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Two studies of Mixtec languages

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TWO STUDIES OF MIXTEC LANGUAGES

by

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ACKNOWLEDGMENTS

ABSTRACT

This thesis consists of two independent papers and a text. One paper is centered on Mixtec languages as a whole, the other paper and the text present the variety of Mixtec spoken in the southeastern portion of the district of Nochixtlán, Oaxaca, Mexico.

The first paper builds on work published by Stephen A. Marlett in which it is posited that nasalization is a feature of the morpheme rather than the syllable. Data not included in Marlett's study, which corroborates his findings, are presented. Also in the light of these data, modifications to his analysis are suggested. This paper also presents the claim that there were palatalized and non-palatalized consonants in Proto-Mixtec.

The second paper presents a typological overview of the grammar of Southeastern Nochixtlán Mixtec, with particular emphasis on those features not documented for other Mixtec languages. The final chapter presents an interlinear glossed text from this variety of Mixtec.

CHAPTER 1

INTRODUCTION

This thesis consists of two independent papers: one centered on Mixtec languages as a whole, the other on the variety of Mixtec spoken in the southeastern portion of the district of Nochixtlán, Oaxaca, Mexico. There is also an interlinearized text from this variety of Mixtec. Most of the data presented in these papers are previously unpublished and provide new insights into the study of this group of languages. The papers document features of both the phonology and grammar, including comparisons of the phonology of this Mixtec language with that of other Mixtec languages.

Mixtec is a group of over fifty mutually unintelligible languages belonging to the Mixtecan subgroup of the Otomanguean language stock. These languages are spoken mainly in southern Mexico in the states of Oaxaca, Guerrero and Puebla.

Pre-Columbian written records, the Mixtec codices, give very few clues as to what earlier varieties of Mixtec were like. The earliest substantive written record of the language is most probably the Mixtec catechism published by Benito Hernández, a Dominican friar, in 1567. Also from the 16th century are a vocabulary by Francisco de Alvarado and a grammar by Antonio de los Reyes.

Very little further work was done on Mixtec until the 1930's when research began under the auspices of the Summer Institute of Linguistics by Kenneth L. Pike (1945, 1948) and others. Over the years many SIL scholars have documented individual Mixtec languages; one example is Alexander in her practical grammar of Atatláhuca Mixtec (Alexander 1980). Longacre's (1957) reconstruction of Proto-Mixtec was followed by an article which he and Mak (Mak and Longacre 1960) published on Proto-Mixtec. Bradley and Hollenbach (1988, 1990, 1991 and 1992) edited a series of syntax sketches covering various Mixtecan languages. Scholars

from other institutions have also produced works on Mixtec, notably Judy K. Josserand's (1983) dissertation on Proto-Mixtec.

The studies in this thesis provide data from previously undocumented varieties of Mixtec and also some information about aspects of Mixtec structure that have not been well documented.

Chapter 2 builds on a paper published by Stephen Marlett in which it is posited that nasalization is a feature of the morpheme rather than the syllable. In this chapter, I also present the claim that there was a contrast between palatalized and non-palatalized consonants in Proto-Mixtec.

Chapter 3 gives a brief overview of the grammar of Southeastern Nochixtlán Mixtec, with particular emphasis on those features not documented for other Mixtec languages.

Chapter 4 presents an interlinear glossed text from Southeastern Nochixtlán Mixtec.

CHAPTER 2

THE PHONOLOGY OF NASALIZATION AND PALATALIZATION IN MIXTEC

INTRODUCTION

This paper documents the effects of two processes, nasalization and palatalization, in the development of modern Mixtec languages, presenting data hitherto undocumented which give new insights on the synchronic variation of modern Mixtec, as well as on possible diachronic developments. The analysis supports Marlett's (1992) analysis of nasalization, although in light of the new data, a few modifications are required. This paper also presents data on the basis of which changes are suggested for the analysis of Proto-Mixtec. The main change is that palatalization was a contrastive feature of some consonants, not a later development.

The corpus is a list of over 500 cognate sets, with data drawn from 42 Mixtec towns throughout the states of Oaxaca, Guerrero and Puebla.[35] Most of the words included are monomorphemic. The choice of words includes those used by Josserand (1983) and Mak and Longacre (1960), but is far more extensive in terms of number of words and also includes data from some towns not covered in these earlier studies.[36]

The second section reviews two previous reconstructions of Proto-Mixtec. The third section documents some modern reflexes of Proto-Mixtec obstruent consonant phonemes. This section confirms Marlett's (1992) suggestion that nasalization was a feature of the morpheme in Proto-Mixtec. In the final section it is posited that palatalization was a contrastive feature in Proto-Mixtec.

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[35] See Appendix 1 which is a map of the Mixtec area.

[36] See Appendix 2 for sources of these data.

PROTO-MIXTEC PHONEMES

Mak and Longacre (1960:25) reconstruct the following consonant phonemes for Proto-Mixtec:

Table 1   Mak and Longacre's Reconstruction

stops	k^w	t		k	ʔ
nasalized stop		^{n}d			
spirants	v	θ	y	h	
nasals	m	n	ñ		
lateral		l			

Josserand (1983:251) reconstructs the following consonant phonemes:

Table 2   Josserand's reconstruction

	Central	Peripheral Non-round	Round
Obstruents			
Voiceless	t	k	k^w
Voiced nasal	^{n}d		
Continuants			
Voiceless	s	x	
Voiced oral	l	y	w
Voiced nasal	n		

b

Both reconstructions have six vowels, although Mak and Longacre express doubts about the existence of *e.

Table 3   Proto-Mixtec Vowels

i	ɨ	u
e		o
	a	

In both reconstructions these vowels can also be nasalized.

Some of the differences in the above analyses can be attributed to the reconstruction of different places of articulation; for example, Mak and Longacre reconstruct *θ and *h whereas Josserand reconstructs *s and *x. In other words, both reconstruct two voiceless fricatives, although the place of articulation is different. In addition, both reconstructions have three voiceless stops plus *ⁿd, *l, *y and a labial fricative or approximate (i.e. *v or *w).

Another difference in the two analyses is that Mak and Longacre reconstruct glottal stop as a consonant phoneme. Josserand (1983:269), on the other hand, reconstructs checked vowels. Although the surface word forms are identical in many cases, this difference in analysis impacts the word templates for Proto-Mixtec. In Josserand's analysis there are no words with the template CVCCV. For example Mak and Longacre (1960:39) cite Proto-Mixtec words of the word type *Caʔya, such as [daʔya] 'offspring'. Josserand reconstructs this word as *saʔyi, where [aʔ] is considered the vowel nucleus of the initial syllable. The importance in this difference of analysis will be seen in the discussion of the spread of nasalization.

Both Mak and Longacre and Josserand reconstruct both *ⁿd and *n. However, their analyses differ in that Josserand does not reconstruct *ñ or *m as separate phonemes whereas Mak and Longacre do. There is correspondence between both reconstructions in that where Josserand reconstructs *w plus a nasalized vowel,

Mak and Longacre reconstruct *m plus a vowel; likewise, Mak and Longacre's *ñ corresponds to Josserand's *y plus nasal vowel.[37] The data in 0 demonstrate the differences in reconstruction with regard to nasal consonants.

	Josserand	Mak & Longacre
smoke	*yuʔwẽ	*ñuʔma
squirrel	*kʷeyũʔ	*kʷañu

NASALIZATION IN MIXTEC LANGUAGES

These differences of analysis draw attention to the phenomenon of nasalization in Mixtec languages. In order to be able to compare the differing analyses, it is necessary to present the symbols which will be used throughout the rest of the paper. Table 4 presents the symbols used by Mak and Longacre and by Josserand as well as the IPA symbols used in this paper. The data is presented in a narrow phonetic transcription. In order to facilitate comparison, I have rewritten both Mak and Longacre's and Josserand's data using this transcription. However, reconstructed forms are written in their original transcription. When there is minor phonetic variation in the sound represented, then both forms are included in the first column. This table includes all the symbols necessary for describing the modern reflexes as well as the phonemes of Proto-Mixtec.

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[37] Mak and Longacre are aware of the correspondences between *y and ñ, stating that in some cases *y has become ñ before ultimate syllables with nasal consonants and/or before ultimate syllables with nasal vowels (Mak and Longacre 1960:40).

Table 4   Phonetic Symbols

Sound	Transcription used in this paper	Mak and Longacre	Josserand
[t]	t	t	t
[k]	k	k	k
[kʷ]	kʷ	kʷ	kʷ
[nᵈ][38]	nᵈ	ⁿd	ⁿd
[tʃ]	tʃ	č	č
[ts]	ts		ȼ
[β] or [w][39]	β or w	v	≠ or w
[θ]	θ	θ	θ
[ð]	ð	d	…
[s]	s	s	s
[ʃ]	ʃ	š	š
[j] or [ʒ]	ʒ	y	y or
[x][40]	x	h	
[l]	l	l	l
[r]	r	r	r
[m]	m	m	m
[ɲ̃]	j̃	ñ	
[n]	n	n	n
[N]	N	N	N
[Ṽ]	Ṽ	V̨	V̨
[Cʲ]	Cʲ	Cy	Cʸ
[i]	i	i	i
[e]	e	e	e
[a]	a	a	a
[ɨ]	ɨ		ɨ
[ʔ]	ʔ	ʔ	ʔ

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[38] [nᵈ] is an alveolar nasal with an oral release.

[39] *w is realized as [β] in some varieties.

[40] Longacre (1957:11) notes that this sound varies from a velar fricative to a frictionless spirant. A similar variation has been noted in the data I have gathered, that is the sound has only light friction, and varies between [x] and [h]. However, I have not included the differences in my transcription.

Data from Santo Domingo Nuxaá (henceforth Nuxaá) illustrate the phonetic facts of nasalization. In 0 examples are given of consonants which only occur before nasal vowels.

Gloss	Nuxaá
raccoon	[mã̃ʔã]
fire	[j̃ũʔũ]
tooth	[nũʔũ]

As there is no contrast between oral and nasal vowels following a nasal consonant, the question which arises from the above data is whether the consonants are affecting the vowels or vice-versa. That is, which are underlyingly nasalized: the consonants or the vowels?

There are also sets of words in which the same consonant occurs before both oral and nasal vowels. It should be noted that in Nuxaá both CVCV words and CVV words can be contrastively nasalized. Note the examples in 0.

	Oral		Nasal
bone	ʒiki	squash	ʒikĩ
louse	tʃuku	fly	tʃukũ
give	ʃeʔe	go	ʃẽʔẽ
arrive	ʃee	buy	ʃẽẽ

In monomorphemic words with the template CVCV, if the second syllable of a word is oral, the first one is never nasal; that is the following template is not licensed:[41]

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[41] To date I have found two exceptions in Nuxaá: [mẽka] 'dirty' and [mĩtu] 'fawn' (animal). This is similar to the San Miguel el Grande word [mẽku] 'gray' which Marlett (1992) claims comes from the Mexican Spanish *meco* 'bright red color mixed with black'. Another option is that it comes from the

**CṼCV

However, in most Mixtec languages, including Nuxaá, the following word template is common, where the first syllable has an oral vowel and the second a nasal:

CVCṼ

Examples of such words are given in 0.

Gloss	Nuxaá
squash	ʒikĩ
sow	kakĩ
fly	tʃukũ
tall	ðukũ
select	kaʃĩ
white	kʷiʃĩ

As in most varieties of Mixtec, in Nuxaá sequences of VV or VʔV are either both oral or both nasal, as shown in 0.

	Oral		Nasal
ring	ðeʔe	lard	ðẽʔẽ
arrive	ʃee	buy	ʃẽẽ
foot	ʃeʔe	dish	ʃẽʔẽ

NASALIZATION AS A FEATURE OF THE MORPHEME

The restrictions on the distribution of nasal and oral vowels, and of nasal consonants and various other consonants, led Marlett (1992) to propose that nasalization is a feature of the morpheme in Mixtec. He bases his claims on surface

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name of one of the traditional dances, that of the Chimecos in which the dancers painted their faces black (Terrence Kaufman, personal communcation). The origin of mĩtu is unknown.

patterns of Mixtec words, many of which are CVCV. He claims that certain words

are unattested in Mixtec. To present the data he uses the following schema:

t = any obstruent   a = any oral vowel

    y = any oral sonorant[42]   ã = any nasal vowel

    ñ = any nasalized sonorant

    Given the previous schema the following words are unattested:

tãta   tãtã

    yãtã   tãyã   tãya

    ñãtã   taña   ñãta

    ñãya   yañã   ñaya

    yãã   ñaa

    He observes that [w] or [β], [n^d], [ʒ] and [y] do not occur before nasal

vowels; similarly [m], [n] and [ɟ̃] do not occur before oral vowels. He posits,

therefore, that [m] [n] and [ɟ̃] be considered allophones of [β], [n^d] and [ʒ]

respectively.

    Marlett only briefly addresses reconstruction of Proto-Mixtec, pointing out

that if his analysis were to be applied, the proto-consonant inventory would include

something like the sounds which Josserand reconstructs as *w, *n^d and *y, but

unlike Josserand's analysis where [n^d] and [n] were reconstructed as separate

phonemes, his analysis combines *n with *n^d. It would reduce Mak and Longacre's

inventory even more since they reconstructed both *m and *ñ as well as *n and *n^d.

Marlett suggests that *n^d be reconstructed as *n, where /n/ is a coronal sonorant not

specified for nasality. Table 5 presents Marlett's analysis in comparison with those

of Josserand and Mak and Longacre.

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[42] Note that this category contains sounds not usually classified as sonorants, namely [ʒ], [β] and [n^d].
Marlett claims that these sounds are the phonetic realization of underlying sonorants in Mixtec.

Table 5   Revised Proto-phonemes

Marlett	Allophones	Josserand	Mak and Longacre
*w	[m] in nasal morphemes	*w + Ṽ	*m
	[β] or [w] elsewhere	*w + V	*v
*n	[n] in nasal morphemes	*n + Ṽ	*n
	[n^d] elsewhere	*nd + V	*nd
*y	[ɲ] in nasal morphemes	*y + Ṽ	*ñ
	[j] or [ʒ] elsewhere	*y + V	*y

Marlett's observation that [n^d] and [ʒ] do not occur before nasal vowels holds true for the data used for this study. However, the case of *w is not so straightforward. In San Pedro Tidaa, *w is realised as [w̃] in nasal morphemes.

San Pedro Tidaa   [ðãw̃ĩ]   'egret'

                       [nãw̃ã]   'soap'

                       [ðaʔw̃ã]   'cloth'

In San Andrés Nuxiño, *w morpheme initial it is realized as [β]. However, when it occurs intervocalically in a nasal morpheme, it is sometimes realized as [w̃].

San Andrés Nuxiño   [βĩʔĩ]   'trash'

                       [ðaʔw̃ã]   'skirt'

                       [ðamĩ]   'egret'

                       [nãmã]   'soap'

In this variety, there is variation between speakers in that some say [*mĩʔĩ]* 'trash'[43] and [*ðãʔmã]* 'skirt', which is consistent with Marlett's claim.

In Nuxaá the corresponding words have [m] in this position, as is predicted by Marlett's analysis. The cognates are given in 0.

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[43] Interestingly, Josserand lists [w̃ĩʔĩ] for 'trash' in San Pedro Tidaa.

Nuxaá	[ðãmĩ]	'egret'
	[nãmã]	'soap'
	[mĩʔĩ]	'trash'
	[ðãʔmã]	'skirt'

These differences present two options for analysis: either the allophonic variation is being lost in Nuxiño, or *β has not developed allophonic variation morpheme initially in this variety.

Throughout the corpus used for this study, there is correspondence between [m], [w̃] and rarely [β] in nasalized environments. This fact and also the fact that the occurrence of [β] is so rare before nasalized vowels, corroborate Marlett's claim that [β] and [m] should be considered allophones.

Anderson and Concepción (1983) document a similar distribution in Cuicatec, a language also classified as Mixtecan.[44] In Cuicatec [β] does occur before nasal vowels, but [nᵈ] and [ʒ] do not. The Nuxaá forms are given for comparison.

Gloss	Pápalo Cuicatec	Nuxaá
epazote	βẽnũ	mĩnũ
lake/pool	βĩnĩ	mĩnĩ
soap	nãmã	nãmã
village	ɟãã	ɟũũ

Since the facts for Mixtec and Cuicatec are similar, it appears that nasalization as a feature of the morpheme was present in Proto-Mixtecan. *β seems to be more resistent to allophonic development than *n or *ʒ, perhaps because it is an obstruent. Whether the occurrence of [β] before nasal vowels is a retention from Proto-Mixtecan or an innovation cannot be determined at this point.

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[44] Mixtecan languages are Mixtec, Cuicatec and Trique.

Marlett (1992:432) also posits that nasalization is a morpheme level feature which spreads within the word. He claims that nasalization spreads from right to left, claiming that in most varieties, although not all, obstruents stop the spread of nasalization (Marlett 1992:430).

Some of the evidence for this claim is that if only one syllable is nasalized then it is the right-most one. In 0 data are given from Nuxaá (SDN), San Miguel el Grande (SMG) and Alacatlatzala (ALA).

	SDN	SMG	ALA
gourd	ʒaʃĩ	ɟãxĩ	ʒaʃĩ
near	ʒaNnĩ	ʒanĩ	ʒatĩ
seed	nᵈikĩ	nᵈɨkĩ	nᵈĩkĩ

A similar phenomenon has also been observed by Hollenbach (1977:46) for Trique, which is also a Mixtecan language.

"Nasalization is a word level feature; a word is either nasalized or it is not. Nasalization is actualized mainly on the vowel of the ultima, but extends regressively to nonultimas until a consonantal barrier (any consonant other than /y w ʔ / is reached."

This is further evidence that nasalization was a morpheme level feature in Proto-Mixtecan.[45]

In Nuxaá, in words of the form CVʔV, the vowels are either both oral or both nasalized. The examples in 0 show that [ʔ] does not block the spread of nasalization. This is consistent with it being analysed as a vowel feature rather than a consonant

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[45] Longacre (1957:39) reconstructs an [m] word final for Proto-Mixtecan. He claims that this [m] has been lost, leaving the nasalization present on the vowels.

under the assumption that as a vowel feature it would not be a barrier to the spread of nasalization.[46]

Gloss	Mixtec	Gloss	Mixtec
good	βaʔa	raccoon	mã̃ʔã̃
mushroom	ʃiʔi	to drip	ʃĩ̃ʔĩ̃
mouth	ʒuʔu	fire	ɟũ̃ʔũ̃

Nasalization does not cross morpheme boundaries. Thus although the subject pronoun in the following example cliticizes to the verb, the root is not nasalized.

[nã-	ʒaʔa	-nĩ]
Hor-	pass	2Res

Come in!

DEVELOPMENTS IN SANTIAGO MITLATONGO MIXTEC

Previous reconstructions of Proto-Mixtec posit a voiceless continuant: Mak and Longacre reconstruct *θ; Josserand reconstructs *s. There are some words where they differ but for the most part their reconstructions coincide. Typical reflexes are /ð/, /θ/, /s/, /ʃ/. Santiago Mitlatongo (SM) is unique in the data I have, in that this proto-phoneme is realized as an /l/.[47] Data from Nuxaá (SDN), Santiago Mitlatongo (SM), Santo Tomás Ocotepec (STO), Tezoatlán (TEZ), and also reconstructed forms from Josserand's dissertation, are presented in 0.

	Josserand	SDN	SM	STO	TEZ
cooking pot	*kɨsɨ	kiði	kili	kisi	kiθi
deer	*isu	iðu	ilu	isu^n	[sakʷaa]

---

[46] In some feature systems, such as those of Halle and Chomsky, glottal stop is analysed as [+sonorant]. In these systems it would matter if it was a vowel feature or a consonant.

[47] This phoneme has developed two allophones: [l] morpheme initial and [ɫ] morpheme medially. For clarity I have chosen not to write this allophonic variation in the examples.

honey	*ⁿdusi	nᵈuði	nduli	nᵈuʃi	nᵈuθi
priest	*sutu	ðutu	lutu	sutu	θuti
rain	*sawiʔ	ðaβi	laβi	saβi	θai
tortilla	*sitaʔ	ðita	lita	ʃita	θita

In Mitlatongo, as in most varieties of Mixtec, [l] cannot occur before a nasal vowel[48]. One result of this is that in some cases the phoneme which Josserand reconstructs as *s in a nasal morpheme is realized as [n]. Data from Nuxaá (SDN), San Pedro Tidaa (SPT), Santiago Mitlatongo (SM) and San Miguel el Grande (SMG) are presented in 0 to document some nasal/non-nasal pairs of words.

	SDN	SPT	SM	SMG
rain	ðaβi	ðaβi	laβi	sau
egret	ðãmĩ	ðãw̃ĩ	nãmĩ	sãmũ
ring	ðeʔe	ðeʔe	leʔe	ʃeʔe
lard	ðẽʔẽ	ðẽʔẽ	nẽʔẽ	ʃãʔã

The realization of *s as [n] in nasal morphemes has led to loss of contrast with the [n] that is a allophone of *n, as shown in 0.

	SDN	SM	STO
change	ðãmã	nãmã	sãmã
soap	nãmã	nãmã	nãmã
fierce	ðẽẽ	nẽẽ	ʃẽẽ
dark	nẽẽ	nẽẽ	nẽẽ

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[48] In the data I have collected, the word in San Andrés Nuxiño for 'coccyx' [lũʔã] is the only word which has [l] before a nasal vowel. Josserand does not reconstruct any lṼ sequences either.

DEVELOPMENT OF REFLEXES OF OBSTRUENTS IN NASAL MORPHEMES

The data collected for this study shows that other proto-consonant phonemes have developed allophones in nasal morphemes. Josserand's study documents the development of allophones of *t, *k and *kʷ before nasal vowels (Josserand 1983:260-261). However, she does not present a detailed analysis of these developments, nor does she consider nasalization a feature of the morpheme. Therefore, important facts were not described.

Josserand details the variety of allophones of *t before nasalized vowels (Josserand 1983:258). Examples are given in 0 of these allophones.[49,50] In the cases where the words form part of her corpus, I have included her reconstructed forms. However, her database does not include some of these words.

	Josserand	SDN	SMP	TTC	YDG	SM	SMG	STO	SEA
black		tũũ	tnũũ	nũũ	nũũ	Nnũũ	tũũ	tũũ	Nnũũ
palm belt		tãnĩ	tnãnũ	nãnĩ	nãnĩ	Nnãnĩ	tanĩ	tanĩ	Nnãnĩ
sweat		tẽẽ	tnẽẽ	nẽẽ	nãã	Nnãã	tãĩ	tãã	Nnãã

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[49] The following abbreviations are used: Santo Domingo Nuxaá, SDN; Santa María Peñoles, SMP; Tierra Caliente, Tlazoyaltepec, TTC; San Juan Tamazola, TAM; Yutanduchi de Guerrero, YDG; Santiago Mitlatongo, SM; San Juan Diuxi, SJD; San Miguel el Grande, SMG; Santo Tomás Ocotepec, STO; San Esteban Atatláhuca, SEA.

[50] [Nn] represents a voiceless nasal followed by [n].

0 continued

box	*xetṹʔ	ʃeNnṹ	satnṹ	setnṹ	ʃẽnṹ	ʃeNnṹ	xanṹ	xatṹ	ʒeNnṹ
tree	*yutṹʔ	ʒuNnṹ	ʒutnṹ	ʒutnṹ	ʒẽnṹ	ʒuNnṹ	ʒunṹ	ʃũtṹ	ʒuNnṹ

Any description of the allophones of *t has to specify whether *t occurs morpheme medially or finally, in that in some varieties the allophones are different. For example in Nuxaá *t is [t] morpheme initially but is realized as [Nn] morpheme medially. The developments of *t are summarized in Table 6.

Table 6   The Developments of *t

Developments of *t in nasalized enivironments	Examples
*t>Nn word initial and medial (blocking)	Atatláhuca, Mitlatongo
*t>Nn word medial (blocking)	Nuxaá
*t>tn word initial and medial (blocking)	Peñoles
*t>tn word medial (blocking)	Tierra Caliente
*t>n word initial	Tierra Caliente
*t>n word initial and medial (not blocking)	Yutanduchi
*t>n word medial (blocking)	San Miguel el Grande[51]
*t>t word initial and medial (not blocking)	Ocotepec
*t>t word initial	Nuxaá, San Miguel el Grande

In San Miguel el Grande *t retains its feature [−sonorant], even though it is realized as [n], and so blocks the spread of nasalization. One can thus distinguish between [n] as a reflex of *t which synchronically is still underlyingly an obstruent and [n] which derives from *n and is underlyingly a sonorant. In 0 data from San

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[51] *t is not realized as /n/ in all words. Dyk and Stoudt give both *vitã* and *vinã* for 'now'.

Miguel el Grande (SMG) and Yutanduchi (YDG) are compared with Josserand's reconstructed forms.

Gloss	Josserand	SMG	YDG
net bag	yonoʔ	ʤũnũ	ʤũnũ
tree	yutũ	junũ	ʤenũ

In Yutanduchi, [n] apparently never blocks the spread of nasalization. In this case *n and *t have merged to the reflex [n] in nasalized environments.

The fact that *t has become [n] in some environments has led to a loss of contrast phonetically between *t and *n in some words in some varieties of Mixtec. In 0 data, not included in previous studies, are presented from Nuxaá (SDN), Tierra Caliente (TTC), Yutanduchi (YDG), and San Miguel el Grande (SMG) to show this loss of phonetic contrast. (Tonal differences are not being considered.)

		SDN	TTC	YDG	SMG
black	*t	tũũ	nũũ	nõõ	tũũ
face	*n	nũũ	nũũ	nõõ	nũũ
pit oven	*t	ʃiNnũ	ʃitnũ	ĩnũ	xinũ
run (realis)	*n	ʃinũ	ʃinũ	ĩnũ	xinũ
word	*t	tũʔũ	nũʔũ	tũʔũ	tũʔũ
tooth	*n	nũʔũ	nũʔũ	nũʔũ	nũʔũ

In the corpus used for this study, *k remains [k] both morpheme initially and medially in oral morphemes. Example 0 presents data from Nuxaá (SDN), Tezoatlán (TEZ), and Xochapa (XOC).

	SDN	TEZ	XOC
cooking pot	kiði	kiθi	kisi
snake	koo	koo	koo

0 continued

grain store	yaka	yaka	yaka
walk	kaka	kaka	kaka

However in some towns in the north-eastern part of the Highland Mixtec region,[52] *k has developed the allophone [x] in nasal morphemes. SDN is included for comparison, as in that variety *k remains [k]. In 0 examples are given of *k intervocalically. Data are given from Nuxaá (SDN), Tamazola (TAM), Yutanduchi (YDG), Santiago Mitlatongo (SM), and San Juan Diuxi (SJD).

	SDN	TAM	YDG	SM	SJD
neck	ðukũ	ðuxũ	ðuxũ	luxũ	ðuxũ
squash	ʒikĩ	ʒɨxĩ	ʒɨxĩ	ʒɨxĩ	ʒɨxĩ
there	ʒukã	ʒaxã	ʒaxã	ʒaxã	ixã

From the above data the following sound change can be stated for the Mixtec of Tamazola, Yutanduchi, Mitlatongo and Diuxi:

*k > x / __$\tilde{V}$

The phonetic motivation for this change cannot be ascertained. However, it seems that every consonant phoneme with the feature [−continuant] has a corresponding allophone in nasal morphemes.

Morpheme initial *k also has developed the allophone [x] in nasal morphemes in some cases. In 0 data from Santa María Peñoles (SMP), San Juan Tamazola (TAM), Yutanduchi (YDG), Mitlatongo (SM), and Diuxi (SJD) are presented to document this phenomenon.

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[52] The exception is Santa María Chigmecatitlán, in the state of Puebla, which also exhibits allophonic variation of [t] and [k] in nasal morphemes; however, I have very little data from that variety.

	SMP	TAM	YDG	SM	SJD
four	kũmĩ	xĩmĩ	xũmĩ	xũũ	kõõ
long	kãnĩ	xãnĩ	xãnĩ	xãnĩ	kanĩ[53]
meat	kũjũ	xũjũ	xũjõ	xõjõ	kujũ
speak	kã?ã	xã?ã	xã?ã	xã?ã	xã?ã / kã?ã[54]
go (irrealis)	kĩ?ĩ	xĩ?ĩ	xĩ?ĩ	xĩ?ĩ	xĩ?ĩ
thick	kokõ	koxõ	koxõ	koxõ	koxõ

In the first three examples, the morpheme medial consonant has the feature [+sonorant], thus allowing the spread of nasalization. The next two examples provide further data which shows that [?] does not block the spread of nasalization. The final example, 'thick', shows that *k, even when realized as the allophone [x] still blocks the spread of nasalization.

The data from Diuxi are not so easily accounted for. The data in 0 illustrate that *k is realized as [x] morpheme medially. However, the words I have found to date where initial *k is realised as [x] are all verbs, such as [xĩ?ĩ] 'will go'. More data from this variety are needed to ascertain the determining factors for the realization of *k as [x] morpheme initial in nasalized environments and to determine whether the verbal morphology has any role to play.

Two other towns in the area have developed nasal allophones for intervocalic *k in nasal morphemes. In the Mixtec spoken in San Pedro Tidaa (SPT), intervocalic *k is realized as a velar nasal. Again the cognates from Nuxaá (SDN) are given for comparison.

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[53] It is not known whether the initial vowels in [kani] and [kuñu] are nasalized or not.

[54] Both forms are reported, (Joy Oram personal communication).

	SDN	SPT
neck	≈ukũ	≈uŋũ
seed	nᵈikĩ	nᵈiŋĩ
thick	kokõ	koŋõ
Nochixtlán (place name)	atokõ	atoŋõ

In the Mixtec spoken in Santa Inés de Zaragoza (SIZ), intervocalic *k is realized as [gn].

	SDN	SIZ
squash	ʒikĩ	ʒignĩ
seed	nᵈikĩ	nᵈignĩ

There is evidence to show that Proto-Mixtec *kʷ has also developed allophones in nasal morphemes. In the present corpus there are only a few words with morpheme initial *kʷ. In 0 examples are given from Nuxaá (SDN), San Juan Colorado (SJC), Tezoatlán (TEZ) and Xochapa (XOC).[55]

	SDN	SJC	TEZ	XOC
blind	kʷaa	kʷaa	kʷaa	kʷaa
green	kʷii	kʷii	kʷii	kʷii
rich	kʷika	kuka	kʷika	kʷika
sin	kʷetʃi	kʷatʲi	kʷatʃi	kʷatʃi

In the case of *kʷ in morpheme medial position, there are no sets in the corpus where all varieties have /kʷ/ morpheme medially. The following sets illustrate the change *kʷ >xʷ in nasalized environments in both morpheme initial

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[55] It will be noticed that in San Juan Colorado (SJC), the initial consonant in the word 'rich' is not labialized.

and morpheme medial position in certain varieties of Mixtec. Data is included from Nuxaá for comparison.

	SDN	TAM	YDG	SM	SJD
go (progressive)	kʷã̃ʔã	xʷã̃ʔã	xʷã̃ʔã	xʷẽ̃ʔẽ	xʷã̃ʔã
squirrel	kʷẽj̃ĩ	xʷẽj̃ĩ	tʃixʷẽj̃ĩ[56]	xʷẽj̃õ	kʷẽj̃ũ[57]
white	kʷiʃĩ	kʷiʃi	i te kɨʒɨ	xʷĩxĩ	kʷiʃi
yellow	kʷã̃ã	xʷã̃ã	i xʷã̃ã	xʷã̃ã	kʷã̃ã

We see that in the varieties spoken in Tamazola (TAM), Yutanduchi (YDG), and Mitlatongo (SM), *kʷ has become /xʷ/ before a nasalized vowel. As the word for 'white' in Tamazola and Diuxi has lost the feature [+nasal], the environment for the allophonic variation has been lost.

The variety spoken in San Juan Diuxi has not undergone the same changes as the other varieties, in which both *k and *kʷ have developed fricative allophones in nasal morphemes both morpheme initial and medial. In Diuxi, the fricative allophones only occur morpheme initially in verbs. These allophones are attested morpheme medially in a variety of word classes. Further data are needed to find if this is a quirk of the corpus or a significant factor.

<u>RULES GOVERNING THE SPREAD OF NASALIZATION</u>

As has been stated above, Marlett (1992) posits that nasalization spreads from the right edge of the morpheme leftwards. He also states that nasalization spreads to adjacent sonorants, that nasalization is blocked by obstruents and that obstruents cannot be nasalized. However, my corpus shows that there are variety-specific rules controlling the spread of nasalization. The data in the following chart illustrates the

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[56] /tʃi/ is an animal classifier, thus this word is bimorphemic, consisting of classifier plus root.

[57] The information is lacking as to whether the /e/ is nasalized or not.

problem. The first four items have a stop reconstructed medially, the next group of four, a fricative, and the last item has a checked vowel.

	Josserand	SDN	YDG	SM	STO	SEA
now	*witĩ	βiNnã	βinã	βiNnã	mĩtã	βiNnã
tree	*yutũʔ	ʒuNnũ	ɟũnũ	ʒuNnũ	ɟũtũ	ʒuNnũ
squash	*yikĩ	ʒikĩ	ʒixĩ	ʒixĩ	ñĩkĩ	ʒikĩ
neck	*sukũʔ	ðukũ	ðuxũ	luxũ	sukũ	sukũ
sandal	*ⁿdixẽʔ	nʤiʃẽ	nʤiñã⁵⁸	ʃixẽ	nĩxã	nᵈixẽ
cold	*wixĩ	βiʃĩ	mĩĩ	mĩxĩ	βixĩ	mĩxĩ
corn dough	*yuxẽʔ	ʒuʃẽ	ɟũñẽ	ɟũxẽ	ɟũxã	ʒuxẽ
gourd	*yexĩʔ	ʒaʃĩ		ɟãxã	ɟãxĩ	ʒaxĩ
word	*toʔõ	tũʔũ	nũʔũ	Nnũʔũ	tũʔũ	Nnũʔũ

The differences in the morpheme initial consonant can be attributed to differences in the rules for the spread of nasalization. The most straightforward case is seen in Nuxaá (SDN) where any obstruent will block the spread of nasalization.

For Yutanduchi, it is more difficult to present a generalization to cover all the facts. For example, nasalization does spread through the medial consonant in *[ɬũnũ]* *(*yutũʔ⁵⁹)* 'tree', but not in [βinã] (*witĩ) 'now'.[60] The phoneme /x/ does not block the spread of nasalization. However, *k when realized as [x] does retain its feature [−sonorant] and therefore blocks the spread of nasalization. It seems, then, that two phonetically identical sounds differ underlyingly, and it is their underlying features not the surface phonetic facts which determine whether they block the spread of

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[58] It is not known whether the /i/ in the initial syllable is nasalized or not.

[59] These forms are taken from Josserand.

[60] It should be noted that there is some nasalization of the initial vowel if it occurs before [n]. More data is needed to establish whether this nasalization is phonemic or phonetic.

nasalization or not. Further, the crucial feature in this variety of Mixtec is whether the medial consonant is [±continuant]; only those consonants with the underlying feature [−continuant] block the spread of nasalization.[61]

The [±continuant] distinction also applies to Mitlatongo (SM). Nasalization is blocked by any medial consonant with the underlying feature [−continuant] whereas those with the underlying feature [+continuant] permit the leftward spread of nasalization. The data in 0 present the proposed underlying forms for Mitlatongo.

	Josserand	SM	Proposed U.R.
squash	*yɨkɨ̃	ʒixɨ̃	[jɨkɨ] +nasal
neck	*sukũ	luxũ	[luku] +nasal
cold	*wixĩ	mĩxĩ	[wixi] +nasal
gourd	*yexĩˀ	j̃ãxã	[jaxa] +nasal

Marlett notes that in Ocotepec nasalization spreads through the medial consonant regardless of its features, as shown in 0 above. In cases where an obstruent has a nasal allophone, the initial consonant is realized as the nasal allophone. The word for 'cold' presents a problem for his analysis, as from the other data it would be expected that the initial consonant be realized as its nasal allophone. It is significant that the phoneme in question is the same one, [w], that occurred in the Yutanduchi data in what seems to be a nasal morpheme.

The data from Atatláhuca, as shown in 0 above, present the opposite problem — in most cases, nasalization does not spread through the medial consonant, be it an obstruent or a continuant. One exception to this is the word for 'cold' which also presented a problem for analysis in Ocotepec.

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[61] The data [vinã] 'now' and [j̃ũnũ] 'tree' present a problem for this analysis.

PALATALIZATION IN PROTO-MIXTEC

Another modification that needs to be made to the reconstructions proposed both by Mak and Longacre and by Josserand is to recognize that palatalization was a contrastive feature in Proto-Mixtec.

I posit that there was a constrast between [tʲ] and [t]. Evidence for this analysis is to be found in the modern reflexes of what Josserand reconstructs as *t. First we examine her analysis. She reconstructs *te in seven words out of a database of 188. In Table 7 a list is given of the reflexes listed by Josserand for the syllable she reconstructs as *te. The word *kute 'round' is cited as an example. For each change documented by Josserand, the name of one only town where this change occurs is given.

Table 7   Josserand's Proposed Reflexes of *te

	Modern Reflex	Example	Town Name
*te	ta	kuta	Teposcolula
	te	kute	San Juan Diuxi
	tʃa	tɨ kutʃa	Yosondua
	tsa	ti kutsa	Apoala
	tsi	tsi katsi	Guadalupe Portezuelo
	tʃi	tʃi katʃi	San Francisco de las Flores
	ti	tʃi/tsi kati	Santa Catarina Tlaltempan
	tʲa	kutʲa	San Juan Colorado

Looking at Josserand's data, we note that in the majority of cases, two rules need to be posited to account for the development of the modern reflexes: one to account for the change to the consonant; the other to account for the change in the

vowel. The exceptions are varieties such as San Juan Diuxi where there is no change at all and varieties such as Teposcolula where the vowel is lowered.

To account for these facts, it is better to posit [tʲa] as the proto-syllable. Data from Santa Cruz Tacahua (SCT) in particular suggest this alternative analysis. In the following table, data from this town is compared with San Miguel el Grande (SMG), Nuxaá (SDN), Yuvi Nani (YN), and Jicayán (JIC). Josserand's corpus does not include these words nor any data from Tacahua.

	SCT	SMGl	SDN	YN	JIC
flower	ita	ita	ita	ita	ita
grass	itia	itʃa	ite	itʲa	ita [nᵈiʔi]
sing (irrealis)	kata	kata	kata	kata	kata
dig (irrealis)	katia	katʃa	kete	katʲa	kata

In most of the cases where Josserand reconstructs the syllable *te, Tacahua has [ti.a].[62] This is easily explained if these words are derived from *tʲa, not *te.

Josserand posits that palatalization is a later development, which occurs mainly in the varieties spoken near the coast of Oaxaca. Data are presented in (34) for which Josserand has reconstructed *te.

	Josserand	Proposed	SCT	SMG	SDN	YN	SJC	JIC
man	*teye	*tʲaa	tia	tʃaa	tee	tʲaa	[ɾayɨɨ]	[ɾai]
river	*yute	*yutʲa	ʒutia	ʒutʃa	ʒute	itʲa	ʒutʲa	ʒuta
rotten	*teʔyu	*tʲaʔyu	teʒu	teʔʒu	teʔʒu	tʲaʔʒu	tʲaʔʒu	taʔʒu

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[62] The transcription [ia] is based on the fact that there is a minimal word constraint in Mixtec, that is words must have at least two moras, thus the transcription [tia] 'man' is a licensed word. Further research it needed to determine whether each of these vowels form the nucleus of a syllable or whether it is better analyzed as a complex nucleus.

From the above data, I posit that in Proto-Mixtec there was a contrast between *tʲa and *ta.[63] The main advantage of this analysis over Josserand's is that only one sound change rule is required for each reflex in any one modern variety. The developments of the syllable which I reconstruct as *tʲa are presented in Table 8.

Table 8   Modern Reflexes of *tʲa

Developments of tʲa	Variety
*tʲa >ta	Jicayán
*tʲa >te	Nuxaá
*tʲa >tʃa	San Miguel el Grande
*tʲa >tsa	Apoala
*tʲa >tia	Santa Cruz Tacahua
*tʲa remains tʲa	Yuvi Nani, San Juan Colorado

In this analysis only one rule is needed to account for the modern day reflexes as either the consonant or the vowel undergo change, but not both. This hypothesis would also suggest that there were no *te syllables in Proto-Mixtec.[64]

The word 'rotten' in (33) does not fit the pattern. Given the rules posited above in Table 8 in which *tʲa is realised as [tʃa] in San Miguel el Grande, we would have expected **tʃaʔyu there. For Santa Cruz Tacahua, on the other hand **tiaʔyu would have been expected given the hypothesis that *tʲa is realized as [tia] in other words. As the syllable [tʃa] does appear morpheme initially in the word for 'man' in San Miguel el Grande, it is difficult to know what factors account for this change.

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[63] Data in Josserand's dissertation show that these developments are more widespread. However, my database lacks words from Tacahua for those items.

[64] Mak and Longacre (1960:36) do not reconstruct any *te syllables.

For the data from Santa Cruz Tacahua, in which the cognate form is *teʔʒu*, I posit that this word was *tʲayu, but then the complex vowel nucleus coalesced to give [te] in some varieties.[65] Examination of this item in Josserand's corpus shows that the same variety of reflexes are documented as are given above in Table 8.

I also posit that if there was a contrast between *ti and *tʲi in Proto-Mixtec, these two syllables have merged in modern Mixtec. This merger makes it impossible to know which words had *ti and which, if any, had *tʲi. The following words are those which Josserand reconstructs with either *ti, *tiʔ, *tĩ, or tĩʔ.

	Josserand	SCT	SMG	SDN	XOC	SJC	JIC
bean	*ⁿdutiʔ	nᵈutʃi	nᵈutʃi	nᵈutʃi	nᵈutʃi	nᵈutʲi	nᵈuti
because[66]	*wati			tʃi	tʃi	wati	
blame	*kʷeti		kʷatʃi	kʷetʃi	kʷatʃi	kʷatʲi	kʷati
cotton	*katiʔ		katʃi	katʃi	katʃi	katʲi	kati
fingernail	*tiyĩ		tiñũ	tĩĩ	tʃĩĩ	tʲiñu	tiñĩ
green bean	*ⁿditi		nᵈitʃi	ndʒitʃi		nᵈʲitʲi	nᵈuti
tendon	*tuti		tutʃi	tutʃi		t utʲi	tuti
wind	*tatiʔ	tatʃi	tatʃi	tatʃi	tatʃi	tatʲi	tati
near	*yetĩ	ʒatĩ	ʒanĩ	ʒaNni	ʒati	ʒatʲĩ	ʒatĩ
nose	*sitĩʔ	ʃitĩ	[kutu]	ðiNnĩ	ʃitĩ	iʃtʲĩ	ʃitĩ
now	*witĩ	βitã	βinã	βiNnã	βitĩ	βitʲĩ	βitĩ
work	*tiyõ	tijũ	tijũ	tijũ	tʃũũ	tʲijũ	tijũ

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[65] It is recognized that more data is needed from Tacahua to further substantiate this analysis.

[66] This word is not included in my database so the data is taken from Josserand (1983).

The above data show that Josserand's *ti and *tiʔ are realized as [Ĩi] in most varieties listed above. A different pattern is seen for *tĩ in that [t] or its allophone in nasal morphemes is preserved in most varieties.

The evidence is inconclusive as to whether there was a constrast between *ti and *tʲi. It is possible that the realization of *ti and *tʲi as [tʃi] is a later development, and separate from the issue of whether there was a contrast between *t and *tʲ.

We now examine the proto-fricative which Mak and Longacre reconstructs as *h and Josserand as *x. This sound shows a wide range of reflexes, such as [s], [ʃ], [h], and [x]. There is evidence that this proto-fricative also showed contrast between palatalized and non-palatalized. Josserand reconstructs a number of *xe or *xẽ syllables, but no *xa or *xã syllables. Table 9 presents the reflexes listed in Josserand's corpus for the syllables which she reconstructs as *xe.[67] The form of word *xeʔe 'foot' for each variety is given as an example.

Table 9   Josserand's Reflexes of *xe

	Modern Reflex	Example	Town Name
*xe	sa	saʔa	Teposcolula
	ʃa	ʃaʔa	Santa María Yolotepec
	ʃe	ʃeʔe	San Juan Diuxi
	ʒe	ʒeʔe	Yutanduchi de Guerrero
	xa	xaʔa	San Miguel el Grande
	xe	xeʔe	Ocotepec
	xʲe	xʲeʔe	Nuyoo
	tʃa	tʃaʔa	Jicayán

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[67] Josserand also reports a few cases of a retroflexed [ʂ].

The reflexes presented here show distinct parallels to those for Josserand's *te syllables in that in many cases there are changes to both the consonant and the vowel, if it is posited that the proto-vowel is [e].

As with the *te syllable, an alternative analysis involving palatalization should be considered. The additional data in (35) are from Santa Cruz Tacahua (SCT), San Miguel el Grande (SMG), Jicayán (JIC), Yuvi Nani (YN) and San Juan Mixtepec (SJM).

	Josserand	Proposed[68]	SCT	SMG	JIC	YN	SJM
box	*xetũ	*xʲatuⁿ	ʃatũ	xaj̃ũ	tʃatũ	ʃatũ	tsatu
corn dough	*yuxẽʔ	*yuxʲaⁿ	ʒuʃia	ʒuxã	yutʃã	iʃã	ʒutsa
cut	*xeʔⁿde	*xʲaʔnᵈe	ʃanᵈia	xaʔnᵈʒa	tʃatʃanᵈe	ʃaʔnᵈʲa	tsandʒaa
eat	*xexi	*xʲaxi	ʒee	ʒee	tʃatʃi	ʃaʃi	tsatsi
foot	*xeʔe	*xʲaʔa	ʃaa	xaʔa	tʃaʔa	ʃaʔa	tsaʔa
seven	*uxe	*uxʲa	uʃia	usia		uʃa	utsa

In the variety of Mixtec spoken in Tacahua, there are two words in my database where Josserand reconstructs *xe, and in Tacahua the corresponding segments are ʃia. It should also be noted that in San Miguel the word for 'seven' also has the segments [ia]. If a *xʲa syllable is reconstructed instead of *xe, then similar rules to those presented for *tʲa apply. The changes documented in Table 9 can better be accounted for by positing a *xʲa as shown in Table 10.

Table 10   Developments of *xʲa

Change	Town

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[68] For ease of comparison, I am using Josserand's reconstruction of *x for the initial consonant. However, I am unsure as to the phonetic value of this consonant which Mak and Longacre reconstruct as *h.

x^{j}a > sa	Peñoles
x^{j}a > tsa	Mixtepec
x^{j}a > ʃa	Yuvi Nani
x^{j}a > xa	San Miguel
x^{j}a > tʃa	Jicayán
x^{j}a > ʃe	Nuxaá
x^{j}a > ʒe	Yutanduchi
x^{j}a > x^{j}e	Nuyoo

In the first five changes listed above, by positing a *x^{j}a syllable, only one change rule needs to be posited for each variety to account for the facts. Only one rule would need to be posited for the last change listed where the vowel is raised, that is *x^{j}a > x^{j}e. The other changes would require two change rules to account for the modern reflexes: one for the change in the consonant and another for the change in the vowel. The proposed analysis requires slightly fewer rules than Josserand's. The difference in the number of rules would be insufficient of itself to suggest an alternate analysis. However, when these facts are considered along with the data given above for *t, then it seems more likely that there was palatalization on [x] in Proto-Mixtec; the syllable which Josserand reconstructs as *xe should be reconstructed as *x^{j}a.

Finally, note that in (35) that Tacahua has [ʃan^{d}ia] 'cut' where Josserand has *xeʔ^{n}de. Tacahua also has a [n^{d}ia] syllable in [βin^{d}ia] 'nopal' where Josserand reconstructs *wiʔ^{n}de. Thus it is possible that */n/ which is [^{n}d] in oral words also could be palatalized.

An issue raised by this analysis is whether *e was actually part of the vowel system in Proto-Mixtec at all. If *t^{j}a, *x^{j}a and *n^{j}a are reconstructed instead of

syllables with [e], then almost half of the words which Josserand reconstructs with [e] would be reconstructed with a palatalized consonant plus [a]. However that question is beyond the scope of this thesis.

CONCLUSION

The first section of this paper has presented further evidence of the validity of Marlett's claim that nasalization is a morpheme-level feature. His analysis and its implications for the reconstruction of Proto-Mixtec account for most of the phonetic facts, while reducing the number of phonemes required and eliminating the necessity of complex rules to account for co-occurrence restrictions. By positing that certain morphemes have the feature [+nasal], the environment for the changes detailed above for *t, *k, and *k^w are accounted for. Data presented above have shown that *t has a variety of allophones such as [n] and [Nn] in nasal morphemes, and that in some cases the nasal allophone of *t and *n have merged as [n]. Both *k and *k^w have spirantized to [x] and [x^w] morpheme medially in some varieties, and also morpheme initially in a subset of those varieties.

This paper also documents that in at least some varieties of Mixtec, it is the underlying feature of a medial consonant that determines whether it blocks the spread of nasalization. Thus two sounds which are phonetically identical, but underlyingly different with regard to the feature [sonorant], will behave in different ways with regard to the spread of nasalization. Also that in some varieties the relevant feature is [continuant].

This paper also presents data which form the basis for changes in the analysis of palatalization. The main change posited is that palatalization was a contrastive feature of some consonants in Proto-Mixtec, not a later development. The advantage of this approach is that it reduces the number of rules which need to be posited to account for modern reflexes. It also questions whether *e should be reconstructed for

Proto-Mixtec since many of the instances in which Josserand reconstructs *e, would, under the present analysis be reconstructed as *a preceded by a palatalized consonant.

CHAPTER 3

A TYPOLOGICAL GRAMMAR SKETCH

OF

SOUTHEASTERN NOCHIXTLÁN MIXTEC

INTRODUCTION

This paper presents an overview of the grammar of Southeastern Nochixtlán Mixtec, henceforth SEN.[69] Most of the examples are taken from texts written by native authors.[70] This sketch does not pretend to be exhaustive, although it covers the most common features of this language. Also covered are certain features of this Mixtec language that are not shared by other varieties which have been previously documented.

This paper presents these topics in the following order: first, a description of SEN word classes; second, a discussion of morphology issues; third, a typological presentation of word order; fourth, a classification of subordination and conjunction in SEN; and finally, the use of evidentials in SEN discourse.

SEN is one of the Mixtec languages, belonging to the Mixtecan subgroup of the Otomanguean language stock. Mixtec is a family of over 50 mutually unintelligible languages, spoken in southern Mexico in the states of Guerrero, Puebla

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[69] SEN is spoken in three municipios, Santa Ines de Zaragoza, San Andrés Nuxiño and Santo Domingo Nuxaá, in the district of Nochixtlán which is situated northwest of the city of Oaxaca; see the map in Appendix 1. The data for this study have been gathered over a period of sixteen years.

[70] These texts have been written by a number of different Mixtecs who do not wish to be identified. A list of the ones which have been published as literacy materials is included in the references.

and Oaxaca. Within each language there are often a number of dialects which are mutually intelligible.

WORD CLASSES

This section presents the word classes of SEN. The two most basic classes of lexical words in SEN are nouns and verbs. There are also modifiers of various kinds, such as adjectives and adverbs. SEN has a minimal word constraint: any word must be at least bimoraic. In this section I also describe the pronoun system, although strictly speaking, the pronominal clitics are not lexical words and are unstressed.

<u>NOUNS</u>

Most nouns in SEN refer to perceivable objects; that is, there are very few monomorphemic abstract nouns. Monomorphemic nouns are usually disyllabic. Some nouns are trisyllabic, the initial syllable being a classifier prefix. In SEN there are three such prefixes, *ti-* or *chi-* for animals, *nu-* for trees and *chi-* for spherical objects.[71]

Many words in SEN denoting animals begin with [tʃ] , and a few with [t].[72] I consider that [ti] or [tʲi] was the proto-form of this prefix, in which the [tʃi] is the modern reflex in this variety. Some examples of words in this class are given in (36). Other phonological changes account for the surface form: for example, in many cases, SEN has lost the vowel of the prefix.[73] This prefix is related to the SEN word for 'animal' *kiti* and the third person pronoun for animals *ti,* which seems to be a shortened form of that word.[74]

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[71] The orthography used for the examples in this paper is that approved by the Mixtec Academy (Veꞌe tuꞌun savi). An explanation of the symbols is to be found in Appendix 4.

[72] Of the 120 words for animals in my database, 11 are loans from Spanish, 49 begin with consonants other than [t] or [tʃ], and 55 begin with [tʃ] and 10 with [t].

[73] San Miguel el Grande Mixtec has /tiyoko/ 'ant' and /tiyukun/ 'fly' (Dyk and Stoudt 1965). The cognate forms of these items in SEN are /choko/ and /chukun/ respectively.

[74] Tone has been omitted from the transcription of Mixtec in this chapter.

(36)   Gloss   Mixtec

         ant   choko

         cattle   chikutu

         cricket   tinchi

         fly   chukun

         pack rat   chani

The word *chikutu* 'cattle' is a post-conquest word, coming from *chi-* 'animal prefix' and *kutu* 'plow'.

Most words denoting trees in SEN begin with *nu-*, which appears to be a shortened form of *yutun* 'tree'.

(37)   Gloss   Mixtec

         acacia   nundo'o

         forestiera   nunchidi

         madrone   nuyu'ndu

         pitch pine   nuyuxe

         seep willow   nutavi

         silver leaf oak   nuyada

         Mexican bald cypress   nuyukun

Many words denoting spherical objects begin with *chi-*.

(38)   Gloss   Mixtec

         acorn   chi'nki

         barrel cactus   chite'e

         citrus fruit   chikuee

         spoon   chikadi

         tomato   chinana

VERBS

Verbs in SEN may be classified according to valence types, that is, according to the number of arguments which are obligatory.

<u>Basic Valence Types</u>

There is a small set of ambient verbs which subcategorize for no arguments. Examples are given in (39). The imperfective aspect is given in each case.

(39)   Gloss   Mixtec

dawn   tuu

earthquake   taan

become late   kuaa

These verbs can occur with aspectual prefixes as shown in (40).

(40)   ja   ni-   tuu

already   Pf-   dawn.R
(It) has already dawned.

Some adjectives can also function as ambient verbs. An example is given in (41)

(41)   iyo   i'ni

very   hot
It (weather) is very hot.

This class of verbs does not include all verbs which describe meteorological phenomena. For example, to express 'to rain' there is an overt subject, *davi* 'rain' with the verb 'come down', and so this example does not fall in the ambient verb class.

(42)   kuun   davi

come.down.R   rain
It is raining.

In (43) and (44) examples are given of verbs which subcategorize for one argument.

(43)　　Gloss　　　Mixtec

go　　　　ki'in

arrive　　xee

walk　　　kaka

drip　　　xi'in

swim　　　dute

(44)　　ja　　　　ni-　　　　xee　　　　ku'u　　　da

already　Pf-　　　arrive　　sister　　1Res

My sister has just arrived.

Some verbs which subcategorize for two arguments are given in (45) and (46).

(45)　　Gloss　　　Mixtec

sell　　　diko

sow　　　　kakin

harvest　　ta'vi

close　　　kadi

lose　　　kuita

(46)　　te　　vitan　　　kuini　　ni　　ja　　kakin　　no　　　　　nuni　trigu

and　right.now　want.R　1Fam　that　sow.Ir　2Fam.MS　corn　wheat

and now I want you to sow wheat …

In the corpus used for this study, *kua'a* 'to give' is the only non-derived verb which subcategorizes for three arguments.

(47)   te   ni- -na- kuaˈa de nu doo   nu

        and Pf- Rep- give.Ir 3m 3f clothes 3f

        and he gave her back her clothes

If all three arguments are present, then the indirect object is a pronoun, and the direct object is either a full noun phrase or the pronoun *ñaˈa* 'object' which occurs between the verb and subject.

Motion Verbs

      SEN has a complex system of motion verbs. There are two basic parameters: the place of locutionary action and the notion of 'home base'. That is, besides indicating motion to/from the speaker, the choice of verb also indicates direction of the motion with regard to 'home base' or customary location of the subject of the verb. The verbs *kiˈin* 'go' and *nuˈu* 'go home' are examples of this set of verbs. The verb *kiˈin* 'go', in the appropriate aspect is used when the direction is away from the speaker and away from the 'home base' of the subject.

(48)   na-   kiˈin ndo yuku   ja   kaxi ndo

        Sub- go.Ir 1incl look.for Cmp eat.Ir 1incl

        Let's go and look for something to eat.

For direction towards the place of locutionary action, *kixi* 'come' is used.

(49)   te   kixi   tuku ni

        and come.R again 1Fam

        and I'll come again

The verb *nuˈu* 'go home' is used when the place of locutionary action is other than the home-base of the subject.

(50)   nuˈu   da

        go.home.Ir 1Res

        I'm going home.

The verb *ndixi* is used when the home base of the subject and the place of locutionary action coincide.

(51)   ki'in da   date   ndixi   da

       go.Ir   1Res   then   come.back.Ir   1Res

       I'll go and I'll come back (home) shortly.

These motion verbs can also co-occur with other verbs, such as *kane'e* 'take'. In these cases, the motion verb indicates the direction of the main action. Both verbs are marked for aspect, but there is no overt subject on the motion verb which occurs after the arguments of the other verb. It is posited that they form a single complex verb phrase.

(52)   te   kane'e   ní   ti   kunu'u

       and   take.Ir   2Res   3a   go.home.Ir

       and you will take it home

(53)   kandeka   na   ina   ki'in

       take.Ir   2Fam.WS   dog   go.Ir

       you will take the dog away

(54)   ja   nchikun   ña'a   tata   ni   vaxi

       already   follow.R   Obj   father   1Fam   come.R

       My father is already chasing us (coming to where we are).

The motion verb when used in a directional sense follows the main arguments of the verb, even when that argument is an embedded clause.

(55)   te   yukan   ni-   xi-   kane'e   ayivi   ja   kaxi   ti   ki'in

       and   there   Pf-   Hab-   take.Ir   person   that   eat   3a   go.Ir

       And people would take it something to eat (out) there.

There are other verbs, such as *ndivi* 'enter' and *xee* 'arrive', which are also used to indicate direction and can be used like the motion verbs in the previous examples. As in the other cases there is no clitic after the motion verb.

(56) ne꞉e yu꞉u ti choto ni- ndivi

carry mouth 3a rat Pf- enter

It came in carrying a rat in its mouth.

Compound Verbs

There are a number of compound verbs. For example, many verbs expressing emotions or thought processes are compounds of *-ini* 'inside' and a root, which often is not identifiable. Examples of these verbs are given in (57). (In the cases where the neutral and realis stems are different segmentally, the neutral stem is given.)

(57)

Gloss	Mixtec
become angry	diko-ini
contemplate	dakani-ini
covet	kakan-ini
despise	daka-ini
encourage	kandee-ini
forgive	kaka꞉nu-ini
realize, figure out	kutuni-ini
remember	ndaku-ini
think	kani-ini

Examples of the use of these verbs are given in (58) and (59).

(58) te ni- xeni-ini ti ja doni danda꞉vi ña꞉a tita

and Pf- think.R 3a that just deceive.R Obj opossum

and it thought that the opossum was just deceiving him

(59)   ko   a-   kutuni-ini de   nava'a kada de

         but Neg- realize   3m   how   do   3m

         but he couldn't figure out what he should do

QUANTIFIERS

Quantifiers, both numerals and indefinite, precede the noun. The most common indefinite quantifiers are listed below.

(60)   Gloss   Mixtec

         a few   xeku

         all   ndiaa

         many   maa

         several   titin

         some[75]   dava ta-

Examples of the use of these quantifiers are given in (61) and (62).

(61)   ni'i   ndo   maa   mediu

         find.Ir 1incl much money

         We'll get lots of money.

(62)   te   ne'e de   n^{d}iaa mediu   kunu'u

         and take 3m   all   money go.home.R

         and he took all the money home

Some indefinite quantifiers can co-occur with the prefix *ta-* 'collective'.[76]

(63)   te   kutu   no   ndiaa ta- ñu'u   ni

         and plow.Ir 2Fam.MS all   Col ground 1Fam

         and plow all my land

---

[75] The word *dava* often means 'half'. However, when it means 'some' the noun is prefixed by *ta-* 'collective'.

[76] This gloss was suggested to me by Daniel Everett.

(64)   ja   ni- xee   dava ta-   ayivi

already Pf- arrive some Col people

Some people have already arrived.

(65)   maa   ta   yuku kuii   iyo

many Col plant green be.R

There are many kinds of edible plants (lit. green plants)

In the corpus used for this study I have no examples of either *xeku* 'few' or *titin* 'several' co-occurring with *ta-* 'collective'.

The Mixtec number system is vigesimal.[77] There are separate words for 'one' to 'ten', as shown in (66).

(66)

Gloss	Mixtec	Gloss	Mixtec
one[78]	iin	six	iñu
two	uu	seven	usa
three	uni	eight	una
four	kuun	nine	iin
five	u'un	ten	uxi

The word for 'ten' *uxi* forms the base for numbers to 'fourteen', then the word for 'fifteen' *sa'un* is the base for the numbers to 'nineteen'.

(67)

Gloss	Mixtec	Gloss	Mixtec
eleven	uxi iin	fifteen	sa'un
twelve	uxi uu	seventeen	sa'un uu
thirteen	uxi uni	eighteen	sa'un uni
fourteen	uxi kuun	nineteen	sa'un kuun

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[77] A fuller discussion on the Mixtec number system is to be found in Hollenbach and Hollenbach 1999.

[78] Note that the numbers 'one' and 'nine' are only differentiated by tone.

The system after twenty repeats the pattern for 'one' to 'nineteen'.

(68)	Gloss	Mixtec	Gloss	Mixtec
	twenty	oko	forty (2×20)	uu diko
	twenty one	oko iin	fifty (2×20+10)	uu diko uxi
	twenty four	oko kuun	seventy five (3×20+15)	uni diko sa'un
	twenty seven	oko usa	eighty (4×20)	kuun diko
	thirty (20+10)	oko uxi	ninety (4×20+10)	kuun diko uxi
	thirty five (20+15)	oko sa'un	iin cientu	one hundred (Spanish)

In many situations, the numbers in Spanish are used. However, the old vigesimal system is used for counting tortillas. In this system 100 is *u'un diko* '5×20'. The word for 20×20 is *tuu* '400'. The old word for '8000', *titin,* now means 'several'.[79]

There is a prefix *nchi-* 'all' which when combined with a numeral, means 'all *x* of them'. Examples are given in (69) and (70). Note that there are two pronominal clitics which refer to the same antecedent.

(69)　　te　　ni-　xini　ña'a　ti　nchi-　u'un　ti

　　　　and　Pf-　see.R　Obj　3a　all-　five　3a

　　　　And all five of them saw me.

(70)　　ni-　tee　　nu　nchi-　kuun　nu　dita

　　　　Pf-　make　3f　all-　four　3f　tortilla

　　　　All four of them made tortillas.

The forms *nduu* 'both' and *nchinuni* 'all three' are suppletive.

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[79] The old number system is described in Alvarado (1593) verso 203 and recto 204. He gives the form *ee tetne* for '8000'.

ADJECTIVES

In Mixtec, the class of adjectives behaves differently from that class in Indo-European languages. These words are sometimes used as the predicate of the clause, without a copular verb. Yet they cannot simply be classified as verbs, because in other contexts they directly modify a noun, without requiring a relative clause. Simple examples are given in (71) and (72).

(71)   iin   mini   ka'nu

       one   pool   big
       a big pool

(72)   ka'nu   mini

       big   pool
       The pool is big.

Most of these adjectives do not carry aspect markers like verbs, so for the aspects other than the imperfective they use an auxiliary verb.

(73)   iku   ni- kuu   ndandu ni

       yesterday Pf- be.R busy   1Fam
       I was busy yesterday.

There is a small subset of this class of words which can carry aspect markers. The word *yichi* 'dry' is in this class. This word is shown modifying a noun in (74), as a main clause predicate in (75), and with an aspect marker in (76).

(74)   ni- nene   de   nuu   ñu'u   yichi

       Pf- go.up 3m   face   earth   dry
       he came out onto dry land

(75)   yichi   itu

       dry   corn.plant
       The corn plant is drying up.

(76)   ni-   yichi   itu

      Pf-   dry   corn.plant

      The corn plant dried up.

Other items in this class are *kuaa* 'blind', *kuaan* 'yellow', *xetu* 'spicy' *taya* 'loose'.
Thus members of this small subset could be classified as adjective/verbs, to
distinguish them from the other adjectives which never take aspectual prefixes.

      Two adjectives have separate plural forms: *ka'nu* 'big', has the plural form
na'nu, and *kani* 'long', has the plural form *nani.*

(77)   te   ni-   tiin   de   ta-   koo   na'nu

      and   Pf-   catch.R   3m   Col   snake   big.Pl

      and he caught some big snakes

PRONOUNS

      The unstressed pronouns in Mixtec languages are clitics: they are
phonologically dependent on the last element in the phrase to which they belong. In
SEN, clitic pronouns have only one form regardless of function in the clause. In the
following three examples the clitic *de* '3 masculine' is used as subject, object, and
possessor, respectively.

(78)   nkuita   de   kutu   de

      begin   3m   plow   3m

      he will start to plow

(79)   ko   vitan   no   na-   nani'i   ndo   de

      but   now   if   Sub-   meet   1incl   3m

      but now if I find him …

(80)   adi'i   de

      wife   3m

      his wife

SEN has a highly differentiated pronominal system. The forms of the pronouns are determined not only by the gender of the referent, but also the gender of the speaker and the relative status of the speaker and addressee. There are many third person pronouns for specific types of referents. The forms of the dependent pronouns are given in (81). When both male and female speakers use the same form, this form appears in the first column.

(81)	General	Men Speaking	Women Speaking
1 respect	da		
1 familiar	ni		
1 inclusive	ndo		
2 respect	ní		
2 familiar		no	na/nda
3 general	xi		
3 deity	ya		
3 masculine		de	yi
3 feminine	nu		
3 feminine respect	ña		
3 masculine respect		de	ña
3 animal	ti		
3 water	te		

SEN has two forms of first and second person: respect and familiar. If the addressee is somebody of a higher social rank, the respect forms are used. Unlike the familiar forms in Indo-European languages where the distinction is shown only in the second person pronoun, in SEN the speaker chooses a different first person pronoun also to signal respect for the addressee. When the referent is third person

female and is of higher social status than the speaker, the third person female respect pronoun is used. Examples (82) to (84) are taken from a text where the main participants are several sheep. In (82), the speaker is talking to somebody of higher social status, so the respect pronouns are used for first and second person. Note also that the third person female respect pronoun is being used, as the character in question is a ewe and of higher status than the speaker.

(82)   te   ni-   xikan   tuꞌun   da   ña   teno   ndeku   vaꞌa   ní

         and   Pf-   ask.R   word   1Res   3fRes   if   be   good   2Res

         and I was just asking her if you were well,

If on the other hand the addressee is of the same social status or lower, then the informal first and second person pronouns are used. Also, in the following example we know that the speaker is a ram, so the "men speaking" pronoun is used.

(83)   te   da-   ndiꞌi   no   kuu   ite   ni

         and   Caus-   finish.Ir   2Fam.MS   Emph.   grass   1Fam

         And you're eating up my grass!

In (84), the speaker is a ewe, as indicated by the use of *na* as the second person familiar pronoun.

(84)   kuaꞌan   kunuꞌu   nuu   ñuꞌu   mee   na

         go.Prog   go.home.R   face   land   self   2Fam.WS

         Off you go home to your own land.

     In the following example, we know that the addressee is of higher status than the speaker and that the speaker is a woman, hence the use of *yi* as the third person masculine pronoun.

(85)   ni-   nda-   kiku   yi   nchixe   da

         Pf-   Rep-   sew.Ir   3m.WS   sandal   1Res

         He repaired my sandal.

The pronoun *ti* usually refers to animals.

(86)   kua'an   ti   yuku   ja   kaxi   ti

go.Prog   3a   look.for.Ir   Cmp   eat.Ir   3a

It (animal) was going to go and look for something to eat.

However, it is also used for the stars and the moon.[80]

(87)   ore   ja   na-   chitu   yoo   te   na-   kaa   iin   ido

when   Cmp   Rep-   full.Ir   moon   and   Rep-   seem.Ir   one   rabbit

kaa   ja   ndeku   xiti   ti

seem.R   Rel   be   inside   3a

When the moon is full, what looks like a rabbit appears on its (the moon's) face.

There is also a separate pronoun for water.

(88)   kute   da   ndute   chi   iyo   meka   te

pour.out.Ir   1Res   water   because   very   dirty   3water

I threw out the water because it was very dirty.

The third general pronoun is used for inanimate objects and for people, when unspecified as to gender.

(89)   te   ni-   nanduku   de   tutu   te   nchixe   ndeku   xi

and   PF-   look.for.R   3m   paper   and   truly   be   3g

and he looked for the paper and it (the paper) really was there

The deity pronoun is used for God and Jesus.

(90)   ni-   ka'an   ya   nuu   de

Pf-   say   3deity   face   3m

He (Jesus) said to them …

---

[80] I have been unable to ascertain exactly what role the moon and the stars play in the Mixtec world view.

The deity pronoun is also used for the rain and the sun, reflecting the traditional Mixtec world view.

(91)   kixi   ya

         come.Ir   3deity

         It is going to rain (lit. he (deity) will come).

         An example of the first person inclusive pronoun is given in (92).

(92)   na-   kuchi   ndo   ndoo

         Sub-   chew.Ir   1incl cane

         Let's chew cane.

Another use of this pronoun is in soliloquy, when a person is talking with himself.

(93)   naikuu   ja   kaxi   ndo

         what   Cmp   eat.Ir 1incl

         What will I eat?

In the corpus used for this study, no more than two clitic pronouns can occur together, even in the cases of verbs which subcategorize for three arguments. The verb 'to give' is an interesting case, in that there are two verbs 'to give'. The verb *taxi* and its compounds are used when the recipient is first or second person, although this argument is always left implicit. The person of the recipient can only be determined from the discourse context. In the majority of cases where the subject of *taxi* 'to give' is first person, then the understood recipient is second person. On the other hand, if the subject is second person, then the recipient is understood as first person. For example, in (94) there is no separate pronoun for the indirect object which is understood to be second person from the discourse context.

(94)   chi   na-   taxi   ni   xi

         because   Rep-   give.Ir 1Fam   3g

         …because I will give (you) it back…

Example (95) shows the case where the subject is second person and the understood indirect object is first person.

(95)　　te　　taxi　　no　　　　maa　　chaka

　　　　and　give.Ir　2Fam.MS　many　fish

　　　　…and you will give (me) lots of fish …

The verb *kua'a* 'give' is used when the indirect object is third person. In (96) we see the use of these two different verbs: in the first clause, the indirect object is third person, so *kua'a* is used; in the second clause, *taxi* is used because the indirect object is not third person. Note that there is no overt pronoun for the indirect object in the second clause.

(96)　　kua'a　　ni　　　nu　kue　　　vaxi　na-　　taxi　　nu　xi

　　　　give.IR　1Fam.　3f　although　no　　Rep-　give.Ir　3f　3g

　　　　I will give (it) to her although she will never give it back (to me).

The clitic pronouns can be used with the interrogative word *nada* 'which'.

(97)　　nada　　ní　　ni-　tee　　　dita

　　　　which　2Res　Pf-　make.R　tortilla

　　　　Which one of you made the tortillas?

There is also a small set of free pronouns which are often used for contrastive focus. The special forms are given in (98). For the others, the word *mee* 'self' occurs with the appropriate clitic. Either strategy can be used in first and second person.

(98)

		General	Men Speaking	Women Speaking
1st	Respect	adaña/adaan		
	Familiar	nchu'u		
2nd	Familiar		so'o	nchaa

In (99) an example is given of *mee* 'self' occurring with *da* 'first person respect'.

(99)   chi   atuu   dukan   xede   mee   da

       because   Neg.be   thus   do.R   self   1Res

       "…because that is not what I do…"

These pronouns are often fronted for contrastive focus.

(100)   ko   so'o   kuu   ñadu'u

      but   2Fam.MS.Foc   be   thief

      but you are a thief

(101)   nchu'u   ni-   tee   dita

      1Fam.Foc   Pf-   make   tortilla

      I made the tortillas.

(102)   te   ni-   xa'an   de   ja   mee   de   ni-   chiva'a   doo   nu

      and   Pf-   say   3m   Cmp   self   3m   Pf-   hide   clothes   3f

      and he said that he was the one who had hidden her clothes,

Another use of the word *mee* 'self' is to form reflexive pronouns. In these cases the clitic agrees in person and gender with the subject.

(103)   te   ka'an   ti   ni-   xii   ti   mee   ti

      and   speak   3a   Pf-   say   3a   self   3a

      and it (animal) said to itself

(104)   ni-   da   -kayu   ni   mee   ni

      Pf-   Caus-   burn   1Fam   self   1Fam

      I burned myself

There are two pronouns, *ta'an* 'reciprocal' and *ña'a* 'object' which are unusual in that they occur between the verb and the subject. These are the only two

nominal elements that can occur in this position. They could be considered a verbal suffix rather than a pronoun.

(105)   ni-   kani ta**ꞌ**an   vilu   pa**ꞌ**a

           Pf-   hit   Recip   cat   baby

           The kittens were fighting (lit. beating (up) on each other).

The word *ñaꞌa* is a generic pronoun used as the object of the verb. It can refer to any person (first, second, or third). It usually refers to the main character of a text or the current episode in a discourse. It can only refer to animate antecedents.

In example (106) *ñaꞌa* 'object' is the only overt object of the verb and from the discourse context, we know it refers to a first person antecedent.

(106)   te   kani   ña**ꞌ**a   no

           and   hit.R   Obj   2Fam.MS

           and you hit me

In (107), on the other hand, it has a second person antecedent.

(107)   ja   chindee   ña**ꞌ**a ni

           so.that   help.Ir   Obj   1Fam

           …so that I will help you…

In some cases the 'normal' pronominal clitic is also present, occurring in its usual position after the subject.

(108)   chi   kaxi ña**ꞌ**a ni   no

           because   eat.Ir   Obj   1Fam   2Fam.MS

           …because I'm going to eat you.

When the antecedent of *ñaꞌa* is second person, the subject can either be first person as in (107) and (108) above or third person as shown in (109).

(109)   naikuu ja   ni- xede ña'a soli

         what   that Pf- do.R Obj   turkey.vulture

What did the turkey vulture do to you?

The antecedent of *ña'a* can also be third person, as seen in (110).

(110)   ja   ni- data'an   ña'a de

         that Pf- bother.R Obj   3m

…that he was bothering him…

The pronoun *ña'a* can also be used as the indirect object of the verb 'to give', as seen in (111).

(111)   ko   kua'a ña'a ndo xi   no

         but.give Obj   1incl 3g   well

We might as well give it to it.

As *ta'an* 'reciprocal' occurs in the same position as some adverbs, it might be considered to be an adverb. However, *ta'an* does need to be distinguished from adverbs in that *ta'an* 'reciprocal' and *ña'a* 'object', can co-occur with adverbs, but both these words never appear in the same clause. It is also noted that in the texts used for this study, there are no examples of two adverbs occurring between the verb and the subject.

<div align="center">DEMONSTRATIVES</div>

SEN demonstrative adjectives have a three-way distinction: near the speaker, near the addressee and away from both speaker and addressee. These words also function as locative adverbs. There is also a set of demonstrative pronouns, which are very similar in form to the demonstrative adjectives.

(112)		Near Speaker	Near Addressee	Far away
Locative Adverb		i'a	xian	yukan
Demonstrative Adjective		i'a	xian/jan	yukan
Demonstrative Pronoun		ja'a	xian/jan	yukan

In (113), the demonstrative adjective *i'a* 'here' is used, as the boulder is near the speaker.

(113)   kitiin   ni   toto   i'a

    hold.up.R   1Fam   boulder   this
    I am holding up this boulder

In (114), the locative adverb *xian* is used as the place being referred to is near the addressee.

(114)   ndotuu   no   xian

    be.above.R   2Fam.MS   there
    …you are sitting up there…

RELATIVE PRONOUNS

There is also a set of relative pronouns used in restrictive relative clauses.

(115)   Relative Pronoun

    te   3rd masculine, men speaking

    yi   3rd masculine, women speaking

    nu   3rd feminine

    ti   3rd animal

    ja   3rd general

    ya   3rd deity

(116)   ku'u   da   nu   lu'lu   ka

         sister   1Res   3f   small   more

my sister who is younger …

PREPOSITIONS

There are some prepositions in Mixtec which in different contexts are clearly nouns refering to body parts. In addition there are some words which can only be used as prepositions.

The following can only be used as prepositions:

(117)   Gloss   Mixtec

                 among   ne'u

                 for   kuenda

                 as far as   nde

                 with   ndi'i

The following body parts can also be used as prepositions:

(118)	Mixtec	Body Part	Preposition
	diki	head	on the top of
	nuu	face	on
	yu'u	mouth	edge
	jata	back	behind
	diin	side	beside
	xiti	stomach	inside
	ka'a	buttocks	beneath
	xe'e	foot	for

Given that so many words function both as nouns and prepositions, the question arises whether these are distinct classes in Mixtec. That is, it might be the case that these apparent prepositional uses are really instances of possessed nouns as claimed by Bickford (1998:98) for Meso-American languages generally. Macaulay also (1996:172) tentatively analyses them as nouns for Chalcatongo. For example in (119) two translations 'inside' and 'stomach' are possible and so one could claim that the differences are only a matter of translation. The clitic pronoun that follows *xiti* could either be interpreted as the object of a preposition or as a possessor.

(119)   ñu'u   koo   xiti   ti

        be.contained.R   snake   stomach   3a

        it has parasites inside/in its stomach

Similary the same phrase *ka'a kidi* can be used either as the subject with the meaning 'bottom of the pot' as in (120)a or as a locative phrase, 'below the pot' as in (120)b.

(120)   a)   iyo   tuun   ka'a   kidi

          be.R   soot   bottom   pot

       There is soot on the bottom of the pot.

     b)   iyo   iin   chidata   ka'nu   ka'a   kidi

         be.R   one   cockroach   big   below   pot

       There's a big cockroach below the pot.

There are several reasons to posit that prepositions form a separate class. One, there are some morphemes (117) which can only be used as prepositions and others, of course, only as nouns. Two, in some cases, as seen in (118), the meaning when used as a preposition is clearly distinct from its basic sense as a body part and thus cannot be explained under a hypothesis that the prepostional uses are merely

examples of possessed nouns. Three, when these words are used as prepositions, they cannot be modified by an adjective, whereas they can when used as nouns.

(121) te ni- xee iin chidaa diki kue'e

   and Pf- arrive.R one bird head red

   and a bird with a red head arrived

Thus it seems best to posit that prepositions are a distinct class from nouns, although there are an unusually large number of prepositions which are derived as extended senses of body part nouns.

The analysis of these words is complicated by the fact that many body parts have a metaphorical meaning when applied to objects such as houses and cooking pots. For example, *diki ve'e,* literally 'head of the house', means 'roof'.

(122) te ore ja yaʔa ni diki veʔe

   and when that pass.over 1Fam head house

   and when I fly over the roof of the house

The word *diki* when applied to trees means 'the top of' as seen in example (123).

(123) daa nkondo_tuu no   diki yutun

   then alight   2Fam.MS top tree

   then you get off on the top of the tree

When body part nouns are used in these extended senses, it is often difficult to tell whether they are being used as nouns or prepositions. However, although some examples have an ambiguous analysis, there does seem to be enough evidence to posit a distinct class of prepositions.[81]

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[81] For an analysis of the development of the prepositional uses of 'face' and 'foot' see Hollenbach (1995).

ADVERBS

Adverbs in SEN can be classified according to where they occur in the sentence. There are some adverbs which occur between the verb and the subject.

(124)   te   kixi   tuku   ni

         and come.Ir again 1Fam

and I'll come again

Other adverbs form part of the periphery.[82] Some adverbs, especially those of time, can either occur before or after the core.

(125)   date kixi   na   yuten

         then come.Ir 2Fam.WS tomorrow

then you will come tomorrow

(126)   chi   yuten   te   ya'a   ni   nuu   ñu'u no

         because tomorrow and pass.Ir 1Fam place land 2Fam.MS

because tomorrow, I'm going to come to your land

NOUN MORPHOLOGY

Nouns modified by a quantifier greater than 'one' have no obligatory marking on the noun to show that it is plural.

(127)   iin   dita

         one   tortilla

one tortilla

(128)   uni   dita

         three tortilla

three tortillas

---

[82] 'Periphery' is used in the sense of constituents which are not part of the core.

Moreover the number of a noun is determined by context, so that a noun without any plural marking may have plural reference.

(129)   xexi   ti   dita

          eat.R   3a   tortilla

          It eats tortillas.

However, a plural phrase consisting of *in* 'plural' plus the clitic which corresponds to the head noun or pronoun can be added to the clause to make plurality explicit.

(130)   ni- xee   ti   in   ti

          Pf- arrive.R   3a   Pl   3a

          they arrived …

The plural phrase, consisting of *in* plus a clitic, sometimes occurs clause final, thus making it discontinuous with the phrase it modifies. In (131) the object of the verb *kandeka* 'take' is *ina* 'dog'. To show plural, *in ti* 'plural third person animal' occurs clause final.

(131)   kandeka na   ina   kiˈin in ti

          take.Ir   2Fam.WS. dog go.Ir Pl 3a

          Take the dogs away with you.

Another instance in which the plural phrase is discontinuous with the noun it modifies is when the head noun occurs in a genitive construction. In these cases the plural phrase follows the possessor.

(132)   landa no   in xi

          child   2Fam.MS   Pl   3g

          …your children…

Another way to indicate that the number of the noun phrase is greater than one is to prefix the noun with the marker *ta-*. It is difficult to determine an exact gloss for this marker. One option is 'collective' as it does not mean the same as the plural marker described above. In (133), when the prefix *ta-* occurs with *yutun* 'tree', the meaning is 'forest'.

(133) ta- yutun

       Col- tree

       forest

In example (134) *ta-* occurs with a noun which is also modified by a relative clause.

(134) te   ni- kana   de   ta- tee   xetiñu nuu   de

       and Pf- call.R 3m   Pl   man   work   face   3m

       and he called for his workers

The prefix *ta-* can also co-occur with pronominal clitics.

(135) nakani ni   iin   tuꞌun ta- ti   kuiꞌna

       tell.Ir   1Fam   one   story Pl   3a   wild

       I'm going to tell you a story about wild animals

The prefix *ta-* can co-occur with quantifiers such as *maa* 'many' and *ndiaa* 'all'.

(136) te   kutu   no   ndiaa ta- ñuꞌu   ni

       and plow.Ir 2Fam.MS all   Col   ground 1Fam

       and you will plow all my land

In some cases *ta-* co-occurs with the plural clitic phrase.

(137) ni- xee   ore   ja   kadini   ta- ayivi   in   xi

       Pf- arrive.R hour that have.supper.Ir Col- person Pl   3g

       the time came for the people to have supper

If the head noun occurs in a genitive construction, then the plural phrase always occurs after the possessor.

(138) ni- nakani ta- ku'u   ni   in nu
       Pf- tell.R   Col- sister.of.female 1Fam Pl 3f
       my sisters told …

ASPECTUAL AND MODAL INFLECTION

Traditionally it has been claimed that Mixtec has three aspectual forms of each verb: potential, continuative and completive. These are distinguished from each other by tone and in some cases segmental differences. However, as posited by Bickford and Marlett (1988), it would be better to consider the system as one of aspect and mood combined. They propose that the potential "aspect" is better analysed as irrealis mood, in contrast with the realis forms which are distinguished for aspect. The traditional continuative form indicates imperfective aspect and the completive indicates perfective. The use of these forms is detailed below.

In support of this analysis, Bickford and Marlett observe that many Mixtec verbs have two segmental stems, one of which, the irrealis stem, is used unaffixed for what is traditionally called potential aspect, while the realis stem is used as unaffixed for continuative and with a prefix for completive. (There are also tonal differences between the three forms.)

(139)

Verb	Irrealis	Realis
do	kada	xede
drink	ko'o	xi'i
die	kuu	xi'i
buy	kueen	xeen
carry	kuido	xido
lose	kuita	xita

sing	kata	xita

Many irrealis stems begin with /k/, although some begin with /ku/. The realis stem of many verbs begins with /x/. There are other verbs where the only difference between the irrealis and realis stem is tone. Bickford and Marlett try to derive both stems from a common underlying stem, but there is so much irregularity in SEN that for simplicity, I assume that these two stems must be specified lexically. Note for example in the above table, that there are two pairs of verbs where the realis stems are the same, but the irrealis are different, and also that there are different vowels in the two stems for many verbs.

The traditional three forms are not the only possibility for verbs. Examining other morphological possibilites suggest a slight modifcation to Bickford and Marlett's proposal. There are a number of prefixes[83] some of which attach to the irrealis stem, others of which attach to the realis stem; the most common ones are listed in (140).

(140)

Prefixes which occur with the irrealis stem

Ø	irrealis
na-	hortatory
kun-	dubitative
ku-	permissive
xi-	habitual

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[83] I consider all these morphemes to be prefixes since they occur in a fixed order, are unstressed, never occur in isolation, and fail to meet the minimum word constraint which specifies that a word must be bimoraic. However, other analyses are possible; some Mixtec scholars analyse these as separate unstressed words and in many Mixtec languages they are written as separate orthographic words. Bickford and Marlett (1988) classify them as clitics. There are others who classify them as prefixes (Macaulay 1996:56). Since these prefixes subcategorize for either the realis or neutral stem,

<u>Prefixes which occur with the realis stem</u>

    Ø   imperfective

    ni-   perfective

    ta-   progressive

Notice, however, that not all the forms that are based on the irrealis stem are in fact irrealis. In particular, the habitual prefix (as discussed below), is a realis form in meaning. This suggests that the label "irrealis" for this stem is inappropriate. Also when derivational affixes are attached to verbs, it is always the irrealis stem that is used, and once thus affixed, these derived verbs can be inflected for either irrealis or realis mood. It seems as if the irrealis stem is in some sense the more basic of the two stems.

For these reasons, it seems best not to posit that irrealis mood is inherent in this stem, rather it is neutral as to mood and acquires its modality as a result of morphological processes, including zero affixation in the cases where it is used as the irrealis form of the verb. Thus there is nothing inherent in the stem which would prohibit a realis prefix co-occurring with this stem, nor prevent it from being the base from which other verb forms are derived. Alexander (1980:23) and Zylstra (1991:107) claim that the "potential aspect" is the basic form. From now on I will refer to this as the neutral stem.

<div align="center">IRREALIS MOOD</div>

The neutral stem without any affixation indicates irrealis mood. This form has four primary uses. It is used for future events:

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another analysis would be that they are they head of the verb phrase and should be treated as auxiliary verbs.

(141)   kuu   na   iin   tee   kuika

         be.Ir 2Fam.WS one man rich

         you'll be a rich man

It is used in purpose or intent clauses.

(142)   …kuenda   ja   ndee   yuu

         …in.order.that   that go.out.Ir   stone

         …so that the stone would come out.

It is also used in complement clauses after certain verbs, such as verbs of volition or thought.

(143)   te   a-   kuini   ka   ti   ja   kaka   yachi   ti

         and Neg- want.R more 3a that walk.Ir quickly 3a

         and it no longer wanted to walk fast

One frequent use of the irrealis form is for commands. In the case of second person informal commands, the subject is usually omitted.

(144)   kundia'a

         see.Ir

         Look!

(145)   kunini

         listen.Ir

         Listen!

The free pronoun can be used in second person familiar commands.

(146)   taxi   nchaa   ko'o

         give.Ir 2Fam.WS.Foc bowl

         Give me your bowl.

If the command is second person respect, then the second person respect clitic is obligatory.

(147)　　kundia˥a　ní

　　　　see.Ir　　2Res

　　　　Look!

　　　　If the discourse context requires that the plurality of the subject be overt, then the plural clitic phrase is present. If the command is second person familiar, then the only clitic which occurs is the one in the plural phrase.

(148)　　katußa　　in　　　　no

　　　　get　　ready.Ir　Pl　2Fam.MS

　　　　Get ready!

Subjunctive

　　　　The prefix *na-* is used for events that are yet to be realized. Since one of its common uses is for hortatory situations, the label 'hortatory' is commonly used in Mixtec studies for this affix or its cognates.[84] However, as it has other uses, the traditional label is somewhat misleading. The range of meaning is roughly that of subjunctive in other languages. One use is for polite commands.

(149)　　na-　　ya˥a　　ta-　　tee　　naa　　in　de

　　　　Sub-　pass.Ir　Col-　man　fight　Pl　3m

　　　　May the men who are fighting come in!

It also expresses an intention.

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[84] This form has been described as hortatory by Bradley and Hollenbach (1988:200). Macaulay (1996:76) glosses it as 'mood'. It is difficult to find a term that adequately covers the range of meaning.

(150)　ñate　na-　kundetu　ña'a　ni　　no　　　no

　　　　then　Sub-　wait.Ir　Obj　1Fam　2Fam.MS　right
　　　　Then I'll wait for you, right?

(151)　na-　ki'in　ni　　nuu　ve'e　to'o

　　　　Sub-　go.Ir　1Fam　place　house　authority
　　　　I'm going to go to the town leaders.

This form is also used in conditional clauses, as shown on page 83 below.

Permissive

　　　　The prefix *ku-* usually indicates that permission is being sought. This form is relatively rare and seems to occur exclusively in questions.

(152)　ku-　kaxi　ni　　iin　kui'i　a

　　　　Per-　eat.Ir　1Res　one　fruit　Ques
　　　　May I eat a piece of fruit?

It is also used when asking for guidance or advice.

(153)　ku-　kadi　　da　　ko'o　an　ña'a

　　　　Per-　close.Ir　1Res　bowl　or　no
　　　　Should I cover the bowl or not?

Dubitative

　　　　The prefix *kun-* 'dubitative' is used when the speaker is uncertain as to whether the event will take place. This also is rare; when it occurs it tends to occur in subordinate clauses as shown in (154).

(154)　xeni-ini　da　　ja　　kun-　ka'an　　da　　to'o

　　　　think.R　1Res　Cmp　Dub-　speak.Ir　1Res　leader
　　　　I think I will talk to the president.

ASPECTUAL FORMS

This section describes the verb forms which indicate aspect. All of these are realis in meaning and most are built on the realis stem. The set of aspectual distinctions is similar to that of other Mixtec languages except that some other varieties have neither habitual nor progressive.

<u>Imperfective</u>

The imperfective is used for situations in process, regardless of the time in which the action took place. It is formed from the realis stem with no affixation. In the following examples, the imperfective expresses action in process, either in the present as in (155) or in the past as in (156).

(155) nchuˈu   ndotuu   xichi   ni   ndoo tami iˈa

 1Fam.Foc be.above.R chew.R 1Fam cane   tasty here

I am sitting up here chewing sweet cane.

(156) ndetu   ñaña

 wait.R   coyote

the coyote was waiting

It is also used for habitual actions in some circumstances (compare the habitual aspect below).

(157) chi   xeen   da   ndiaa ja   kuini da

 because buy.R 1Res all   Nom   want   1Res

because I buy all that I want

<u>Perfective</u>

The perfective is used for situations which are presented as complete wholes (compare Comrie 1976). The most common situation is an event in the past. The prefix *ni-* 'perfective' is used with the realis stem.

(158) te   ni- kee   niñi

     and Pf- go.out.R blood

     and blood came out

The perfective can also prefix verbs already prefixed by *na-* 'repetitive'.

(159) ko   vitan ore   ja   ni- na-   xee   ni

     but today when that Pf- Rep- arrive.Ir 1Fam

     but today when I arrived back …

     In narrative discourse, the imperfective is used for background information or events in progress, the perfective for main events.

(160) te   yukan ni- nani'i xi   ti

     and there Pf- find   3g   3a

     ja   ndee   ti   asto'o ti

     Cmp watch.over.R 3a   owner   3a

     There they found it watching over its master,

Progressive

     Some verbs, primarily those denoting a process, can occur with *ta-* progressive. The progressive is used when an action in process is part of the main event line of the discourse, thus distinguishing the action from background information which is typically expressed with the imperfective. The prefix *ta-* 'progressive' only occurs with the realis stem.

(161) ore ja   ta-   ya'a   tata   nu   iin   yodo

     when that Prog- pass.R father 3f   one   flat

     when her father was passing a flat place …

A verb which has the progressive prefix often co-occurs with a clause-final auxiliary verb, most commonly the irregular progressive form *kua'an* of the verb 'to go'.

(162)   chi   ta-   ndiˈi   xi   kuaˈan

         because Prog- finish.R 3g go.Prog

         …because there will soon be none left.

Habitual

Unlike other aspectual prefixes, the habitual prefix *xi-* is attached to the neutral stem. The resultant verb form can be further marked by *ni-* 'perfective (realis)' which shows that habitual is a realis form.

(163)   te   nduu nduu ni- xi-   kiˈin de yuˈu   ndute kaˈnu

         and   day   day   Pf- Hab- go.Ir 3m mouth water big

         and every day he used to go to the edge of the sea

The habitual with the perfective prefix is often used instead of the imperfective so that a habitial reading is made explicit, whereas an imperfective form could be interpreted as action in progress at a point in time in the past. Thus in the above example, the meaning is definitely habitual, 'he used to go' rather than referring to an action in progress, 'he was going'. There are only a few examples of this aspect without the perfective prefix in the data corpus.

(164)   ja   dukan xi-   ndeka ja   xexi   no

         Nom thus   Hab- take.Ir Nom eat.R 2Fam.MS

         …who in this way brings you your food (regularly)

DERIVATIONAL AFFIXES

The two most common derivational affixes are *na-* 'repetitive' and *da-* 'causative'.[85] Both these affixes co-occur with the neutral stem. Once an irrealis verb

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[85] There are a number of other derivational affixes which co-occur with verb roots, such as *-vaˈa* 'to be put away'. The resultant verb stems often differ as to valency, for example, *yivaˈa* 'to be put away' has a valency of one, where as *chivaˈa* 'to put away' has a valency of two.

stem is prefixed by either *na-* 'repetitive' or *da-* 'causative' this form can be further marked for irrealis or realis mood.

<u>Repetitive</u>

The repetitive prefix, *na-* 'again' occurs with the neutral stem. When this prefix is used, it is implied that the action has been done before, or is a regular occurrence. Strictly speaking 'repetitive' is something of a misnomer since it implies action that is done repeatedly. With this form, however, the repetition is presupposed not asserted. Unfortunately, this is the customary label used by others, such as Bradley and Hollenbach (1988).

(165) ni- na-   kutuu   ti
       Pf- Rep- sit.down.Ir 3a
       and it sat down again

(166) te ni- na-   kui'nu   nu doo   nu   in nu
       and Pf- Rep- wear.Ir   3f clothes 3f Pl 3f
       they put on their clothes

(167) te ni- na-   kana xi nu
       and Pf- Rep- call 3g 3f
       and they called her again,

In many cases the repetitive form has developed an idiomatic meaning, as shown in (168).

(168)	Gloss	Neutral Stem	Gloss of Repetitive Form	Repetitive form
	enter	kivi	enter one's home	ndivi
	come	kixi	come back to base	ndixi
	see	kini	recognize	nakini

(169) te   kudana te   a-   na- kini ñaˈa ka   de
and perhaps and Neg- Rep see.Ir Obj   more 3m
Maybe he wouldn't recognize me any more.

In such cases it would be better to consider the repetitive form of the verb as a separate lexical item.

<div align="center">VALENCY CHANGES</div>

SEN has a number of strategies to change the valency of some verbs. Most of these processes apply to a limited set of verbs.

<u>Valency Decrease</u>

There are a few verbs with a valency of one which can be seen to be etymologically related to verbs which have a valency of two. The most common ones are given in (170).

(170)

Gloss	Irrealis	Gloss	State
close	kadi	be closed	ndedi
tie	kuˈni	be tied up	nuˈni
hit	kani	be hit	ñani
water	kodo	be watered	todo

These verbs are often used when the agent is either unknown or is not expressed owing to some discourse consideration. In all cases the subject of the derived verb is the patient. An example is given in (171).

(171) ndedi   yeˈe nde   iku
be.closed.S door since yesterday
The door has been closed since yesterday. (cf kadi 'to close'*)*

When the verb is used as a transitive verb then the subject is the agent.

(172)   iku   ni- xedi   da   ye'e

        yesterday Pf- close.R 1Res door

        I closed the door yesterday.

The verb *ñani* 'to be hit' is unique in the corpus used for this study in that the agent can be expressed. In this case the meaning corresponds to the passive in English. The agent is expressed by the use of *nuu* 'face' (which is used in other contexts as a preposition meaning 'on' or 'at').

(173)   te   ñani nu nuu de

        and hit.S 3f face 3m

        and she was beaten by him

<div align="center">

CAUSATIVES

</div>

SEN can increase the valency of some verbs by using a causative marker. It is interesting to note that when most of these verbs are used without the causative marker, their subjects are rarely volitional agents.

(174)   Valency of 1

        cho'o   nduchi

        cook.R   beans

        The beans are cooking.

(175)   Valency of 2

        da-   cho'o   nu nduchi

        Caus- cook.Ir 3f beans

        She is cooking the beans.

The verb forms consisting of *da-* 'causative' and the irrealis verb stem, are considered to be derived verbs. They can be further prefixed for aspect and mood. In such cases these markers are only tones.[86]

(176)   da^3-   cho$^{\prime 3}$o^4 da^4 ndu^{3}chi^3

     Caus-   cook.Ir   1Res   bean

     I will cook the beans.

(177)   da^3-   cho$^{\prime 4}$o^4 da^4 ndu^{3}chi^3

     Caus   cook.Ir   1Res   bean

     I am cooking the beans.

In SEN, as in many other languages, when the causative increases the valency of an intransitive verb, then the causee is the direct object of the new verb.

In cases where the causative prefix is added to a transitive verb, the resulting verbs are either transitive (with one argument implied) or ditransitive (with all arguments explicit). There are very few instances where both objects are explicit. If the object of the inner predicate is present then it is placed after the causee.

(178)

   a)   xexi   ina

     eat.R   dog

     The dog is eating.

   b)   xexi   ina   dita

     eat.R   dog   tortilla

     The dog is eating tortillas.

---

[86] Tone 1 is low, tone 4 is the highest. The tone association rules in SEN are very complex in that most lexical tones are prohibited from docking with the left edge of their sponsoring morpheme.

c) da-   kaxi   ni   ina

Caus- eat.Ir 1Fam   dog

I feed the dog.

d) da-   kaxi   ni   ti

Caus- eat.Ir 1Fam   3a

I feed it.

e) da-   kaxi   ni   ti   dita

Caus- eat.Ir 1Fam   3a   tortilla

I feed it tortillas.

The verb *kaxi* 'to eat', given in the above example presents an interesting case as it can occur with one or two arguments. Note that when it occurs with the causative prefix and has a valency of three, the direct object is expressed by a full noun phrase, following the pattern that was observed for the verb 'to give' in that three clitic pronouns do not co-occur.

NEGATION

There are two primary ways to indicate negation in SEN. One is to use the negative prefix *a-,* and the other is to use a negative auxiliary verb, *atuu* 'not be'.

(179)   a-   kuini   ka   ni

Neg- want.R more 1Fam

I don't want to any longer.

(180)   ko   atuu   ni-   kee   nu

but   Neg.be Pf- go.out.R   3f

but she didn't come out

The negative auxiliary *atuu* 'not be' can also be used as a main verb expressing nonexistence.

(181)   chi   atuu   viko

because   Neg.be   cloud

…because there are no clouds

There is a different strategy for negating noun phrases. The verb *divi* 'is' is used with a nominal complement.

(182)   te   a-   divi landa ni-   dandoo   ndiaˈa   no

and   Neg-   is   child   Pf-   leave.R   see.R.   2Fam.MS

and those weren't children you left me taking care of …

Imperatives are negated by the use of *vaxi 'no'*.

(183)   vaxi kixi   no

no   come.Ir   2Fam.MS

"*Don't come!*

There is also another negative marker *vata....ka* 'not yet'; *vata* occurs before the neutral verb stem and *ka* 'more' is a suffix.

(184)   vata   kakin   -ka   da   nduchi   da

still.not   sow.Ir   more   1Res   bean   1Res

I haven't sown my beans yet.

Other Verbal Markers

There is another marker *ja* 'already' which can occur with either the realis or neutral stem. One analysis is to consider this an adverb.

(185)   ko   navii   ja   nuˈu   da

but   right.now   already   go.home.Ir   1Res

but I'm already on my way home

(186)   ja   ndeku tuꞌa ti yuꞌu   ndute kaꞌnu

already be.R   ready 3a mouth water big

it (the fish) was already ready at the edge of the sea

(187)   ja   ni- xee   no   in no

already Pf- arrive.R 2Fam.MS Pl 2Fam.MS

you've already arrived

(188)   ja   ta-   kuaa   kuaꞌan

already Prog- get.dark.R go.Prog

it is already getting dark,

<div align="center">QUESTIONS</div>

As in most languages, SEN distinguishes between polar and content questions. For polar questions, the marker *a* occurs in sentence final position.

(189)   dukan iyo xi a

thus   be 3g Ques

Oh, so that's how it is?

(190)   te   no na-   kaneꞌe ni   xi kixi

and   if   Sub- take.Ir 1Fam 3g come.R

kukuenda no   xi   a

own.Ir   2Fam.MS 3g Ques

If I bring it to you, will it belong to you?

For content questions the content question word occurs sentence-initially. The word *naikuu* 'what' is always followed by *ja* 'complementizer' as in (191).

(191)   naikuu ja   xede no

what   Cmp do.R 2Fam.MS

What are you doing?

Other content question words do not co-occur with *ja* 'complementizer'.

(192)　　nakuenda　ni-　kani　no　　　　de

　　　　　why　　　Pf-　hit.R　2Fam.MS　3m

Why did you hit him?

The only rhetorical use of questions is for scolding, using *nakuenda* 'why'. In these cases a reply is not sought, and native speakers prefer not to use a question mark in such sentences.

(193)　　nakuenda　ja　　danda'vi　ña'a　no

　　　　　why　　　that　deceive.R　Obj　2Fam.MS

Why did you deceive me!

WORD ORDER TYPOLOGY

Basic word order in Mixtec is usually head-initial: VSO, noun + adjective, possessum + possesor, preposition + noun, noun + demonstrative. Quantifiers, unlike other modifiers, precede the noun. Adverbs occur in different positions relative to the verb.[87]

As with most other Mixtec languages, SEN does not use morphology or case marking particles to distinguish between subject and object; rather, it depends on the word order to differentiate these arguments.

MAIN CLAUSE

Unmarked main clauses are VSO. In the corpus used for this study, there are no examples of full noun phrases occupying both subject and object positions in the same sentence.

(194)　　ni-　nduku_ndee　ñaña

　　　　　Pf-　set.out.R　　　coyote

the coyote set out

---

[87] For further discussion on word order typology issues, see Whaley (1997:79ff).

(195) te   ni-   xini   ti   iin   tita

       and   Pf-   see.R   3a   one   opossum

       and it saw an oppossum

Most adverbs occur either preceding or following the verb and its arguments. An adverb of time is often the first element in the clause.

(196) nduu   yuten   ni-   xee   soli   nuu   ve'e   tiñu

       day   tomorrow   Pf-   arrive.R   turkey.vulture   place   house   work

       The next day the turkey vulture arrived at the town hall,

In the texts chosen for this study all the examples of adverbs of place occur clause-final.

(197) ni-   kundetu   de   ke'e

       Pf-   wait   3m   outside

       He waited outside.

(198) kuinu-kuechi   de   yukan

       serve   3m   there

       He will work (lit. serve) there.

NOUN PHRASE

The structure of the NP in SEN can be represented as follows:

(199) (Quant)   (Col)   N   (Adj) (Dem) (Pl.Phrase)

Quantifiers precede the head noun, adjectives follow the noun.

(200) te   kaxin   de   uu   kuayu   chiyiki

       and   choose.Ir   3m   two   horse   scrawny

       …and he will choose two scrawny horses

(201) xexi   ti   ite   kuii   in   ti   iin   chinduu

       eat.R   3a   grass   green   Pl   3a   one   mountain

       They were eating green grass on a hillside.

Likewise, demonstrative adjectives follow the nouns which they modify.

(202)   kitiin   ni   toto   iˈa

         hold.up.R   1Fam   boulder   this

         I am holding up this boulder.

Possession

       Some nouns in Mixtec languages are inherently possessed (they always have a possessor), and some nouns are optionally possessed. However, SEN, like most Mixtec languages, uses the same strategy to mark possession on both inherently possessed and optionally possessed nouns. The possessum comes first, which correlates with the general head-initial pattern of Mixtec.

(203)   ni-   tuˈun   ti   diki   soli

         Pf-   peck.R   3a   head   turkey.vulture

         It pecked the turkey vulture's head.

(204)   yanda   diki   no

         bald   head   2Fam.MS

         your head is bald

The plural phrase, if any, follows the possessor, even when it refers to the possessed head noun.

(205)   xetiñu   landa   no   in   xi

         work.R   child   2Fam.MS   Pl   3g

         your children are working

PREPOSITIONAL PHRASES

       Prepositional phrases in Mixtec consist of a preposition plus a noun phrase.

(206)   neˈu   ite

         among   grass

         …among the grass

(207)   ndi'i   de

         with   3m

        …with him

THE VERB AND ITS CLOSE MODIFIERS

This section describes the elements which occur between the verb and the subject, that is, the pronouns *ña'a* 'object' or *ta'an* 'reciprocal' and a small set of adverbs, most of which are adverbs of manner.

In the corpus used for this study, the pronouns *ta'an* 'reciprocal' and *ña'a* 'object' never co-occur. However, either pronoun can co-occur with an adverb.

(208)   ni-   chindee ta'an   tuku   de

         Pf-   help.R   Recip   again   3m

        They helped each other again.

(209)   ni-   xe'e   ña'a ta'vi   ayivi   yukan

         Pf-   give.R   Obj   as.gift   person   that

        …(which) that person had given him as a gift

SUBORDINATING RELATIONSHIP

Subordinate clauses can be divided into three basic categories: adverbial clauses, complement clauses, and relative clauses. The most common subordinating conjunctions are given in (210).

(210)

Gloss	Mixtec
complementizer	ja
for this reason	xe'e
if	no
so that	kuenda ja
then	daa

| when | kii |
| where | nuu |

The use of these conjunctions will be described according to the semantic relationships of the clauses they link.

ADVERBIAL CLAUSES

Subordinate clauses can function as an adverb. In these cases there is an overt subordinating particle.

Location

Subordinate clauses can describe the location of an action or event. In these cases *nuu* 'face' or 'place' occurs phrase initially; the embedded clause usually consists of a verb plus the subject.

(211) te   ni- kixio   ti   nuu nakoo   iin ido

and Pf- go.out.R 3a face be.sitting.R one rabbit

and it came out in a place where (lit. face) there was a rabbit,

Purpose clauses

Purpose clauses express the intent of some action. They are usually introduced by the complementizer *ja*, sometimes also preceded by the conjunction *kuenda* 'so that'.

(212)   date xee   ni   ja   chindeeñaßa ni

then llegar.R   1Fam Cmp help   Obj   1Fam

then I'll come to help you

The structure of sentences with purpose clauses can be complex.

(213)   te   nduu nduu ni- xi- kißin de   yußu ndute kaßnu

and day   day   Pf- Hab- go.Ir 3m   mouth water big

Every day he would go to the edge of the sea (lit. big water).

ja   tiin   de   chaka

Cmp   catch.Ir   3m   fish

to catch fish

kuenda   ja   kane'e de   nu'u   nuu ve'e de

in.order.that Cmp   take.Ir 3m   go.home.Ir   face.house   3m

to take home to his house

ja   kaxi adi'i de   ndi'i da'a de

Cmp   eat.Ir woman   3m   with   offspring   3m

for his wife and children to eat.

Time clauses

Clauses which express time can occur before or after the main clause.

te   kii   ni-   kani ni   karuti jata ve'e ti

and   when Pf-   hit.R 1Fam stick back house 3a

ni-   nadiko   ti

Pf-   become.angry 3a

and when I hit the outside of their hive (lit. house), they got angry

The clauses in the previous example could be construed as being in a reason-result relationship. If the relationship is purely temporal, then often the time clause follows the main clause.

(214)   ja   doni   ina   ndo   kixi   nchitaßan   ñaßa   ti   ichi

because   only   dog   1incl come   meet   Obj   3a   road

kii	kunu'u	ndo
when	go.home	1incl

because only the dog comes to meet me on the path when I come home

Manner Clauses

The adverb *na* 'as' introduces a manner clause.

(215)	te	xede	ti	na	ni-	kaßan	ido
	and	do.R	3a	as	Pf-	speak	rabbit

and it did as the rabbit had said.

Conditional Clauses

A conditional clause is introduced by *no* or *teno* 'if'. The conjunctions *te* 'and' or *ñate* 'then' introduce the main clause when the main clause follows the conditional clause. However the clauses can be found in either order. In cases where the main clause is first, the use of one of these introducers is not obligatory.

(216)	ko	no	a-	kundaßvi-ini	ñaßa	no
	but	if	Neg-	have.pity.on.Ir	Obj	2Fam.MS

te	kuu	ni	doko.
and	die.Ir	1Fam	hunger

But if you don't take pity on me, I'll die of hunger.

When the event in the conditional clause is hypothetical, the verb is prefixed by *na-* 'hortatory'.

(217)	ko	vitan	no	na-	nanißi	ndo	de
	but	now	if	Sub-	meet.R	1incl	3m

te	kuu	de	ndeyu	kaxi		ndo
and	be.Ir	3m	mole	eat.Ir	1incl

but now if I find him, he'll end up as stew (lit. be "mole" for us to eat)

(218) kuu   na   iin   tee   kuika

be.Ir 2Fam.WS   one   man   rich

teno	na-	kada	na	ja	ka'an	ni
if	Sub-	do.Ir	2Fam.WS	that	speak	1Fam

You'll be a rich man if you do what I say.

Complement Clauses

There are three major semantic classes of verbs which take a complement clause: modality verbs, such as 'want', 'begin'; manipulative verbs, such as 'tell', 'ask'; and cognition-utterance verbs, such as 'know' and 'say' (Givón 1990:517). In most cases the embedded clause is introduced by *ja* 'complementizer'.

(219) te   ni-   xeni-inide   ja   nduku   de

and   Pf-   think.R   3m   Cmp   look.for.R   3m

iin   nuu   kudu   de

one   place   sleep.Ir   3m

he decided (lit. thought) to look for somewhere to sleep

(220) chi   ja   naßa   no   ja   kaßan   ni

because   already   know.R   2Fam.MS   Cmp   say.R   1Fam

because you already know what I say

(221) te   a-   kuini   nu   ja   kee   nu

and   Neg-   want.R3f   Cmp   go.out.Ir   3f

and she didn't want to leave

(222) ni-nkuita tita ja da- kuun koyo ti

Pf-begin opossum Cmp Caus-come.down.Ir fall 3a

iin iin ndoo xichi ñaña

one one cane chew coyote

> *and the opossum began to throw down canes, one at a time for the coyote to chew*

In the corpus used for this study, *nkuita* 'begin' is the only verb of this kind which can occur without *ja* 'complementizer' as the introducer for the embedded clause.

(223) ja nkuita de kutu de

that begin 3m plow.Ir 3m

> *(so that) he could start plowing*

(224) te ni- nkuita ti dakende ti iin yaa

and Pf- begin 3a play.instrument 3a one song

> *and it began to play a song*

Relative Clauses

  In Mixtec the relative clause follows the noun which it modifies. In SEN, there are two kinds of relative clauses, which roughly correspond to the restrictive/non-restrictive uses shown in Indo-European languages.

  Non-restrictive relative clauses are formed by juxtaposing the subordinate clause at the end of the noun phrase. The subordinate clause has no overt subject nor subordinating particle.

(225) …ja kaxi ni ite iyo yukan

…that eat.Ir 1Fam grass be there

> *…so I can eat the grass that's there*

(226)   …ndee   ti   yoko yitaßi   neßu ite

…look after 3a   hive   be   inside among grass

      …it was looking after the hive which was among the grass,

In restrictive relative clauses, the dependent pronoun which agrees in noun class with the head is usually used as a relative pronoun. Note that in (227) the pronoun for 3rd masculine is *te*, not *de*[88] which is the third person masculine dependent pronoun, and also that the third general relative pronoun is *ja*, not *xi* as would have been expected.

(227)   Relative Pronoun   Gloss

           te   3rd masculine

           yi   3rd masculine, WS

           nu   3rd feminine

           ti   3rd animal

---

[88] Note that *de* is phonetically [≈e], so the difference is not just one of voicing. It is assumed that *te* comes from *tee* 'man'.

(227) continued

	ja	3rd general
	ya	3rd deity

The example in (228) is the opening sentence of a story about a lazy coyote.

(228)   na-   nakani ni   iin   tußun ñaña   duxen
Sub-   tell.Ir 1Fam one   word   coyote lazy

ti   xidi   ne'u toto.
Rel.3a   sleep.R   among boulder

I'm going to tell you a story about a lazy coyote which sleeps among the rocks.

A relative pronoun can also be quantified by *ta-* 'collective'. In this case *ta-* could be translated as 'all'.

(229)   ko   ni-   tiin   de   ta-   ti   ni-   kaßan nu
but   Pf-   catch.R   3m   Pl   3a   Pf-   speak.R   3f

but he caught all the animals she had spoken about

There are some relative clauses that are not so straightforward to analyse. In these cases the relative clause fills one of the argument positions of the verb. These clauses are introduced by *ja* which in different contexts is used as either the complementizer or the third person general relative pronoun.

(230)   na-   kißin ndo   yuku ja   kaxi   ndo
Sub-   go.Ir 1incl look for   that eat.Ir 1incl

Let's go to look for something to eat.

INTERSENTENTIAL RELATIONSHIPS

There are a number of conjunctions, both coordinating and subordinating, in SEN. The most common coordinating conjunctions are presented in (231).

(231)   Gloss   Mixtec

                and   te

                but   ko

                or   an

                then   date

The conjunction *te* 'and' indicates discourse continuity. It can be seen as the default conjunction, used when no other more marked relationship is indicated. This conjunction can be considered to function at two distinct levels: one to link sentences within a discourse unit; and to link discourse units.[89]

In (232) both sentences belong to the same discourse unit. By being linked with *te* 'and', we know that one action was followed by the next.

(232)   te   ni-yaßa soli   ndißi   tee   kaßan_yußu   ñaßa ti

and   Pf-pass   turkey.vulture with   man   represent   Obj   3a

     And the turkey vulture came in with his lawyer,

    te ta'an ni   chikaka nchikun ni-kivi   tuku
    and also just crow   follow Pf-enter.R as.well

.and the crow also followed (them) in.

(The Turkey Vulture and the Crow 176 and 177)

This conjunction can also be used to link discourse units. For example in (233), the first clause is the end of a conversation, then the next sentence begins with *te* 'and' showing that this was the next event.

(233)   ja   dukan xi-   kuu   no   in   no.

Cmp   thus   Hab- be.Ir   2Fam.MS   Pl   2Fam.MS

     …that things are like this between you two."

---

[89] Most of the examples for this section are taken from the text 'The Vulture and the Crow', which appears in chapter 4. The reference number for the text is given at the end of each example, so that the wider discourse context can be examined.

Te	ni-	nduku_ndee	ndatiñu	to'o
and	Pf-	set.out	messenger	leader

And the president's messenger set off

The conjunction *ko* 'but' often indicates that the expected didn't occur, that is, it can be seen as a countering device. For example, (234) begins with *ko* 'but', showing that the expectation was that the crow would be afraid.

(234)	ko	atuu	ni-	yußu	ti
	but	Neg	Pf-	be.afraid.R	3a

but it wasn't at all afraid

As the default is to have an intersentential marker, then its absence is significant, usually indicating an action discontinuity. When there is a break in the time sequence, then the first clause of the new unit begins with an adverb of time.

(235)	nduu	yuten	ni-xee	soli	nuu	ve'e	tiñu
	day	tomorrow	Pf-arrive	turkey.vulture	place	house	work

The next day the turkey vulture arrived at the town hall…

Clauses linked by the conjunction *di* 'and' indicate simultaneous action.

(236)	ni-	xavi	xikuii	di	kokon_xiti	ti
	Pf-	tire.R	fox	and	be.hungry	3a

The fox was tired and he was hungry.

COMPARISONS

The particle *ka* 'more' functions as an adverb of manner and occurs between the verb and the subject of the main clause. The object of comparison is expressed in

a subordinate clause introduced by *ja* 'complementizer'. In the text corpus for this study, there is only comparative degree of comparison, not superlative.

(237) xeße   ja   ni-yii   ka   nu   in   nu
on.account.that   Pf-grow.older more   3f   Pl   3f

ja   kuu   nchuꞌu
Cmp   be.R   1Fam.Foc
 because they are older than I am

EVIDENTIALS

 SEN uses sentence final particles to indicate epistemic modality ideas, such as contrafactual and hearsay.

(238) kißin ni   niku
go   1Fam ContraFactual
 I should have gone (but didn't).

(239) chi   no   na-   nduva xi   te   ndißi nuñuu-ayivi   ne
because   if   Sub-fall   3g   and   finish world   it.is.said
 because if it falls, the world will end, they say

 Some of these particles are difficult to translate. For example in (240) *teno*[90] 'can it really be' occurs sentence-initially, and *ma* occurs sentence finally, with the result of this combination expressing amazement.

(240) teno   atuu   teku   no
can.it.really.be.   not   hear   2Fam.MS

---

[90] *Teno* 'can it really be' is differentiated from *teno* 'if' by tone.

```
ja      ka'an landa ni     ne'u ite    i'a    ma
Cmp   say.R child  1Fam  among grass  here   Evid.
```
> *How can it be that you don't hear that my children are talking among the grass?"*

The particle *va* is used when it is expected that the addressee will agree with the assertion.

```
(241)   ja     ni-xichichinanava
already        Pf-ripen.R     tomato right
```
> *The tomatoes are already ripe, aren't they?*

```
(242)   iin   ni    daßa  yi     iyo    va
one    just  child  3m.WS        be     right
```
> *He has only one child, doesn't he?*

CHAPTER 4

THE TURKEY VULTURE AND THE CROW

```
        word turkey.vulture  with  crow
```
The Story of the Turkey Vulture and the Crow

```
(2)   nda'vi nda'vi nakoo         soli
      poor    poor   be.sitting.R turkey.vulture
```
The turkey vulture was sitting dejectedly[91]

```
(3)   natete ti iin nuu   yuu
      sun.R  3a one face  stone
```
sunning itself on a stone.

```
(4)   te  ni- xee̱         iin chikaka
```

---

[91]The word *nda'vi* is difficult to translate. It is usually translated 'poor' in this text as it can mean 'short of money'. However, is has a much wider meaning, which is reflected in the free translation. It can also been 'beloved'.

```
      and  Pf-  arrive.R  one  crow
```

A crow came

(5)   data'an   ña'a ti
      bother.R Obj   3a

(and started) bothering it.

(6)   va'a_tikuu no   soli
      hello   2Fam.MS turkey.vulture

"Hello, Turkey Vulture,"

(7)   ni- kaxi'o   ña'a chikaka
      Pf- greet.R Obj   crow

the crow greeted it.

(8)   va'a_tikuu no   ñani
      hello   2Fam.MS brother.of.male

"Hello, brother,"

(9)   ni- ka'an soli
      Pf- say.R turkey.vulture

said the turkey vulture.

(10) naikuu ja   xede no
      what   Cmp do.R 2Fam.MS

(The crow replied,) "What are you doing

(11) nakoo   no   jian.
      be.sitting.R 2Fam.MS there

sitting there?"

(12) nchu'u   nakoo
      1Fam.Foc be.sitting.R

(The turkey vulture said,) "I'm (just) sitting

(13) natete ni   i'a   ma

```
        sun.R  1Fam here can't.you.tell
```
sunning myself here, can't you tell?

(14) te   so'o   tee nda'vi
      and 2Fam.MS.Foc man poor

And you, you wretched creature (lit. poor man)

(15) naikuu ja xede no
      what   Cmp do.R 2Fam.MS

what are you doing,

(16) nchinduu   no
      walk.up.and.down.R 2Fam.MS

wandering about?

(17) te   iyo   vixin
      and very cold

It's awfully cold

(18) chi   kee   yu'va
      because go.down.R ice

because there's frost (lit.ice)."

(19) A-   tuu   kuenda so'o
      Neg- be.R for   2Fam.MS.Foc

"It's nothing to do with you,

(20) teno naikuu ja   xede nchu'u.
      if   what   Cmp do.R 1Fam.Foc

what I'm doing.

(21) Te   ka'an ni
      and say.R 1Fam

I say

(22) ja   iyo   ndadi kaa   no

```
          Cmp  very  ugly  seem.R  2Fam.MS
```

that you are really ugly:

```
(23)  yanda  diki  no
      bald   head  2Fam.MS
```

your head is bald,

```
(24)  te   ndadi  xe'en     te'a  no
      and  ugly   smell.R   beak  2Fam.MS
```

and your beak smells awful,

```
(25)  di   xexi   no         kuñu  ni-  te'yu
      and  eat.R  2Fam.MS    meat  Pf-  rot.R
```

and you eat rotten meat;

```
(26)  iyo   chikudu       no
      very  sleepy.head   2Fam.MS
```

you are a sleepy head,

```
(27)  te   ni         lu'a            a-    tuu    ja   ya'vi  no
      and  not.even   small.amount    Neg-  be.R   Cmp  value  2Fam.MS
```

and you aren't worth even a little.

```
(28)  nda'vi     no         ja   na-          dakee  ni
      poor       2Fam.MS    that Hor-                1Fam
                                 put.in.Ir

      iin    xiki  yußu      no
      one    fist  mouth     2Fam.MS
```

You'll be sorry when I put my fist to your mouth.

```
(29)  te   no_di       na-   kaan      no         nuu   no
      and  let's.see   Hor-  open.Ir   2Fam.MS    face  2Fam.MS
```

Let's see if that'll will wake you up,

```
(30)  chi       ndadi kaa      no
      because   ugly  seem.R   2Fam.MS
```

because you are ugly,"

(31) ni- ka'an chikaka
      Pf- say.R crow

said the crow.

(32) te   dukan ni-da-   diko-ini ti
      and   thus   Pf-Caus-get.angry.Ir   3a

      kuu   soli   ndaßvi
      Emph   turkey.vulture poor

And that is how the crow annoyed the poor turkey vulture.

(33) vaxi kixi   no
      no   come.Ir 2Fam.MS

"Don't you come

(34) da-   diko-ini   ña'a no
      Caus- get.angry.Ir   Obj   2Fam.MS

and make me angry!

(35) chi   ni- kuu   nduu kandee nchu'u   i'a
      because   Pf- finish.R   day   be.R   1Fam.Foc here

Because I've been here for days,

(36) ko   atuu data'an   ña'a ni   no
      but   Neg   bother.R Obj   1Fam   2Fam.MS

but I haven't bothered you at all,

(37) kue   iyo   veta xexi   ni
      although   be.R time eat.R 1Fam

although there are times when I have something to eat

(38) te   iyo   veta ña'a
      and   be.R time no

and times when I haven't.

(39) ko   atuu kua'an   ni
      and   Neg   go.Prog   1Fam

But I don't go

```
(40)  data'an    ña'a ni    no
      bother.Ir  Obj  1Fam  2Fam.MS
```

and bother you.

```
(41)  kua'an    kunu'u
      go.Prog   return.R
```

Go home,

```
(42)  chi      atuu kuii    ja   xede nchu'u
      because  Neg  nothing Cmp  do.R 1Fam.Foc
```

because I'm not doing anything at all to you

```
(43)  nakoo         ni    i'a
      be.sitting.R  1Fam  here
```

while I'm sitting here."

```
(44)  ni- nadiko          chikaka
      Pf- become.angry.R   crow
```

The crow got angry

```
(45)  ja   dukan ni- ka'an soli
      Cmp  thus  Pf- say.R turkey.vulture
```

at what the turkey vulture had said,

```
(46)  te  ni- nkuita  ti
      and Pf- begin.R 3a
```

and it began

```
(47)  xe'ni   ña'a ti.
      kill.R  Obj  3a
```

to beat him up.

```
(48)  ni-tu'un  ti diki̱ soli            te  ni-kee       niñi
      Pf-          3a head turkey.vulture and Pf-          blood
      peck.R                                 go.out.R
```

It pecked the vulture's head and blood came out.

(50) ko   ni- xendee-ini   ti
     but Pf- put.up.with.R 3a

But it put up with it

(51) nda'vi nakoo   ti
     poor   be.sitting.R 3a

and (kept on) sitting dejectedly.

(52) dukan ni- xede ti soli
     thus   Pf- do.R 3a turkey.vulture

This is what it did to the turkey vulture.

(53) te   ni- xii_tu'un ña'a ti
     and Pf- warn.R   Obj   3a

It (crow) warned it (the vulture)

(54) ja   vaxi data'an   ña'a soli
     so.that no   bother.Ir Obj   turkey.vulture

so that the turkey vulture wouldn't bother it,

(55) no_te nduu nduu dukan ñani   ti
     lest   day   day   thus   hit.RS.Ir 3a

or else it would get beaten up every day.

(56) no dukan ka'an   no
     if thus   speak.R 2Fam.MS

(The turkey vulture said), "Well, (lit. if) that's what you say,

(57) ko   kundetu
     and wait.Ir

but just you wait,

(58) na- ki'in ni   nuu ve'e   to'o
     Sub- go.Ir 1Fam to   house leaders

I'm going to go to the town hall,

```
(59)  te   ka'an   no        naikuu  kuechi  ni
      and  say.Ir  2Fam.MS   what    fault   1Fam
```

and (then) you'll (have to) say what the charges are against me

```
(60)  an  nakuenda  ja   dukan  vaxi     no
      or  why       Cmp  thus   come.R   2Fam.MS
```

or why do you come like this,

```
(61)  data'an     ña'a  no
      bother.Ir   Obj   2Fam.MS
```

to bother me

```
(62)  te   kani   ña'a  no
      and  hit.R  Obj   2Fam.MS
```

and hit me.

```
(63)  te   a-   tuu  kuii     ja   xede  nchu'u
      and  Neg- be   nothing  Cmp  do.R  1Fam.Foc
```

And I'm not doing a thing (wrong)

```
(64)  nakoo         ni    i'a
      be.sitting.R  1Fam  here
```

sitting here.

```
(65)  te   deni  kuñu  ni-  te'yu  ndi'i
      and  only  meat  Pf-  rot.R  with

      ja   kue'e kadu'a    xexi   ni
      Nom  left over       eat.R  1Fam
```

I only eat rotten meat and anything else left over

```
(66)  ko   so'o          kuu   ñadu'u
      but  2Fam.MS.Foc   be.R  thief
```

but you are a thief

(67) chi   du'u no   niñi ndi'i ndidi   ta
     because steal 2Fam.MS   corn with corn.on.cob Col

     nuu   kaa   itu   ayivi
     place be.planted.R cornfield person

because you steal corn and corn on the cob from the peoples' cornfields.

(68) te a-   tuu ja ka'an nchu'u
     and Neg- be Cmp say.R 1Fam.Foc

And I don't say a thing,

(69) teno xede va'a no
     if   do.R well 2Fam.MS

if you are doing right

(70) an atuu xede va'a no
     or Neg do.R well 2Fam.MS

or if you are not doing what is right

(71) ko jian na'a   mee no
     but that know.R self 2Fam.MS

but you are asking for it (lit. you already know all about that)

(72) ja xede no
     Cmp do.R 2Fam.MS

by what you do,

(73) chi   atuu kua'an   nchu'u
     because Neg go.Prog 1Fam.Foc

because I don't go

(74) data'an   ña'a ni   no
     bother.Ir Obj 1Fam 2Fam.MS

and bother you."

(75) nini   chikaka
     listen.R crow

The crow listened,

```
(76) nakoo        ti
     be.sitting.R  3a
```

as he sat,

```
(77) ja    dukan ka'an  soli
     that  thus  say.R  turkey.vulture
```

(to) what the turkey vulture was saying,

```
(78) ko   atuu ni- yu'u        ti
     but  Neg  Pf- be.afraid.R  3a
```

but it wasn't at all afraid

```
(79) chi      deni ni- ndutee         ti
     because  only Pf- become.brash.R  3a
```

because he just got more brash (and said)

```
(80) kua'an   ve'e   to'o
     go.Prog  house  leader
```

"Go to the town authorities

```
(81) teno kuini   no
     if   want.R  2Fam.MS
```

if you want to.

```
(82) ko   a-    tuu  kuii     yu'u         nchu'u
     but  Neg-  be.R nothing  be.afraid.R  1Fam.Foc
```

But I'm not afraid at all,

```
(83) chi      ta'an ni    to'o   tatuni     nchu'u    nuu  xi
     because  also  just  leader command.R  1Fam.Foc  face 3g
```

because I also tell the town officials (what to do)

```
(84) ja       nati'vi   de kuu      ve'e   ni
     so.that  sweep.Ir  3m Emph     house  1Fam
```

so that he sweeps my house

(85) te   kuido   de ndute ko'o   ni
      and   carry.Ir 3m water drink.Ir 1Fam

and carries water for me to drink."

(86) nduu yuten   ni-xee̲   soli   nuu   ve'e   tiñu
      day   tomorrow Pf-   turkey.vulture place house work
                      arrive.R

The next day the turkey vulture arrived at the town hall,

(87) te   ni- xa'an ti to'o
      and Pf- say.R 3a leaders

and he told the town president

(88) tiñu kua'an   ti
      work go.Prog 3a

(about what) matter (lit. work) he had come.

(89) vaxi   da   ka'an   kuechi̲ da
      come.R   1Res say.Ir fault   1Res

"I've come to file a complaint (about)

(90) ja   du'a ni- xede ña'a chikaka
      that thus Pf- do.R Obj crow

what the crow has done to me.

(91) te   a-   tuu ja ni- xede da   de
      and Neg- be Cmp Pf- do.R 1Res 3m

I haven't done anything to him,

(92) chi   ndeku da   ja nda'vi da
      because be.R 1Res Cmp poor   1h

because I'm the defenseless one.

(93) kundia'a ní
      see.Ir   2Res

Look

(94)   ja   ni- chitu   da   niñi
      Cmp Pf- full.R 1Res blood

that I'm all covered in blood,

(95)   ja   ni- ñani   da
      because Pf- hit.RS. 1Res

because I was hit.

(96)   te a-   kundee-ini   da
      and Neg- put.up.with.Ir 1Res

I'm not going to put up with it,

(97)   chi   a-   tuu ja ni- xede da   de
      because Neg- be.R Cmp Pf- do.R 1Res 3m

because I didn't do (anything) to him.

(98)   kanda'vi   da
      ask.favor.R 1Res

I will ask you a favor,

(99)   te na- kixi   chikaka
      and Sub- come.Ir crow

(tell) the crow to come,

(100) chi   na- kundaa   kuechi da   in da
      because Sub- clear.things.up fault 1Res Pl 1Res

so that our complaints can get cleared up.

(101) teno naikuu ja tavi da   nuu de
      if   what   Cmp owe.R 1Res face 3m

(Let's see) whether I owe him anything."

(102) te   dukan ni- ya'a   no
      and thus Pf- pass.R 2Fam.MS

"Oh, so that's what happened to you,

(103) te   daa-yu nda'vi no
      and   how   poor   2mFam

what a terrible shame (lit. how poor you are).

(104) ko   navii   na- ki'in kuu   ndatiñu   ni
      but right.now   Hor- go.Ir Emph messenger   1Fam

But right now my messenger will go

(105) kunkueka   de kuu   chikaka
      bring.Ir   3m Emph crow

and bring in the crow.

(106) teno naikuu ja   ya'a
      if   what   Cmp pass.R

(Let's see) what's happening

(107) ja   dukan xi- kuu   no   in no
      Cmp   thus   Hab- be.Ir 2Fam.MS   Pl 2Fam.MS

that things are like this between you two."

(108) te ni- nduku_ndee ndatiñu   to'o
      and Pf- set.out.R   messenger   leader

The president's messenger set off

(109) kunkueka   de chikaka
      bring.Ir   3m crow

to bring in the crow

(110) ja   kixi   ti
      so.that   come.Ir 3a

so that it would come

(111) ndundaa   kuechi̱ ti ndi'i soli
      resolve.Ir   fault 3a with turkey.vulture

to resolve its dispute with the turkey vulture.

(112) kii   ni- xee̱   chikaka
      when Pf- arrive.R crow

When the crow arrived

(113) te   iyo   vii   ni- kaxi'o   ti to'o
      and very pretty Pf- greet.R 3a leader

it greeted the president very politely

(114) chi   xede ti kuenda   ja   iyo   vii-ini   ti
      because do.R 3a pretend Cmp very respectful.R 3a

because it was pretending that it was very well-mannered

(115) te   kuu   ti iin kiti   iyo   ka'nu-ini   xi
      and be.R   3a one animal very be.obliging.R 3g

and it was a very cooperative animal.

(116) va'a_tikuu ní   to'o
      hello   2Res leaders

"Hello, sir,

(117) vaxi   da
      come.R 1Res

I've come,

(118) chi   kana   ña'a ní
      because call.R Obj   2Res

because you called me.

(119) teno   naikuu ja   kuini   ní
      let's.see what   Cmp want.R 2Res

Let's see what you want

(120) an naikuu tiñu nde-ini   ní
      or what   work think.R 2Res

or what job you want

(121) ja   kada da
      Cmp do.R 1Res

me to do.

(122) te   naikuu ja   xede ñani   nda'vi da
      and what   Cmp do.R brother.of.male beloved 1Res

What is my dear brother doing

(123) ndeku de i'a
      be.R 3m here

that he is here?

(124) te   ni- kuu   nduu
      and Pf- finish.R day

Days have passed

(125) atuu ka   xini da   de
      Neg more see.R 1Res 3m

since I saw him last (lit.I haven't see him any more)."

(126) te   ja   ni-xee   no   teno so'o
      and already   Pf-arrive.R 2Fam.MS if   2Fam.MS.Foc

      nani   chikaka
      be.named crow

"And now that you got here, is your name 'Crow'?

(127) divi   adaña   nani   chikaka
      really.Emph   1Res.Foc be.named.R crow

"Yes, my name is Crow.

(128) te   naikuu ja   ni- ya'a   vitan
      and what   Cmp Pf- pass.R right.now

And what happened just now

(129) ja   iyo deen   kuu ní
      Cmp very fierce be.R 2Res

that you are very fierce?"

(130) naikuu ja   ni- xede ña'a soli
      what   Cmp Pf- do.R Obj   turkey.vulture

"What did the turkey vulture do to you?

(131) nakuenda ni- kani   no   de
      why   Pf- hit.R 2Fam.MS 3m

Why did you hit him?

(132) iyo ja   ni- xede de nuu   no
      be. Cmp Pf- do.R 3m face 2Fam.MS

Did he do something to you,

(133) an nakuenda ni- kani   no   de
      or why   Pf- hit.R 2Fam.MS 3m

or why did you hit him?

(134) iyo   ja   tavi   de nuu   no
      be.R Cmp owe.R 3m face 2Fam.MS

Does he owe you something

(135) an naikuu ja   ya'a   ndi'i de
      or what   Cmp pass.R   with 3m

or what happened with him?

(136) kundia'a
      see.Ir

Look

(137) ja   dukan ni- xede no   de
      Cmp thus   Pf- do.R 2Fam.MS 3m

what you did to him!

(138) kuna'a   no
      know.Ir 2Fam.MS

But bear in mind

(139) ja   ki'in no   ve'e kaa
     Cmp go.Ir 2Fam.MS house metal

that you'll go to jail (lit. metal house)

(140) chi   atuu ni- xede no   iin ja va'a
     because Neg Pf- do.R 2Fam.MS one Nom good

because you haven't done a good thing,"

(141) ni- xa'an to'o
     Pf- say.R leader

the president said.

(142) te ni- ka'an   chikaka
     and Pf- speak.R crow

And the crow said,

(143) a-   tuu ja kandaa   tu'un navii
     Neg- be Cmp clarify.R word right.now

Nothing is going to be settled right now

(144) nde   na- xee   iin tee ka'an_yu'u ña'a da
     until Sub- arrive.Ir one man represent Obj 1Res

until the man who will represent me comes[92]

(145) kuenda na- kundaa   kuechi̱
     for   Sub- clear.things.up.Ir fault

so that the charges will be cleared up.

(146) teno   nadu'a kaa da   kuita
     let's.see which seem 1Res lose.Ir

Let's see which one of us loses,

---

[92] *ka'an_yu'u*, literally means 'speak mouth', that is somebody who speaks on behalf of another.

(147) teno mee da   an tee - lu'lu i'a
      if   self 1Res or man - small this

let's see if it is I or this insignificant man."

(148) kua'an yuku   tee ka'an_yu'u ña'a no   in no
      go.Prog look.for.Ir man represent Obj 2Fam.MS Pl 2Fam.MS

"Off you go you two, (and) look for somebody to represent you.

(149) te yuten   ne'e kuini ni
      and tomorrow early want.R 1Fam

Early tomorrow, I want

(150) ja kaa - uxi kundeku no   i'a in no
      Cmp metal - ten be.Ir 2Fam.MS here Pl 2Fam.MS

you both to be here at 10 o'clock (lit metal ten).

(151) ta'an so'o   soli   nduku   iin tee
      also 2Fam.MS.Foc turkey.vulture look.for.R one man

      ka'an_yu'u ña'a no   tuku
      represent Obj 2Fam.MS also

You, too, Turkey Vulture, look for somebody to represent you,"

(152) ni-   to'o ni- de soli   ndi'i chikaka
      ka'an   xii
      Pf-   leader Pf- 3m turkey.vulture with crow
      speak.R   say.R

said the president, he told the turkey vulture and the crow.

(153) te ni-nduku_ndee ti yuku   tee
      and Pf-set.out.R 3a look.for.R man

      kaßan_yußu ñaßa ti in ti
      represent Obj 3a Pl 3a

And they set off to look for people to represent them.

(154) te chikaka ni- xe'en ti
      and crow   Pf- go.R 3a

And the crow went

```
(155) ni-  xinkoto  ti  chimi
      Pf-  visit.R  3a  owl
```

to visit the owl.

```
(156) va'a_tikuu  no       ñani
      hello       2Fam.MS  brother.of.male
```

"Hello, brother,

```
(157) tee  chindee  ndiaa  ta-  ja   nda'vi
      man  help.R   all    Col  Nom  poor
```

he who helps all the needy (people)

```
(158) ja   a-    kuu         dada'an    xi  mee   xi  nuu   iin  kuechi̱
      who  Neg-  be.able.R   protect.R  3g  self  3g  face  one  fault
```

who can't protect themselves in the face of a charge

```
(159) ja   xido_ya'vi    xi
      that be.accused.R  3g
```

of which they are accused.

```
(160) vaxi    ni    ja      ki'in  ndo    ve'e   tiñu
      come.R  1Fam  so.that go.Ir  1incl  house  work
```

I've come so that we can go to the town hall

```
(161) chi      xido_ya'vi    ni    iin  kuechi̱
      because  be.accused.R  1Fam  one  fault
```

because I'm being charged wtih a crime.

```
(162) te   a-    tuu  kuii     ja   ni-  xede  ni
      and  Neg-  be   nothing  Cmp  Pf-  do.R  1Fam
```

I haven't done anything

```
(163) chi      ndeku  ni    ja   nda'vi  ni
      because  be.R   1Fam  Cmp  poor    1Fam
```

because I'm (just) a defenseless individual."

```
(164) dukan  iyo   xi  a
      thus   be.R  3g  Ques
```

"Oh, so that's how it is?

(165) ko   axi-   yu'u   no
      but Neg.Imp- be.afraid.Ir 2Fam.MS

But don't be afraid,

(166) chi   kue   daa-yu ka'nu kuechi̱
      because although how   big   fault

because even if it is a terrible offense

(167) ko   ndiaa ni   xendaa   nchu'u
      but all   just solve.R   1Fam.Foc

but I can solve everything

(168) chi   a-   tuu tee kunuu   nuu ni
      because Neg- be man win.Ir   face 1Fam

because nobody can beat me (lit win to my face)

(169) chi   iyo maa ni- dakua'a ni
      because very many Pf- learn.R 1Fam

because I've studied a lot."

(170) ta'an ni   soli   kua'an   chinduu
      also just turkey.vulture go.Prog mountain

The turkey vulture also went to the mountains

(171) kunkoto   ti chidaa_tekaa
      visit.Ir 3a solitaire

to visit the solitaire [93]

(172) ja   ti yukan kuu   tee ka'an_yu'u ña'a ti
      so.that   3a that be.Ir man represent Obj 3a

so that it would be the animal who would represent it.

---

[93] This bird is famous for its beautiful song.

```
(173)  ne'e   nduu  yuten    ni- xee̱        ti in ti nuu   ve'e
       early  day   tomorrow Pf- arrive.R  3a Pl 3a face  house

       tiñu  to'o
       work  leader
```

Early the next day they arrived at the town hall (lit. house of work of the leader).

```
(174)  te   ni- ka'an    to'o
       and  Pf- speak.R  leaders
```

and the president said,

```
(175)  na-  ya'a     ta- tee naa       in de
       Sub- pass.Ir  Col man fight.R  Pl 3m
```

"May the men who are fighting come in!

```
(176)  te   ni-      soli            ndi'i tee ka'an_yu'u ña'a ti
           ya'a
       and  Pf-      turkey.vulture  with  man represent  Obj  3a
           pass.R
```

And the turkey vulture and his lawyer came in.

```
(177)  te   ta'an ni   chikaka nchikun   ni-kivi     tuku
       and  also  just crow    follow.R  Pf-enter.R  as.well
```

and the crow also followed (them) in.

```
(178)  teno  ja       ni-xee̱      no       in no
       if    already  Pf-arrive.R 2Fam.MS Pl 2Fam.MS
```

"Now that you both have gotten here,

```
(179)  ñate  kixe'e   so'o         chikaka
       then  begin.R  2Fam.MS.Foc  crow
```

then you start, Crow,

```
(180)  chi      so'o         kuu   tee iyo  kuechi̱ xi
       because  2Fam.MS.Foc  be.R  man be.R fault  3g
```

because you are the man who is accused.

```
(181) nde     ndeku tee ka'an_yu'u ña'a no
      where   be.R  man represent   Obj  2Fam.MS
```

Where is the one who will represent you?"

```
(182) te   ni- xee      chimi
      and  Pf- arrive.R  owl
```

And the owl arrived.

```
(183) nchu'u    kuu   tee ka'an_yu'u ña'a chikaka
      1Fam.Foc  be.R  man represent   Obj  crow
```

"I'm the man who will represent the crow

```
(184) te   a-   kuini   ni
      and  Neg- want.R  1Fam
```

and I don't want

```
(185) ja   ki'in  de  ve'e   kaa
      Cmp  go.Ir  3m  house  metal
```

him to go to jail (lit metal house)

```
(186) chi      ndeku de  ja   nda'vi de
      because  be.R  3m  Cmp  poor    3m
```

because he's just a poor defenseless creature.

```
(187) te   mee   soli           xede
      and  self  turkey.vulture do.R
```

And it was that turkey vulture

```
(188) ja    ni- data'an  ña'a de
      that  Pf- bother.R  Obj  3m
```

that was bothering him.

```
(189) taxi     kuu   tutu   kuechi
      give.IR  Emph  paper  fault
```

Give me the record of the charges,

(190) na-   ka'vi   ni   xi
      Sub-   read.Ir   1Fam   3g

I'm going to read it,

(191) te   kini   no   ka
      and   see.Ir   2Fam.MS   Evid

and you'll see."

(192) te   ni-   xe'e   ña'a   to'o   kuu   tutu   kuechi
      and   Pf-   give.R   Obj   leaders   Emph   paper   fault

And the president gave it the record of the charges,

(193) te   ni-   nkuita   chimi   ka'vi   ti
      and   Pf-   begin.R   owl   read.R   3a

and the owl began to read.

(194) kunini   ka
      listen.Ir   Evid

"All right, now, listen,

(195) kuû   no   kuû   no
      die.Ir   2Fam.MS   die.Ir   2Fam.MS

You'll die, you'll die![94]

(196) jian   kuu   ja   a-   ki'in   chikaka   ve'e   kaa
      that   be.R   Cmp   Neg-   go.Ir   crow   house   metal

Now here is why the crow shouldn't go to prison,

(197) chi   a-   tuu   kuechi̱   de
      because   Neg-   be.R   fault   3m

because he's not at fault.

(198) chi   ndeku   de   ja   nda'vi   de
      because   be.R   3m   Cmp   poor   3m

---

[94] According to Mixtec tradition, owls say /kuû no/, which means 'you will die'.

because he's just a defenseless creature."

```
(199)  kua'an    ke'e
       go.Prog   outside
```

"Go outside,

```
(200)  chi      a-   nandi'i      ja   ka'an   no
       because  Neg- be.of.use.R  Cmp  speak.R 2Fam.MS
```

because what you are saying is of no use.

```
(201)  te   na-  ya'a     inka     ka    de
       and  Sub- pass.Ir  another  more  3m
```

Let the other man come in."

```
(202)  te   ni-  ya'a     tee  ka'an_yu'u  ña'a  soli
       and  Pf-  pass.R   man  represent   Obj   turkey.vulture
```

And in came the man who would represent the turkey vulture

```
(203)  ja    kuu   ti   chidaa_tekaa
       that  be.R  3a   solitaire
```

who was the solitaire.

```
(204)  te   ni-  xikan      ti   tutu   kuechi̲
       and  Pf-  ask.for.R  3a   paper  fault
```

He asked for the record of charges

```
(205)  te   ni-  nkuita   ti   ka'vi   ti
       and  Pf-  begin.R  3a   read.R  3a
```

and it began to read.

```
(206)  ko   iyo   vii     xita    ti
       but  very  pretty  sing.R  3a
```

But it sang very prettily

```
(207)  te   iyo   dii    ni-  tuu-ini  to'o
       and  very  happy  Pf-  feel.R   leader
```

and the president felt really happy,

```
(208)  te   ni-  kunuu  ti   nuu    chimi
```

```
       and  Pf-  win.R  3a  face  owl
```

and it (the solitaire) won against the owl .

(209) te   ni- nakunu_ndeyi chimi ndi'i chikaka
```
       and  Pf-  hang.head.R   owl    with   crow
```

The owl and the crow hung their heads,

(210) te   kua'an   ti ve'e   kaa   in ti
```
       and  go.Prog  3a  house  metal  Pl  3a
```

and they went to jail

(211) ja   vete ti
```
       because  liar  3a
```

because they were deceitful.

(212) dakua'a   ndo   ja   vaxi   ka'an   ndo   ja   vete
```
       learn.Ir  1incl  Cmp  never  speak.Ir  1incl  Nom  liar
```

We should learn not to tell lies.

APPENDIX 1
Map of the Mixtec Region

APPENDICES

APPENDIX 1

MAP OF THE MIXTEC REGION

APPENDIX 2

SOURCES FOR DATA

Variety	Included in Josserand[95]	Published Works	Own Field Notes[96]	Other SIL Colleagues[97]
Alacalatzala	✓	Zylstra 1991		Carol Zylstra
Jicayán	✓		✓	
San Andrés Nuxiño	✓		✓	
San Antonio Huitepec	✓			Susan Hugghins
San Esteban Atatláhuca	✓	Alexander1980		Ruth Mary Alexander
San Juan Colorado	✓	Stark, Johnson and Lorenzo 1986	✓	Sharon Stark
San Juan Diuxi	✓	Kuiper and Oram 1991	✓	Albertha Kuiper
				Joy Oram
San Juan Mixtepec	✓			Hartmut Kursch
San Juan Tamazola	✓		✓	Susan Hugghins
San Miguel el Grande	✓	✓		
San Pedro Tidaa	✓		✓	
Santa Cruz Tacahua				Susan Hugghins
Santa Inés de Zaragoza			✓	
Santa María Peñoles	✓	Daly 1973 Daly and Daly 1977		Margaret Daly
Santiago Apoala	✓		✓	
Santiago			✓	Leroy Whitman

---

[95] Josserand's list contains 188 items; the word list for this study was 530 words.

[96] Most of the data were collected as part of a research project carried out under the Instituto Nacional de Antropología e Historia. None of these data could have been collected without the help of Mixtecs who prefer to remain anonymous.

[97] These people were kind enough to gather data needed for this study.

Mitlatongo				
Santiago Yosondua	✓	Farris 1992		Kathryn Farris
Santo Domingo Nuxaá	✓		✓	
Santo Tomás Ocotepec	✓	Alexander 1988		Ruth Mary Alexander
Tezoatlán de Segura y luna	✓			Judith Williams
Tierra Caliente, Tlazoyaltepec			✓	
Yuvi Nani				Audrey Johnson and Sharon Stark
Yutanduchi de Guerrero	✓		✓	Susan Hugghins
Xochapa		Stark, Johnson and González 1999		

APPENDIX 3
LIST OF ABBREVIATIONS

<u>Pronouns</u>

3a	3rd animal	Ir	irrealis
3f	3rd feminine	MS	men speaking
3g	3rd general	Neg	negative
3water	3rd water	Nom	nominializer
3m	3rd masculine	Obj	object
1incl	1st inclusive	Per	permissive
		Pf	perfective
		Pl	plural
<u>Others</u>		Prog	progressive
Caus	causative	Ques	question
Cmp	complementizer	R	realis
Col	collective	Recip	reciprocal
Dub	dubitative	Rel	relative pronoun
Emph	emphatic	Rep	repetitive
Evid	evidential	Res	respect
Fam	familiar	S	State
Foc	focus	Sub	subjunctive
Hab	habitual	WS	women speaking
Imp	Imperative		

APPENDIX 4

ORTHOGRAPHY

The orthography used in the syntax sketch and text is that approved by the Mixtec Academy (Veˈe Tuˈun Savi). This orthography has been developed over a number of years by mother tongue speakers of several Mixtec languages, many of whom are bilingual school teachers. The following chart gives a list of the graphemes with their corresponding IPA symbol.

Practical Orthography	IPA Symbol	Practical Orthography	IPA Symbol
a	[a]	nk	[ng]
ch	[tʃ]	nku	[ngʷ]
d	[≈]	ñ	[ɲ̃]
e	[e]	o	[o]
i	[i]	p	[p]
j	[h]	r	[ɾ]
k	[k]	s	[s]
ku	[kʷ]	t	[t]
l	[l]	u	[u]
m	[m]	v	[β]
mb	[mb]	x	[ʃ]
n	[n]	y	[ʒ] or [y]
nch	[ndʒ]	ˈ	[ʔ]
nd	[nᵈ]	n word final	nasalization on preceeding vowels

There is not a one to one correspondence between the graphemes listed in chart above and the phonemes of SEN. The main differences are the following:

[ʔ] is considered a vowel feature; nasalization is considered a morpheme level feature; [mb] is considered a unit as is [n^d]; however, [ndʒ], [ng] and [ng^w] are considered sequences of [n] plus voiceless obstruent. Also [m], [n] and [ɲ̃] are considered allophones of the corresponding oral sonorant, that is [β], [n^d] and [y] respectively. Note that under this analysis [n^d] is considered to be a sonorant underlyingly. The following are considered to be the consonantal phonemes of SEN.

obstruents	p	t	tʃ	ʃ	k	k^w
sonorants	β	n^d		y		
liquids		ɾ	l			
prenasalized obstruent[98]	mb					

There are five vowels: [i], [e], [a] [o] [u].

All five can be checked [iʔ], [eʔ], [aʔ] [oʔ] [uʔ].

<p style="text-align:center">ALLOPHONIC VARIATION</p>

/y/ is realised as [ʒ] in stressed syllables and [j] in unstressed syllables.

/k/ is realised as [g] after a prefix with the feature [+nasal], and [k] elsewhere.

/k^w/ is realised as [g^w] after a prefix with the feature [+nasal].

In some cases the segments of the nasalized prefix has been lost and all that is left is a [n].

Note the following examples:

[kã̃ʔã̃] 'to say' + [kũ] 'dubitative' becomes [kũngã̃ʔã̃]

[koo] 'to sit'[99] + [n] 'action' becomes [ngoo] (cf [nukoo] 'to be sitting')

---

[98] [mb] only occurs in Spanish loans, such as [mbelu] 'hat' and onomatopoeic words such as [kulaʔmba] 'to boil noisily'.

[99] [koo] 'to sit' only occurs in compounds.

In my data, there are no examples of [tʃ] becoming [dʒ] in environments such as those stated above. However, on the basis of analogy with [ng] [ndʒ] is considered to be /n/ plus /tʃ/.