntu-* (§5.3.4.2).

(258) *Saán sáná **nìkù**và'a ñà-ka*

saán	sáná	**nìkù**-và'a	ñà=ka
MED.TEMP	then	**PFV.STA**-good	CL.GNR=ANA

'Right at that time it was ready.' [Ntavi_ntixi; FVM; 05:38]

It is worth mentioning here that some verbs in Sà'án Sàvĭ ñà ñuù Xnúvíkó are stative per se, without the need of the prefix *ku-* (such as *naní* 'be called'). In addition, adjectives can be used as predicates. Consider example (259), where the adjective *và'a* 'good' acts as a predicate. However, adjectives cannot take TAM marking (§5.3.2) and, therefore, one needs to use verbal prefixes to derive forms such as *ntùvà'a* 'became good'.

(259) ***Và'a** nchuà'a iñŭ ñùñŭ luu-ka.*

và'a	nchuà'a	iñŭ	ñùñŭ	luu=ka
good	very	thorn	bee	small=ANA

'The stinger of bees is very good (for one's health).' [Sachuun_tsi_nunu; GML; 06:12]

5.3.4.4. The causative prefixes *s-* and *sá-*

The prefixes *s-* and *sá-* in Sà'án Sàvĭ ñà ñuù Xnúvíkó are glossed in this dissertation as *causative*, and they attach to the *irrealis* stem of verbs (§5.3.2). The prefix *sá-* bears TAM marking (§5.3.2) whereas the form *s-* affixes to the first mora of the verb stem, which inflects for TAM.[128] Consider the examples below. In example (260), the speaker is telling us that she will get up early tomorrow morning to feed her animals. Notice the use of the *irrealis* stem (*kàtsá'an*) of the intransitive verb *tsítsá'an* 'eat' in combination with the causative prefix *s-*. Notice that the addition of the prefix *s-* results into infrequent consonant clusters and syllable types (§3.5).

(260) *Xchààn na'á ra ntakòô ra **s**kátsá'àn kue sànà-yù yó'o **s**kátsá'àn.*

xchààn	na'á	ra	ntakòo=^{L}	ra		
tomorrow	early	TOP	IRR.get_up=1	TOP		
s-kátsá'an=^{L}		kue	sànà=yù	yó'o	**s**-kátsá'an=^{L}	
CAUS-IPFV.eat=1		PLZ	animal=1	PROX	**CAUS**-IPFV.eat=1	

'I will get up early tomorrow to feed my animals, to feed.' [Ntanchiko_Yukunani; A; 10:03]

In example (261), Hermelinda Velasco Bautista points out that the only fruit she produces now in her lands is chilacayote squash. Note that the prefix *sá-* bears a High tone (H) marking it as Imperfective (§5.3.2.1).

[128] Note that causative verbs have very regular TAM inflection (§5.3.2.1, §5.3.2.2, and §5.3.2.3).

(261) *Kǒo ñà'a, tìntuyǔ-ni kána, tìntuyǔ-ni **sá**túútû.*

kǒo	ñà'a
NEG.exist	thing
tìntuyǔ=ni	kána
chilacayote_squash=EMPH	IPFV.sprout
tìntuyǔ=ni	**sá**-túútú=L
chilacayote_squash=EMPH	**IPFV.CAUS**-gather=1

'I have nothing, only chilacayote squash sprouts, I only gather chilacayote.' [Koto_kue_kiti; HVB; 08:31]

In example (262), Fernando Victor Morales is explaining the process of making pulque. Notice that in verbs with an *irrealis* stem that begins with a prenasalized consonant, the prenasalization is lost when the causative prefix *s-* is added.

(262) ***S**tûu-nà ntixì yó'o.*

s-ntûu=nà	ntixì	yó'o
CAUS-IPFV.emerge=3HUM.PL	pulque	PROX

'They extract the pulque here.' [Ntavi_ntixi; FVM; 05:13]

In example (263), Almadelia Ortiz Cruz is banning her dog from grabbing a baby sheep, as it would scare it. In this example, the causative verb appears in the Prospective Aspect (§5.3.2.2). [129]

(263) *Mà tǐún-ñà, kú **s**ǐ'ù súú-ni.*

mà	tǐin=ú=ñà
NEG.MOD	NEG.IRR.grab=2NFORM=3GNR
kú-**s**-yú'ù	soo=ú=ni
PROSP-**CAUS**-be_afraid	EMPH=2NFORM=EMPH

'Don't grab it, you'll scare it.' [Vaa_chinchee_ntucha; AOC; 08:04]

[129] Note that the form sí'ù 'frighten' is not entirely predictable from yú'ù 'be afraid'. This is the only case attested so far in which the causative form features other changes in the root.

These prefixes are very productive, and they are even used to express concepts like *uploading* or *downloading* files on the Internet. In example (264), Claudia Salazar is explaining the consent form to one of the speakers, and she uses the causative prefix with the verb *káa* 'go up' to express the concept of *uploading* the file into our online archive.

(264) *Kúu sá' kanselâr-nǐ-à káchâ táná mà... jara má **s**kăa-kue-ì.*

kúu	sá'-kanselâr=ní=à	káchì=à	táná	mà
IPFV.be_able	IRR.do-cancel=2FORM=3GNR	IPFV.say=3GNR	like	NEG.MOD

jara	mà	**s**-kăa=kue=ì
then	NEG.MOD	**CAUS**-NEG.IRR.move_up=PLZ=3GNR

'You can cancel it, they say, like, they won't… they won't upload it.' [Tantaa-na_Yukunani; CS; 13:31]

As can be seen in the examples, the verb stems with the prefixes *s-* and *sá-* interact phonologically with TAM markers (§5.3.2). In addition, they can also interact with auxiliaries (§5.3.3) such as *kúu* in example (264). Consider example (265), where Nasario Hernández Gómez is telling us about music before modern instruments like guitars became common. He is telling us that people used to play music using leaves, and they made those leaves 'speak' by blowing them. Notice that the form *ská'àn* 'to cause to speak' is preceded by the pluractional prefix *ká-* (§5.3.3.3).

(265) *Cha nta'á yùkù luu ntsìtívì-nà, kátátsáá-nà nta'á yùkù luu-ka, kúu yaà luu-nà nta'á yùkù luu yó'o ká**s**ká'àn-nà.*

cha			
CONJ			
nta'á	yùkù	luu	ntsì-tívì=nà
hand	herb	small	PFV.HAB-blow=3HUM.PL
ká-tátsáá=nà		nta'á	yùkù=lu=ka
IPFV.VPL-dance=3HUM.PL		hand	herb=DIM=ANA
kúu	yaà	luu=nà	
COP	music	small=3HUM.PL	
nta'á	yùkù=lu=yô		
hand	herb=DIM=PROX		
ká-**s**-ká'àn=nà			
IPFV.VPL-**CAUS**-speak=3HUM.PL			

'And they used to blow leaves, they danced to the leaves, it was their music, they made the leaves speak.' [Kue_nivi_yata; NHG; 03:25]

Moreover, these prefixes have an allomorph *x-* which alternates with *s-* in verbs that begin with /n/ or /t͡ʃ/. Consider examples (266) and (267).

(266) *Ná **s**ná'a nùǔ tsi tá'ăn.*

ná	**s-**ná'a	nùǔ	tsi	tá'àn=^{H}
DEO	**CAUS-**IRR.remember	OBL	COM	RECIP=1PL.INCL

'Let's teach each other.' [Sachuun_tsi_nunu; GML; 07:24]

(267) ***X**ná'ă nùǔ-tsi nixi viĭ ká'àn-tsi tsi xitò-tsi, tsi xixì-tsi viĭ.*

x-ná'a=^{H}		nùǔ=tsi		nixi	viĭ
CAUS-IPFV.remember=1PL.INCL		OBL=3CHILD		how	beautifully
ka'àn=tsi	tsi	xitò=tsi	tsi	xixì=tsi	viĭ
IRR.speak=3CHILD	COM	uncle=3CHILD	COM	aunt=3CHILD	beautifully

'We teach them (our children) how to speak respectfully with the elders (*lit*: their uncles and aunties).' [Na_kaa_saan_mee-ko; CB; 03:18]

A few stative verbs, such as *naní* (see example (268)), cannot take a causative prefix without also taking the stative prefix *ku-* (§5.3.4.3). However, causative verbs can be derived

from adjectives just by adding the causative prefixes *s-* (see example (269)) or *sá-* (see example (270)).[130]

(268) ***S**kúnaní-nà sè'e-nà á kitĭ luu-nà Sà'án Sàvĭ.*
s-kú-naní=nà sè'e=nà
CAUS-IPFV.STA-be_called=3HUM.PL offspring=3HUM.PL

á kitĭ=lu=nà Sà'án_Sàvĭ
or animal=DIM=3HUM.PL Mixtec

'They name their children or their animals in Mixtec.' [ICLDC_Speech; JS; 00:18]

(269) ***S**kuáchó lechúgà, skuáchó tìnanǎ, ún nkòsŏ sàtî.*
s-kuáchi=ó lechúgà
CAUS-IPFV.be_litte=1PL.INCL lettuce

s-kuáchi=ó tìnanǎ
CAUS-IPFV.be_litte=1PL.INCL tomato

únkòsò=H sàtă=ì
PROSP.sprinkle=1PL.INCL back=3GNR

'We cut the lettuce, we cut the tomato, and we sprinkle it on the back of it (the enchiladas).' [Kue_nchai_noo; A; 05:37]

(270) *Kuáchi ìĭ-kue-ì ñàà ntsĭnì-à nixi **sǎ**và'î.*
kuáchi ìĭ=kue=ì ñàà
little still=PLZ=3GNR DISC

ntsĭnì=à nixi **sǎ**-và'a=ì
NEG.PFV.know=3GNR how **PFV.CAUS**-good=3GNR

'They were still young, so they didn't know how to prepare it.' [Ntsatsi_ntivau_chuun; JS; 01:50]

Finally, note that these prefixes can be used to emphasize agentivity in verbs that are already transitive. Consider example (271), in which Almadelia Ortiz Cruz is praising the usefulness of goats, as they can help their owners a lot in many different aspects. The prefix *x-* is used in this sentences to emphasize that the goats, not the owners, are the agents. Note,

[130] The verb *sáchúun* 'work' can be analyzed as the causative prefix *sá-* plus the form *chúun* 'work' (possibly an adjective 'pertaining to work' (§5.2.2.1)). This is the only intransitive verb attested so far with the causative prefix *sá-*. However, it may be a construction more similar to that described in §5.3.4.6.

however, in example (272) the use of the same verb in a similar construction without the prefix *x-*. This use is not very common in our corpus.

(271) *Và'a nchuì'î, và'a nchuà'a xchinchiî yóó, và'a nchuà'a.*

và'a	nchuà'a=ì		
good	very=3GNR		
và'a	nchuà'a	**x-chincheé**=ì	yóó
good	very	**CAUS-IPFV.help**=3GNR	1PL.INCL
và'a	nchuà'a		
good	very		

'They [the goats] are very good, they help us very well, very well' [Vaa_chinchee_ntucha; AOC; 05:14]

(272) *Kuà'ă nchuà'a **chincheé**-tí yóó.*

kuà'ă	nchuà'a	**chincheé**=tí	yóó
many	very	**IPFV.help**=3ZOO	1PL.INCL

'They [the bees] can help us a lot.' [Sachuun_tsi_nunu; GML; 06:49]

5.3.4.5. The caused motion prefix *chí-*

The prefix *chí-* in Sà'án Sàvĭ ñà ñuù Xnúvíkó is glossed in this dissertation as *caused motion*. It derives transitive verbs from either intransitive verbs or nouns, with the meaning of 'placing something in a position/place'. Consider example (273), where Jeremías Salazar explains that he asked the manager of the shop she was working in to relocate him to another shop.

(273) *Cha a kúu **chi**nta'î-yù sáchúùn tiéndà.*

cha	a	kúu	**chi**-nta'á=ì=yù	sáchúun=^{L}	tiéndà
CONJ	Q	IRR.be_able	**IRR.CMOT**-hand=3GNR=1	IPFV.work=1	shop

'And if they could send me to work at the shop.' [California; JS; 07:03]

As can be seen in the example, the prefix *chi-* interacts with TAM marking (§5.3.2) and with auxiliaries (§5.3.3). Consider example (274), where Nasario Hernández Gómez is telling the story of a mythical giant that placed a stone somewhere in Ñuù Xnúvíkó to make a street.

Notice how the prefix *chi-* appears with pre-nasalization and a Low tone (L), marking the Perfective Aspect (§5.3.2.2).

(274) ***Nchì**ntee-rà iin yùǔ sǎ'a-rà iin káyè.*

nchì-ntee=rà	iin	yùǔ	sǎ'a=rà	iin	káyè
PFV.CMOT-live=3M	one	stone	PFV.do=3M	one	street

'He placed a stone and made a street.' [Ia_noo; NHG; 01:08]

5.3.4.6. The prefix *sá'* in loanwords

The prefix *sá'-* is used in Sà'án Sàvĭ ñà ñuù Xnúvíkó to adapt loanwords from Spanish into the verbal complex of the language (see Figure 26, p. 185).[131] Consider example (275), where Claudia Salazar is interpreting Veronica Aguilar's explanation of the recording process to Hilaria Velasco López. Notice that the prefix *sá'* in example (275) is modified by auxiliaries, such as *kúu* (§5.3.3.2), and it bears TAM inflection (§5.3.2).

(275) *Ka'àn-nĭ takuà ná kúu **sá' grabâr**-ñă rì ñàà **sá' investigâr**-ñă nixi kúu-ñà ká'ăn Sà'án Ntá'vì ñuù yó'o káchă.*

ka'àn=ní	takuà	ná	kúu
IMP.speak=2FORM	so_that	DEO	IRR.be_able
sá'-grabâr=ñá	rì	ñàà	
IRR.do-record=3F	because	DISC	
sá'-investigâr=ñá	nixi	kúuñà	
IPFV.do-research=3F	how	FOC	
ká'àn=H	Sà'án_Ntá'vì		
IPFV.speak=1PL.INCL	Mixtec		
ñuù yó'o	káchì=á		
village PROX	IPFV.say=3F		

'Speak, so that she can record because she is investigating how it is that we speak Mixtec in this village, she says.' [Kue_na_yata_viko; HVL; 01:02]

[131] Despite conventionally spelling it with a glottal stop at the end, this prefix is usually pronounced with no coda.

5.3.4.7. Combinations of prefixes

The above prefixes can co-occur in a single verb stem in Sà'án Sàvĭ ñà ñuù Xnúvíkó. Consider example (276), where Hilaria Velasco López is explaining how the youth is reclaiming the tradition of worshipping the deity of the rain (in the form of Saint Mark, for the Catholics) in the *ve'e sàvĭ* 'houses of the rain'. Notice the use of the adjective *ká'nu* 'big' as the root, together with the causative prefix *sá-* (§5.3.4.4) and the iterative prefix *nta-* (§5.3.4.1). In most cases the meaning of the resulting form is not entirely predictable.

(276) *Tsàà na'á yéè-yà tiàn kuĕ* ***ntásá****ká'nu-nà-ră, vichi ra kue ñàà... ñà kuáchi ntákua'nu vichi ra nìkìtsàà* ***ntasá****ká'nì-yà vichi.*

tsàà	na'á	yéè=yà	tiàn	kuĕ
IAM	early	IPFV.exist=3DEITY	but	NEG

ntá-sá-ka'nu=nà=rá
IPFV.ITER-CAUS-big=3HUM.PL=3LIQ

vichi	ra	kue	ñàà
now	TOP	PLZ	RLZ

ñà	kuáchi	ntá-kua'nu	vichi	ra
RLZ	small	IPFV.ITER-grow_up	now	TOP

nìkìtsàà	**nta-sá**-ká'nu=ì=yà	vichi
PFV.arrive_here	**IRR.ITER-CAUS**-big=3GNR=3DEITY	now

'It existed before, but they didn't workship it (the rain). Now the kids that are growing up now, they have come here to worship it (Saint Mark) now.'
[Kue_na_yata_viko; HVL; 12:51]

Consider example (277), where Guillermo Martínez López is explaining that he does not sell all of the honey he produces, rather he leaves much of it behind so that it lasts his family for the whole year. Notice the use of *koo* 'exist' as the root, together with the iterative prefix *nta-* (§5.3.4.1) and the causative prefix *s-* (§5.3.4.4). Notice, also, that these two prefixes appear in both example (276) and (277), but they appear in reverse order.

(277) ***Stá****koò kuà'ă-rá tavà tsíŏ-rá níi kuià-ni.*

s-ntá-koo=L		kuà'ă	tavà
CAUS-IPFV.ITER-exist=1		much=3LIQ	so_that
tsíŏ=rá	níi	kuià=ni	
IPFV.HAB.exist=3LIQ	entire	year=EMPH	

'I leave much of it (honey) so that there is some (honey) all year.' [Sachuun_tsi_nunu; GML; 00:39]

Other combinations are also possible. Consider example (279), where Fernando Víctor Morales uses the roots *kàà* 'stay' and *tá'an* 'be together' in combination with the prefix for caused motion *chi-* (§5.3.4.5) and the iterative prefix *nta-* (§5.3.4.1). The resulting forms are transitive verbs, expressing that some people moved the sugar and placed it together with the pulque.[132]

(278) *Tá'vĭ-nà ñà kúu panélà-ka ra* ***ntáchí****kàà-nà* ***ntáchí****tá'an-nà-ñà tsi ntixì-ka.*

tá'vĭ=nà	ñà	kúu	panélà=ka	ra	**ntá**…
IPFV.break=3HUM.PL	RLZ	COP	piloncillo_sugar=ANA	TOP	**IPFV.ITER**
chí-kàà=nà					
CMOT-stay=3HUM.PL					
ntá-chí-tá'an=nà=ñà			tsi	ntixì=ka	
IPFV.ITER-CMOT-be_together=3HUM.PL=3GNR			COM	pulque=ANA	

'They crush the piloncillo sugar and they put it, they place it (sugar) together with the pulque.' [Ntavi_ntixi; FVM; 03:40]

In example (278), Nasario Hernández Gómez uses the same prefixes with the root *ntú'ú* 'be seated'. The use of the prefix for caused motion *chi-* (§5.3.4.5) in this example emphasizes the agentivity of the subject in taking the decision of sitting down.

[132] *Pulque* is an alcoholic beverage made out of maguey.

(279) *Tátà, nánà, **ntachi**ntó'ó.*
tátà
father

nánà
mother

nta-chi-ntú'ú=ó
IRR.ITER-CMOT-sit_down=1PL.INCL

'Ladies and gentlemen, let's sit down.' [Nuu_Xnuviko_ta_tsaa_naa; NHG; 10:47][133]

Note that in combination with the stative prefix *ku-* (§5.3.4.3) the iterative prefix may take the form *ntu-* for some speakers, as in example (280), not to be confused with the inchoative prefix *ntu-* (§5.3.4.2).

(280) ***Ntùkù**nkáà-yà **ntùkù**nchíchì-yà tsà'ă kue yóó nivĭ pekadôr luu ñà yívĭ.*
ntù-kù-nkáà=yà
PFV.ITER-STA-stay=3DEITY

ntù-kù-nchíchì=yà
PFV.ITER-STA-steep=3DEITY

tsà'ă	**kue**	**yóó**	nivĭ	pekadôr=lu	ñà_yívĭ
for	**PLZ**	**1PL.INCL**	people	sinner=DIM	world

'He came to be again, he rose again for us, sinners of the world.' [Nuu_Xnuviko_ta_tsaa_naa; NHG; 08:16][134]

Finally, consider example (281), where Nasario Hernández Gómez uses the root *yá'a* 'pass' or 'cross' together with the causative prefix *s-* (§5.3.4.4), the iterative prefix *nta-* (§5.3.4.1), and the pluractional auxiliary *ká-* (§5.3.3.3).

[133] This example comes from an instance of the specialized speech genre locally known as *tsà'vì*.
[134] This example comes from an instance of the specialized speech genre locally known as *tsà'vì*.

(281) *Nùǔ **kántás**iá'a-kue tukú ratù mà níkana và'î kitsi-kue tukú.*

nùǔ	**ká-ntá-s**-yá'a=kue			tuku=ú	
where	**IPFV.VPL-ITER-CAUS**-pass=PLZ			also=2NFORM	
ratù	mà	ní	kana	và'a=ì	kitsi
COND	NEG.MOD	CTF	leave	good=3GNR	IRR.come
kue	tuku=ú				
PLZ	also=2NFORM				

'Wherever you play it (the recording), if it doesn't come out right, you may come again.' [Ia_noo; NHG; 06:01]

5.3.4.8. Verbal prefixes: summary

In §5.3.4 I presented the six main verbal prefixes in Sà'án Sàvĭ ñà ñuù Xnúvíkó, which may derive iterative, inchoative, and stative verbs; increase a verb's valency; derive verbs from adjectives or nouns; or to adapt Spanish loanwords into the verbal complex (see Figure 26, p. 185) of Sà'án Sàvĭ ñà ñuù Xnúvíkó. As is expected from the slot these prefixes occupy in the verbal complex (see Figure 26, p. 185), they may be modified by auxiliaries (§5.3.3) and they interact with TAM marking (§5.3.2). In addition, these verbal prefixes can co-occur in various combinations, although the meaning of the resulting form is not always predictable. Table 64 presents a summary of these verbal prefixes and their main functions.

Table 64. Summary of verbal prefixes in Sà'án Sàvĭ ñà ñuù Xnúvíkó and their main functions

	Prefix
Iterative	nta-
Inchoative	ntu-
Stative	ku-
Causative	s- / sá-
Caused motion	chi-
do-*loanword*	sá'-

METALINGUISTIC REFLECTIONS ON INTELLIGIBILITY ACROSS TWO MIXTEC LANGUAGES

6. Metalinguistic reflections on intelligibility: Context and background

The population of immigrants of Mesoamerican Indigenous descent is increasing across the US, particularly in California (Kresge 2007; Perez, Vasquez & Buriel 2016). These communities face constant challenges, as linguistic racism is prevalent across all public institutions, and Indigenous migrant communities are particularly targeted (Barillas-Chón 2010; Holmes 2013; Perez, Vasquez & Buriel 2016). At the root of the language issues faced by these communities is the great diversity among language varieties which are often considered to be a single language. Such misconceptions often undermine language interpretation efforts and make it difficult for Indigenous people to access information and public services.

This is the case for Mixtec. There are many different varieties of Mixtec, and interpreters cannot just cover "all Mixtec". In the context of the Mixtec diaspora in California, providers of services and information for these communities need to acknowledge this linguistic diversity. There is therefore a need to understand the similarities and differences among the Mixtec languages spoken in California, and to what extent they may be intercomprehensible.

The Mixtec languages form a group of closely related languages that are not always mutually intelligible. They all belong to the Amuzgo-Mixtecan branch of the Otomanguean language family, spoken across Mesoamerica (Campbell 2017; Kaufman 2006; Longacre 1957). The diversity within the Mixtec language group is not well understood yet. Every village in the Mixtec region has its own variety (Julián Caballero 2009), but it is not clear yet whether it is even possible to talk about discrete Mixtec languages and how many there are. Some authors list 12 dialectal areas (Josserand 1983) while others identify seven main groups

(Auderset et al. 2023). Lexical comparison, shared innovations, and isoglosses are often the methods used to establish such groupings, but the question remains, however, which of these are mutually intelligible.

Intelligibility, however, is extremely difficult to measure, as it is a dynamic process with several linguistic and extra linguistic factors (such as attitudes, familiarity with other languages…) influencing the probability for comprehension in any given interaction (Gooskens & Van Bezooijen 2006; Gooskens 2007; Debreczeni & Dekker 2023). This part investigates the possibilities for mutual intelligibility between two Mixtec varieties spoken in the Central Coast of California: Tu'un nà ñuu Sàví (Tlahuapa) and Sà'án Sàvĭ ñà Yukúnanĭ. This study focuses on the linguistic practices that increase the likelihood of success of plurilingual communication (Lüdi 2007), or the use of receptive multilingualism to maintain a communicative exchange in more than one language (Belmar & Pinho 2020a; Blees, Mak & Ten Thije 2014; Ten Thije & Zeevaert 2007).

For this analysis I use a 26-minute conversation between two speakers of two different Mixtec varieties, and 8 hours of recordings from different discussion sessions in which the speakers reacted to the original conversation. I use the speakers' reflections to identify aspects of these two varieties that seem to affect intercomprehension, to document them and the ways in which these barriers may have been negotiated and solved during this interaction. This study adds important documentation needed for the development of materials for training Mixtepec interpreters in California, where individuals are often expected to work with divergent varieties.

6.1. Languages and speakers

The two varieties of Mixtec featured in the data analyzed in this section are Sà'án Sàvĭ ñà Yukúnanĭ and Tu'un ñà ñuu Sàví (Tlahuapa). These two villages are 157km apart in Oaxaca, a distance that currently represents about a 6-hour-long drive.

Jeremías Salazar speaks Sà'án Sàvĭ ñà Yukúnanĭ is the variety of Mixtec spoken in the village of Yucunani, in the municipality of San Juan Mixtepec (Ñuù Xnúvíkó), in the district of Juxtlahuaca, in Oaxaca, Mexico. Out of the 96 inhabitants of Yucunani, 81 speak Sà'án Sàvĭ ñà Yukúnanĭ (INEGI 2020). This variety is said to be largely intelligible with the other varieties spoken in the municipality of San Juan Mixtepec, which together account for about 9,000 speakers (INEGI 2020). The number of speakers in the diaspora is unknown, although there has long been a substantial migration from Mixtepec to the US (Edinger 1985) and there are community-led efforts to maintain and teach the language in California (Salazar, Belmar, et al. 2021). At the time of recording, Jeremías Salazar did not have much experience as a community interpreter, although he had experience as a community organizer and advocate. He had also had exposure to other Mixtec languages working in the strawberry fields in the county.

Griselda Reyes Basurto speaks Tu'un nà ñuu Sàví (Tlahuapa), the Mixtec variety spoken in the village of Tlahuapa, in the municipality of Alcozauca de Guerrero, in Guerrero, Mexico. Out of a population of 1,617 inhabitants, about 1,413 speak Tu'un nà ñuu Sàví (INEGI 2020). Once again, the number of speakers in the diaspora remains unknown (Reyes Basurto, Hernández Martínez & Campbell 2021). At the time of the recording Griselda had many years of experience as an interpreter, and has had extensive contact with other varieties of Mixtec, including the Mixtec language spoken in La Batea (a village in the municipality of San Juan

Mixtepec). As a majority of the Mixtec speakers in Ventura County seem to originate from the municipality of San Martín Peras, Griselda is particularly familiar with that variety.

In addition, Inî G. Mendoza was present during the original recording. He speaks Tù'un Sàjvĭ ñà ñuù Kàjvă Ntsiáá, from the village of Piedra Azul, in San Martín Peras, geographically in between Tlahuapa and Yucunani, and a very widespread variety in the Mixtec diaspora in California.

There is not much information about language use in the Mixtec diaspora. Even though communication across similar Mixtec varieties has been observed, differences across some varieties are deemed too big to handle, and Spanish is commonly used as a *lingua franca*. This accommodation to Spanish may well be due to practical reasons (i.e., they need to understand each other), but accommodation often reflects power dynamics (Giles, Coupland & Coupland 1991; Gnisci 2005; Giles 2008) and a switch to the dominant language in linguistically minoritized communities is very often highly expected to *save face* (Belmar 2021; Belmar 2024). In fact, this accommodation triggered by ideologies of politeness has been identified as a cause for language shift, suggesting that embracing multilingual (or multivarietal) repertoires could foster language maintenance (Belmar & Pinho 2020a).

In fact, we also know that speakers, especially those with experience as interpreters, have vast knowledge of the differences between different varieties, even unconsciously. This knowledge allows them to navigate communicative exchanges that others may give up on, signaling that a basic understanding of some differences may go a long way in fostering the use of Mixtec in intervariety communication.

Intelligibility across these two Mixtec languages, Sà'án Sàvĭ ñà Yukúnanĭ and Tu'un nà ñuu Sàví (Tlahuapa), is not expected to be very high a priority. Apart from the physical distance

between the towns (and the rough terrain between them), they have been traditionally classified into different main branches of Mixtec. According to Josserand's (1983) classification of Mixtec varieties, Sà'án Sàvĭ ñà Ñuù Xnúvíkó (Mixtepec Mixtec) constitutes a primary branch of Mixtec, different from the other varieties spoken in Western Oaxaca and Guerrero. Tlahuapa Mixtec, on the other hand, is classified as part of Guerrero Mixtec. Figure 27 shows Josserand's classification (1983) of Mixtec varieties into 12 dialectal areas. Sà'án Sàvĭ ñà Yukúnanĭ, as a variety of Mixtepec Mixtec, is identified by the red circle. Tu'un nà ñuu Sàví (Tlahuapa), as a variety from Alcozauca de Guerrero, is marked with a green circle.

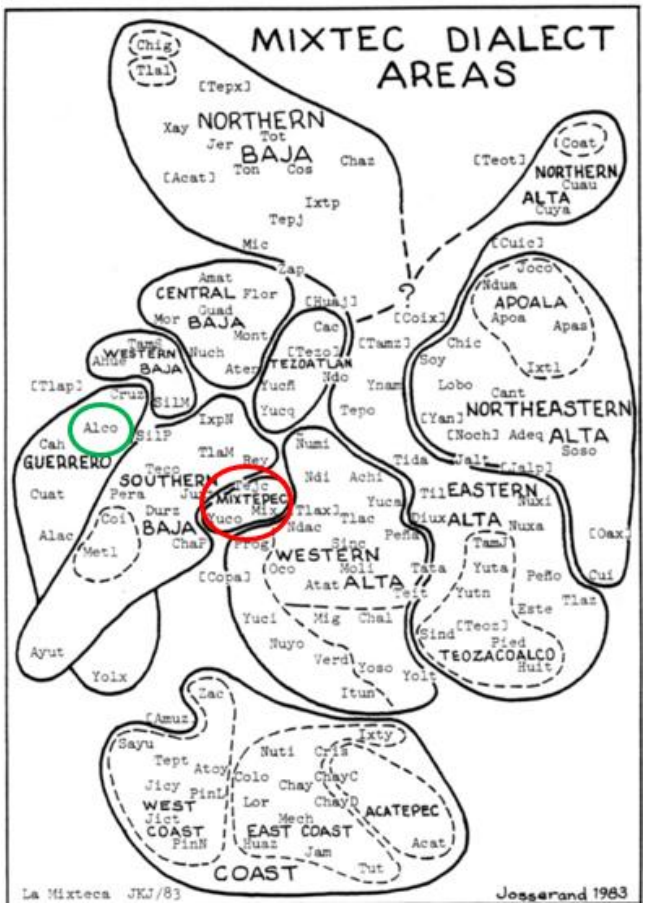


Figure 27. Josserand's classification of Mixtec varieties (Josserand 1983). The red circle identifies the location of Sà'án Sàvĭ ñà Yukúnanĭ. The green circle identifies the location of Tu'un nà ñuu Sàví (Tlahuapa).

However, in a recent study based on phonetic distance between cognates, Auderset et al. (2023) concluded that both Sà'án Sàvĭ ñà Yukúnanĭ and Tu’un nà ñuu Sàví (Tlahuapa) could be classified under the same group. And yet speakers of many of the other Mixtec varieties spoken in Western Oaxaca often describe the Mixtec variety from the municipality of San Juan Mixtepec as particularly hard to understand. In fact, in a study of reported intelligibility conducted across towns in Western Oaxaca, all respondents signaled the Mixtec from San Juan Mixtepec as the hardest one to understand (Padgett 2017: 67).

7. Methodology

In February 2020, during the UCSB Field Methods class, Professor Eric W. Campbell videorecorded a 26-minute-long conversation between Jeremías Salazar and Griselda Reyes Basurto. Inî G. Mendoza, a speaker of a third Mixtec variety, was holding the microphone during the interview while the rest of the class sat silently observing the exchange. During the conversation, Jeremías mainly uses Sà'án Sàvĭ ñà Yukúnanĭ and Griselda mainly uses Tù'un nà ñuu Sàví, with some degree of mixing and occasionally some Spanish. Since the goal of that class was to work towards the documentation of Sà'án Sàvĭ ñà Yukúnanĭ, this conversation could have been put aside as multilingual material, as it is often the case in documentation projects. However, it quickly became apparent that a deeper analysis of this conversation could yield important findings for the documentation of each variety separately, as well as for documenting multilingual language use in the Mixtec diaspora.

From the end of May to the beginning of August in 2020, we held a total of 6 discussion sessions with Jeremías and Griselda, as well as 2 sessions with Inî G. Mendoza (who speaks Tù'un Sàjvĭ ñà ñuù Kàjvă Ntsiáá, from the village of Piedra Azul, in San Martín Peras, geographically in between Tlahuapa and Yucunani). For a total duration of 8 hours, in these discussion sessions we rewatched the original video, stopping at any time any of the participants wanted to clarify or ask something. These sessions were guided conversations with special focus on misunderstandings and on accommodation strategies, as the main research goal was to systematically document and describe strategies that facilitate comprehension among different Mixtec varieties. In this analysis, I will only be using data from the first two sessions with Jeremías and Griselda.

The discussion sessions took place mostly in Spanish (both Mexican Spanish, from Jeremías and Griselda, and Castilian Spanish on my end), with Mixtec examples and in the original conversation, as well as some English, and they were all recorded on Zoom. Figure 28 shows the Zoom set up: the main screen is playing the video of the original conversation, featuring Jeremías in the center, Griselda to his left, and Inî holding the microphone to Jeremías' right. On the upper right corner of the picture there is the Zoom video streaming of myself, Griselda, and Jeremías, as we react to the original conversation.

Figure 28. Zoom set up during the discussion sessions.

The recordings were carefully transcribed in ELAN (ELAN 2022; Sloetjes & Wittenburg 2008) by a team of Research Assistants.[135] Figure 29 shows the set up for the transcription in ELAN. The names of the tiers appear repeated in English and in bigger font for ease of reading. The ELAN set up includes the tiers *Griselda-reacción*, *Jeremías-reacción*

[135] I want to thank the Research Assistants that took part in the transcription process of these data: Trey Flores, Angel Hurtado, Chelsea Linares, Paige Peterson, Christopher Saucedo, Jaclyn Torres, Janeth Quintero, Melanie Winn, and Estefania Zaragoza.

and *Guillem-reacción* feature the transcription of what was said during the discussion sessions, with Griselda's and Jeremías' tiers being expanded on with extra tiers for notes and for annotating expression/gesture. In addition, the transcription of the original conversation (Mixtec) and its translation into Spanish for both Jeremías and Griselda. These tiers are identified as *Griselda-video*, *Jeremías-video*, *Traducción-ES-GR*, *Traducción-ES-JS,* respectively. The tiers are populated as transcription of the original conversation advances in collaboration with both Jeremías and Griselda.

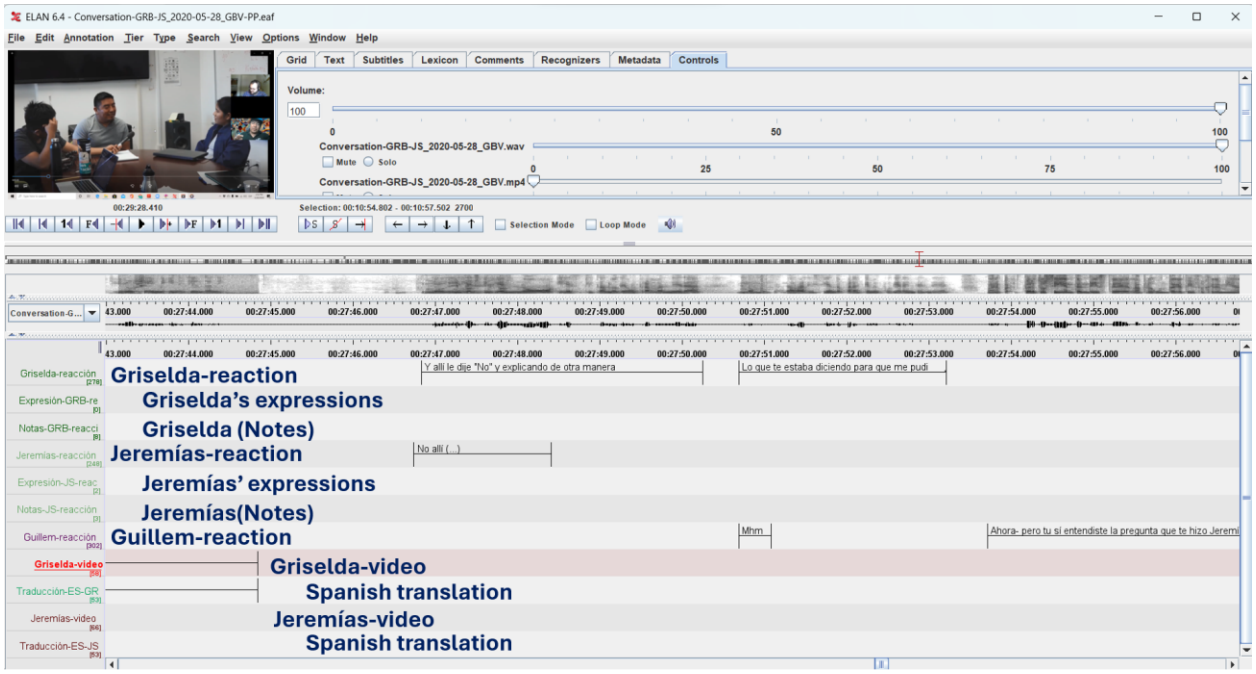


Figure 29. Set up of the transcription tiers in ELAN.

Once the transcription is completed, we followed a thematic analysis approach (see Braun & Clarke 2006; Clarke & Braun 2017).[136] The themes are suggested based on our prior familiarization with the data during the transcription process, as well as Jeremías and

[136] I want to thank the Research Assistants that have participated in the coding of the data so far: Monica Ascencio, Angel Hurtado, Christopher Saucedo, Janeth Quintero, and Melanie Winn.

Griselda's interests. The transcripts have been color coded according to three main categories: language ideologies, difference between varieties, and strategies of accommodation. In addition, other topics of possible interest were flagged. This information was later added to a collaborative Excel Sheet to centralize all the comments and observations we made (see Figure 30). Discourse Analysis is used to analyze the excerpts of the original conversation that prompt the discussions, triangulating with grammatical analysis and speakers' knowledge of the diaspora community.

	A	B	C	D	E	F
1	**Coder**	**Conversation**	**Time Stamps**	**Summary of the excerpt**	**Category**	**Relevance**
2	Write your initials here (AH, JQ, MW, CS, EZ)	Date of the conversation	Time stamp for the beginning and the and of the excerpt (for example, 28:56-30:48)	In your own words, summarize what is happening in this excerpt	Choose one of the four	Why did you highlight this excerpt? Why do you think it is important?
3	JQ	2020-06-16	00:04:43.709 - 00:05:57.732	Jeremias and Griselda talk about what "katu'un" and "kuni katu'in" mean in both of their languages. "Katu'un" es decir or contar in Jeremias' variant but in Griselda's "kuni katu'in" (which I believe Jeremias' might have misheard as "katu'un") is to ask.	Differences between languages	Similar sounding words that might be interpreted incorrectly between speakers of different variants.
4	JQ	2020-06-16	00:08:21.097 - 00:09:49.875	Griselda talks about how despite how similar the written words in Jeremias' variant might look to the words in her own variant, Griselda still struggles understanding them when she is hearing them. Griselda notes is how fast the other variant is compared to hers and how that makes it difficult for her to follow along and understand.	Differences between languages	Suggests a difference in talking speed between the variants. The difference could also be due to Griselda's lack of familiarity with the variant.

Figure 30. Screenshot of Excel Sheet for Collaborative Analysis

8. Analysis

Based on the analysis of the two first discussion sessions, this section presents two excerpts illustrating two of the main themes: accommodation strategies and differences between language varieties.

The data is presented as originally transcribed, with interlinear *translation into English* in italics. Transcriptions and translations of the original conversation will be underlined to distinguish them from the discussion sessions. Relevant excerpts from the original conversation will also be glossed, to show the reader the syntactic structures being discussed. Excerpts from the discussion sessions will be identified by the date of the discussion session followed by a time stamp (for example, 05/28; 23:22-25:19).

8.1. Accommodation strategy: hybridization

One of the accommodation strategies identified in the discussion sessions could be described as hybridization, or the process whereby separate entities generate another entity that shares certain features with each of its sources (Sanchez-Stockhammer 2012). This hybridization in multilingual settings (Gutiérrez, Baquedano-López & Tejeda 1999) illustrates translanguaging practices (García & Li 2015), as it blurs distinctions among categories (Nederveen Pieterse 1997) and among languages (García & Leiva 2014; Li 2018). In pulling from their own multilingual repertoires (Grosjean 1989) speakers may come up with hybrid forms that can be used to repair miscommunication (Wadensjö 1998; Schegloff 1992).

In the excerpt below (282), from the original conversation, Jeremías and Griselda were talking about previous jobs that Jeremías had had. Griselda asks Jeremías a question: *what did you do in that shop* (line 2). Jeremías does not understand the question, as can be seen with his

hesitation in line 2 and his question *what?* in line 4. Griselda then tries to reformulate the question in line 3, coming up with a slightly altered version.

(282) [Original conversation; 03:15-03:17]

Griselda:	1	Táá ndāá.. **¿ndāáguâ íká-ún ini tiénda káán?**
		And what… What did you do in that shop?
Jeremías:	2	a::m… aa ¿nixi?
		uhm… uh, ¿what?
Griselda:	3	¿Ndàguá ki'… mm ndàguá:… **¿Ndàguá kitsá'ǔn míí ini tiénda káán?**
		Wha… mm what… What did you do in that shop?

This excerpt (282) starts with Griselda asking Jeremías about what sort of job he did in a shop that he used to work with (mentioned previously in the conversation, note the use of the demonstrative *káán* 'that'). Example (283) shows the syntactic structure of this question.

(283) ¿Ndāáguâ íka-ún ini tiénda káán? [Original conversation; 3:15]

ndāá-guâ	íka=ún	ini	tiénda	káán
what-FOC	IPFV.do=2SG	in	shop	DIST

'What did you do in that shop?'

However, Jeremías does not understand the question, as can be seen be his reaction in line 2 of excerpt (282): *a:m… aa ¿nixi?* 'uhm… uh, what?'. The main communication mismatch here is the verb 'to do'. In its imperfective form, the verb 'to do' in Tù'un nà ñuu Sàví (Griselda's variety) is *íká —íka-ún* when inflected for the second person singular. However, the imperfective form of the verb 'to do' takes a completely different form in Sà'án Sàvĭ ñà Yukúnanĭ (Jeremías' variety), where it is instead *sá'a —sá'ú* when inflected for the

second person singular. These two verbs are etymologically unrelated, and they pose a major challenge for communication across varieties.

As miscommunication happened (lines 1 and 2, excerpt (282), both speakers tried to negotiate these differences. At first, Jeremías asks for clarification (line 2, excerpt (282)), and Griselda then reformulates the original question changing *íka-ún* for the form *kitsá'ŭn* (line 3, excerpt (282)). However, the form *kitsá'ŭn* is, in fact, not attested in either Griselda's nor Jeremías' variety.

In excerpt (284), from the First Discussion Session, we can see the discussion on Griselda's reformulation of the question.

(284) [First Discussion Session 05/28; 23:22-25:19][137]

Jeremías:	1	¿a nixi?	
		how?	
Griselda:	2	¿ndàguá ki'… ndà… ndàguá kitsá'ŭn míí ini tiénda káán?	
		What did you 'do' in that shop?	
Jeremías:	3	um	
		um	
Griselda:	4	Ahí estaba…	
		There I was…	
Guillem:	5		Mhm?
			Mhm?
Griselda:	6	@@@	

[137] Underlined represents transcription of the original conversation. The parts that are not underlined represent transcription of the discussion session.

Guillem: 7 @@

Griselda: 8 Allí estaba yo tratando digo ¿de qué otra manera le digo, le explico?

There I was trying saying in what other way should I say, explain?

Griselda: 9 Y estaba como… por eso puse mi cara ¿qué digo? ¿qué hago?

And I was like… that's why I made that face, what do I say? What do I do?

Guillem: 10 @@@

Griselda: 11 @@@

Jeremías: 12 Y qué di… qué?

And what did… what?

Guillem: 13 Y Jeremías… mhm?

And Jeremías… mhm?

Jeremías: 14 ¿Y qué dijiste, Griselda? ¿Cómo… cómo cambiaste eso? ¿No? Como ¿qué

15 dijiste? ¿tsá'un o qué?

And what did you say, Griselda? How… how did you change that? No? Like, what did you say? Tsa'un or what?

Griselda: 16 Oh, cierto, y copié tu variante. Lo… presté, presté tu… agarré prestado de tu

17 variante: ndāáguâ tsa'un iká dije, tratando de copiar tu variante para que me

18 pudieses entender.

Oh, right, and I copied your variety. I lent, I lent… I borrowed from your varietiy: ndāáguâ tsa'un iká *[what did you do there] I said, trying to copy your variety so that you could understand me.*

Jeremías: 19 Pero no… tú que decías? ¿Cómo que sá'ú? ¿Querías decir sá'ú? Como ¿qué
20 hacías?
But no… what did you say? Like sá'ú *[you were doing]? Did you want to say* sá'ú *[you were doing]? Like, what were you doing?*

Griselda: 21 Ah, aha, exacto.
Ah, yes, exactly.

Guillem: 22 Aah
Aah

Griselda: 23 para… la conversación entonces yo adapté… tu variante en el… para que me
24 pudieras entender @@
for… the conversation then I adapted… your variety in the… so that you could understand me @@

Jeremías: 25 Pero dijiste… ¿Cómo dijiste? Tsa'un o algo, ¿no?
But you said… what did you say? Tsa'un *or something, right?*

Griselda: 26 aha
yes

Jeremías: 27 Entonces yo creo que ese es como
Then I think that one is like

Griselda: 28 ¿ah?
ah?

Jeremías: 29 algo similar pero quizás sea de alguien un poquito más diferente, ¿no?
something similar but it may be from somebody a bit more different, right?

Griselda: 30 Entonces ¿no es el tuyo?

Then, it is not yours?

Jeremías: 31 Aaah, lo entendí un poquito más, pero sá'ú entonces era… tú dijiste tsá'ún o no

32 sé qué…

Aaah, I understood it a bit more, but sá'ú *[you were doing] then it was… you said* tsá'ún *or I don't know what*

In this excerpt we can see how Griselda used the form *kitsá'ŭn* (line 2, excerpt (284)) thinking that she was using the verb form from Jeremías' Mixtec variety. In fact, she stopped the recording while laughing, remarking on how she looked lost looking for a way to reformulate that question (lines 8-9, excerpt (284)). In the following discussion, Jeremías parses the form *kitsá'ŭn* as *tsá'ún* (line 15, excerpt (284)), which is the form that both he and Griselda use in the rest of the discussion. She goes on to state that she was trying to 'copy' Jeremías' Mixtec variety, and she is even surprised to learn that *kitsá'ŭn* is not the actual form in Sà'án Sàvĭ ñà Yukúnanĭ, as we can see in line 30 (excerpt (284)) when she says: *then, it is not yours* (your word for it)? The form is similar enough to Jeremías' *sá'ú* to be understood, as pointed out by Jeremías in line 31 (excerpt (284)), where he says: *I understood it a bit more*. However, this realization only came in the discussion session, as miscommunication continued in the original conversation until Griselda gave examples of possible answers (lines 5-7, excerpt (285)) and Jeremías starts answering the question in lines 8-9 (excerpt (285)).

(285) [Original conversation; 03:15-03:27]

Griselda: 1 Táá ndāá.. ¿ndāáguâ íká-ún ini tiénda káán?

And what… What did you do in that shop?

Jeremías: 2 a::m… aa ¿nixi?

uhm… uh, ¿what?

Griselda: 3 ¿Ndàguá ki'… mm ndàguá:… ¿Ndàguá kitsá'ǔn míí ini tiénda káán?

Wha… mm what… What did you do in that shop?

Jeremías: 4 ¿Nisaa kìĭ ntsìtsà'àn-yù?

How many days would I go (there)?

Griselda: 5 Mm ¿ñà ndāá ñà'an kúú ya… ñà kàchĭñú xí'in míí ini tiénda ni? ¿Ndìxìyo-ún

6 tá'àn ñà xù'ún ñà? ¿Kíxa cobrâ-ǔn nùú-nà yùví? ¿Sa'má ñà kíxa và'ún ñà kóyo

7 và'ún? Ó tàà… ¿ndāá chiñu kúú míí-a xìnì'ún táá xìndgàā-ún míí ikán?

Mm what is the thing that you worked on in the shop? Were you… with the money? Did you charge people? Did you put away the clothes? Or… What work is it that you had when you were in that shop?

Jeremías: 8 Aaaa táná ntsìxĭkô sa'mă táná nìkìtsáà ñàà ñàà nìkìtsáà kúu-ñà nìkìtsáá-kuê táná

9 snûu-kuê sa'mă táná tá nìkìtsáì nùŭ…

A: like I would sell clothes, like I started… what I started with was… we started like unloading the clothes when they arrived…

Looking at hybridization as an accommodation strategy (however successfully it played out), the unconscious choices Griselda made to come up with this word *kitsá'ǔn* (line 2, excerpt (284)) show a very deep knowledge of Mixtec languages. Indeed, the word *kitsá'ǔn*

(line 2, excerpt (284)) is a perfect example of hybridization. In Table 65 we can see the three main forms of the verb 'to do' —imperfective (IPFV), perfective (PFV) and irrealis (IRR)— in Tù'un nà ñuu Sàvi (Griselda's variety), in Sà'án Sàvĭ ñà Yukúnanĭ (Jeremías' variety), and in Tù'un Sàjvĭ ñà ñuù Kàjvă Ntsiáá[138] (Inî's variety). The verb is completely different in all three varieties. The Tù'un Sàjvĭ ñà ñuù Kàjvă Ntsiáá form *kíxa* seems to be the origin of the word *kitsá'ŭn* used by Griselda in line 2 (excerpt (284)).

Table 65. Main forms of the verb 'to do' in Tù'un nà ñuu Sàvi, Sà'án Sàvĭ ñà Yukúnanĭ, and Tù'un Sàjvĭ ñà ñuù Kàjvă Ntsiáá[139]

	Tù'un nà ñuu Sàvi	**Sà'án Sàvĭ ñà Yukúnanĭ**	**Tù'un Sàjvĭ ñà ñuù Kàjvă Ntsiáá**
IPFV.do	íká [$i^4.ka^4$]	sá'a [$sa^4ʔa^3$]	kíxa [$ki^4.ʃa^3$]
PFV.do	ìká [$i^1.ka^4$]	să'a [$sa^{13}ʔa^3$]	kìxa [$ki^1.ʃa^3$]
IRR.do	iká [$i^3.ka^4$]	sá'a [$sa^4ʔa^3$]	kasa [$ka^3.sa^3$]

However, she does not just use this word in Tù'un Sàjvĭ ñà ñuù Kàjvă Ntsiáá. She adapts it to Sà'án Sàvĭ ñà Yukúnanĭ by applying a very salient sound correspondence associated with the Mixtepec variety. In Table 66 we can see a few cognates in these three Mixtec languages. All these words contain the sound /ʃ/ written as <x> in Tù'un nà ñuu Sàvi and Tù'un Sàjvĭ ñà ñuù Kàjvă Ntsiáá, and this sound regularly corresponds to /t͡s/, written as <ts>, in Sà'án Sàvĭ ñà Yukúnanĭ. Therefore, Griselda applies this correspondence, modifying the Tù'un Sàjvĭ ñà ñuù Kàjvă Ntsiáá word *kíxa* to *kítsa* to better fit the phonology of Sà'án Sàvĭ ñà Yukúnanĭ. Finally, she adds the second person singular pronoun from her own variety, the enclitic *=ún*

[138] Variety of Mixtec spoken in the village of Piedra Azul, in the municipality of San Martín Peras (Oaxaca).
[139] Adapted from (Campbell, Peters & Mendoza 2022)

(pronounced as [ũ] with either a high tone or a rising tone). The result, which we heard as *kitsá'ŭn* is a hybrid form with features of three different Mixtec languages.

Table 66. Cognates in three Mixtec languages showing the regular correspondence of /ʃ/ (<x>) to /t͡s/ (<ts>) in Sà'án Sàvĭ ñà Yukúnanĭ[140]

	Tù'un nà ñuu Sàvi	**Sà'án Sàvĭ ñà Yukúnanĭ**	**Tù'un Sàjvĭ ñà ñuù Kàjvă Ntsiáá**
OVEN	**x**itùn [ʃi^{3}.tũ^{1}]	**ts**ìtù [t͡si^{1}.tu^{1}]	**x**ìtùn [ʃi^{1}.tũ^{1}]
FOOT	**x**à'á [ʃa^{1}.ʔa^{4}]	**ts**à'ă [t͡sa^{1}.ʔa^{14}]	**x**à'ă [ʃa^{1}.ʔa^{14}]
SANDAL	ndì**x**án [^{n}di^{1}.ʃã^{4}]	ntsì**ts**ă [^{n}d͡zi^{1}.t͡sa^{14}]	nchì**x**ăn [^{n}d͡ʒi^{1}.ʃã^{14}]
PINEAPPLE	vi**x**ín [βi̤^{3}.ʃĩ^{4}]	vi**ts**ĭ [βi̤^{3}.t͡si^{14}]	vi**x**ĭ [βi̤^{3}.ʃĩ^{14}]
TEN	u**x**ì [u^{3}.ʃi^{1}]	ù**ts**ì [u^{1}.t͡si^{1}]	ù**x**ì [u^{1}.ʃi^{1}]

8.2. Learning about differences: first vs. third person

Some of the major problems for communication between Tù'un nà ñuu Sàvi and Sà'án Sàvĭ ñà Yukúnanĭ stem from their different pronoun systems. At first glance, the pronouns in both languages are fairly similar, but there are a few major differences that systematically hinder communication. Possibly the most relevant difference is the way in which the first-person singular[141] is expressed. In this excerpt (286) Griselda is trying to make sense of some forms in Sà'án Sàvĭ ñà Yukúnanĭ and finds out why she was having problems keeping track of the referents in Jeremías' speech.

[140] Data from (MILPA 2023)

[141] Note that these forms can express the first person plural exclusive in Sà'án Sàvĭ ñà Yukúnanĭ if the plural is clear by context (see §5.1.7 in this dissertation)

(286) [Second Discussion Session 06/16; 27:59-28:20]

Griselda	1	Pero creo que Jeremías también lo ha… sá'ì, yo… está diciendo sá'ì, yo hago,
	2	¿no? ¿Es así, Jeremías, o no?
		But I think that Jeremías has also… sá'ì*, I… he is saying,* sá'ì*, I do, right? Is that right, Jeremías?*
Jeremías	3	Es sá'à
		It's sá'à *[I do]*
Griselda	4	OK, so entonces nunca lo utilizan tá sá'ì
		OK, so then you never us it tá sá'ì
Jeremías	5	Tá sá'ì es como cuando **él** hace
		Tá sá'ì *is like when* ***he*** *does*
Griselda	6	OK, listo
		OK, got it

Having already learned the verb 'to do' in Jeremías' variety (see previous subsection), Griselda is now asking about the form *sá'ì*, which she expects to mean 'I do'. However, Jeremías responds by introducing the form *sá'à* 'I do', and clarifying that, while the form *sá'ì* is used in Sà'án Sàvĭ ñà Yukúnanĭ, it means 'he or she does'. Table 67 shows all the first and third person pronouns that may be used to refer to people in both Sà'án Sàvĭ ñà Yukúnanĭ and Tù'un nà ñuu Sàvi. A major source of confusion is the similarity between the first-person pronoun in Tù'un nà ñuu Sàvi and the third person generic pronoun in Sà'án Sàvĭ ñà Yukúnanĭ, as they may both be realized as *=ì*. Indeed, the most common allomorph of the third person generic pronoun in Sà'án Sàvĭ ñà Yukúnanĭ is *=ì*, and it is also the most common third person

pronoun since it can be used to refer to any entity, animate or not, singular or plural, regardless of age and gender. This contrasts with the third person pronouns for people in Tù'un nà ñuu Sàvi, which have to specify gender. On the other hand, the pronoun *=ì* in Tù'un nà ñuu Sàvi expresses the first-person singular, which also tends to be very common in conversation. Therefore, the high frequency of this pronoun in both varieties can lead to confusion. This is exacerbated by the fact that the first person in Sà'án Sàvĭ ñà Yukúnanĭ is often expressed just by changing the last tone of the verbal or the noun complex to a low tone or a falling tone. This is not necessarily transparent for speakers of other varieties of Mixtec, such as Tù'un nà ñuu Sàvi, in which pronouns are not usually expressed just with tonal changes[142]. In example (287), we can see the different ways in which one could say 'my house', 'his house' and 'her house' in both Sà'án Sàvĭ ñà Yukúnanĭ (a) and Tù'un nà ñuu Sàvi (b).

Table 67. First and third person pronouns to refer to human entities in Sà'án Sàvĭ ñà Yukúnanĭ and Tù'un nà ñuu Sàvi.

	Sà'án Sàvĭ ñà Yukúnanĭ	**Tù'un nà ñuu Sàvi**
1	$=^{L}$ / =yù	=**ì**[143]
3GENERIC	=**ì**/=à/=ñà	---
3MALE	=rà	=rà
3FEMALE	=í/=á/=ñá	=ñá
3CHILD	=tsi	---
3PLURAL/GROUP	=nà	=nà
		=ná (women)

[142] However, when the modified word in Tù'un nà ñuu Sàvi ends in *-i* the first person pronoun *=ì* merges with the last vowel and it results in a super-low tone (lower than the lexical Low tone) (Eric W. Campbell, p.c.).
[143] Idem

(287) a. Sà'án Sàvĭ ñà Yukúnanĭ

ve'e ‘house’ > **ve'è** ‘my house’

vi'ì ‘his/her house’

ve'e-rà ‘his house’

vi'í/ve'e-ñá ‘her house’

b. Tù'un nà ñuu Sàvi

ve'e ‘house’ > **ve'ì** ‘my house’

ve'e-rà ‘his house’

ve'e-ñá ‘her house’

This difference poses a major problem for communication, but at the same time it is very systematic and easy to learn when it is pointed out. In fact, in the excerpt (286) above, Griselda immediately gets it and is ready to move on with this new information. This leads us to imagine that some of these sources of miscommunication can be easily avoided with some training. In fact, research has shown that some basic training in the most salient differences between different languages can have some positive effect in intercomprehension (see, for instance, Bergsma et al., 2014).

9. Metalinguistic reflections on intelligibility: Conclusions

> "Communication does not require the participants to have identical languages. Despite the growing loss of efficiency in the communication process as language codes deviate, it is often astonishing how great a difference speakers can overcome if the will to understand is there."
>
> (Haugen 1996: 280)

Intelligibility is often conceptualized solely in relation to lexical differences between languages or phonetic distances between cognates, dimensions that can be measured in isolation of any communicative exchange and that serve as predictors for intelligibility unfolding in real-life communication (Gooskens 2007). However, intelligibility in discourse can differ widely from cognate recognition studies (Belmar & Pinho 2020b), as utterances appear contextualized and with accompanying prosody and gesture. These dimensions are often left out of studies of intelligibility. In fact, they are harder to measure and they are even harder to disentangle from extralinguistic factors that have an effect on intelligibility, such as previous exposure (Gooskens & Van Bezooijen 2006), instruction (Bergsma, Swarte & Gooskens 2014), and even attitudes (Giles & Niedzielski 1988; Gooskens 2006; Debreczeni & Dekker 2023).

Taking into account the complex dynamics that shape intelligibility in communicative exchanges, in this dissertation I presented an innovative methodology to look into intelligibility in practice. By looking at language as fluid codes framed within social practices (García & Li 2015; Cenoz & Gorter 2017; Li 2018) and recognizing and centering the speakers' multilingual

repertoires (Grosjean 1989), I was able to study in detail how intelligibility is negotiated across time in a communicative exchange.

This study presents some preliminary findings, focusing on the deep metalinguistic knowledge that shapes speakers' decision-making when trying to repair instances of miscommunication (Wadensjö 1998; Schegloff 1992). It does so by centering the speakers' own metalinguistic reflections in combination with an analysis of the primary data (i.e., the original conversation). The study of the accommodation strategies that take place in the original conversation, together with the analysis of the speakers' reactions and thought processes expressed in the discussion sessions, uncovered differences across languages that may not be apparent from methods such as lexical comparison as well as the real impact that these differences may have in communication. In addition, it also identified the network of resources that speakers can pull from to try and repair miscommunication, including other languages and even the creation of hybrid forms (Gutiérrez, Baquedano-López & Tejeda 1999; Sanchez-Stockhammer 2012), as discussed in §8.1.

On a more practical note, and in line with claims in previous literature (Bergsma, Swarte & Gooskens 2014), the study shows that some basic knowledge of differences across varieties may go a long way in improving communicative efficiency in multi-varietal exchanges. As discussed in §8.2, some seemingly minor differences can have a huge impact on intelligibility. However, if they are systematic, making speakers aware of these differences can be extremely effective in improving intelligibility. This can be used, for example, in interpreter training. Systematic documentation of these differences and presentation of these findings in accessible formats could help interpreters, who often must navigate uncertainty as they may be asked to interpret for speakers of different varieties.

10. Conclusions on the dissertation

This dissertation has sought to address two research areas identified as necessary by community members in order to advance language and social justice for the Mixtec-speaking community, both in the Mixteca region in present-day Mexico and in the diaspora communities, particularly the community in the Central Coast of California. These research areas include more in-depth documentation of the Mixtec languages currently spoken along the Central Coast of California and a deeper understanding of the differences and similarities between them. In order to address both these community concerns, this dissertation contains two separate yet interrelated foci of interest: the grammatical description of Sà'án Sàvĭ ñà ñuù Xnúvíkó (Mixtepec Mixtec), and an analysis of speakers' metalinguistic reflections on intelligibility and accommodation between a speaker from the village of Yucunani (municipality of San Juan Mixtepec, state of Oaxaca) and a speaker from the village of Tlahuapa (municipality of Alcozauca, state of Guerrero).

Both projects are part of a larger multi-pronged approach to language work framed around community-led participatory action (Datta, Hurlbert & Marion 2022; Pérez Báez & Aguilar Gil 2022). This approach includes mobilizing the traditional outcomes of documentation projects curating them in ways that can be helpful for community members, such as story books, video games, tools to learn vocabulary, etc. (see, for instance, Salazar, Belmar, et al. 2021; Salazar, Belmar & Campbell 2021; Salazar, Belmar, et al. 2024). The creation of these materials for Sà'án Sàvĭ ñà ñuù Xnúvíkó has both shaped and been informed by the in-depth analysis that led to the grammatical description presented in this dissertation.

The grammatical description of Sà'án Sàvĭ ñà ñuù Xnúvíkó is the first of its kind. Despite being traditionally classified as one of the primary branches of Mixtec (Josserand

1983), documentation of Sà'án Sàvĭ ñà ñuù Xnúvíkó had been restricted to preliminary analysis of the tone system (Pike & Ibach 1978; Paster 2005; Paster & Beam de Azcona 2004a; Paster & Beam de Azcona 2004b), some analysis of person marking (Paster 2010), a brief sketch of typological features (Bowers 2020), and an analysis of relational nouns (Bowers 2022). These brief documents also relied heavily on elicited data, as well as documents gathered by SIL (Summer Institute of Linguistics), which are written in an orthography that does not represent tone. In this dissertation, Sà'án Sàvĭ ñà ñuù Xnúvíkó is described relying primarily on data from recordings of naturalistic speech (about 5 hours), which have been transcribed, analyzed, and checked to make sure all tonal distinctions were taken into account. I believe, in fact, that this reliance on naturalistic speech data as a primary source for the analysis allowed us to uncover certain aspects of the verbal morphology of Sà'án Sàvĭ ñà ñuù Xnúvíkó that have not been described for other related languages, most notably the existence of the pluractional auxiliary *ka-* (§5.3.3.3).

Finally, the second part of the dissertation directly centers the voices of community members to address community needs. As many in the field have been advocating for, language work should not be done in a vacuum, without taking into account the specific needs of community members (Cameron et al. 1993; E. Cruz & Woodbury 2014; Czaykowska-Higgins 2009). Documentation projects have to be flexible to accommodate community needs as they emerge (Campbell, Reyes Basurto & Hernández Martínez 2021; Salazar, Reyes Basurto, et al. 2024), and center indigenous perspectives and framework (Tsikewa 2021). The analysis of speakers' metalinguistic reflections presented in this dissertation is an example of such an approach to language work. During the COVID19 pandemic the need for interpreters— and resources for interpreters— became more pressing. As we were working on materials

informing community members about the pandemic (Salazar, Reyes Basurto & Belmar 2020; Salazar, Salazar, et al. 2021; Salazar, Reyes Basurto, et al. 2024) we were also working on the analysis of the original bilingual recording, looking for accommodation strategies and salient differences that could later be used in interpreter training under community initiatives such as JSILO (Justicia Social de Intérpretes de Lenguas Originarias) (Ávila, García, et al. 2023; Ávila, Cortez, et al. 2023).

Language barriers amplify issues with access to health care in Mixtec diaspora communities all along the West Coast of the US (Pérez Báez 2023; J. Nathan Martín, p.c.). This dissertation attempts to further academic engagement with community-identified needs that will ultimately result in the creation of resources to advance social justice for community members, by providing accurate description of the different Mixtec languages spoken in the diaspora and analyzing intelligibility as it unfolds in real conversations.

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