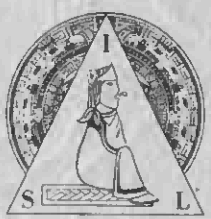
A HIERARCHICAL SKETCH OF MIXE



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A
HIERARCHICAL SKETCH OF MIXE
as spoken in San José El Paraíso

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A
HIERARCHICAL SKETCH OF MIXE
as spoken in San José El Paraíso

by

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To Robert E. Longacre, pioneer in discourse analysis, who inspired and guided this description of Mixe, as well as descriptions of other little-known languages around the world.

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ABBREVIATIONS

Part I

A	Adverbial Clause Nucleus	Imp	Imperative Clause Nuclei
AH	Attribute Head	intr.	intransitive
AOC	Actor-Oriented Conjunct Clause Nucleus	M	Modifier
		NC	Nonconjunct Clause Nuclei
AONC	Actor-Oriented Nonconjunct Clause Nucleus	ND	Noun Determiner
		NF	Nuclear Feature
C	Conjunct Clause Nuclei	NPS	Noun Phrase Specifier
C	consonant with/without palatalization (used in CV combinations, not alone)	Peri	Peripheral Element
		pl	plural
		Po	Possessive
CACS	Concomitant-Action Compound Stem	QM	Question Marker
		QW	Question Word
CCl	Consonant cluster	RAP	Relator-Axis Phrase
CM	Comparison Modifier	SACS	Specified-Action Compound Stem
C/NC	Conjunct/Nonconjunct Clause Nuclei	sg	singular
CNP	Comparative Noun Phrase	SI	Sentence Introducer
CT	Conjunct Trigger	SLM	Sentence-Level Marker
DNP	Descriptive Noun Phrase	SOC	Subject-Oriented Conjunct Clause Nucleus
DVS	Derived Verb Stem		
E	Explanatory	SONC	Subject-Oriented Nonconjunct Clause Nucleus
GOC	Goal-Oriented Conjunct Clause Nucleus	SVS	Simple Verb Stem
		tr.	transitive
GONC	Goal-Oriented Nonconjunct Clause Nucleus	V	vowel quality and nuclear feature (used in CV
H	Head		

	combinations, not alone)	VH	Vowel Nucleus: Aspirated Glottalization
V	Vowel Nucleus: Short Length		
V·	Vowel Nucleus: Mid Length	1PI	1st Person Imperative Clause Nucleus
V:	Vowel Nucleus: Long Length		
V'	Vowel Nucleus: Checked Glottalization	2PI	2nd Person Imperative Clause Nucleus
V"	Vowel Nucleus: Interrupted Glottalization	3PI	3rd Person Imperative Clause Nucleus

Part II

A	Answer	Parens	Parenthesis
Alter	Alternative	PH	"Pig Hunt"
Anti	Antithetical	Prelim	Preliminary
BU	Build Up	Proc	Procedural
BU-n	Build Up Final	Prop	Proposal
Coord	Coordinate	PT	"Pine Trees"
D	Denouement	Q	Question
Dial	Dialogue	Recap	Recapitulation
DH	"Deer Hunt"	Reinf	Reinforcement
EP	Episode	Resp	Response
Exch	Exchange	S	Sentence
Exhort	Exhortation	Sa	"Savage"
Expo	Exposition	Sec	Section
Expo P	Expository Paragraph	$\overline{\text{Sec}}$	Countersection
Hort	Hortatory	Simult	Simultaneous
JG	"John Garabato"	Sn	Sentence Final
L	"Lent"	SP	Speech
M	"Manners"	SS	"Slide Show"
MC	"Marriage Customs"	Term	Terminal
Narr	Narrative	TR	"True Religion"
OC	"Orphan Child"	'	repeated (step)
P or Para	Paragraph		

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The present analysis reflects insights into Mixe structure first stated by some of our colleagues in the study of the various dialects of Mixe. However, the author of Part I of this monograph is responsible for the interpretation and incorporation of those observations, as well as her own, into a unified description.

No previous work had been done on the sentence, paragraph, or discourse levels. Chapters 6 and 7 are the first attempts to describe these levels for Mixe.

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PART I

1 INTRODUCTION

This study is a description of Mixe grammar in a tagmemic framework. It is divided into two parts: Part I treats the hierarchical levels up through the sentence, Part II treats paragraph and discourse levels. The texts which accompany Part II may also be used as supporting evidence for the analysis of Part I.

The authors began their analysis of Mixe on sentence, paragraph, and discourse levels at a linguistic workshop in the fall of 1969, under the direction of Robert E. Longacre. The initial attack begun at these higher levels of the hierarchical structure of the language was continued down through the levels in a more or less consistent ordering. The procedure of working from the top to the bottom of the hierarchy proved advantageous for a more meaningful interpretation of the lower levels. The analysis of text material for higher-level structure at an early stage was quite feasible in spite of unanalyzed units on lower levels. For instance, the transcription of the texts was not completely phonemic and did not reflect all the phonological contrasts, but discourse and paragraph structure was not dependent on the phonology. Neither did it depend on detailed analysis of phrase and stem levels.

The analysis of discourse and paragraph level is based on monologue discourses; dialogue discourses (conversations between two or more speakers) are not covered in this description. On the discourse level four contrastive types have been posited: procedural, expository, narrative, and hortatory. Five types of paragraph have been posited: procedural, expository, narrative, hortatory, and dialogue. A discourse level tagmeme of a given discourse type may be manifested by several different paragraph types, not just paragraphs of the corresponding name.

Sixteen sentence types have been distinguished. Sentences are composed of clauses and sentence level markers. Certain intonation types also operate on this level.

Ten clause types are posited. Clauses are composed of the lower level units of phrases, words, and clause markers. The clause markers are morphemes bound to the clause nucleus. A prominent stress occurs on the clause nucleus.

The description of phrases distinguishes verb phrases, noun phrases, and relator-axis phrases. The phrases are composed of words and phrase markers bound to one of the words in the phrase. The head of the phrase always carries a phrase stress.

Words are composed of stems and affixes. Stems are classified as verbs, nouns, attributes, or adverbs. There are derivational patterns for converting from one stem type to another. Stems are composed of morphemes. Morphemes do not constitute a level of the grammatical hierarchy, but rather are the elements which contribute the classes which manifest the tagmemes in the constructions of the various levels of the grammatical hierarchy.

Morphemes do have an internal structure but it is largely phonological in nature. The morpheme is composed of morphophonemes which relate to phonemes and syllables in certain specifiable ways. In this monograph no attempt is made to establish the morphophonemes or work out the morphophonemic rules, but the description of phonemes and of syllables is grammatically oriented. For instance, syllables are divided into monomorphemic and polymorphemic classes. The establishing of certain suprasegmental phonemes is motivated by their behavior in the grammar.

The order of description begins with the phonology and then procedes to words, phrases, clauses, and sentences in Part I and to paragraphs and discourses in Part II.

2 PHONEMES

2.1 Phonemic Units. Mixe distinguishes twenty-three consonants and six vowels. In addition, three degrees of length and three qualities of glottalization combine withtthe vowels as suprasegmental phonemes to distinguish six contrastive syllable nuclei. The suprasegmental phoneme of palatalization combines with the consonants.

2.1.1 Consonants. The twenty-three consonants are divided into three groups: primary phonemes, secondary phonemes, and marginal phonemes. The primary phonemes are: p, t, k, ʔ, c, š, h, m, n, ŋ, w, y.

The following are examples of the occurrence of the primary phonemes:

p	*paHk* 'bone'[1]	m	*mu:m* 'somewhere'
t	*taHk* 'walking stick'	n	*tu·n* 'he worked'
k	*kaHp* 'town'	ŋ	*tu·ŋ* 'work (noun)'
ʔ	*ʔak* 'only'	w	*wa·š* 'fox'
c	*cac̃* 'a kind of fly'[2]	y	*ya·š* 'he cried'
š	*šac* 'beat it!'[3]		
h	*ha·k* 'more'		

The secondary phonemes are b, d, g, ʒ, and ž, which are the voiced counterparts of the primary phonemes p, t, k, c, and š; and z, which is the voiced counterpart of the marginal phoneme s. The voiced obstruents are in complementary distribution with the voiceless ones in words of Mixe origin, but there is a tendency in Mixe to use shortened forms which have word initial voiced stops, and geminate obstruents resist the voicing rules (see Sect. 2.4). These two factors along with the influence of Spanish loans

1. The symbols H, ·, :, ˈ, and ˮ indicate suprasegmental phenomena in the syllable nucleus (see Sect. 2.1.3 and Chart 3).

2. The tilde (˜) is used to indicate palatalization (see Sect. 2.1.4).

3. Imperative forms in Mixe are indicated by an exclamation point in the English gloss.

establish the voiced counterparts as phonemes. They are distinguished as secondary phonemes, however.

The occurrence of the voiced obstruents is predictable in Mixe, exclusive of shortened forms and Spanish loans. Word initially, the voiceless phoneme occurs except when following a nasal, in which position the voiced counterpart occurs:

paHk 'bone'	*nbaHk* 'my bone'
taHk 'walking stick'	*ndaHk* 'my walking stick'
kaHp 'town'	*ngaHp* 'my town'
cuHk 'knife'	*mẓuHk* 'your knife'
šu·š 'horn'	*mžu·š* 'your horn'
se·řpa''g 'honey'	*mze·řpa''g* 'your honey'

Within the word, the voiced counterpart of a single consonant occurs when preceded by syllable nuclei V, V·, V:, V'', and followed by any syllable nucleus:

taH 'mother'	*ko·daH* 'stepmother'
piš̃ 'cotton'	*ko''biš̃* 'sheep'
ʔiẓim 'pig'	
wo:ga·n 'to want to dig'[4]	

Following syllable nuclei V' and VH the voiceless phoneme occurs:

ko'tuHkin 'authority'
maHcpi 'trap'

Following a nasal or a y, the voiced counterpart occurs:

ko'n 'tomato'	*tu·ŋg̃o'n* 'plum tomato'
-ta·y 'all'	*ka·yd̃a·y* 'to eat it all'

Word finally, the voiceless phoneme occurs following nuclei V, V·, V', VH, except where a stem-final w is dropped and a -p or -p̃ marker (morpheme) occurs. In this case V· is followed by the voiced counterpart:

muc 'little'	*kida·k* 'he came down'
ha't 'he arrived'	*kaHp* 'town'
ci·b 'he bathes' (< *ci·w* 'to bathe')	

The voiced counterpart always occurs following V:, and usually occurs following V''. The voicing in the latter environment varies somewhat according to the individual speaker and the particular consonant. Stops are voiced more often than the affricate or fricative primary phonemes in this environment:

wa:d 'may'	*nu:ž* 'lazy'
tu''g or *tu''k* 'one'	*wa''ẓ* or *wa''c* 'clean'

4. In examples, the English infinitive gloss corresponds to the basic form of the Mixe verb. This is a citation form, having no markers attached. In some cases it does not occur without markers in actual use.

Obstruents in word medial consonant clusters are usually voiceless unless the first member of the cluster is a nasal or y as mentioned above:

ʔiške·y 'crooked' *ʔišyoˈy* 'to leave behind'
me·kštuHk 'to be patient' *waˈkpeHt* 'step'

However, following the syllable nucleus V:, the first member of a cluster is voiced while the second is voiceless. A partially voiced cluster may also occur when a stop follows the syllable nucleus V" but not when the affricate or the fricative follows nucleus V". The voicing of a stop following nucleus V", followed by a voiceless consonant varies according to the individual speaker:

tugwi:gpi 'third one' *nu:žpi* 'lazy one'
haduˈˈgpi or *haduˈˈkpi* 'another one'
toˈˈs͡ha"y 'woman'

Final clusters are voiceless unless they include a y or m. Three such clusters occur, namely, yb, yg, and mb:

ha·yb 'he writes'
mo·yg 'give it to me!'
nikša·mb 'I'm going to go'

There are a few words which contain final clusters nt, nc, nč, ms, mp͡š, which are not uniformally voiced:

kwe·nt 'important' *wi·nc* 'blind'
ha·nč 'really' *toˈms* 'a kind of fish'
hemp͡š 'heavy'

There is a tendency in Mixe to drop some word initial syllables with the result that the shortened word begins with a voiced consonant. Words of this nature in common use are:

dia:b 'this (one)' (< *hadaya:bi*) *duˈn* 'thus' (< *haduˈn)*
di čambi 'this time' (< *hada· čambi*)

The short forms are used more than the long forms by the younger generation and some short forms beginning with a voiced consonant have no long form in current use:

daˈ 'immediately'
duˈñ 'how much'
duˈngaduˈn 'slowly'

The marginal consonant phonemes are: f, s, l, ř, r̃. These do not occupy any significant position in the structure of Mixe and occur rarely or in obvious Spanish loans. Nonetheless, they cannot be ignored, especially considering the influence of, and increasing contact with, Spanish:

f *kafwe·* 'coffee' s *caps* 'red'
l *lu:d* 'vulture' ř *přu·ñ* 'pitcher'
r̃ *ʔeř̃i·t* 'it creaked'

The marginal phoneme s occurs in words of Mixe origin, principally in cluster with m, p, or k, and as such could be considered an allophone of c which does not occur in this position. The c occurs in cluster with n in words which have probably lost a final syllable, but s does not occur there:

ta·ms 'salty'	*caps* 'red'
noks 'slippery'	*mo'nc* 'mud'

In addition, s occurs in a word originally from another dialect of Mixe and in a greeting:

ʔawa·st 'key'	*skeHt-* 'greetings'[5]

Spanish loans introduce s in positions where it contrasts with c. The voiced counterpart of s has a more limited distribution than the voiced counterparts of the primary phonemes. It occurs only word initially following n- and m- which are morphemes representing first and second person respectively.

The consonant phonemes are displayed in Chart 1, according to articulation type and position. The consonants enclosed in parentheses ( ) are marginal phonemes; those enclosed in brackets ⟨ ⟩ are secondary phonemes; and those not enclosed are primary phonemes.

Chart 1
The Consonant Phonemes

Articulation Type	Articulation Position: Bilabial	Labio-dental	Alveolar	Alveo-palatal	Velar	Glottal
Stops	p ⟨b⟩		t ⟨d⟩		k ⟨g⟩	ʔ
Affricates			c ⟨ʒ⟩			
Fricatives		(f)	(s) ⟨z⟩	š ⟨ž⟩		h
Nasals	m		n		ŋ	
Laterals			(l)			
Vibrants			(ř) (r̃)			
Semi-vowels	w			y		

5. An alternate form of this word used by some speakers is *sigeH-*.

Chart 2
The Vowel Phonemes

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

2.1.2 Vowels. The six vowel qualities are displayed in Chart 2, according to tongue positions from front to back of the oral cavity and from high to low. The phonetic norm of the front vowels is open: [ɩ] and [ɛ]. The high central vowel is unrounded.

The following are examples of the occurrence of the six vowel qualities:

i	*cik*	'harvest it!'	e	*cek*	'fade!'
ɨ	*cik*	'a kind of tree'	o	*cok*	'love!'
u	*cuk*	'ant'	a	*cac*	'maguey'
				nak	'flat'

2.1.3 Suprasegmental Phonemes and Syllable Nuclei. There are six contrastive syllable nuclei which distinguish three degrees of length (short, mid, long) and three kinds of glottalization (checked, interrupted, aspirated). Every syllable nucleus combines one of the suprasegmental phonemes with a basic vowel quality as shown in Chart 3.

Chart 3
The Syllable Nuclei

Vowel Quality Plus Length		Vowel Quality Plus Glottalization	
V	Short	V'	Checked
V·	Mid	V''	Interrupted
V:	Long	VH	Aspirated

The following are examples of the occurrence of the six syllable nuclei:

V	*pik*	'round'		*ʔoy*	'although'
V·	*ši·k*	'he laughed'		*ʔo·y*	'he went'
V:	*ci:g*	'fight!'		*ʔo:y*	'very'
V'	*pi'k*	'small'		*yo'y*	'he walked'
V''	*ši''g*	'laugh!'		*yo''y*	'walk!'
VH	*ciHk*	'he harvested'		*ʔoHy*	'in-law'

2.1.4 Palatalization and Syllable Margins. Palatalization is a suprasegmental phoneme, symbolized by a tilde (~) written over the consonant(s) which it affects. All of the consonants may be palatalized with the exception of

f and r̃[6] (which occur rarely, and not in the position where palatalization usually occurs). Not all speakers distinguish palatalized y from unpalatalized y in word initial position. Medial and final ỹ and y are not distinguished by any speaker. However, the palatalization of y is written when indicated by the morphology.

The occurrence of the palatalization suprasegmental phoneme generally causes palatalization of an entire consonant cluster and an on- or off-glide of the contiguous vowel with a noticeable 'i' quality. The front vowels i and e usually are phonetically more open when not followed by palatalization and present more close variants when followed by palatalization. The vowel i is also more close when preceded by palatalization:

[pɛn] 'press it!'	[pe̝ñ] '... he presses it'[7]
[pɪš̃] 'flea'	[p̃iš̃] 'his flea'
[piš̃] 'cotton'	[p̃iš̃] 'his cotton'

However, in the consonant clusters kš and pš, and in the affricate c, palatalization does not produce an on- or off-glide on the contiguous vowel. Even contiguous consonants are not noticeably palatalized when occurring in clusters with k͡š̃, p͡š̃, or c̃:

[kap͡š̃mido·w] 'to obey'	[me·k͡š̃] '... he forgives him'
[mac̃] '... he grabs it'	[ha·nc̃] 'really'

Palatalized š is phonetically fronted and nonretroflexed (unpalatalized š is retroflexed) and c̃ is alveopalatal c.

The degree of palatalization varies somewhat with individual speakers. Variation also occurs in the palatalization crossing syllable borders. But in general, palatalization extends across the syllable borders, although sometimes only faintly.

The suprasegmental phoneme of palatalization should not be confused with the consonant y. These are two distinct phonemes.[8] There are some places where it is difficult or impossible to distinguish the two phonetically, but in several environments the phonetic distinction is obvious and must be

6 The only possible confusion in using the tilde for palatalization is with trilled r. This r never receives palatalization. The flapped r is written with the wedge.

7. In the English gloss, ... represents an incomplete clause in the Mixe form cited.

8. Crawford analyzed palatalization in the Totontepec dialect as the segmental phoneme y, treating consonant plus y as "special close-knit units bordering on being single phonemes in syllable structure" (Crawford 1963.71). I have not handled palatalization in this way for the reasons mentioned above: the phonetic distinctness of n- or m- plus y and palatalized n- or m-; and the voiced/voiceless distinction. In addition, the handling of palatalization as a suprasegmental phoneme of the consonants parallels the handling of length and glottalization as suprasegmental features of the vowels. Considering palatalization as a segmental phoneme would greatly complicate the syllable structure (see Chapter 3). It has also been suggested that palatalized consonants be posited as phonemes. This, however, would increase the number of consonants from twenty-three to forty-three in Mixe. In view of this, I believe that analyzing palatalization as a suprasegmental phoneme presents a less complicated way of looking at the material on both the phoneme and syllable levels.

reflected in the analysis. Morphological criteria distinguish between suprasegmental palatalization and the consonant y when they are phonetically ambiguous.

Word initially the consonant y does not palatalize a contiguous consonant and the person markers *n-* 'first person' and *m-* 'second person' form a clearly heard sequence of ny and my as distinct from palatalized ñ and m̃, which also occur word initially:

nyaH²o'k 'I killed him'	*nyo''kpaHk* 'my neck'
ña''n 'his beans'	*ño'k* 'he lit it'
myaHma'n 'your blanket'	*myeHk* 'you handed over'
m̃aŋ 'his son'	*m̃eHy* 'his sea'

Word medially, the consonant y preceding another consonant palatalizes the consonant it precedes. The combination of a distinct y followed by a palatalized consonant varies sometimes to simply a palatalized consonant with the y lost after having palatalized the consonant. A y following another consonant generally has no effect on the consonant it follows:

ka·y 'to eat' + *-ta·y* 'all' > *ka·yd̃a·y* or *ka·d̃a·y* 'to eat it all'
hu·y 'to buy' + *muHk* 'together' > *hu·ym̃uHk* or *hu·m̃uHk* 'to buy together'
wi·nye·m 'to fan' *²išyi'* 'pants'

In these examples, the y is written preceding the palatalized consonant in order to show more clearly the morphemic composition of the words when separate morphemes can be distinguished.

Word finally, y causes voicing of a following consonant (either b or g). If y were simply to palatalize the following consonant, the voicing would not occur. Where a simple palatalized consonant occurs word finally with the same preceding nucleus as precedes the y plus b or g, the palatalized consonant is voiceless. The suprasegmental phoneme of palatalization is not marked for voicing, whereas the phoneme y is voiced.

Words ending in yb or yg are usually verbs (b and g representing morphemes). The voicing of the b and g gives clear evidence that these verbs end in y and not in palatalization:

k̃o·yb̃ 'he is painting it'	*²o·p̃* 'foam'
ka·yb[9] 'he eats'	*kap̃* 'in-law'
²i:ɣ̃ we·yg 'lick me!'	*ko''ge·k̃* '... he abandoned it'

Occasionally word final palatalization representing a morpheme occurs following a verb stem which has no final consonant (see Sect. 4.1). In this case the palatalization materializes as a y.

9. Some speakers palatalize the consonant which follows y in clause-nucleus final position and others do not. There is a morphophonemic distinction involved with mood-tense markers -p and -p̃. *ka·yb* 'he eats' (mood-tense marker -p); *k̃a·yb̃* 'he eats it (mood-tense marker -p̃). There is no morphophonemic distinction involved with g. The examples are written without palatalization when the unpalatalized markers occur to distinguish the morphemic composition.

wiHy 'smart, sober' (< *wiH* 'to be sober, awake' and final palatalization as a derivational process; see Sect. 4.3.2)
(ti·) t̃iHy 'it broke' (< *tiH* 'to break' and final palatalization as the mood-tense marker; see Sect. 5.2.1 (c))

The following examples illustrate the palatalization of the primary and marginal consonant phonemes in Mixe:

p	*paHk*	'bone'	m	*mo'' * 'give it to him!'
	p̃aHk	'his bone'		*m̃o''y* 'he gave it to him'
t	*taHk*	'walking stick'	n	*tu·n* 'he worked'
	t̃aHk	'his walking stick'		*tu·ñ* 'plum'
k	*kaHp*	'town'	ŋ	*tu·ŋ* 'work (noun)'
	k̃aHp	'his town'		*seˈŋ̃* 'sapodilla'
ʔ	*ʔuk*	'dog'	l	*lu:d* 'vulture'
	ʔ̃uk	'his dog'		*l̃u:d* 'his vulture'
c	*cuHk*	'knife'	ř	*řadio* 'radio'
	c̃uHk	'his knife'		*r̃adio* 'his radio'
s	*sapa:t*	'shoe'	w	*wi·n* 'eye'
	s̃apa:t	'his shoe'		*w̃i·n* 'his eye'
š	*šu·š*	'horn'	y	*yow* 'soft corn'
	š̃u·š	'his horn'		*ỹow* 'his soft corn'
h	*hič*	'corn meal'		
	ĥič	'his corn meal'		

2.2 Allophones. The phoneme i has two allophones [i] and [ɪ]. The allophone [i] occurs contiguous to palatalization (see Sect. 2.1.4) and word finally in all syllable nuclei except VH; [ɪ] occurs elsewhere:

[piš̃] 'cotton'	[ci''] 'bathe!'
[wɪH] 'he sobered'	[pɪš̃] 'flea'

However, in some words the allophone [i] occurs without contiguous palatalization:

[cik] 'harvest it!'	[ni''he·n] 'shirt'

The voiceless stops p, t, k, have aspirated and unaspirated allophones. The unaspirated allophones occur word initially and medially. Word finally, the unaspirated allophones occur in all unaccented syllables. The aspirated allophones occur in accented final syllables. (Accent is discussed in Sect. 5.8). In the clusters tp, kp, pk, tk, both stops are aspirated in a word-final accented syllable. In all positions the stop is released into the sibilant in the clusters pš and kš. Other clusters which may occur with the aspirated allophone are: kšp, pšp, cp, šp, kšk, pšk, ck, šk:

[kaˈ mwóp͡ʰ] 'don't hit him'
[w̃íˑt͡ʰpʰ] 'he is tying it'
[wóHkʰpʰ] 'it gets holes in it'

[wi·nmé·kšk^{h}] 'forgive me!' [he hɨbɨk wít^{h}] 'the dirty clothes'
[ší·pšp^{h}] 'it aches' [ha·nc̆ hɨbík^{h}] 'it's really dirty'

(Note that in the last two examples, the word *hɨbɨk* occurs, the first time in an unstressed position with an unaspirated k and the second time in a stressed position with the k aspirated.)

The phoneme š has two allophones: [s̆] (retroflexed) and [š]. [š] occurs only with palatalization; [s̆] occurs in all other positions.

[s̆u·s̆] 'horn' [šu·s̆] 'his horn'

2.3 Incorporation of Spanish Loans. Spanish loans beginning with a voiced consonant are pronounced with an initial voiced consonant in Mixe. Voiceless consonants in Spanish loans are normally voiceless in Mixe, but they are voiced following the person markers n- and m-. (All Spanish loans may receive affixation.) A Spanish loan ending in a vowel preceded by one or two consonants loses the final vowel, and the preceding syllable nucleus is lengthened to V:. The final consonant remains voiced or voiceless as it was originally:

sapato > *sapa:t* 'shoe' *nzapa:t* 'my shoe'
bařko > *ba:řk* 'boat' *nba:řk* 'my boat'

Spanish loans ending in a consonant are not altered noticeably:

ganář > *ganař²áHt* 'to earn'

(Notice that the accent is changed in this example, but accent is a feature of the phrase and clause; see Sect. 5.8.)

²abión 'airplane' (unchanged except for the initial ²)

Marginal and secondary phonemes resulting from Spanish loans take palatalization in the same manner as the primary phonemes:

diós 'god' *d̆iós* 'his god'
ley 'law' *l̆ey* 'his law'
sapa:t 'shoe' *šapa:t* 'his shoe'

2.4 Morphophonemic Assimilation and Reduction. When the phoneme n occurs word finally in verbs and is followed by the mood-tense markers -p or -p̃, or the nominalizer -pɨ, it assimilates to the bilabial p, becoming m. In compound verb stems the final n of a stem preceding another stem with initial p or k changes to m or ŋ (the stops are voiced according to the voicing rules in Sect. 2.1.1):

nikša·n 'to want to go' *nikša·mb̃* 'he wants to go'
yaHtu·n 'to use it' *nyaHtu·m̃b* 'I use it'
tu·n 'to work' *tu·mbi* 'worker'
²an 'hot' + *piHk* 'to take' > *²ambiHk* 'to be hot'
wi·n 'surface' + *ka'w* 'to fall from above' > *wi·ŋga'w* 'to fall from above'

The assimilation of n to a following p or k in words other than verbs varies with the individual speaker. In word medial position assimilation sometimes occurs; word initial assimilation never occurs:

nanbi:d or *nambi:d* 'grandmother'
tu·ñg̃oˈn or *tu·ŋ̃g̃oˈn* 'tomato'
nboyiˈˈg̃ '... I run'
ngoˈˈhup 'my hat'

When the final consonant of one morpheme is followed by a morpheme with an initial consonant of the same shape, reduction takes place in that the two consonants become one phonetic segment. Longer duration can be distinguished in word initial position when person markers n- and m- precede words with the same respective initial consonants. The long nasal is interpreted as a sequence of two nasal phonemes. Word medially, the longer duration is not noticeable with either voiced (m, n, y, w) or voiceless consonants. Neither is there any noticeable longer duration when two like voiceless consonants occur word initially or word finally. The distinction between double and single voiceless consonants is the retaining of the voicelessness in a position where a single consonant would be voiced according to the voicing rules in Section 2.1.1. In word medial position the result of the reduction is treated as a single phonemic segment which contrasts with the secondary voiced phonemes and helps to establish the phonemic status of the latter.[10]

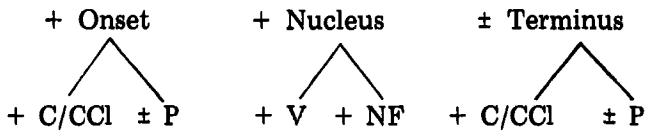
mmo·y 'you gave it to him' (<*m-* 'you' + *mo·y* 'to give')
nhu·ta·y 'I pulled them all out' (<*n-* 'I' + *hu·t* 'to pull out' + *-ta·y* 'all')
nneHce·ni·y 'I let go that which was in my arms' (<*n-* 'I' + *neHc-...-i·y* 'let go' + *ce·n* 'to hold something in the arms')

10. However, when the morphemic composition of a word is under consideration in this monograph, both consonants are written, e.g., *miHšoHcpeHtta·y* 'tie them all!' (from Sect. 4.2.4); *ʔu·kko* 'hurry up and drink it!' (from Sect. 5.2.2.2); *nbiga·nni* '... I want to take it for good' (from Sect. 4.2.4); *ña·yy̆uˈˈzi:* '... he hid himself' (from Sect. 4.2.1).

3 SYLLABLE LEVEL

3.0 The syllable consists of an obligatory onset, an obligatory nucleus, and an optional terminus. The onset consists of an obligatory consonant or consonant cluster and optional suprasegmental palatalization. The nucleus consists of an obligatory vowel and an obligatory suprasegmental nuclear feature. The terminus consists of an obligatory consonant or consonant cluster and optional suprasegmental palatalization. The composition of the syllable may be symbolized by the following formula:

Formula 1
The Syllable



The syllable nuclei were presented in Section 2.1.3. They consist of a vowel quality (i, ɨ, u, e, o, a) and a suprasegmental nuclear feature of length (short, mid, long) or glottalization (checked, interrupted, aspirated). The Mixe syllable nuclei always consist of one vowel quality and one suprasegmental feature. Vowel clusters do not occupy a significant position in the structure of Mixe and are not considered in positing the syllable types. Vowel clusters occur in the Mixe word *dia:b* 'this' and in Spanish loans such as *dios* 'god' and *tiend* 'store'. The vowels form a diphthong as in Spanish. The Mixe word *dia:b* is a shortened form of *hadaya:bɨ*.

The syllable types have been classified as monomorphemic or polymorphemic. The classification is based on the segmental phonemes. No separate types have been posited for palatalization because palatalization may occur with all syllable types. If one wished to display the syllable types with palatalization in initial, final, and initial and final position, a total of thirty types would result.

3.1 Monomorphemic Syllable Types. In the types listed below, C stands for a single consonant with or without the suprasegmental palatalization phoneme and multiples of C stand for consonant clusters with or without the suprasegmental palatalization phoneme. V stands for the syllable nucleus, both vowel quality and nuclear feature.

CV: All syllable nucleus types occur as V; all consonants occur except ŋ (the examples are exhaustive for nucleus types only):

-pi 'one'	*ka'* 'no'
ti· 'already'	*he''* 'it'
ni: 'water'	*taH* 'mother'

CVC: All syllable nucleus types occur; all consonants occur initially except ŋ; all consonants occur finally except f, h, ʔ (the examples are exhaustive for nucleus types only):

c̃am 'now'	*pu'c* 'yellow'
ha·k 'more'	*tu''g* 'one'
ni:ž 'daughter'	*hiHp* 'point'

CVCC: All syllable nucleus types occur except V: and V''; all consonants occur initially except ŋ (the clusters kš, pš occur finally in wide distibution; ck, ks, ms, nc, ps, pc, st occur rarely):

ʔaH k̂š 'plural'	*kapš* 'talk!'
meck 'two'	*ʔaks* 'husk'
to'ms 'a kind of fish'	*wi·nc* 'blind'
ha·nc̃ 'really'	*caps* 'red'
ʔepc̃ 'a person from Mixitlán'	*ʔawa·st* 'key'

CCVC: This is a rare type. All syllable nucleus types occur except V' and V''. The clusters kř, kw, př, šw, sk occur initially. The following words are the only ones in the data of this syllable type (Spanish loans which do not have their margins altered are not described here; some of these words listed are said to be of Spanish origin but are modified phonologically and have been assimilated into Mixe structure):

kři·t 'cricket'	*křeĩ* 'visibly layered'
křu:z 'cross'	*kwa·y* 'horse'
kweHt 'to pay debts'	*kwaHk* 'head'
přu·ñ 'pitcher'	*skeHt-* 'greetings'
přuŋ 'round and relatively large'	
šwe·c 'a town official/a kind of insect'	

3.2 Polymorphemic Syllable Types. Chart 4 displays the polymorphemic syllable types which occur as expansions of the monomorphemic types. The additional initial consonants are the person markers *n-* 'first person subject or possessive', *m-* 'second person subject or possessive', *s̃-* 'first or

second person object'. The additional consonants syllable final are the mood-tense markers *-p* and *-p̃*, and the first person object imperative marker *-k*.

Chart 4
The Polymorphemic Syllable Types[1]

Monomorphemic Syllable Types	Polymorphemic Syllable Types	Examples (Polymorphemic)
	Initial Expansion	
CV	CCV	*ndaH* 'I dug it'
CVC	CCVC	*mga·y* 'you ate'
CVCC	CCVCC	*s̃cu'kš* 'he kissed you'
CCVC	CCCVC	*nbřu·ñ* 'my pitcher'
	Final Expansion	
CV	CVC	*taHp* 'I dig'
CVC	CVCC	*woHpk* 'hit me!'
CVCC	CVCCC	*kapšp* 'he talks'
CCVC	CCVCC	*kweHtp* 'he pays debts'
	Initial and Final Expansion	
CV	CCVC	*ndaHp̃* 'I'm digging it'
CVC	CCVCC	*mga·yb̃* 'you are eating it'
CVCC	CCVCCC	*s̃cu'kšp* 'he kisses you'
CCVC	CCCVCC	*s̃kw̃eHtp* 'he pays me'

3.3 Monomorphemic and Polymorphemic Syllable Types. The basic and expansion syllable types are displayed in Chart 5.

1. Three monomorphemic syllables fit into the polymorphemic syllable types segmentally. These are: *kwe·nt* 'important' (CCVCC); *kafwe·* 'coffee' (-CCV); and *hemp̃š* 'heavy' (CVCCC). Since these are the only monomorphemic words like this, special types were not set up for them.

Chart 5
Monomorphemic and Polymorphemic Syllable Types

Monomorphemic Syllable Types	Polymorphemic Syllable Types		
	Initial Expansion	*Final Expansion*	*Initial and Final Expansion*
CV	CCV	CVC	CCVC
CVC	CCVC	CVCC	CCVCC
CVCC	CCVCC	CVCCC	CCVCCC
CCVC	CCCVC	CCVCC	CCCVCC

3.4 Syllable Types without Reference to Morphemic Constituency. Listed without reference to monomorphemic or polymorphemic analysis, ten syllable types occur. These are displayed in Chart 6.

Chart 6
Summary of Syllable Types

Initial Margin	Final Margin: ∅	-C	-CC	-CCC
C-	CV	CVC	CVCC	CVCCC
CC-	CCV	CCVC	CCVCC	CCVCCC
CCC-		CCCVC	CCCVCC	

3.5 Suprasegmental Palatalization Phoneme. Any of the syllable types may occur with initial or final palatalization, or both initial and final palatalization. Palatalization is a suprasegmental phoneme and also a morpheme in most cases. Initial palatalization is usually the third person subject or object marker, or possessive, or the palatalization of the first and second person object marker $\tilde{\tilde{s}}$-. Final palatalization is usually the mood-tense marker in the conjunct clause nucleus, the palatalization of the nonconjunct actor-oriented clause-nucleus marker -$\tilde{p}$, the locational marker, the adverbializer, or a nominalizer. Examples of palatalization have been cited along with the examples in Section 3.2. Palatalization sometimes occurs where no morpheme can be distinguished as in the following words:

c̃am 'now'
c̃ï· 'then'
ti·nc̃ 'intestine'
ña''y 'husband'
ʔaH$\widetilde{k\tilde{s}}$ 'plural'
ʔaHc̃ 'older brother'

The rarely occurring final clusters ck, ks, ms, ps, and st, and the rare fw initial cluster do not occur with palatalization. The clusters nc̃ and pc̃ occur with only the final member of the cluster palatalized.

3.6 **Segmental Analysis of the Affricate.** On the basis of the syllable analysis, the affricate c is considered to be one phoneme, not two. It occurs syllable initial in wide distribution followed by all nucleus types. Monomorphemic initial consonant clusters are rare and not all nucleus types occur with them. The affricate c also occurs syllable final with wide distribution. The clusters pš and kš also occur in final position with wide distribution but never following nucleus types V: and V"; c occurs with V: and V" and all other nucleus types.

There are also grammatical criteria for analyzing c as a single segment and pš and kš as clusters. Many verb stems have two alternates differing in syllable nuclei (Sect. 4.1). A few verbs are stable, having only one form. The verb stems ending in pš and kš are stable, whereas the verb stems ending in c have two forms.

4 STEM LEVEL AND WORD LEVEL

4.0 Four classes of stems are distinguished: verb, noun, attribute, and adverb. Stems in each class are structurally divided into simple, complex, and compound stems. Simple stems are composed of a root morpheme (one or two syllables). Complex stems are composed of simple stems and a derivational affix. Compound stems are composed of two or more roots or stems. The word constructions have as their nucleus a base, which is manifested by one of the stem constructions.

Verb word constructions include transitivity prefixes and modal, temporal, and adverbial suffixes as well as certain prefix-suffix lexical combinations. Noun and attribute words likewise permit prefixes and suffixes to the base, which may itself be complex. Noun suffixes indicate information about the location and arrangement of the noun. Non-affixed word classes are classified according to syntactic function.

Person markers and mood-tense markers are not considered to be affixes even though they are bound to a word in the phrase or clause. Clitic-like, the person markers attach themselves to the adjacent word in the phrase, not necessarily the head word. They may be attached to the verb proclitic in the verb phrase or to the modifier in the noun phrase. Furthermore the selection of one of the several sets of person markers for verbs is determined by the clause type they are used in rather than by any property of the verb word. As for the mood-tense markers, although they are phonetically bound to the verb word, they differ from the verbal suffixes in that they do not control the morpheme alternate of the preceding morpheme. Rather, it is the combination of clause-nucleus type and tense that determines the allomorph of the preceding morpheme as well as the selection of the particular mood-tense marker itself. For these reasons, the person markers and the mood-tense markers are considered to be elements of the clause construction, or in the case of possessive markers to be elements of the phrase construction.

4.1 **Verb Stems and Modification of Syllable Nuclei.** A verb stem may be simple, derived, or compound according to the constituent morphemes. But regardless of its internal constituency a verb stem may have an allomorph differing with respect to the syllable nucleus. This is also true of all Group I suffixes (Sect. 4.2.2). All verb stems and Group I suffixes are classified into one of two classes: the invariable class, which has no modification of the syllable nucleus, or the variable class. The invariable class is identifiable phonologically by the syllable nucleus type and the syllable terminus. The variable class is subdivided according to the particular nucleus in the basic form and the corresponding nucleus in the alternate form. Four reasons may be given for the term "basic" being applied to the allomorphs which are called by that name: (1) more suffixes require the basic form than the alternate, (2) the first stem of a compound verb stem is always in the basic form, (3) the gerund or nominalized form of the verb stem is the basic allomorph plus -pi, and (4) three out of four of the tenses in the clause-nucleus types require the basic form of the stem; only one requires the alternate form in the conjunct/nonconjunct types (see Sect. 5.2).

Chart 7
Verb Stem Classes

The Invariable Class

Syllable Nucleus	Syllable Terminus	Examples
V	kš/pš	*nikš* 'to go' *topš* 'to burst'
V·	kš/pš	*ʔe·kš* 'to pick' *šu·pš* 'to suck'
V́	kš/pš	*tiˈkš* 'to pinch' *kaˈpš* 'to be complete'
VH	∅	*koH* 'to make' *puH* 'to wash'

The Variable Class

Basic	Alternate	Examples
V́	V̋	*haˈt, haˈˈd* 'to arrive'
VH	V	*naHš, naš* 'to pass'
V·	V	*hu·y, huy* 'to buy'
V·	V̋	*mu·k, muˈˈg* 'to get drunk'
V·	V:	*wo·n, wo:n* 'to pull'

The choice of which allomorph to use is determined by a following stem or suffix, or in the case of the final stem or suffix determined by the clause construction. In two-syllable simple stems the change of form is always in the final syllable nucleus. In complex stems the change is only in the derivational suffix.

In Chart 7 the invariable class is distinguished by the syllable terminus. Only certain syllable nuclei occur preceding the distinguishing terminus. The syllable onset in all classes is of no importance in distinguishing contrasting classes and is therefore not included in the chart. In the class with basic and alternate forms the syllable nuclei distinguish the subclasses. The syllable terminus of verbs in the variable class consists of a single consonant. (See Appendix F for a compilation of verb stems according to their subclasses.)

In the variable class the change of form is partially predictable, given either the basic or the alternate forms. Given V' it is predictable that the change is V''; given VH the change is to V; however, given V· the changes may be V, V'', or V:. Going from alternate to basic, given V: the change is to V·; however, given V'' the change is to either V' or V·; and given V the change is to either VH or V·. The variable subclasses will be indicated by V'/V'', VH/V, V·/V, V·/V'', and V·/V: in further references.

All verb stems have initial and final consonant margins except the VH subclass of the invariable verbs which does not have a terminus. The margins of all verb stems are stable except the terminus of some stems ending in either w or y (voicing/voicelessness of certain consonants occurs but this follows the rules in Sect. 2.1.1 and is not considered as instability of the terminus).

Stems which have the final syllable ending in w or y in the nonconjunct past form of the clause nucleus (which is the basic form of the stem), but do not have the w or y in the 2nd person imperative clause nucleus (which is the alternate form of the stem), have an unstable terminus w or y. The stable terminus w or y occurs both in the nonconjunct past and in the 2nd person imperative (see Sect. 5.2).

Examples of unstable w and y:

ka'w 'he fell'	*ka''* 'fall!'
ʔa·gi·y 'he closed it'	*ʔa·gi''* 'close it!'

Examples of stable w and y:

ʔaẓo·w 'he answered'	*ʔaẓow* 'answer!'
s̃u·y 'he sewed it'	*šuy* 'sew!'

The unstable y changes to w before the suffixes -a·n, -ip, -ɨp:

nʔa·gi''wa·m̃b 'I want to close it' (-a·n > -a·m in this position; *ʔa·gi·y/ʔa·gi''* are the verb stems)

nmo''wip̃ 'I will give it to him' (-ip is palatalized in this position; *mo·y/mo''* are the verb stems)

nmo''wip 'I will give it to him' (same stems as immediately above)

The unstable y is retained before all other suffixes beginning with a vowel and before all suffixes beginning with a consonant:

cok ʔiña·yim 'let's sit down' *(ʔiña·y/ʔiña")*

ʔiyi·yda" 'finish playing!' (*ʔiyi·y/ʔiyi"* are the verb stems; -ta·y/ta" are the suffix forms, the initial t becomes voiced and is palatalized in this position)

(The stable y acts like any other consonant; it is never dropped or changed.)

Both the stable w and the unstable w stem terminus are dropped preceding all mood-tense markers, verb stems, and suffixes beginning with a consonant except the ʔ. The marker -p becomes voiced with the dropping of the w:

kapšmido·giš 'obey!' (*kapšmido·w* 'to obey', stable w; *kiš* 'plural'; the k is voiced in this position)

ʔazo·b̃ 'he is answering it' (*ʔazo·w* 'to answer', stable w; -p̃ 'mood-tense marker', voiced with the dropping of the w)

ma·b 'he sleeps' (*ma·w/ma"* are the verb stems; -p 'mood-tense marker', voiced with the dropping of the w)

ma·muHk 'to sleep together' (*muHk* is the second stem in a verb compound)

The w margin is retained before suffixes beginning with a vowel and the ∅ mood-tense marker:

cok ʔazo·wim 'let's answer' (*ʔazo·w* 'to answer', stable w; *-im* 'first person inclusive')

ci·w 'he bathed' (*ci·w/ci"* are the verb stems; -∅ mood-tense marker)

The stability of stem-final w or y is predictable everywhere except in one subclass. Terminus w or y is always stable in subclasses V·/V and V·/V:. The stem-final w and y are always unstable in subclass V·/V". In subclass V'/V" they may be either stable or unstable and must be further subclassified in this respect. This class has relatively few stems ending in w or y. Only two stems end in y, and both are stable. Five stems end in w; one is stable and four are unstable. Stem-final w or y does not occur in subclass VH/V.

4.1.1 Simple Verb Stems. Simple verb stems are a single root consisting of one or two syllables. Examples of one-syllable stems are:

hi'kš 'to suffocate'	*cu·n* 'to leak'
hoHk 'to be smoking'	*ha·y* 'to write'

Two-syllable verb roots have as the first syllable one of the following root formatives, whose meanings are undetermined (if there is a meaning connected with them): *ci, cu, hi, ho, ki, ma, mi, mo, ni pi, pi, po, pu, ši, ti, wi, wi, yi, ʔa, ʔe, ʔi, ʔi.* These syllables are part of the root and differ from derivational prefixes in that they remain in the stem when that stem is a second member in a compound stem, whereas a prefix is not retained in a compound stem:

wi·nma·y 'to think' (*wi·n* is considered a noun stem in compound with *ma·y*) + *tigaHc* 'to change' (*ti* is the first syllable) > *wi·nma·yd̃igaHc* 'to change one's mind' (the *ti* becomes *d̃i* in this position)

puHš̃ 'to cut' + *kida·w* 'to fall' > *puHš̃kida·w* 'to cut and let fall' (*ki* is the first syllable of a stem being retained in the compound)

tu·n 'to work' + *tigo·y* 'to lose' > *tu·ndigo·y* 'to do wrong'

4.1.2 Derived Verb Stems. Verb stems may be derived from noun stems, attribute stems, or from words from other languages (usually Spanish). There are two verbalizing suffixes used for derivation: *-ʔaHt* and *-i·y*. The first of these, *-ʔaHt* (VH/V), is stative in meaning, indicating something that either exists or does not exist. It is used on most Spanish loan verbs used as verbs in Mixe. The other suffix, *-i·y* (V·/V"), is used to indicate something which requires some time to effect the condition, or a process. It is occasionally used on loan words:

mažuŋʔaHt 'to be born' (<*mažuŋ* 'baby')

ganařʔaHt 'to get (wages, etc.)' (<Spanish verb *ganar* 'to earn, gain, win')

mayi·y 'to multiply' (<*may* 'many')

sema:ni·y 'to be one week' (<Spanish *semana* 'week')

4.1.3 Compound Verb Stems.[1] There are two types of compound verb stems: the specified-action compound stem and the concomitant-action compound stem.

The specified-action compound stem (SACS) is composed of an obligatory specifier slot and an obligatory action slot. The specifier slot is manifested by a noun, attribute, or adverb stem. The action slot is manifested by a simple verb stem (SVS), a derived verb stem (DVS), a SACS, or a verb word (by back looping). The specifier always precedes the action slot. The examples show only a few of the noun, attribute, and adverb stems which may occur. This is a very common type of compounding and many noun stems may manifest the specifier slot (fewer attribute and adverb stems may occur):

Noun Stems	Specified-Action Compound Stems (some of the examples have affixes included)
ʔayuHk 'animal'	*ʔayuHkyaHʔiña·y* 'to ride an animal' (*yaHʔiña·y* is a verb word)

1. Much of the analysis of verb compounds is the same as that in Don Lyon's 1967 article, "Tlahuitoltepec Mixe Verb Syntagmemes" (*IJAL* 33:34-45). I have adapted his basic analysis to the data from San José El Paraíso; however I combined his Included Object Compound Stem and Modified Action Compound Stem into one type—the Specified-Action Compound Stem. What he calls the Conjunctive Action Compound Stem I have treated as a prefix plus stem rather than another type of compound stem.

ho·t 'center, liver'
ho·tkida·k 'to be satisfied'
ho·tkugi·y 'to be happy, content' (*kugi·y* is a DVS)
ho·tma'ṭ 'to be mad'
ho·twi·mbiHt 'to repent' (*wi·mbiHt* is a SACS)
miHho·tmecki·y 'to be undecided' (*miH* is a prefix; *mecki·y* is a DVS)

kapš 'word'
kapšmido·w 'to obey'
kapštiH 'to contradict'
na·ygapšci·k 'to scold, argue' (*na·y* is a prefix)

ki" 'hand'
ki"buH 'to wash one's hands'
ki"gaHp 'to hold long, slender objects'
ki"gi·y 'to hold chunky objects'
ki"go·n 'to hold round objects'
ki"yuHkšaH 'to raise one's hand full height' (*yuHkšaH* is a SACS)
na·ygi"yeHk 'to promise to marry' (*na·y* is a prefix)
yaHki"demi·y 'to pour water on someone's hands' (*yaH* is a prefix)

ni· 'water'
ni·beHt 'to baptize'
ni·go·n 'to carry water'
ni·muHk 'to shrink in water'
ni·naHš 'to pass over/through water'
ni·wa'š 'to sprinkle'
ni·ya·w 'to swim'

waH 'ox'
mi·waHyaHyu·w 'to plow with oxen' (*mi·-* is a prefix; *yaHyu·w* is a verb word)

wi·n 'surface'
ʔa·wi·mbiHt 'to return the same way' (*ʔa·* is a prefix)
wi·mbidiHt 'to roll up with something inside'
wi·mbi·w 'to sort little objects'
wi·mbiHk 'to be cloudy weather'
wi·mboH 'to winnow'
wi·mbuHš 'to cut off surface growth in a field'
wi·ndigo·y 'to break'
wi·ndi·y 'to tie cargo'
wi·nhe·y 'to slip down'
wi·nže·w 'to scrape off'
wi·nye·m wi·nbiHk 'to fan' (a verb doublet)
wi·ŋga'w 'to fall from above'

wi·n 'self, face, eye'	*wi·mbuH* 'to wash one's face'
	wi·nda·k 'to put one's face down, duck'
	wi·nhiwi·y 'to understand'
	wi·nẓigi·y 'to respect, worship'
	wi·nʔiHš 'to choose'
	wi·nʔi·n 'to deceive'
Attribute Stems	
ʔan 'hot'	*ʔambiHk* 'to get hot'
	kwaHkʔambiHk 'to get angry' (*kwaHk* 'head'; *ʔambiHk* is a SACS)
hokš 'warm'	*hokšpiHk* 'to get warm'
Adverb Stems	
kiHš 'on top of'	*kiHškaHp* 'to put a long, slender object on top of something'
	kiHšpiHk 'to put tortillas on the comal'
	kiHšwaˈk 'to step on something'
paˈt 'under'	*paˈtkoHt* 'to brace up'
	paˈtnaHš 'to pass underneath'
	paˈtpe·t 'to clean under'
	kip̃p̃aˈtpe·t 'to clean weeds and brush from under trees' (*kip̃* 'tree'; *paˈtpe·t* is a SACS)
	paˈtpigi·y 'to light a fire under something'
	paˈttigi·y 'to go up'
yuHk 'upward'	*yuHkkiẓiHc* 'to put one leg up'
	yuHkpeHt 'to be promoted'
	yuHkpiHk 'to put up for safekeeping'

The concomitant-action compound stem (CACS) is composed of two obligatory concomitant-action slots. These slots are manifested by SVSs, DVSs, and SACSs. Usually the concomitant-action slots are filled by SVSs. If one of the slots is filled by a DVS or a SACS, then the other will be filled by a SVS. Certain stems occur in first position and others occur in second position; some stems may occur in either first or second position. The stem occurring in the first position is always in the basic form. The following examples are arranged according to the position of a certain stem:

Verb Stems which occur in first position	Concomitant-Action Compound Stems (some of the examples have affixes included)
kapš 'to talk'	*kapšho·tkida·k* 'to appease' (*ho·tkida·k* is a SACS)
	kapšnaHš 'to gossip; pass on the talk'
	kapšpo·kš 'to greet'
	kapšta·k 'to chant'

	kapšwaˈkš 'to preach'
	kapšwiH 'to give advice'
	kapšwiˈm 'to remain to be talked about'
	koˈˈgapšpiˈc 'to outtalk (*koˈˈ* is a prefix)
waˈk 'to step'	*waˈkšiHp* 'to wait around'
	waˈkwi·mbiHt 'to turn around' (*wi·mbiHt* is a SACS)
wi·nma·y 'to think'	*wi·nma·yd̃igaHc* 'to change one's mind' (*wi·nma·y* is a SACS)
	wi·nma·yg̃o·t 'to begin to think'
ʔiHš 'to see'	*ʔiHškaHp* 'to recognize'
	ʔiHški·pš 'to compare'
	ʔiHšpa·t 'to find (with the eyes)'
	ʔiHšpeHt 'to quit helping'
	ʔiHšti·w 'to examine'
	ʔiHšwi·mbiHt 'to look back' (*wi·mbiHt* is a SACS)

Verb Stems which occur in second position

muHk 'to come together'	*hu·ym̃uHk* 'to buy together'
	ma·muHk 'to sleep together'
naHš 'to pass'	*kapšnaHš* 'to gossip; pass on the talk'
	ke·knaHš 'to fly past'
ta·k 'to weave; do over and over'	*haˈtta·k* 'to lodge, board'
	kapšta·k 'to chant'
	ku·yd̃u·nz̨o·nda·k 'to begin to obey' (*ku·y* is a prefix; *co·nda·k* is a CACS)
	ti·mʔaHtco·nda·k 'to begin to bear fruit' (*ti·mʔaHt* is a DVS; *co·nda·k* is a CACS)
	tu·nda·k 'to practice'
	wa·nda·k 'to make a religious vow'
	yaHco·nda·k 'to begin' (*yaH* is a prefix)
waˈkš 'to divide'	*ʔa·žiHtwaˈkš* 'to pour out grain to divide it' (*ʔa·* is a prefix)
	kapšwaˈkš 'to preach'
	ki·yw̃aˈkš 'to open (book, etc.)'
	kiz̨iHcwaˈkš 'to spread the legs wide apart'
	na·yỹoˈyw̃aˈks 'to each go his separate way' (*na·y* is a prefix)
	šaHwaˈkš 'to spread out both arms'

Verb Stems which may occur in either first or second position

ke·k 'to run away'	*ke·knaHš* 'to fly past'
	ke·knikš 'to fly off'
	ci·ške·k 'to break wind'
	wo·ge·k 'to run off with, elope'
ti·w 'to act steadily, continually; to straighten'	*yaHti·digaHc* 'to ask over again' (*yaH* is a prefix; *ti·w* loses the final w when preceding another verb stem, Sect. 4.1)
	wi'mdi·w 'to remain for a period of time'
	ʔiHšti·w 'to examine'
	ye'pti·w 'to unfold to full extent, straighten out'
	nikšti·w 'to go straight'
	šaHti·w 'to straighten one's arm'

4.2 The Verb Word. The verb word consists of an optional prefix-modifier slot, an obligatory base slot, and an optional suffix-modifier slot. The prefix-modifier slot is manifested by two classes of prefixes: transitivizing and intransitivizing. The base slot is manifested by verb stems. The suffix-modifier slot is manifested by two types of verbal suffixes: Group I and Group II. The prefixes and suffixes are discussed in the following sections. The verb stems have already been described (Sect. 4.1). The construction of the verb word may be formulated as follows:

Formula 2
The Verb Word

± Modifier	+ Base	± Modifier
Transitivizing Prefix	Simple Stem	Group I Suffix
and/or	*or*	*and/or*
Intransitivizing Prefix	Derived Stem	Group II Suffix
	or	
	Specified-Action Compound Stem	
	or	
	Concomitant-Action Compound Stem	

The definition of the verb word is based on a phonological-grammatical unit. The prefixes are joined phonologically to the stem, following voicing and palatalization rules (see Sects. 1.1.1 and 1.1.4). Some of the prefixes

exert a transitivizing influence upon the verb word, and others exert an intransitivizing influence. The prefixes never occur in isolation; they are always attached to the stem. The verbal suffixes are included in the phonological-grammatical unit of the verb word. Voicing and palatalization rules apply to all Group I suffixes, but do not apply to all Group II suffixes. Specific examples are given in Section 4.2.2. Some of the Group II suffixes share the syllable border with the preceding verb stem or Group I suffix. Both Group I and Group II suffixes determine the shape of the stem or Group I suffix immediately preceding it, as to whether the basic or alternate form will occur.

4.2.1 The Verbal Prefixes. The prefixes are divided into two classes: transitivizing and intransitivizing. The verb stems may be considered transitive, intransitive, or ditransitive according to their usual usage without prefixes. Under this classification a transitive stem is one which usually implies an object. This stem may be used intransitively when the emphasis is on the action of the verb. The markers indicating transitive or intransitive use of the verb are the person and mood-tense markers on the clause level. There is no indication in the verb stem itself. The stems considered to be intransitive are those which in normal usage, without affixes, are used intransitively. Some verb stems are used freely either transitively or intransitively. The ditransitive stem implies both direct and indirect objects within the stem itself (rather than by adding prefixes):[2]

Transitive:	*ko·y* 'to paint (it)'
	wiH 'to broadcast (seed)'
Intransitive:	*kapš* 'to talk'
	poyi'k 'to run'
Ditransitive:	*mo·y* 'to give (something to someone)'
Either transitive or intransitive:	*ka·y* 'to eat' or 'to eat it'
	tu·n 'to work' or 'to do it'

The verbal prefixes are listed below in alphabetical order, each with an example. Following the list, further explanation is given of the usage of some of the prefixes:

1. *hi-* 'out of the way': *hi·diH* 'to push it out of the way'
   —— 'pertaining to the back' (occurring with this meaning in a prefix-suffix unit, see Sect. 4.2.3): *hi·goHštigi·y* 'to hit on the back'

2. Only one stem has been found which is ditransitive: *mo·y* 'to give (something to someone)'. Some stems include the indirect object in their stems but require a prefix to overtly express the direct object. However, without the use of the prefix a direct object is still implied although not overtly expressed, e.g. *nima·y* 'to tell (something) to someone; *yaHnima·y* 'to tell it to someone'. With the use of *yaH-* the direct object is expressed specifically; without *yaH-* the direct object is vague, unspecified, not in focus. If one is to tell something, then the "something" is implied. If one simply wanted to talk, the intransitive word *kapš* may be used.

2. *hu··* 'circumvent (around)': *hu·ʔa·duHk* 'to enclose'
3. *ko··* 'specific purpose': *ko·du·n* 'to work for something specific'
4. *koˈˈ- ~ koˈ-* 'pertaining to the head or top (literally and figuratively)': *koˈˈžoHc* 'to tie around/on the head'; *koˈˈgapšpiˈc* 'to out-talk (talk one's head off)'
5. *ku·y-* 'specifier': *ku·yd̃u·n* 'to obey a specific order'
6. *mi··* 'associative (with)': *mi·nikš* 'to go with, take along' (also used in the sense of doing something for someone else: *mi·gip̃paˈtpe·t* 'to clean under the trees in someone else's field'; used as an indirect object with *yaH-* as a direct object: see 15. below)
7. *miːd-* 'conjunctive action (with)': *miːdʔu·k* 'to drink with someone'
8. *miH-* 'toward': *miHʔiHš* 'to look toward'
9. *na··* 'circumvent (around)': *na·yoˈy* 'to walk around something'
10. *na·y-* 'reflexive/reciprocal': *na·yw̃o·ci* 'to stretch oneself (as upon awaking)'
11. *naHc- ~ neHc-* 'let go' (occurs only in a prefix-suffix unit, see Sect. 4.2.3): *neHcmaži·y* 'to let go, free'
12. *ni··* 'purposive (for, about)': *ni·gapš* 'to talk about'
13. *niˈˈ-* 'pertaining to the body, skin, surface (on, over; literally and figuratively)': *niˈˈnaHš* 'to pass over something'; *niˈˈgeH* 'to be explained (the body or surface untied)'
14. *pa··* 'following': *pa·nikš* 'to follow (literally, following go)'
15. *yaH-* 'causative': *yaHʔi·c* 'to (cause to) boil'
    —— 'instrumental': *yaHwoHp* 'to hit with something in one's hand'
    —— 'locative': *yaHʔiña·y* 'to sit in a certain place (on a horse, etc.)'
    —— 'passive': *yaHpa·t* 'to be found'
    —— 'direct object with *mi··* (see 6. above) as the indirect object': *yaHmi·nikš* 'to take it to someone'; also direct object when the indirect object is included in the verb stem: *yaHnima·y* 'to tell it to someone'
16. *ʔa··* 'iterative': *ʔa·di·kš* 'to shine'
    —— 'pertaining to an opening': *ʔa·wa·c* 'to be opened'
17. *ʔiš-* 'discarding, away from': *ʔišwiHc* 'to take off, abandon'
    —— 'pertaining to the buttocks': *ʔišta·k* 'to sit down'

The prefix *na·y-* (10.) is used with transitive verb stems and causes the word to become intransitive:

ti· yuˈˈž 'he hid it' (tr.: AOC)[3]
ti· ña·yy̰uˈˈžiː 'he hid himself' (intr.: SOC)

3. These examples are clauses and contain all the clause markers which indicate transitivity (see Sect. 5.2, especially Chart 13 for the person markers and mood-tense sets which indicate the different types of clauses). Subject-Oriented clauses are intransitive; Actor-Oriented and Goal-Oriented clauses are transitive.

The prefix *mi·-* (6.), when used with intransitive stems causes the word to be transitive, and when used with transitive stems causes the word to be intransitive:

kapša·mb 'he wants to talk' (intr.: SONC)
mĩ·gapša·m͡b 'he wants to talk with him' (tr.: AONC)
nyu‖wa·m͡bĩč 'I want to clear the field' (tr.: AONC)
mi·yu‖wa·mbĩč 'I want to clear someone else's field' (intr.: SONC)

The prefix *mi:d-* (7.) causes intransitive words to become transitive:

poyi‖kp 'he runs' (intr.: SONC)
yi‖ mĩ:dboyi‖k͡p 'he runs with him' (tr.: AONC)

When *mi:d-* occurs preceding *na·y-*, it causes the word to become transitive (again, after *na·y-* had caused a transitive stem to become intransitive):

ti· ña·yb̃oyi‖kkip̃ši: 'they raced each other' (intr.: SOC)
ti· mi:dna·yb̃oyi‖kkip̃ši: 'he raced him' (tr.: AOC)

The prefix *yaH-* (15.), when used as a passive, is used with transitive stems and causes the word to be intransitive. When *yaH-* is used as a causative, the word will always be transitive:

ti· pa:d̃ 'he found it' (tr.: AOC)
yaHpa·tp 'it is found...' (intr.: SONC; passive)
ti· p̃i‖ž̃ 'it (fire, etc.) went out' (intr.: SOC)
nyaHpi‖c̃p̃ĩč 'I am putting it out' (tr.: AONC; causative)

The prefix *yaH-* as a causative may precede *na·y-*, making the intransitive word become transitive (again). *na·y-* may also precede *yaH-* (causative), making the transitive word become intransitive (again):

na·y?a·?iHšnaHšibĩč 'I see my reflection' (intr.: SONC)
nyaHna·y?a·?iHšnaHšibĩč 'I cause him to see his reflection' (tr.: AONC)
ti·c̃ nyaH?o‖g̃ 'I killed it' (tr.: AOC)
ti· ña·yỹaH?o‖g̃i: 'he killed himself' (intr.: SOC)

When both *yaH-* and *mi·-* occur, *mi·-* indicates an indirect object and *yaH-* indicates the direct object:

yaHmi·do:g 'sell it to him!' (tr.: 2PI)
ti· s̃ỹaHmi·do:g̃ĩč 'he sold it to me' (tr.: GOC)

Most of the prefixes (other than those just mentioned) cause the verb word to be transitive:

ko·- (3.) *kapšp* 'he talks' (intr.: SONC)
ti· s̃k̃o·gapši‖ỹĩč 'he visited me' (tr.: GOC)

ko‖- (4.) *ti· k̃e‖g̃* 'he ran away' (intr.: SOC)
ti· ko‖ge‖g̃ 'he abandoned it' (tr.: AOC)

ni‖- (13.) *ti· ña s̃̃* 'it passed' (intr.: SOC)
ti· ni‖naš 'he passed over it farther up' (tr.: AOC)

Chart 8
Prefix Order

3rd Position	2nd Position	1st Position	
mi:d-	*hu'-*	*hi--*	S
na·y-	*mi--*	*ko--*	t
yaH-	*na--*	*ko'-*	e
	pa--	*ku·y-*	m
		miH-	P
		naHc-	o
		ni--	s
		ni'-	i
		ʔa--	t
		ʔiš-	i
			o
			n

The general positions of the prefixes are displayed in Chart 8. Notice however that *na·y-* may precede *yaH-*, or vice versa as explained above. Also *yaH-* may precede or follow *mi:d-* (see the examples following the chart).

All three orders rarely occur in one word, as they do in the first example below. The occurrence of two orders is frequent:

yaHhu'ʔa·duk 'block it (cause it to be blocked)!'
yaHʔa·wi·mbiHt 'to change, convert'
yaHʔišpoH 'the wind to blow something away'
yaHmi·ʔiži·y 'to let go his own way'
yaHmi:dmida'g 'talk with him about it!'
mi:dyaHna·duk 'surround it with him!'
mi:dna·yg̃oš 'box with him!'
na·yg̃o'ma·y 'to be worth more, really count'
na·yg̃o·gapš 'to defend one's self (in talk)'
pa·gu·yd̃u·n 'to follow certain rules or custom'
mi·ba'tpe·t 'to clean someone else's field'

4.2.2 The Verbal Suffixes. The verbal suffixes are divided into two groups. Chart 9 displays the Group I suffixes. Numbers 1-3 occur only as suffixes; numbers 5-10 occur as suffixes only in prefix-suffix units (see Sect. 4.2.3); otherwise they occur as verb stems. Number 4 occurs both as a simple suffix and in a prefix-suffix unit.

Group I suffixes may all be stressed if they occur in the position in the clause nucleus where the accent normally falls (see Sect. 5.8). They have basic and alternate forms. A mood-tense marker occurs if a Group I suffix is in final position in the verb phrase. They may occur in all clause-nucleus types and in both tenses of the conjunct/nonconjunct clause-nucle-

Chart 9
Group I Suffixes

	Suffix	Meaning	Required Preceding Stem Form
1.	*-a·n* (V·/V")	'desiderative/future'	alternate
2.	*-i'k* (V'/V")	'semantic extension'	basic
3.	*-ta·y* (V·/V")	'all'	basic
4.	*-i·y* (V·/V")	'iterative/directional'	alternate
5.	*-muHk* (VH/V)	'bringing together'	basic
6.	*-naHš* (VH/V)	'over something'	basic
7.	*-peHt* (VH/V)	'locational'	basic
8.	*-tigi·y* (V·/V")	'pertaining to the back'	basic
9.	*-tu·t* (V·/V")	'freeing'	basic
10.	*-tuHk* (VH/V)	'obstructing'	basic

us types. They determine the form of the preceding morpheme as indicated above. Group I suffixes may be followed by Group II suffixes. The Group II suffixes are displayed in Chart 10.

Group II suffixes always occur verb word final. They do not have basic and alternate forms. Only *-ip* (1.), *-i:* (2.), and *-~i:* (2.) take the accent; all the others are always unaccented. All Group II suffixes determine the form of the previous stem or suffix. Suffixes *-ip* (1.) and *-kiš* (7.) take the mood-tense marker palatalization. (Presumably the *-p* mood-tense marker may assimilate with the *p* of *-ip* but it seems simpler to say *-ip* takes only palatalization.)

Suffix *-i* (2.) has three allomorphs which are distributed in specific clause-nucleus types and tenses as shown in Chart 10. The three meanings are incorporated into each of the allomorphs. The palatalization of the allomorph *-~i:* affects the consonant(s) immediately preceding the suffix. In the nonconjunct clause nucleus, timeless tense, the *-i* allomorph is followed by the mood-tense marker *-p*, thereby distinguishing it from the past tense, in which *-i* also occurs. There is a tendency in some speakers to drop final unaccented *i*'s; the allomorph *-i* may be dropped among speakers with this tendency. However, its former presence may still be detected in conjunct clauses by the nonoccurrence of the mood-tense marker.

When Group II suffixes occur, tense markings in the clause nucleus are eliminated unless the suffix itself carries tense meaning with it. The form of the preceding morpheme does not distinguish tense because it is governed by the Group II suffix. Tense can always be indicated in the periphery of the clause. Most of the Group II suffixes are restricted to certain clause-nucleus types as indicated in Chart 10. More than one may occur.

Chart 10
Group II Suffixes

	Suffix	Meaning	Required Preceding Stem Form	Occurrence in Clause-Nucleus Types
1.	*-ip*	'future'	alternate	C/NC
2.	*-i*	'reciprocal/corporal[4] / 3rd person Goal-Oriented'		
	-i		basic	NC timeless; C/NC past
	-i:	(allomorphs)	alternate	2PI; C/NC when followed by another suffix
	-˜i:		alternate	C timeless; 3PI
3.	*-ik/-k*	'1st person object'	basic	2PI
4.	*-im*	'1st person plural inclusive'	basic	C/NC; 1PI
5.	*-ip/-ibi*	'future'	alternate	C/NC
6.	*-ip*	'continued action'	basic	C/NC
7.	*-kiš*	'2nd and 3rd person plural'	basic	C; 2PI
8.	*-ko*	'immediacy'	basic	2PI
9.	*-ni*	'already and/or with relative permanence'	basic	C/NC; 2PI
10.	*-Ø*	'benefactive/malefactive'	basic	C/NC timeless 2PI

The suffixes in both groups which begin with a vowel share the final consonant of the preceding stem as a syllable margin. Usually the shared syllable border follows all the rules for voicing and voicelessness. However, the suffixes *-i* (2. allomorph), *-im* (4.), and *-ip* (6.), which share the syllable border, and *-ni* (9.) all cause a digression from the general voicing rules. A voiceless consonant will remain voiceless preceding these suffixes. (Clause level stative marker *-ĩt̃* and its allomorphs *-id̃i* and *-igi*, and a nominalizer *-in* [see Sect. 3.3.2], are also in this group of suffixes which share a consonant as a syllable border but do not cause voicing of the preceding consonant.)

A transitional *h* occurs between stems ending in a syllable nucleus and suffixes beginning with a vowel. This *h* also occurs between two suffixes, the first ending in a syllable nucleus and the second beginning with a vowel. In the case of the two suffixes, many speakers have dropped the transitional *h* (the transitional *h* also occurs with postclitics; see Sect. 4.4):

4. Corporal refers to a physical or emotional state or condition.

koH 'to plant' and *-a·n* 'desiderative/future': *ngoHha·m͡bic̃* 'I want to plant it.'

puH 'to wash' and *-ip* 'future': *nbuHhip̃* '...I will wash it'

ko· mmigu''g²adi:hip 'that you should be friends...' (*ko·* 'that'; *mmigu''g²ad* 'you be friends...'; *-i:* 'corporal'; *h* 'transition'; *-ip* 'future')

ko·mmigu''g²adi:b 'that you should be friends...' (as above without the transitional *h*; *p* becomes voiced following V:. See Sect. 2.1.1)

pigi:hip 'he will get sick' (*pig* 'he gets sick'; *-i:* 'corporal'; *h* transition'; *-ip* 'future')

pigi:b 'he will get sick' (as above without the transitional *h*)

4.2.3 **Prefix-Suffix Units.** Certain of the prefixes work together with a suffix as a unit. They are listed below. Sometimes the meaning of the prefix-suffix unit is distinct from the meaning of either the prefix or the suffix when used separately. Some of the prefixes do not occur except in the prefix-suffix unit (see Sect. 4.2.1). The suffixes involved in units with prefixes are all Group I suffixes except the reflexive/reciprocal unit (10.), which is a Group II suffix. Morphemes *muHk*, *naHš*, *peHt*, *tigi·y*, *tu·t*, and *tuHk* are Group I suffixes when in the prefix-suffix units, but are considered verb stems when occurring in compounds and not in the prefix-suffix units. Suffix *-i·y* is considered a Group I suffix when it is not in the prefix-suffix units (*-i·y* is also a verbalizer: see Sect. 4.1.1).

1. *²a-·* and *-i·y* 'iterative and/or motion': *²a·židi·y* 'to pour out grain, seeds' (*šiHt* 'to shake, vibrate')
2. *²a-·* and *-muHk* 'bringing together': *²a·bo'kšmuHk* 'to clap one's hands' (*po'kš* 'to slap with the open hand, pat')
3. *²a-·* and *-naHš* 'over the edge': *²a·be'cnaHš* 'to overflow' (*pe'c* does not occur alone; it carries the idea of filling)
4. *²a-·* and *-tu·t* 'uncovering, opening, freeing': *²a·gi·ctu·t* 'to open a package (like cigarettes, plastic bag)' (*ki·c* 'to tear paper, etc.')
5. *²a-·* and *-tuHk* 'obstructing': *²a·žaHtuHk* 'to block by putting out an arm' (*šaH* does not occur alone; it carries the idea of arm movement)
6. *hi-·* and *-tigi·y* 'pertaining to the back': *hi·woHptigi·y* 'to hit with a long slender object on the back' (*woHp* 'to hit with a long slender object')
7. *ko-·* and *-i·y* 'entering': *ko·²iži·y* 'to look into (*²iHš* 'to see')
8. *ko''-* and *-naHš* 'over the precipice': *ko'tiHpnaHš* 'to jump over the precipice, or from above straight down' (*tiHp* does not occur alone; it carries the idea of jumping)
9. *miH-* and *-peHt* 'against': *miHšoHcpeHt* 'to tie to something' (*šoHc* 'to tie')
10. *na·y-* and *-i* 'reflexive/reciprocal': *na·yẓogi:* 'love each other!' (*coHk* 'to love'; *-i:* is one of the allomorphs of *-i*)

11. *naHc-* and *-ɨ·y* 'letting go, freeing': *naHcmaʒɨ·y* 'to let go, to free' (*maHc* 'to grab, catch, hold on to')
12. *niʺ-* and *-naHš* 'over the body (main part)': *niʺgiʒiHcnaHš* 'to step over something which requires a large step' (*kiʒiHc* 'to spread the legs')
13. *niʺ-* and *-peHt* 'on top of the body (main part)': *niʺwaˈkpeHt* 'to step on something' (*waˈk* 'to step')
14. *yaH-* and *-ɨ·y* 'into, on': *yaHkiʺdemɨ·y (nɨ·)* 'to pour (water) on someone's hands' (*kiʺ* 'hand'; *te·m* 'to pour'; *nɨ·* 'water')
15. *yaH-* and *-peHt* 'on': *yaHwaˈkpeHt* 'to step on' (*waˈk* 'to step')
16. *yaH-* and *-tu·t* 'out of': *yaHceHctu·t* 'to carve out' (*ceHc* 'to trim, carve')

Chart 11
Suffix Order

Set A

Group I			‖	Group II			
-ɨˈk *-ɨ·y* *-muHk* *-naHš* *-peHt* *-tigɨ·y* *-tu·t* *-tuHk*	*-ta·y*	*-a·n*	‖	*-ɨ*	*-kiš* *-ɨm*	*-nɨ*	*-ɨp*

Set B

Group I		‖	Group II	
-ɨˈk *-ɨ·y* *-muHk* *-naHš* *-peHt* *-tigɨ·y* *-tu·t* *-tuHk*	*-ta·y*	‖	*-ɨp* *-ɨk/-k* *-ko* *-∅*	*-ɨm*

4.2.4 **Suffix Order.** The order of the Group I and Group II suffixes out from the stem is displayed in Chart 11. The chart is divided into two parts because there is a marked restriction of the suffixes which may occur with the Group II suffixes *-ɨp*, *-ɨk*, *ko*, and *∅*. Where more than one suffix is listed in a column, only one of that list of suffixes occurs. In Set A, three Group I suffixes may occur in the order shown. However,

the Group II suffixes may not all occur simultaneously; only two may occur. In Set B, two Group I suffixes and two Group II suffixes may occur.

Examples showing all of the positions are not common. The following examples show two or three positions only:

(bande:ř) yaHtina·yi'kkiš̃ '...they put up (the flag)' *(-i'k + -kiš)*

ʔa·židi·yg̃o 'pour it out in a hurry!' *(-i·y + -ko [-g̃o])*

miHšoHcpeHtta·y 'tie them all (for someone else's benefit)' *(-peHt + -ta·y + ∅)*

nmiHšoHcpeHtta''wa·m͡b 'I want to tie them all to it' *(-peHt + -ta·y [-ta''w] + -a·n [-a·m])*

hi·woHptigi·yg̃o 'hit him on the back in a hurry!' *(-tigi·y + -ko [-g̃o])*

yaHpuHštu·da·mb 'he is going to cut some out' *(-tu·t + -a·n)*

ʔa·žaHtuHkko 'block it with your hand in a hurry!' *(-tuHk + -ko)*

ki·cta''wa·mb (yam) '...it's going to rip all to pieces (here)' *(-ta·y [-ta''w] + -a·n)*

ka' mga·yd̃a''wip̃ 'don't eat it all!' *(-ta·y [-d̃a''w] + -ip)*

mda·kta''wip '...you will weave it all' *(-ta·y [-ta''w] + -ip)*

ʔi:ǯ koHsta·yg 'quit hitting me!' *(-ta·y + -ik/-k [-g])*

mhe''ʔaHtta''wi:b '...it will all be yours' *(-ta·y [-ta''w] + -i: + -ip [-i:b])*

ʔok yaHʔa·žiHwa'kšta·yñi 'break them all apart!' *(-ta·y + -ni)*

ña·yb̃a:da''ñi: '...we are going to meet each other' *(-a·n + -~i:)*

ti''ʒa·nip '...it was continually wanting to dry up' *(-a·n + -ip)*

nbiga·nni '...I want to take it for good' *(-a·n + -ni)*

nʔadi''ʒa·nim '...we (inclusive) are going to do' *(-a·n + -im)*

ka' mʔok ma·da·kni·p 'you won't be able to take it' *(-ni + -ip)*

nikškišni 'go all of you (for good)!' *(-kiš + -ni)*

pin p̃a·nikši:hip 'who will follow him' *(-i: + -ip* [with a transition *h* between]*)*

neHcmaži·ygič̃ 'let go of me!' *(-i·y + -ik/-k [-g])*

ʔiyi·yd̃a·kta''wipim 'we will practice it all together' *(-ta·y [-ta''w] + -ip + -im)*

4.2.5 Suffix Examples. Examples are given in Section 4.2.3 of Group I suffixes occurring in the prefix-suffix units. The following examples are of the Group I suffixes which do not occur in the prefix-suffix units and all of the Group II suffixes:

-i'k *yaHtina·yi''g (he bande:ř)* 'put up (the flag)' (*yaH-* 'causative', prefix; *tina·y* 'to stand', verb stem; *-i'k* [*-i''g*] 'semantic extension', suffix)

-ta·y *yaHtina·yi'kta''* 'put them all up!' (as above with *-ta·y* [*-ta''*] 'all', suffix)

-i·y *(ma· ʔa·m̃) mnikši''ỹ* 'which way are you going' (*m-* '2nd person subject', clause marker; *nikš* 'to go', verb stem; *-i·y* [*-i''y*] 'directional', suffix; *-~* 'mood-tense', clause marker)

-a·n *(ma· ʔa·m̃) mnikši''wa''ñ* 'which way do you want to go' (as above with *-a·n* [*-a''n*]; the unstable final consonant of the suffix *-i·y* changes to *w* in this position; see Sect. 4.1)

In the following list of Group II suffixes, the numbers correspond to the numbers in Chart 10. The suffix will be the final morpheme in each example. Elements not in the clause nucleus are enclosed in parentheses:

1. *-ip* *ka' mʔišhi·bibip̃* 'don't throw it away' (This is only semantically imperative; grammatically the clause is AOC. Final palatalization is the mood-tense marker.)
2. *-i* (according to its allomorphs):
   - *-i* *c̃i· ñima·yi* 'then he told him' (GOC)
   - *-i:* *na·yw̃a:bi:* 'line yourselves up!' (2PI)
   - *-~i:* *ti·c̃ nbiĝi:* 'I got sick' (SOC)
3. *-ik/-k* *(ʔi:z̃) koHšik* 'hit me!' (2PI)
   (ʔi:z̃) mo·yg 'give it to me!' (2PI)
4. *-im* *cok ha·mim* 'let's go!' (1PI)
5. *-ip/-ibi* (future) *mẓoHki''wip (ha·nc̃ ti·y)* 'you will hurry up (for sure)'
   higiš (mmi·hu!ñ) nmo''wibi '... in order that I will give you your pay'
6. *-ip* (continuative) *yaHši·kip* '... makes her laugh' (AOC)
7. *-kiš* *wi·nʔit wi·mbuHštu·tkiš̃* 'at that time they cut and clear it' (AOC)
8. *-ko* *we·yĝo* 'lick it in a hurry!' (2PI)
9. *-ni* *c̃i· (ʔaHk̃š̃) w̃i·mbiHtni* 'then they returned' (SOC)
10. *-Ø* *maHc* 'grab it (for someone else's benefit)!' (2PI)
    mac 'grab it!' (2PI without the *-Ø* suffix; this morpheme occurs as *-i* in another dialect of Mixe)

4.2.6 Semantic Categories. The following is an index of the affixes according to an alphabetical list of the semantic and grammatical categories they mark.

1. Associative: *mi-·* (prefix)
2. Benefactive: *-Ø* (Group II suffix)
3. Causative/Agentive: *yaH-* (prefix)
4. Circumventive: *hu-·; na-·* (prefixes)
5. Completive/Inclusive: *-ta·y* (Group I suffix)
6. Conjunctive Action: *mi:d-* (prefix)
7. Corporal (physical or emotional state): *-i* (Group II suffix)
8. Desiderative: *-a·n* (Group I suffix)

9. Future Tense: *-a·n* (Group I suffix); *-ip; -ip* (Group II suffixes)
10. Immediacy: *-ko* (Group II suffix)
11. Instrumental: *yaH-* (prefix)
12. Iterative: *ʔa··* (prefix); *-i·y* (Group I suffix); *-ip* (Group II suffix); *ʔa··* and *-i·y* (prefix-suffix unit)
13. Locative:
    against: *miH-* and *-peHt* (prefix-suffix unit)
    entering: *ko··* and *-i·y* (prefix-suffix unit)
    general location: *yaH-* (prefix)
    into, on: *yaH-* and *-i·y* (prefix-suffix unit)
    on: *yaH-* and *-peHt* (prefix-suffix unit)
    on top of the body (main part): *ni'-* and *-peHt* (prefix-suffix unit)
    out of: *yaH-* and *-tu·t* (prefix-suffix unit)
    out of the way: *hi··* (prefix)
    pertaining to:
      back: *hi··* and *-tigi·y* (prefix-suffix unit)
      body, skin, surface: *ni'-* (prefix)
      buttocks: *ʔiš-* (prefix)
      head, top: *ko'-* (prefix)
      opening: *ʔa··* (prefix)
14. motion:
    bringing together: *ʔa··* and *-muHk* (prefix-suffix unit)
    directional: *-i·y* (Group I suffix)
    discarding, away from: *ʔiš-* (prefix)
    general movement: *ʔa··* and *-i·y* (prefix-suffix unit)
    obstructing: *ʔa··* and *-tuHk* (prefix-suffix unit)
    over the body (main part): *ni'-* and *-peHt* (prefix-suffix unit)
    over the edge: *ʔa··* and *-naHš* (prefix-suffix unit)
    over the precipice: *ko'-* and *-naHš* (prefix-suffix unit)
    toward: *miH-* (prefix)
    uncovering, opening, freeing: *ʔa··* and *-tu·t; naHc-* and *-i·y* (prefix-suffix units)
15. objects: *yaH-* followed by *mi··* (prefixes); *-ik/-k; -i* (Group II suffixes)
16. passive: *yaH-* (prefix)
17. permanent action: *-ni* (Group II suffix)
18. plural: *-im; -kiš* (Group II suffixes)
19. purposive: *ko··; ni··* (prefixes)
20. reflexive/reciprocal: *na·y-* and *-i* (prefix-suffix unit)
21. semantic extension: *-i'k* (Group I suffix)
22. sequential: *pa··* (prefix)
23. specifier: *ku·y* (prefix)

4.3 Noun, Attribute, and Adverb Stems. The noun, attribute, and adverb stems are grouped together because they are similar in construction. Later on they will be separated when their grammatical uses are distinct.

There are simple noun, attribute, and adverb stems; derived noun, attribute, and adverb stems; and compound noun stems.

4.3.1 Simple Noun, Attribute, and Adverb Stems. The simple noun, attribute, and adverb stems are composed of one, two, or three syllables in which no separate morphemes can be distinguished:

ʔa·žigak 'grouse'
kiˈˈg 'sandal'
ʔan 'hot'
peHy 'thin'
ʔa·m̃ 'a while ago'
higem 'far away'

4.3.2 Derived Noun, Attribute, and Adverb Stems. There are five processes of derivation. The first three processes have been observed in deriving noun stems only. The last two include attribute and adverb stems as well as noun stems. In this description of stem derivation, the invariable class of verb stems is treated together with the alternate form of the variable class of verb stems because they behave alike.

(a) The basic form of the verb stem is used as a noun:

ʔiHš 'glass, mirror' (< *ʔiHš* 'to see')
šu·š 'flute, horn' (< *šu·š* 'to play a wind instrument')
poˈt 'brush' (< *poˈt* 'to rub, scrub clean with a brush, cloth')

(b) A verb stem ending in *w* or *y* may drop the final consonant, change the vowel nucleus to V' and add final *-n* when the stem originally ended in *w*, or add *-ñ* when the stem originally ended in *y*:

ʔaẓoˈn 'answer' (< *ʔaẓo·w* 'to answer')
wi·nmaˈñ 'thought' (< *wi·nma·y* 'to think')
hiwiˈñ 'spirit' (< *hiwi·y* 'to feel')

(c) Certain suffixes are added which nominalize the verb stem and also add a specific meaning. These suffixes require the basic form of the verb stem except the last one *(-i:)* which requires the alternate form:

1. *-ta·k* 'place'
   tu·nda·k 'workshop, place where one works' (< *tu·n* 'to work')
   ci·da·k 'bathing area' (< *ci·w* 'to bathe')
   na·yỹuˈcta·k 'refuge' (< *na·yỹuˈc(i)* 'to hide oneself')

2. *-pi/-b* 'one (a specific person or object)' (*-b* follows *y* or replaces *w*, *-pi* occurs in all other positions. Some speakers drop the final *i*. It is retained in all examples.) This form of the verb is used as the gerund:

   ʔoˈkpi 'dead one' (< *ʔoˈk* 'to die')
   ha·yb 'writer' (< *ha·y* 'to write')
   ʔeHcpi 'dance/dancer' (< *ʔeHc* 'to dance')
   ya·špi 'crying' (< *ya·š* 'to cry')
   ci·b 'bathing' (< *ci·w* 'to bathe')

3. *-peHt* 'raised area used for a specific purpose'
   ʔiHšpeHt 'monument' (<*ʔiHš* 'to see')
   ka·yb̆eHt 'table used for eating' (<*ka·y* 'to eat')
   ʔiña·yb̆eHt 'chair' (<*ʔiña·y* 'to sit')
4. *-in* 'general'
   ʔišpiHkpeHtin 'a remembrance for study purposes' (<*ʔišpiHk* 'to study' + *-peHt* 'raised area [figuratively]')
   ka·yin ʔu·kin 'food and drink' (<*ka·y* 'to eat' and *ʔu·k* 'to drink')
   ʔoyʔaHtin 'good fortune' (<*ʔoy* 'good' + *-ʔaHt* 'verbalizer': note that this stem has first been derived from an attribute)
5. *-i:* 'specific'
   waHyaHyuʺwi: 'plowing with oxen' (<*waHyaHyu·w* (V·/Vʺ) 'to plow with oxen')
   to:gi: 'goods for sale' (<*to·k* (V·/V:) 'to sell')
   nažiː 'diarrhea' (<*naHš* (VH/V) 'to pass')

(d) The alternate form of the verb stem or a stem from the invariable class is used as a noun, attribute, or adverb:

muš 'spring (of water)' (<*muHš* (VH/V) 'to germinate')
tiʺc 'dry' (<*ti·c* (V·/Vʺ) 'to be dry')
meʲpš 'scissors' (<*meʲpš* 'to cut with a scissors' [invariable class])

(e) The alternate form of the verb stem or a stem from the invariable class plus final palatalization produces a derived noun, attribute, or adverb stem:

ciñ 'cargo' (<*(niʺ)zi·m* (V·/V) 'to haul')
tuʺd̆ 'egg' (<*tu·t* (V·/Vʺ) 'to lay eggs')
wi:d̆ 'platform of poles tied together' (<*wi·t* (V·/V:) 'to tie poles together'
wiHy 'smart, sober' (<*wiH* 'to be sober, awake' [invariable class]; final palatalization is realized as *y* following a verb stem which does not have a final consonant; see Sect. 2.1.4)

These are the ways the majority of noun, attribute, and adverb stems are derived from verb stems. There are a few other words which show a relationship to verb stems that do not fit into the above processes. These are: *tu·ŋ* 'work' (<*tu·n* 'to work') and *ka:g̃* 'tortilla' (<*ka·y* 'to eat') which have a *-g* added (*n* + *g* > *ŋ* in this dialect of Mixe) and *ka:g̃* has the nucleus changed; *kiʺ* 'hand' (<*ki·y/kiʺ* 'to carry'), *kiʺ* 'cooked' (<*ki·w/kiʺ* 'to be cooking'), *muʺ* 'grasshopper' (<*mu·w/muʺ* 'to hum'), and *keʺ* 'stinging insect, worm; nettle-type plants' (<*ke·w/keʺ* 'to sting') which have dropped the unstable final *w* or *y* of the stem and use the alternate form; *tuHt* 'gun' (<*tuH* 'to hunt; to shoot a gun') which added a *-t*.

There is no way to predict which way a verb stem will be converted to another word class. A given verb stem may be converted in several ways, each with a different meaning or a different grammatical use:

tu·ŋ 'work (in general)'; *tunɨ* 'work (specific)'; *tu·nda·k* 'workshop'; *tu·mbɨ* 'worker'; all from *tu·n* 'to work'

ʔayo·b 'poor one; suffering one'; *ʔayoʼn* 'accident; suffering'; *ʔa·ba·ʔayo·w* 'compassionate'; all from *ʔayo·w* 'to be suffering; to be poor'

4.3.3 Compound Noun Stems. The compound noun stem consists of an obligatory modifier slot and an obligatory head slot. The modifier slot is filled by a noun stem or an adverb or attribute stem. The head slot is filled by a noun stem. There is no restriction as to which nouns occur in the modifying position. In the examples, *muñ* occurs initially in one compound noun stem and in final position in another:

muñẑi″ 'summer squash' (modifier: *muñ* edible root'; head: *ci″* 'squash'; a squash like an edible root)

kip̃m̃uñ 'yucca' (modifier: *kip̃* 'tree'; head: *muñ* 'edible root'; an edible root from a tree)

ʔo·m̃bok 'plastic bowl' (*ʔo·m̃* 'rubber, plastic'; *pok* 'bowl made from a gourd'; a bowl made of plastic)

Compound nouns with attribute or adverb stems as first member are relatively rare. Two attribute stems which most frequently combine with a noun to form a compound are *may* 'many' and *ʔoy* 'good'. Semantically the compound expresses a closely knit unit and is phonologically bound as well. Note the effect of palatalization and voicing in the following examples. For contrase, in the first two examples the sequence of the elements in a phrase is given first:

may ha″y 'many people' (a noun phrase)

he mayh̃a″y 'the crowd' (*he* 'the'; *mayh̃a″y* is a compound noun word)

may kip̃ 'many trees' (a noun phrase)

he mayg̃ip̃ 'the many trees' (now thought of as a unit rather than as separate trees)

ʔoyña·š 'good land' (*na·š* 'ground')

ʔoyg̃ap̃š 'good words' (*kap̃š* 'word')

4.3.4 Derived Noun Stems from Attribute Stems. Noun stems may be derived from attribute stems with the addition of the suffix *-pɨ/-b* 'one' (*-b* follows *y*, *-pɨ* occurs in all other positions). *-bɨ* occurs in some idiolects and in some words more than others. Some speakers omit the *ɨ* of *-pɨ*. It is retained in all examples cited. Some noun stems are derived from attribute stems via verb stems (see Sect. 4.2.1 (c) 4.).

miHpɨ 'big one' (< *miH* 'big')

capspɨ 'red one' (< *caps* 'red')

kaʼʔoyb 'evil one, devil' (< *kaʼ* 'no' and *ʔoy* 'good'; also pronounced *kaʼʔoyb̃ɨ* with the *b* usually palatalized by the preceding *y*)

4.4 Words and Clitics. A word is defined as one morpheme or a group of several morphemes smaller than the phrase and larger than the stem (other than the verb word: see Sect. 4.2). When more than one morpheme is involved they are joined together phonetically by causing voicing of a consonant, palatalization of a consonant, or by the sharing of a consonant as a syllable border.

Clitics are particles which are closely bound to a word but which do not join phonetically in the way that the affixes do. There are two types of clitics in Mixe. The proclitics have a restricted distribution, occuring in the verb phrase only. They are described in Section 5.1. The postclitics have wide distribution and may attach to the end of practically any word. They are: *ic̃* 'first person' and *ik* 'quotative'. The vowel of the clitic assimilates to the same shape as a contiguous vowel if no consonant comes between. These two postclitics have no effect on the phonological shape of the word to which they attach, although they share the syllable margin of a preceding syllable and the consonants are subject to the voicing rules. When the clitic adds another syllable to the word, this syllable never carries accent:

nikša·mbic̃ 'I want to go' (*nikša·mb* '(I) want to go'; *ic̃* 'first person clitic')
ma·c̃ nbida''g̃ 'where do I put it?' (*ma·* 'where'; *c̃* 'first person clitic')
habo·mik 'tomorrow (he says)' (*habo·m* 'tomorrow'; *ik* 'quotative clitic')
c̃i:g c̃o:ñ 'then (he says) he left' (*c̃i·* 'then'; *ik* 'quotative clitic')

Some speakers use an *h* as a transition consonant between a morpheme ending in a vowel and the postclitics. This transition *h* is also sometimes used between verb suffixes (see Sect. 4.2.2). The younger people use it less than the older people, reflecting the tendency to use shortened forms. The transition *h* with the postclitic *ic̃* is limited to verbs. It may occur on all classes of words with the postclitic *ik*. Although *ik* may occur on verbs, if another word precedes the verb, the *ik* will occur on it rather than on the verb. There is a definite preference to use it on the first word in the utterance or clause:

ti· nbig̃i:hic̃ 'I got sick' (*nbig̃i:* 'I got sick'; *h* 'transition'; *ic̃* 'first person clitic')
ti· nbig̃i:z̃ 'I got sick' (as above without the transition *h*, with voicing of the *c̃* following V:)
ti·c̃ nbig̃i: 'I got sick' (as above but with the clitic *c̃* attached to *ti·*)
ti·hik k̃aỹ 'he already ate (he says)' (*ti·* 'already'; *h* 'transition'; *ik* 'quotative clitic')
ti:g k̃aỹ 'he already ate (he says)' (as above without the transition *h*, with voicing following V:)

A third postclitic is *ni* (often shortened to simply *n*) 'still, incomplete action'. It is frequently attached to *ka'* 'no' (*ka'n* 'not yet'). It occasionally attaches to other words but is not as widely distributed as the other two postclitics:

kida''ga''nni '... it was still wanting to go down'

4.4.1 **Simple Noun Words.** Simple noun words consist of simple noun stems, derived noun stems, and compound noun stems:

me:ñ 'money'
šu·š 'flute, horn'
kip͡muñ 'yucca'

4.4.2 **Affixed Noun Words.** Affixed noun words are composed of two modifier slots and the head slot. One modifier slot precedes the head slot and the other follows it. Only one modifier need occur. The preposed modifier slot is filled by a noun prefix, the head slot is filled by any noun stem, and the postposed modifier slot is filled by a noun suffix. The noun prefixes and suffixes are given in the following lists. Nouns including the suffixes having a locational meaning (1, 2, 4, 5, 8 of the second list) are often used as adverbs with no change in form.

THE NOUN PREFIXES

1. *ha-* 'more': *ha·himiHt* 'next year' (*himiHt* 'year')
2. *ko-* 'ownership; step- or half- relationship, as in stepson, half-brother': *ko·diHk* 'owner of the house' (*tiHk* 'house'); *ko·maŋ* 'stepson' (*maŋ* 'son')
3. *ko''-* 'pertaining to the head, top': *ko''da:d* 'rooster's comb' (*ta:d* 'nopal cactus')
4. *mi-* 'associative (with)': *mi·zip* 'enemy' (*cip* 'fight')
5. *ni''-* 'pertaining to the body, skin, surface': *ni''mo·k* 'goose bumps' (*mo·k* 'corn')
6. *pa-* 'wild': *pa²uk* 'coyote' (*²uk* 'dog')
7. *²a-* 'iterative; pertaining to the mouth': *²a·me:ñ* 'miser' (*me:ñ* 'money'); *²a·baHkpa't* 'jaw bone' (*paHk* 'bone'; *-pa't* 'underneath'—noun suffix 5. below)
8. *²iš-* 'pertaining to the buttocks, behind': *²išpaHk* 'buttocks' (*paHk* 'bone')

THE NOUN SUFFIXES

1. *-kiš* 'at, on, by the top of': *na·škiš* 'on the ground' (*na·š* 'ground')
2. *-miHk* 'at, on, by the side of': *tiHkmiHk* 'by the side of the house' (*tiHk* 'house')
3. *-muk̃* 'curled together': *ki''muk̃ tekmuk̃* 'cripple' (*ki''* 'hand'; *tek̃* 'lower leg, foot')
4. *-pa''* 'at, on, by the edge of': *hi·nba''* 'by the fire' (*hi·n* 'fire')
5. *-pa't* 'underneath': *kiHšpa't* 'underneath the bed' (*kiHš* 'bed')
6. *-ta''g̃* 'woven': *²o·m͡da''g̃* 'woven plastic' (*²o·m̃* 'rubber, plastic')

7. *-tiHk* 'all, a group collectively': *ye''ďiHktiHk* 'all the men' (*ye''ďiHk* 'man')
8. *-˜* 'locational (in, to)': *hutho·t̃* 'in the cave' (*hut* 'cave'; *ho·t* 'center, liver'—a compound noun stem)

4.4.3 The Attribute Word. The attribute word is composed of two optional modifier slots and the obligatory head slot. One modifier slot precedes the head slot and the other follows it. The preposed modifier slot is filled by an attribute prefix, the head slot is filled by an attribute stem, the postposed modifier slot is filled by an attribute suffix.

Some of the attribute prefixes and one suffix are restricted to occurring with numbers or words expressing numerical values such as "many" or "few". These are prefixes 1, 2, 4, 5, and 7, and suffix 1 in the lists below. Prefix 9 occurs both with numbers and with other attributes. Prefixes 6 and 8 occur only with colors. Many of the verb, noun, and attribute prefixes are the same shape with similar meanings. The suffixes are much more distinct for each class of words.

THE ATTRIBUTE PREFIXES

1. *ha-* 'more': *ha·du''g* 'another' (*tu''g* 'one')
2. *ko-* 'after in relationship to time': *ko·migo·š ši·* 'after five days' (*migo·š* 'five'; *ši·* 'day')
3. *ko''-* 'pertaining to the head, top': *ko''hu·ñ* 'stubborn' (*hu·ñ* 'hard')
4. *ma-* 'ago in relationship to time': *ma·mida·s̃* 'four days ago' (*mida·š* 'four'; the final palatalization is a nominalizer: see Sect. 4.3.2; this is the only example in the data of this nominalizer occurring on an attribute)
5. *mi-* 'relative order': *mi·mec* 'second'; *mi·migo·š ši·* 'the fifth day ago' (*migo·š* 'five'; *ši·* 'day')
6. *ni'-* '-ish as to colors': *ni'caps* 'reddish' (*caps* 'red')
7. *ni-* 'together': *ni·maHk* 'ten together' (*maHk* 'ten')
8. *pa-* 'lighter color': *paẓuš* 'light green' (*cuš* 'green')
9. *ʔa-* 'iterative, together': (together is the meaning with numbers, otherwise the meaning is iterative): *ʔa·žu'c* 'really narrow' (*šu'c* 'narrow'); *ʔa·mec* 'two together' (*mec* 'two')

THE ATTRIBUTE SUFFIXES

1. *-paHk* 'only': *mecpaHk* 'only two' (*mec* 'two')
2. *-ti''g̃* 'very': *muctiˈˈg̃* 'very little' (*muc* 'little')
3. *-ʔo''g̃* 'very, really': *cišʔo''g̃* 'really black' (*cič* 'black')

4.4.4 Pronouns. Pronouns are divided into various kinds on the basis of their use. Some of the pronouns are expressions containing more than one word. These expressions might be described as phrases, but they do not display the structural regularity of noun and verb phrases.

Demonstrative

dia:b; hada:b 'this, these'
yɨ himbɨ; yɨ hi:b̃ɨ 'that, those (according to location)'[5]

Indefinite

tu'g²o·k̃ 'all'
ti· hat̃; ti·ga'ti· 'all kinds of things'
ha·du'g; wi·ŋbɨ 'another'
we·n widi:bɨ 'any'
we·n pɨn 'anybody'
we·n ti·; oy tim ti· 'anything'
ni·mec 'both' (*ni·mec* literally means 'two together'; this extends to all numbers as far as one wants to count, and also with the word "many")
ni·du'g²o·k̃ 'everybody'
we·ñ; ka' may 'few'
may 'many, much'
ka' ni: pɨn 'nobody' (In all expressions using *ka' ni:*, the *ka'* may be omitted or may actuate as verbal proclitic. The *ni:* may be omitted if the *ka'* is retained in its listed position.)
ka' ni: ti·; ka' ni: tu'g; ka' ni: du'ñ 'none, nothing'
kana:g 'several'
hadɨ:b; na:g 'some'
hi: pɨn 'somebody'
²oy ti· 'something'
ti· da' 'something (used in questions)'
tu'g 'one' (all numbers may be used as pronouns)
(This is not an exhaustive list of the indefinite pronouns.)

Intensive

kɨ'm is used with or without the personal pronouns to express the intensive. It may either precede or follow the personal pronoun. It is commonly used alone when the person is known from the context. *²ɨ:ɂ̃ kɨ'm* 'I myself' (etc. with all the personal pronouns).

Interrogative

ti· 'what'
widi:bɨ 'which'
pɨn 'who'
pɨn h̃e' 'whose'
na:g 'how many'
du'ñyɨ; du'ñ 'how much, how many'

5. Structurally these pronouns are like nouns with the *-pɨ* nominalizer suffixed to a locative adverb. Other pronouns are also structured like this. I have called them pronouns because they indicate something without specifically naming it.

PERSONAL

ʔi:ž 'I, me'
mi:ž 'you (sg)'
yi'' 'he, she, it, him, her (more specific)
he'' 'he, she, it, him, her (less specific)
ʔi:ž ʔaHt 'we, us (inclusive)'
ʔi:ž ʔaHk̃š̃ 'we, us (exclusive)'
mi:ž ʔaHk̃š̃ 'you (pl)'
yi'' ʔaHk̃š̃ 'they, them (more specific)'
he'' ʔaHk̃š̃ 'they, them (less specific)'

When the third person plural has been previously mentioned in the context, *ʔaHk̃š̃* is used alone to indicate the person in following references. First person exclusive and second person plural are occasionally represented by *ʔaHk̃š̃* alone when the context clearly indicates the person. The pronouns *ʔi:ž* and *mi:ž* have short forms *ʔi:* and *mi:* which may be used wherever the full forms are employed; however the full forms are more common.

The personal pronouns are used to indicate subject and any kind of object. The persons are also indicated by obligatory markers in the clause nucleus. The free forms are optional. They may be used for emphasis or for clarity. The postclitic *ič̃* 'first person' is often used instead of the full form for first person. There are also two Group II suffixes indicating plural person (*-im* and *-kiš*).

POSSESSIVE

ʔi:ž nhe'' 'mine'
mi:ž mhe'' 'yours (sg)'
yi'' h̃e'' 'his, hers, its (more specific)'
he'' h̃e'' 'his, hers, its (less specific)'
ʔi:ž ʔaHt nhe'' 'ours (inclusive)'
ʔi:ž ʔaHk̃š̃ nhe'' 'ours (exclusive)'
mi:ž ʔaHk̃š̃ mhe'' 'yours (pl)'
yi'' ʔaHk̃š̃ h̃e'' 'theirs (more specific)'
he'' ʔaHk̃š̃ h̃e'' 'theirs (less specific)'

RELATIVE

widi: 'that, what, which, who, whom, whose'
pin haĩ 'whoever, whomever'
ti· haĩ 'whatever'
widi: haĩ 'whichever'

4.4.5 Adverbs. The adverbs are divided on the basis of categories of meaning. Some of the adverbs, like the pronouns, are expressions containing more than one word. These expressions might be described as phrases but they do not display the structural regularity of other phrases. Some of the adverbs are morphologically complex but the relations of the indi-

vidual morphemes to the meaning of the whole is in most cases indirect. Neither do the combination of morphemes within the word conform to any general pattern such as is stateable for nouns, verbs, and attributes, except in the case of adverb stems derived from verb stems which was described in Section 4.3.2.

TIME

ti· 'already, completed'
ʔanaHt̃ 'then' (This usually refers to a time in the past when used by itself; however, the general context may indicate a future meaning. It is used in combination with other words, each expression having its own meaning.)
ti· ʔanaHt̃ 'previously'
ko· ʔanaHt̃ 'when (future)'
kaˈ ni: mina: 'never'
wi·niži· 'forever'
daˈ 'right now'
c̃am 'now'
c̃am c̃am 'at this time, right now'
hi:ni 'after while'
wi·ŋgo·mina: 'every now and then'
ʔiya· 'afterward'
haw̃i·n 'some time ago'
ʔoy mina: 'any time'
di· c̃ambi 'this time'
kip͡s̃ 'at the same time'
(Not an exhaustive list.)

MANNER

coHk̃ 'rapidly'
ʔoy ni: neH 'any which way'
duˈngaduˈn 'slowly'
nik͡s̃ 'going (pertaining to motion in the present or future)'
ʔoy 'having gone (pertaining to motion in the past)'
poyiˈˈg̃ 'running' (*nik͡s̃*, *ʔoy*, *poyiˈˈg̃* are adverbs derived from verbs: see Sect. 4.3.2)
ʔištigiˈˈ 'backwards'
ʔiška ʔiš 'little by little (unseen)'
ho·tkoˈˈmoñ 'very suddenly'
kaˈ ni: neH 'in no way'
nigo:b 'just because (no reason)'
heˈˈdaHt̃; heˈˈy 'only, just'
heˈˈñ 'same'
(Not an exhaustive list.)

Chart 12
The General Locationals

Specific	Less Specific	Meaning
čə·	*yə·*	'here' (closest to the speaker)
čəm	*yəm*	(derived forms)
čə·yi	*yə·yi*	(derived forms)
či:	*hi:*	'there' (nearer to the other person than to the speaker)
čim	*him*	'there' (some distance from both speaker and listener, mainly in a straight unobstructed line: also used when obstructions are not in focus)
či:b̃	*hi:b̃*	'there' (around about, inside, behind)
če:b̃	*ye:b̃*	'here' (around about, inside, behind, with personal identification with the speaker or listener)

Place

The General Locationals are displayed in Chart 12. This is a complete set of locationals used to indicate general whereabouts. The ones labeled "Specific" are used to express a more or less certain knowledge of the location of a specific person, item, or place. The ones labeled "Less Specific" are used to ask where something or someone is or to indicate uncertainty of the location. The general locationals may be used by themselves or in combination with the specific locationals listed below.

The Specific Locationals
(a partial list)

tigoť 'inside (a building, etc.)'
tiba''y 'outside (a building, etc.)'
ʔə·m̃ 'way' (more or less straight; used with *yə·*, *čim*, *him*—General Locationals)
ʔe·m̃ 'way' (around; used with *či:b̃*, *hi:b̃*, *ye:b̃*—General Locationals)
pa''də·m 'lower in the lay of the land; more or less straight and not too much lower' (may be used with *yə·*, *čim*, *him*)
pa''də:b̃ 'lower in the lay of the land; around something or quite a bit lower' (may be used with *či:b̃*, *hi:b̃*, *ye:b̃*)
kišpi 'higher in the lay of the land'
kiš 'straight up overhead'

wi·ŋgon 'nearby'
wi·ŋgondi''g̃ 'very close'
hɨgem 'far away'
haĝe''g 'farther away'
pa'tki''b̃ 'underneath'
miHki''b̃ 'by the side of'
mu:m 'somewhere in the area'
wi·ndu: 'in front of'
kuHk ʔa·m̃ 'in the middle'
ni''gɨš 'on top of'
ʔa·ni''gɨš 'farther up (as in "farther up the road")'
ka' ni: ma· 'nowhere'
wɪ·ŋɖu·m 'some other place'
ʔoy ni: mu:m 'any place'
tɨgɨš 'behind the house'
ši:m yam 'in various places'
ši: ya· 'here, there, and everywhere'
tiHkmiHk 'by the side of the house'
ci·ngɨš 'up in the pine tree'
me:spa't 'under the table'
ni·ho·t̃ 'in the water'

(These last four examples are of nouns with locational suffixes.)

Specific location is often expressed by relator-axis phrases such as *ma· he miH kɨp̃* 'by the big tree' (see Sect. 5.5). Location may be expressed in noun phrases by suffixes on the noun and in verbs by stem compounds.

Positionals
(a partial list)

caHpɨni''g 'face up'
wi·nda''g 'face down'
cuško''de:n 'upside down (things like people, trees)'
ʔiša·m 'behind, after'
hayɨHp 'in front of, ahead of'

Number

tu''g ʔo·k 'once, one time'
mec ʔo·k 'twice, two times' (etc. with all numbers)

Degree

ha·nc̃ 'very'
ʔoy ni: 'about, approximately'
cac̃ 'really, strongly'

AFFIRMATION / NEGATION

ka' 'no, not'
ni: 'no, not (used with *ka'*)'
ca·na:n 'not even, it's not that'
ko:b; da'; we·nd 'maybe'
pa·y haduˈn 'agreement to statement of another' (Various combinations with *haduˈn* are used, or it may be used alone.)

In general, questions which may be answered by "yes" are answered in Mixe by a repetition of the clause nucleus of the question or by a word in the clause periphery: *mnikša·mbi* 'are you going?' may be answered by *nikša·mbič* 'I'm going'; *ti· mgaÿi* 'did you eat already?' may be answered by *ti·* 'already'; *neH ʔoy dia:bi* 'is this okay?' may be answered by *ʔoy* 'okay'; *heˈˈb nbiHkcoÿičï* 'can I ask for it?' may be answered by *heˈˈb* 'can'; *may ti· mba:d̃i* 'did you find many?' may be answered by *may* 'many'. Questions may also be answered in the affirmative by adverbs of time: *ti· mgaÿi* 'did you eat already?' may be answered by *ʔa·m̃ni* 'a while ago'.

4.5 Doublets. In Mixe there occurs a feature of repetition termed *doublets*. This may occur on word level, phrase level, clause level, sentence level, and/or paragraph level. Doublets are usually used for emphasis; however, occasionally there is no other way to express an idea except by use of a doublet.

Word-level doublets often repeat the same word: *po:b* 'white'; *po:b po:b* 'very white'. It is on word level where certain ideas are expressed only by use of a doublet. The meaning then of the doublet is different from that of a single use of the word:

na:g ʔo·k 'how many times?'
na:g ʔo·k na:g ʔo·k 'each time'
habo·m 'tomorrow'
habo·m bo·m 'every day' (the full form *habo·m* may be repeated twice but is seldom heard in ordinary speech; the short form is also used in place of the first *habo·m*)
habo·m bó·m / bo·m bó·m 'day after day' (This might be termed a "doubled doublet" as the stress pattern shows two peaks, as indicated. Although the two parts are here indicated by a solidus, this is not a phonetic pause.)

Phrase level doublets repeat the modifier and possessive, if any occur, and the head of the phrase. The modifier and the possessive are repeated identically, but the head words are synonyms. The order of the head words is frozen for each doublet. However, the same word may occur in different doublets in different positions. Most doublets are repetitions of two, but there are also repetitions of three:

he maˈ na·šhiHp / maˈ ke·chiHp / maˈ ca·hiHp 'the big cliff' (*he* 'the'; *maˈ* 'big'; *na·šhiHp* 'cliff' [*na·š* 'ground' + *hiHp* 'vertical plane'];

ke·chiHp 'cliff' [*ke·c* 'cliff' + *hiHp* 'vertical plane']; *ca·hiHp* 'cliff' [*ca·* 'stone' + *hiHp* 'vertical plane']; a solidus separates the parts of the doublet, but does not represent a phonological pause)

ngapš̃ / n²ayu·kic̃ 'my language' (*n-* 'first person possessive'; *kapš̃* 'talk'; *²ayu·k* 'word; Mixe language'; *ic̃* 'first person clitic')

he ²uŋ̃ / ²ana'k 'his child' (*he* 'the'; *~-* 'third person possessive'; *²uŋ* 'offspring, little one'; *²ana'k* 'youth')

Doublets on the clause level may be of the nucleus, noun phrase specifier, or periphery. Most peripheral elements are not doubled, however. Adverbs manifesting time or location are usually not doubled. Phrases of location may be doubled. Pronouns manifesting a noun phrase specifier are never doubled. When the doublet is of the clause nucleus, the person marker, head, and mood-tense slots are repeated. The head will be filled by synonyms and usually the prefixes and suffixes will be the same:

we'' piHk̃ meHcwi·n / meHcwi·n piHk̃ 'well, he paid twenty-five centavos' (*we''* 'well'; *piHk̃* 'he paid'; *meHcwi·n* 'twenty-five centavos')

c̃i· t̃igi·ỹ ²aHk̃š̃ kapšpi / mid̃a·kpi / / t̃igi·ỹ ²i·b / ya·špi 'then they began talking, singing' (*c̃i·* 'then'; *t̃igi·ỹ* 'they began'; *²aHk̃š̃* 'they'; *kapšpi* 'talking'; *mid̃a·kpi* 'talking about'; *²i·b* 'singing'; *ya·špi* 'crying'. There are actually three doublets in this example. There is the clause nucleus doublet separated by two soliduses (/ /), and then the complement of each clause nucleus is a doublet. The complements are separated by a single solidus.)

pa:d̃ c̃i· ²oy ña'tni ma· ñi·n / ma· t̃iHk 'therefore then he arrived at his home' (*pa:d̃* 'therefore'; *c̃i·* 'then'; *²oy* 'having gone'; *ña'tni* 'he arrived'; *ma·* 'at'; *ñi·n* 'his fire'; *t̃iHk* 'his house')

Sometimes in clause nucleus doublets the first morphemes are synonyms and the verb stems are the same:

ñi''²iHš / p̃a't²iHš he'' him 'he looked all around at him there' (*ñi''²iHš* 'he looked over' [*ni''* 'pertaining to the body, skin, surface (on, over)' + *²iHš* 'to see']; *p̃a't²iHš* 'he looked under' [*pa't* 'under' + *²iHš* 'to see']; *he''* 'him'; *him* 'there')

The synonyms used in doublets do not necessarily have similar meanings when used alone. The degree of similarity may vary all the way from identical meaning to very different meanings in the primary use of the words: *hi·n* 'fire' and *tiHk* 'house' are two quite different things, but when used as a doublet with the idea that a home includes a house and a fire they then reinforce the concept of home rather than the separate meanings of each.

Doublets on the higher levels are not as likely to be exact repetitions, but several elements in a sentence or paragraph may be identical and occasionally the whole sentence or paragraph is repeated. Sometimes the order of the elements is changed, resulting in a chiasmic repetition. See the sentence and paragraph levels and Appendixes A–E for examples.

The use of doublets is a stylistic device very characteristic of Mixe. They serve for emphasis and for making the language more picturesque. Thus the use of doublets is considered good style. When used for emphasis, usually only one doublet of any kind occurs in a sentence. A sentence may, however, contain a doublet and be a member of a doublet at the same time. As picturesque style some speakers use a great many doublets and frequently use more than one in a sentence.

A different kind of doublet is the pairing of words in a fixed order which refer to two different things rather than reinforcing the reference to one thing. They do not occur on the higher levels:

ka·yin ʔu·kin 'food and drink'
ʔuŋ to'͡šha'y 'wife and children' (literally 'children, wife')

5 PHRASE LEVEL AND CLAUSE LEVEL

5.0 There are three types of phrases posited in Mixe: the verb phrase, the noun phrase, and the relator-axis phrase. Each of these phrases manifests a separate slot in the clause. The clause is composed of three basic elements: the nuclear constituent, the noun phrase specifier constituent, and the peripheral constituent. Only the nuclear constituent is obligatory;

Formula 3

The Clause

+ Nucleus	± Noun Phrase Specifier	± Periphery
AONC	noun phrases	attribute phrases
GONC	pronouns	relator-axis phrases
SONC	gerunds	adverbs
AOC		introducers
GOC		ligatures
SOC		
1PI		
2PI		
3PI		
A		

the other two elements may or may not occur. There are ten contrastive clause-nucleus types. In Formula 3: The Clause and throughout this study they are abbreviated as follows: Actor-Oriented Nonconjunct (AONC); Goal-Oriented Nonconjunct (GONC); Subject-Oriented Nonconjunct (SONC); Actor-Oriented Conjunct (AOC); Goal-Oriented Conjunct (GOC); Subject-

Oriented Conjunct (SOC); 1st Person Imperative (1PI); 2nd Person Imperative (2PI); 3rd Person Imperative (3PI); Adverbial (A).[1]

In this chapter the verb phrase and clause-nucleus types will first be explained, then the noun phrase and the noun phrase specifier, and finally the relator-axis phrase and the clause periphery.

5.1 The Verb Phrase. The verb phrase consists of an optional modifier slot and the obligatory head slot. The modifier always precedes the head. The modifier slot is filled by verbal proclitics. The head slot is filled by the verb word.

The verbal proclitics are morphemes which are not phonologically attached to the verb word, nor do they control the verb in any way. Most of the proclitics may occur as free forms in other usage. They may occur with any verb, and also with nouns and attributes used in the stative clauses. There seems to be no restriction on their distribution. Usually only one proclitic occurs; however, *ha·k* (4.) may precede *tim* (7.). The combination *ha·k tim* also occurs as an adverbial expression. Also occurring (rarely) are combinations with *ˀok* (9.) preceding *ha·k* (4.) and *tim* (7.):

1. *cač̃* 'strongly (intensifier)': *cač̃ kapšp* 'he talks strongly' (∅ third person marker; *cač̃* 'strongly'; *kapš* 'to talk'; *-p* 'mood-tense marker)
2. *coHk* 'hurriedly': *kaˀč̃ tɨ· nzoHk co:ñ* 'I didn't leave hurriedly' (*kaˀč̃* 'no, with first person clitic'; *tɨ·* 'already'; *n-* 'first person'; *coHk* 'hurriedly'; *co·n* 'to leave'; *-˜* 'mood-tense marker')
3. *ha·* 'in vain (frustrative)': *nha· yaHˀa·mɨdo·ỹɨč̃* '... I asked him (without the expected result)' (*n-* 'first person'; *ha·* 'in vain'; *yaHˀa·mɨdo·w* 'to ask something of someone'; *-˜* 'mood-tense marker; *ɨč̃* 'first person clitic')
4. *ha·k* 'more (intensifier)': *č̃i· h̃a·k tim ke·k̃* 'then he really lit out' (*č̃i·* 'then'; *˜-* 'third person'; *ha·k* 'more'; *tim* 'really'; *ke·k* 'to run away'; *-˜* 'mood-tense marker')
5. *ha·nč̃* 'really (intensifier)': *nha·nč̃ yaHmayh̃at̃* '... I really need it' (*n-* 'first person'; *ha·nč̃* 'really'; *yaHmayh̃aHt* 'to need something'; *-˜* 'mood-tense marker')
6. *ka* 'no (negative)': *ni: pɨn k̃a na·ym̃ɨgapš̃i:* '... no one talked to anyone else' (*ni: pɨn* 'no one'; *˜-* 'third person'; *ka* 'no'; *na·ym̃ɨgapš̃i:* 'to talk to one another')

1. The basic clause-nucleus analysis follows those of Shirley Lyon (1967) and Don Lyon (1967). I have not adopted their treatment of instrumental and agentive-instrumental as derived types, however, as the material from San José El Paraíso differs somewhat from Tlahuitoltepec material. The Imperative and Adverbial types are also different. Norman Nordell gave valuable assistance in adapting the analysis of the Lyons to the data from San José El Paraíso.

7. *tim* 'really (intensifier); nearly, almost': *ka' t̃im ti·hit̃* 'it's almost nothing (*ka'* 'no' (the adverb); ~- 'third person'; *tim* 'almost'; *ti·* 'something'; *h* 'transition'; *it̃* 'stative clause marker')
8. *ʔok* 'doubt (dubative); politeness': *nik͡šic̃ ngi''g nʔok yaHco:ñ* 'I am going to bring my sandals' (*nik͡šic̃* 'going, with first person clitic'; *ngi''g* 'my sandals'; *n-* 'first person'; *ʔok* 'doubt'; *yaHco·n* 'to bring'; -~ 'mood-tense marker')
9. *(nigo:) ʔok* 'really (intensifier)': *nigo: yam nʔok ya''s̃ic̃* 'I'm really crying here' (*nigo: ... ʔok* 'really' [*nigo:* may be separated from *ʔok* by other words, but they function as a lexical unit; because the person marker precedes *ʔok*, and because *nigo:* may act as a conjunct trigger, *nigo:* is considered to be an adverb and *ʔok* a proclitic]; *yam* 'here'; *n-* 'first person'; *ya·š* 'to cry'; -~ 'mood-tense marker'; *ic̃* 'first person clitic')

5.2 Clause-Nucleus Types. As mentioned earlier (Sect. 5.0), there are ten clause-nucleus types. The six conjunct/nonconjunct clause-nucleus types (C/NC) constitute a system; the three imperative clause-nucleus types (Imp) and the adverbial clause-nucleus type (A) are extrasystemic.

5.2.1 Conjunct/Nonconjunct Clause-Nucleus Types. The conjunct clause nucleus consists of a trigger slot, a person marker slot, a head slot, and a mood-tense slot in this fixed order. The nonconjunct clause nucleus consists of a person marker slot, a head slot, and a mood-tense slot in this fixed order. The only difference between the two clause-nucleus types is the presence or absence of the trigger slot. All the other elements are obligatory in both types, and the person marker slot, head slot, and mood-tense slot are fused together; no peripheral elements may be interposed. Peripheral constituents and noun phrase specifier constituents may interpose between the trigger slot and the fusion of person marker slot, head slot, and mood-tense slot in the conjunct clause-nucleus types. The following formula symbolizes the C/NC with the understanding that the trigger slot is obligatory in C and does not occur in NC.

Formula 4

Conjunct/Nonconjunct Clause-Nucleus Types

$$\begin{matrix}\text{(conjunct)} & + \\ \text{(nonconjunct)} & -\end{matrix}\ \text{T} \quad + \text{PM} \quad + \text{H} \quad + \text{MT}$$

(a) *Orientation.* The division of the three nonconjunct nucleus types and three conjunct nucleus types is on the basis of contrasting orientations of the nuclei: actor-oriented, goal-oriented, subject-oriented. The subject-oriented clause nuclei are intransitive clauses with the subject the only participant actively involved. The actor-oriented and goal-oriented clause nuclei are transitive clauses.

The choice between actor-oriented or goal-oriented is determined by a hierarchy of importance. The ranking is: first person, second person, third person of greater (relative) importance, third person of lesser (relative) importance.

When the first person is the actor and the second or third person is the recipient of the action, the clause nucleus is actor-oriented. When the first person is the recipient of an action by either the second or third person, then the clause nucleus is goal-oriented. Reflexive first person is subject-oriented.

When the second person is the actor and the third person is the recipient of the action the clause is actor-oriented. When the second person is the recipient of an action by a third person, the clause is goal-oriented. Reflexive second person is subject-oriented.

In the same way the third persons determine the clause-nucleus type by relative importance. However, the possessor always outranks the person or thing possessed. Third person reflexive is subject-oriented. Third person passive is also subject-oriented:

ti·c̃ nwop̃ 'I hit you/him' (AOC)
ti· s̃wop̃ic̃ 'you/he hit me; I was hit by you/him' (GOC)
ti· mwop̃ 'you hit him' (AOC)
ti· s̃wop̃ 'he hit you; you were hit by him' (GOC)
ti· pa:d̃ he tuHthi·n 'he found the bullet' (AOC)
ti· p̃a:d̃i: he tuHthi·n 'the bullet hit him; he was hit by the bullet' (GOC)
ti· mmo''ỹ 'you gave it to him' (AOC: notice that the direct object 'it' and the indirect object 'him' are both inherent in this ditransitive stem)
ti· s̃mo''ỹ 'he gave it to you; you were given it by him' (GOC with ditransitive stem)
ti·c̃ nna·yb̃a:d̃i: 'we found each other' (SOC)
ti· mna·yb̃a:d̃i: 'you found each other' (SOC)
ti ña·yb̃a:d̃i: 'they found each other' (SOC)
yaHpa·tp him 'it is found there' (SONC, passive: although the goal-oriented clauses may be translated by an English passive, they are not considered passive in Mixe)

(b) *The Trigger Slot.* The trigger slot is filled by words which determine that the clause-nucleus type will be conjunct rather than nonconjunct. The fillers of the trigger slot function also as introducers, ligatures, or adverbs and thus simultaneously manifest the trigger slot of the clause nucleus and the peripheral slot of the clause construction. Although there is considerable overlap in the list of items which fill the two functions, those which are triggers for conjunct clause nuclei must be distinguished from the larger list of peripheral elements. Adverbs which serve as triggers always precede the verb phrase. Adverbs which follow the nucleus are not

triggers. In addition, some introducers and adverbs are not triggers, even though they precede the verb. Notable examples of non-triggers are the words: *ʔanaHt̃* 'then'; *widi:* 'which'; *pen* 'if'.

Some of the more common triggers are listed below (this is not an exhaustive list, as most adverbs may fill this slot):

c̃i· 'then'	*ko·* 'when'
ma:b 'since'	*kaʔ* 'no'
ti· 'already'	*ʔoy* 'having gone'

Sometimes a nonconjunct clause nucleus follows what is usually a conjunct trigger. When this occurs, the nonconjunct clause nucleus is always in the timeless tense. No other patterning of this phenomenon has yet been discovered.

Because most of the introducers, ligatures, and adverbs act as conjunct triggers, most of the clauses in text material are conjunct clauses. More nonconjunct clauses occur in conversation; however, there are still many conjunct clauses in conversation as well. The difference between conjunct and nonconjunct seems to be a mechanical consequence of the trigger words with no special semantic function of its own.

(c) *The Rest of the Nucleus: Head, Person Marker, Mood-tense Marker.* Conjunct/nonconjunct clause-nucleus types have different sets of person markers and partially different sets of mood-tense markers. Tense is indicated by the mood-tense markers in combination with the selection of the form of the last morpheme of the verb phrase within the clause nucleus itself. The two tenses expressed are the timeless tense and the past tense. The timeless tense is used by itself to indicate present action and habitual action, and with verbal suffixes to indicate the future. The timeless tense is also used with adverbs (peripheral elements in the clause) to indicate other tenses. This will be discussed in Section 5.7. The past tense always indicates a completed action.

In the NC the basic form of the last morpheme of the verb phrase is required in both tenses. In the C the timeless tense requires the alternate form of the last morpheme of the verb and the past tense requires the basic form (basic and alternate forms were discussed in Sect. 4.1). Notice that when the invariable class of verb stems occurs in the C, the tense cannot be determined from the clause nucleus itself. If the tense is important and cannot be determined from the context, peripheral elements are used to make the tense explicit.

The mood-tense markers occur on all C/NC except where they are excluded by the Group II suffixes. Chart 13 gives the person marker sets, the form of the last morpheme of the verb phrase as related to the timeless and past tenses, and the mood-tense markers as related to timeless and past tenses. The mood-tense marker of the stative tense is also shown.

If a Group II suffix occurs, it generally replaces the mood-tense markers and controls the form of the preceding morpheme. See Section 4.2.2 for the description of the Group II suffixes.

The stative form of attributes and nouns is included on the chart with the timeless and past tenses since the stative form takes the same sets of person markers as determined by a trigger. It also shares the distinction of actor and subject orientation (but not goal orientation). The mood-tense marker of the NC stative is the same as the mood-tense marker of the NC past. The C stative mood-tense marker *-ĩt̃* shares the feature of palatalization of the C timeless and past mood-tense marker (*-ĩt̃* has alternate forms: *-id̃i* and *-igi*).

(d) *Examples.* Many of the following examples of the C/NC are taken from texts, not elicited. The meanings are given with the context in mind; occasionally the meaning given could not be definitely ascertained from the example itself. No attempt is made to present a complete paradigm since that is presented in Chart 14. At least one example is given for each type and tense. Noun phrase specifiers (NPS) and peripheral elements (Peri) are identified but not explained. See Sections 5.4 and 5.6 where these constituents of the clause are described.

ACTOR-ORIENTED NONCONJUNCT TIMELESS

1. *ʔi:z̃* *nwi·nma·yb̃* *ko·* *habo·m* *nʔo''ga''ñic̃*
   I I think it that tomorrow I die will I
   NPS AONC Peri Peri/Conjunct Trigger (CT) SOC
   'I think that I will die tomorrow.'
   (*nwi·nma·yb̃* = *n-* 'person marker'; *wi·nma·y* (V·/V) 'to think', basic form used here; *-p̃* 'mood-tense marker', voiced following *y*)

2. *mña''y* *yi''* *mzu'cp̃*
   your husband him you eat him
   NPS NPS AONC
   'You eat your husband.'
   (*mzu'cp* = *m-* 'person marker'; *cu'c* (V'/V'') 'to eat (meat, etc.), basic form used here; *-p̃* 'mood-tense marker')

ACTOR-ORIENTED NONCONJUNCT PAST

ʔi:z̃ *nyaHʔo'k* *ʔiži·y*
I I killed it yesterday
NPS AONC Peri
'I killed it yesterday.'
(*nyaHʔo'k* = *n-* 'person marker'; *yaHʔo'k* (V'/V'') 'to kill', basic form used here; *ø-* 'mood-tense marker')

Chart 13
Conjunct/Nonconjunct Clause-Nucleus Types

Nonconjunct

Actor Oriented

Person Markers

n- 'first person'
m- 'second person'
~- 'third person'

Tense	Form of Last Morph	Mood-tense
Timeless	Basic	*-p̃*
Past	Basic	*-∅*
Stative	——	*-∅*

Goal Oriented

Person Markers

s̃- 'first person'
s̃- 'second person'
∅- 'third person'

Tense	Form of Last Morph	Mood-tense
Timeless	Basic	*-p*
Past	Basic	*-∅*

Subject Oriented

Person Markers

∅- 'first person'
m- 'second person'
∅- 'third person'

Tense	Form of Last Morph	Mood-tense
Timeless	Basic	*-p*
Past	Basic	*-∅*
Stative	——	*-∅*

Conjunct

Actor Oriented

Person Markers

n- 'first person'
m- 'second person'
∅- 'third person'

Tense	Form of Last Morph	Mood-tense
Timeless	Alternate	*-~*
Past	Basic	*-~*
Stative	——	*-ĩt̃*

Goal Oriented

Person Markers

s̃- 'first person'
s̃- 'second person'
~- 'third person'

Tense	Form of Last Morph	Mood-tense
Timeless	Alternate	*-~*
Past	Basic	*-~*

Subject Oriented

Person Markers

n- 'first person'
m- 'second person'
~- 'third person'

Tense	Form of Last Morph	Mood-tense
Timeless	Alternate	*-~*
Past	Basic	*-~*
Stative	——	*-ĩt̃*

(In Goal Oriented third person, the Group II suffix *-i* always occurs.)

Chart 14

Conjunct/Nonconjunct Examples in Paradigm

	Actor Oriented		Goal Oriented		Subject Oriented	
Nonconjunct	Timeless		Timeless		Timeless	
	nˀiHš̃pic̃	'I see < you.' / him.'	*s̃ˀiHšpic̃*	'You see / 'He sees > me.'	*ˀiHšpic̃*	'I see.'
	mˀiHš̃p	'You see him.'	*s̃ˀiHšp*	'He sees you.'	*mˀiHšp*	'You see.'
	ˀ̃iHš̃p	'He sees it.'	*ˀiHšɨp*	'It sees him.'	*ˀiHšp*	'He sees.'
	Past		Past		Past	
	nˀiHšic̃	'I saw < you.' / him.'	*s̃ˀiHšic̃*	'You / 'He > saw me.'	*ˀiHšic̃*	'I saw.'
	mˀiHš	'You saw him.'	*s̃ˀiHš*	'He saw you.'	*mˀiHš*	'You saw.'
	ˀ̃iHš	'He saw it.'	*ˀiHšɨ*	'It saw him.'	*ˀiHš*	'He saw.'
Conjunct	Timeless		Timeless		Timeless	
	kaˀ nˀis̃ic̃	'I don't see < you.' / him.'	*kaˀ s̃ˀis̃ic̃*	'You don't / 'He doesn't > see me.'	*kaˀ nˀis̃ic̃*	'I don't see.'
	kaˀ mˀis̃	'You don't see him.'	*kaˀ s̃ˀis̃*	'He doesn't see you.'	*kaˀ mˀis̃*	'You don't see.'
	kaˀ ˀis̃	'He doesn't see it.'	*kaˀ ˀ̃iz̃ɨ:*	'It doesn't see him.'	*kaˀ ˀ̃is̃*	'He doesn't see.'
	Past		Past		Past	
	kaˀ nˀiHs̃ic̃	'I didn't see < you.' / him.'	*kaˀ s̃ˀiHs̃ic̃*	'You / 'He > didn't see me.'	*kaˀ nˀiHs̃ic̃*	'I didn't see.'
	kaˀ mˀiHs̃	'You didn't see him.'	*kaˀ s̃ˀiHs̃*	'He didn't see you.'	*kaˀ mˀiHs̃*	'You didn't see.'
	kaˀ ˀiHs̃	'He didn't see it.'	*kaˀ ˀ̃iHšɨ*	'It didn't see him.'	*kaˀ ˀ̃iHs̃*	'He didn't see.'

(*ic̃* 'first person clitic' is included with the first person examples although it is optional. Some type of first person marker usually occurs in the clause when the first person is involved. In Goal Oriented third person, the Group II suffix -*ɨ* occurs.)

ACTOR-ORIENTED NONCONJUNCT STATIVE

1. *ti·c̃* *nga mi:d*
what I I no have it
Peri AONC (stative)
'What haven't I got?'
(*nga mi:d* = *n-* 'person marker'; *ka* 'no', verbal proclitic; *mi:d* 'have', an attribute; *∅* 'mood-tense marker')

2. *mmi:d* *yu:* *hi*
you have it hunger question marker (QM)
AONC (stative) NPS sentence-level marker (SLM)
'Are you hungry?'
(*mmi:d* = *m-* 'person marker'; *mi:d* 'have', attribute; *∅* 'mood-tense marker')

3. *widi:* *ʔanaHt̃* *m̃i:d*
which then he had it
Peri Peri AONC (stative)
'. . . which he had then.'
(*m̃i:d* = *˜-* 'person marker'; *mi:d* 'have', attribute; *∅* 'mood-tense marker')

GOAL-ORIENTED NONCONJUNCT TIMELESS

1. *pen* *s̃̃woHppic̃* *nde:ǰic̃* *ʔi:z̃* *nikša·mbic̃*
if me he hits me my father my I I go will I
Peri GONC NPS NPS SONC
'If my father hits me, I'm leaving.'
(*s̃̃woHppic̃* = *s̃̃-* 'person marker'; *woHp* (VH/V) 'to hit', basic form used here; *-p* 'mood-tense marker' [phonologically the two *p*s are reduced to one, but two are written here to display the morphemic composition of the verb]; *ic̃* 'first person clitic')

2. *pen* *s̃̃yaHkaˈb* *yi* *kwa·y* *myaHpeda·m̃b*
if you he throws the horse you mount him will
Peri GONC NPS AONC

ha·duˈˈg *ʔo·ki*
another time QM
Peri SLM

'If the horse throws you, are you going to mount him again?'
(*s̃̃yaHkaˈb* = *s̃̃-* 'person marker'; *yaHkaˈw* (V'/V") 'to cause to fall', basic form used here, unstable final *w* is dropped and the mood-tense marker *-p* is voiced)

GOAL-ORIENTED NONCONJUNCT PAST

1. *šha· tuH ʔiži·y*
you he in vain shot yesterday
GONC Peri
'He shot at you yesterday.'
(*šha· tuH* = *š-* 'person marker'; *ha·* 'in vain', verbal proclitic; *tuH* 'to shoot', invariable class; *∅* 'mood-tense marker')

SUBJECT-ORIENTED NONCONJUNCT TIMELESS

1. *mnikša·mb o mwi''ma·mbi*
you go will or you remain will QM
SONC SLM SONC SLM
'Do you want to go, or stay?'
(*mnikša·mb* = *m-* 'person marker'; *nikš* 'to go', invariable class; *-a·n* (V·/V'') 'future/desiderative', basic form used here, *n* changes to *m* preceding the mood-tense marker *-p*, which is voiced following a nasal; *mwi''ma·mbi* = *m-* 'person marker'; *wi'm* (V'/V'') 'to remain', alternate form precedes *-a·n*; *-a·n* 'future/desiderative', as immediately above; *i* 'question marker, a sentence-level marker)

2. *yi''* *ci·b* *ya·*
she she bathes here
NPS SONC Peri
(*ci·b* = *∅* 'person marker'; *ci·w* (V·/V'') 'to bathe', basic form used here, unstable *w* dropped and mood-tense marker *-p* voiced)

SUBJECT-ORIENTED NONCONJUNCT PAST

1. *ʔi:ž̃ tu·nič̃ maštiHt̃*
I I worked I day before yesterday
NPS SONC Peri
'I worked day before yesterday.'
(*tu·nič̃* = *∅* 'person marker'; *tu·n* (V·/V) 'to work', basic form used here; *∅* 'mood-tense marker'; *ič̃* 'first person clitic')

2. *habo·m nʔo''ga''ñič̃ yi'' du'n mina·n*
tomorrow I die will I he thus he said
Peri/CT SOC NPS Peri SONC
' "Tomorrow I'm going to die," he said.'
(*mina·n* = *∅* 'person marker'; *mina·n* (V·/V) 'to say', basic form used here; *∅* 'mood-tense marker')

SUBJECT-ORIENTED NONCONJUNCT STATIVE

1. *ho·tkuHkɨc̃* *ʔi:z̃*
   I happy am I I
   SONC (stative) NPS
   'I'm happy.'
   (*ho·tkuHkɨc̃* = *Ø* 'person marker'; *ho·tkuHk* 'happy', attribute; *Ø* 'mood-tense marker'; *ɨc̃* 'first person clitic')

2. *mho·tkuHkɨ*
   you happy are QM
   SONC (stative) SLM
   'Are you happy?'
   (*mho·tkuHkɨ* = *m-* 'person marker'; *ho·tkuHk* 'happy', attribute; *Ø* 'mood-tense marker'; *ɨ* 'sentence-level question marker')

3. *pin* *da'* *ha·k mɨk* *mi:z̃* *o* *ʔɨ:z̃ɨ*
   who probably more strong is you are or I am QM
   NPS Peri SONC (stative) SONC (stative) SLM SONC (stative)
   (*ha·k mɨk* = *Ø* 'person marker'; *ha·k* 'more', verbal proclitic; *mɨk* 'strong', attribute; *Ø* 'mood-tense marker'; *mi:z̃* can be thought of as 'it is you' and *ʔi:z̃* as 'it is I'; with this interpretation, there is *Ø* 'mood-tense marker', the pronouns *mi:z̃* or *ʔi:z̃* and *Ø* 'mood-tense marker')

ACTOR-ORIENTED CONJUNCT TIMELESS

1. *pe:ř* *ka'c̃* *me:ñ* *nẓok̃*
   but no I money I want it
   SLM Peri/CT NPS AOC
   'But I don't want money.'
   (*ka'c̃* 'no', with first person clitic, conjunct trigger; *nẓok̃* = *n-* 'person marker'; *coHk* (VH/V) 'to want', alternate form used here; *-˜* 'mood-tense marker')

2. *yɨ''* *tɨ·* *ko·huỹ* *yɨ* *kwa·y*
   he already he paid for it the horse
   NPS Peri/CT AOC NPS
   'He already paid for the horse.'
   (*tɨ·* 'already', conjunct trigger; *ko·huỹ* = *Ø* 'person marker'; *ko·hu·y* (V·/V) 'to pay for something', alternate form used here; *-˜* 'mood-tense marker')

ACTOR-ORIENTED CONJUNCT PAST

1. *mina:* *mha'ĩ̃t* *ko·* *ka'* *n?iHs̃̃*
   when you arrived that no I saw you
   Peri/CT SOC Peri Peri/CT AOC
   'When did you arrive that I didn't see you?'
   (*ka'* 'no', conjunct trigger; *n?iHs̃̃* = *n-* 'person marker'; *?iHs̃* (VH/V) 'to see', basic form used here; *-~* 'mood-tense marker')

2. *c̃i·* *mihu·ỹ* *tu''g* *pe:s*
   then he paid him one peso
   Peri/CT AOC NPS
   'Then he paid him one peso.'
   (*c̃i·* 'then', conjunct trigger; *mihu·ỹ* = *∅* 'person marker'; *mihu·y* (V·/V) 'to pay (wages)', basic form used here; *-~* 'mood-tense marker')

ACTOR-ORIENTED CONJUNCT STATIVE

1. *c̃e:b̃ic̃* *nmi:dĩ̃t* *widi:* *mi:d* *ha''y* *nyaHwiHyic̃*
   here I I have it which with people I make sober I
   Peri/CT AOC (stative) Peri Peri/CT AOC
   'Here I have that with which I make people sober.'
   (*c̃e:b̃ic̃* 'here', with first person clitic, conjunct trigger; *nmi:dĩ̃t* = *n-* 'person marker'; *mi:d* 'have', attribute; *-ĩ̃t* 'mood-tense marker')

2. *ka'* *mmi:dĩ̃t*
   no you have it
   Peri/CT AOC (stative)
   'You don't have it.'
   (*ka'* 'no', conjunct trigger; *mmi:dĩ̃t* = *m-* 'person marker'; *mi:d* 'have', attribute; *-ĩ̃t* 'mood-tense marker')

3. *we''* *?anaHĩ̃t* *mi:dĩ̃t* *p̃i''k* *me:ñ*
   well then he had it his little money
   Peri/CT Peri AOC (stative) NPS
   'Well, he had his money.'
   (*we''* 'well', conjunct trigger; *mi:dĩ̃t* = *∅* 'person marker'; *mi:d* 'have', attribute; *ĩ̃t* 'mood-tense marker')

GOAL-ORIENTED CONJUNCT TIMELESS

1. *ta·t* *yi* *pi''k* *ni''ža'kwit* *ti·* *s̃̃yaHši''g̃ic̃*
   Dad the little maguey clothes completed me he made laugh me
   SLM NPS Peri/CT GOC
   'Dad, the little (boy in the) maguey fiber clothes made me laugh.'
   (*ti·* 'completed', conjunct trigger; *s̃̃yaHši''g̃ic̃* = *s̃̃-* 'person marker'; *yaHši·k* (V·/V'') 'to cause someone to laugh', alternate form used here; *-~* 'mood-tense marker'; *ic̃* 'first person clitic')

2. *ko·* | *ʔanaHt̃* | *ʔo:y* | *ʔ̃aneʺm̃i:*
because | then | really | them he ordered
Peri | Peri | Peri/CT | GOC

'... because he really ordered them around.'
(*ʔo:y* 'really', conjunct trigger; *ʔ̃aneʺm̃i:* = ~- 'person marker'; *ʔaneʹm* (Vʹ/Vʺ) 'to order', alternate form used here; -˜*i:* '3rd person goal-oriented marker', Group II suffix)

GOAL- ORIENTED CONJUNCT PAST

1. *ʔo:y* | *nʔa·wak* | *s̃yaHca·z̃i·ỹ*
really | my mouth | me you made injured
Peri/CT | NPS | GOC

'You really caused my mouth to be injured.'
(*ʔo:y* 'really', conjunct trigger; *s̃yaHca·z̃i·ỹ* = *s̃*- 'person marker'; *yaHca·z̃i·y* (V·/Vʺ) 'to cause to be injured', basic form used here; -˜ 'mood-tense marker')

2. *ʔiži·y* | *s̃ha·* *ʔiHs̃* | *ma·* *mdiHk*
yesterday | you he in vain saw | at your house
Peri/CT | GOC | Peri

'Yesterday he tried to see you at your house.'
(*ʔiži·y* 'yesterday', conjunct trigger; *s̃ha·* *ʔiHs̃* = *s̃*- 'person marker'; *ha·* 'in vain', verbal proclitic; *ʔiHs̃* (VH/V) 'to see', basic form used here; -˜ 'mood-tense marker')

SUBJECT-ORIENTED CONJUNCT TIMELESS

1. *ti·* | *ʔi:z̃* | *ʔoy* | *nwidit̃*
completed | I | having gone | I walked around
Peri | NPS | Peri/CT | SOC

'I went walking around.'
(*ʔoy* 'having gone', conjunct trigger; *nwidit̃* = *n*- 'person marker'; *widiHt* (VH/V) 'to walk around', alternate form used here; -˜ 'mood-tense marker')

2. *c̃am* | *ʔaHk̃s̃* | *h̃aʺdaʺñ*
today | they | they arrive will
Peri/CT | NPS | SOC

'Today they will arrive.'
(*c̃am* 'today', conjunct trigger; *h̃aʺdaʺñ* = ˜- 'person marker'; *haʹt* (Vʹ/Vʺ) 'to arrive', alternate form used preceding *-a·n;* *-a·n* (V·/Vʺ) 'future/desiderative', alternate form used here; -˜ 'mood-tense marker')

SUBJECT-ORIENTED CONJUNCT PAST

1. *ka!* *mha· piga·ñ*
no you in vain marry wanted
Peri/CT SOC
'You didn't want to get married.'
(*ka!* 'no', conjunct trigger; *mha· piga·ñ* = *m-* 'person marker'; *ha·* 'in vain', verbal proclitic; *piHk* (VH/V) 'to marry', alternate form used preceding *-a·n; -a·n* (V·/V") 'future/desiderative', basic form used here; *-~* 'mood-tense marker')

2. *čĩ·* *t̃igi·ỹ* *yu·b* *mi:d he waH*
then he began plowing with the oxen
Peri/CT SOC NPS Peri
(*čĩ·* 'then', conjunct trigger; *t̃igi·ỹ* = *~-* 'person marker'; *tigi·y* (V·/V") 'to begin', basic form used here; *-~* 'mood-tense marker')

SUBJECT-ORIENTED CONJUNCT STATIVE

1. *ka!* *ʔi:z̃* *nʔayuHkit̃*
no I my animal is
Peri/CT NPS SOC (stative)
'It isn't my animal.'
(*ka!* 'no', conjunct trigger; *nʔayuHkit̃* = *n-* 'person marker'; *ayuHk* 'animal', noun; *-it̃* 'mood-tense marker')

2. *ʔoy ʔiz̃ip̃ ʔo:y mha· ho·tmikit̃ ka! ʔanaHt nzigi"wa"ñ*
even if really you in vain brave are no then I be afraid would
Peri Peri/CT SOC (stative) Peri/CT Peri SOC
'Even if you are really brave (but you're not), I wouldn't have been afraid.'
(*ʔo:y* 'really', conjunct trigger; *mha· ho·tmikit̃* = *m-* 'person marker'; *ha·* 'in vain', verbal proclitic; *ho·tmik* 'brave', attribute; *-it̃* 'mood-tense marker')

3. *ka!* *s̃iHkidi* *ni:* *k̃a mo·kidi* *we"* *yi"*
no it beans is no it no corn is rather it
Peri/CT SOC (stative) Peri/CT SOC (stative) Peri NPS

kafwe·baHk
it coffee beans is
SONC (stative)

'It isn't beans nor corn; it's coffee.'
(*ka!* 'no', conjunct trigger; *s̃iHkidi* = *~-* 'person marker'; *s̃iHk* 'beans', noun; *-idi* 'mood-tense marker') (*ni:* 'no', conjunct trigger; *ka mo·kidi* = *~-* 'person marker'; *ka* 'no', verbal proclitic; *mo·k* 'corn', noun; *-idi* 'mood-tense marker')

5.2.2 The Imperative Clause-Nucleus Types. There are three Imperative clause-nucleus types (Imp): 1st Person Imperative (1PI), 2nd Person Imperative (2PI), and 3rd Person Imperative (3PI). The Imp are distinctive structurally from the C/NC. No subject marker or mood-tense marker occurs. Noun phrase specifiers and peripheral elements may occur with the Imp but not all adverbs may occur. Some adverbs, and some Group II suffixes which indicate future time, require a C/NC.

All Imp are semantic imperatives, but not all semantic imperatives are expressed with Imp. Negative imperatives and imperatives which specify future time are expressed by C/NC in the timeless tense. Some examples of negative and future imperatives expressed by C/NC are:

ka' myaH²iña''ỹ dia:b kwa·y 'don't ride this horse' (AOC: *ka'* 'no', conjunct trigger)

ka' mbeẽ ma· yi kiꝑ 'don't climb the tree' (AOC: *ka'* 'no', conjunct trigger)

²ec ka' mdo:giꝑ mga:gm̃oc 'and don't sell (in the future) your tortilla cloth' (AOC: *ka'* 'no', conjunct trigger, and *-ip* 'future', Group II suffix)

²ec mzi:ziꝑ mi:d ñi'ꝑ 'and stuff it (future) with its blood' (AOC: *-ip* 'future'; *²ec* may act as a conjunct trigger; however, it may be followed by Imp)

c̃i·habo·m nik̃š hadu''g ²o·k mwoỹ 'then tomorrow go and call him again' (AOC: *nik̃š* 'going', conjunct trigger, indicates a type of future)

(a) 1st Person Imperative Clause-Nucleus Type. The 1PI consists of the hortatory slot and the head slot in this fixed order. The hortatory slot is filled by either of two words: *cok* 'let's', or *ha·m* 'let's go'. The head slot is filled by a verb phrase containing the Group II suffix *-im* 'first person inclusive' as the final morpheme. This suffix always requires the preceding morpheme to be in the basic form. Noun phrase specifiers or peripheral elements may interpose between the hortatory slot and the head slot.

cok	*da'*	*²ok ²a·ya·ži·yg̃ipšim*
let's	right now	try out-scream each other
Hort	Peri	Head

'Let's try out-screaming each other right now.'

ha·m	*²u·kim*
let's go	drink together
Hort	Head

'Let's go drink together.'

(b) 2nd Person Imperative Clause-Nucleus Type. The 2PI consists of only the head slot, filled by a verb phrase. The following Group II suffixes may occur in the 2PI. Numbers 1, 2, 3, 5, and 6 require the pre-

ceding morpheme to be in the basic form, and 4 requires the alternate form.

1. *-ik/-k* 'first person object': *ʔi:ʒ̃ mo·yg* 'give it to me!' (*mo·y* (V·/V") 'to give something to someone', basic form occurs here; *-k* is voiced and sometimes palatalized following *y*); *koHšikič* 'hit me!' (*koHš* (VH/V) 'to hit', basic form occurs here; *-ik* is followed by the first person clitic *ič*)
2. *-kiš* 'pluralizer of the subject'; *ho·twi·mbiHtta·yg̃iš* 'repent (all of you)!' (*ho·twi·mbiHt* (VH/V) 'to repent', basic form occurs preceding *-ta·y; -ta·y* (V·/V") 'all , basic form occurs preceding *-kiš*); *mobiHkkiš* 'believe (all of you)!' (*mobiHk* (VH/V) 'to believe', basic form occurs here)
3. *-ko* 'immediacy': *we·yg̃o* 'lick it up in a hurry!' (*we·y* (V·/V:) 'to lick', basic form occurs here); *ʔu·kko* 'hurry up and drink it!' (*ʔu·k* (V·/V") 'to drink', basic form occurs here)
4. *-i:* 'reciprocal/corporal': *na·yg̃ožiː ʔaHk̃š̃* 'slap yourselves!' (*na·yg̃oHši* (VH/V) 'to hit oneself', alternate form occurs here); *mu"gi:* 'get drunk!' (*mu·ki* (V·/V") 'to get drunk', alternate form occurs here)
5. *-ni* 'relative permanence': *ʔišmaHcni* 'get rid of it for good!' (*ʔišmaHc* (VH/V) 'to let go', basic form occurs here); *nikškišni* 'get out of here (all of you)!' (*nikš* 'to go', invariable class; *-kiš* followed by *-ni*)
6. *-ø* 'benefactive/malfactive': *ko·žoHc nde:d̃ ʔ̃ayuHk* 'tie my father's animal for him!' (*ko·žoHc* (VH/V) 'to tie something', basic form occurs here; note that without this *-ø* the form of the last morpheme of the verb would be alternate, as described in the paragraph immediately following: *ko·žoc* 'tie it!', no benefactive occurring); *pida·k ya·* 'put it here for him!' (*pida·k* (V·/V") 'to put, place', basic form occurs here; *pida"g ya·* 'put it here!', no benefactive occurring)

When there is no suffix, the alternate form of the last morpheme of the verb word is required. This indicates an imperative with no objects involved or with third person objects implied by the verb stem or word itself. In this position the alternate form of the verb occurs without any markers:

mo" 'give it to him!' (*mo·y* (V·/V") 'to give', unstable *y* drops in the 2PI)

poyi"g 'run!' (*poyi"k* (V'/V") 'to run')

(c) **Third Person Imperative Clause-Nucleus Type.** The 3PI consists of an obligatory impersonal slot, an optional object-marker slot, an obligatory

head slot, and an obligatory impersonal-marker slot.[2] The order of elements is fixed. The impersonal slot is filled by *wen* 'let'; the object-marker slot is filled by s̃- 'first or second person object'; the head slot is filled by a verb phrase; the impersonal-marker slot is filled by palatalization. The object-marker slot, head slot, and impersonal-marker slot are fused together; no peripheral elements may be interposed. Peripheral elements and noun-phrase specifiers may interpose between the impersonal slot and the fusion of object marker, head, and impersonal marker. The last morpheme of the verb must be in the alternate form. Semantically, the impersonal slot expresses something like 'let it be that' or 'may' as in 'may God bless you'. The subject of the head slot is always third person.

wen	*nik͡s̃*	*mo·kma·kpi*
let	she goes	corn washing
Impersonal	Head Impersonal	NPS

'Let her go wash corn; may she go wash corn.'

wen	*ʃk͡oš̃ič̃*
let	me he hit me
Impersonal	Object Head Impersonal

'Let him hit me; may he hit me.'

wen	*ʔaHk͡s̃*	*na·yg̃ož̃i:*
let	they	they hit themselves
Impersonal	NPS	Head Impersonal

'Let them hit themselves; may they hit themselves.'

wen	*ka mač̃*
let	he not catch him
Impersonal	Head Impersonal

'May he not catch him.' (*ka* is the verbal proclitic, not the adverb)

Chart 15
Imperative Clause-Nucleus Types

1PI	+	*cok/ha·m*	+	Verb Phrase	+	*-im* (Group II Suffix)
2PI			+	Verb Phrase	±	certain Group II Suffixes
3PI	+	*wen* ± s̃-	+	Verb Phrase	+	˜ (Impersonal Marker)

(d) Comparison of the Imperative Clause-Nucleus Types. For comparison, a summary of the Imp is given in Chart 15.

2. An alternate interpretation would be to consider the 3PI as a special case of the goal-oriented conjunct timeless clause nuclei with the conjunct trigger *wen* 'let'. The 1PI might be considered as a special case of the subject-oriented nonconjunct timeless with the obligatory suffix *-im* 'first person inclusive'.

5.2.3 The Adverbial Clause-Nucleus Type. The A is the only clause-nucleus type not containing a verb. It consists of an obligatory adverbial word and an obligatory noun phrase or pronoun in this fixed order. It may only manifest a simple sentence. In general, clause-peripheral elements and sentence-peripheral elements do not occur, although occasionally an adverb of time or some other peripheral word does occur. Noun phrase specifiers are part of the nucleus in the A; they do not generally occur outside of the nucleus. The adverbial words occurring in this clause-nucleus type are:

ma· 'where' *na:g* 'how many'
neH 'question word' *ti·* 'what'
all of the General Locationals listed in Chart 12 (Sect. 4.4.5)

ma·	*he mda·tpi:d*
where	the your grandfather
Adverbial	Noun Phrase

'Where is your grandfather?'

na:g	*mhimiHt*
how many are	your years
Adverbial	Noun Phrase

'How old are you?'

neH	*mi:ž̃*	*du'n*	*he ye''d̃iHki*
QW (are)	you	thus	the man QM
Adverbial	Pronoun	Peri	Noun Phrase SLM

'Are you the man?'

ti·	*s̃i:*
what is	his name
Adverbial	Noun Phrase

'What is his name?'

hi:b̃	*mi:ž̃i*
there are	you QM
Adverbial	Pronoun SLM

'Are you there?'

ce:b̃	*ʔi:ž̃*
here am	I
Adverbial	Pronoun

'I'm here.' (The sentence immediately above and this one are the typical conversation opener or greeting when one goes to another's house. The one approaching the house calls out 'Are you there?' and the one in the house answers 'I'm here.')

hi:	*ʔanaHt̃*	*tu''g to''ʃ̃ha''y*	*widi:*	*h̃a·nc̃*
there was	then	one woman	who	she really
Adverbial	Peri	Noun Phrase		

mi:dco·ndi·b̃	*ʔanaHt̃*	*ña''y*
with leave continually	then	her husband
(part of the Noun Phrase)		

'Once upon a time there was a woman who continually went along with her husband.' (This type of sentence is typical for the opening sentence of a story.)

5.3 The Noun Phrase. There are two noun phrase types: the descriptive noun phrase (DNP) and the comparative noun phrase (CNP).

5.3.1 The Descriptive Noun Phrase. The DNP consists of an optional noun determiner slot, an optional possessive slot, an optional modifier slot, the obligatory head slot, an optional plural slot, and an optional explanatory slot in this order. The DNP may be expressed in the following formula:

Formula 5

The Descriptive Noun Phrase

± ND ± Po ± M + H ± Pl ± E

The noun determiner slot is filled by *yi* 'the, that (more specific)'; *he* 'the, that (less specific)'; *dia:b* 'this'; *hada·* 'this'; *tu''g* 'one, a'; *mec* 'two'; etc., any numerals or words indicating measure or quantity, *may* 'many'; etc.

The possessive slot is filled by either a basic filler or an expanded filler. The basic filler of the possessive slot is manifested by an optional free form pronoun and an obligatory bound person marker. The free form always precedes the person marker which is bound to the next word occurring in the phrase, manifesting either the modifier or the head slot.

ʔi:z̃ n- 'my'
mi:z̃ m- 'your (sg)'
yi'' ~- 'his, her, its (more specific)'
he'' ~- 'his, her, its (less specific)'
ʔi:z̃ ʔaHt n- 'our (inclusive)'
ʔi:z̃ ʔaHk̃š̃ n- 'our (exclusive)'
mi:z̃ ʔaHk̃š̃ m- 'your (pl)'
yi'' ʔaHk̃š̃ ~- 'their (more specific)'
he'' ʔaHk̃š̃ ~- 'their (less specific)'
(short forms *ʔi:*, *mi:*, *ʔaHk̃š̃*, clitic *ic̃:* see Sect. 4.4.5)

The expanded filler of the possessive slot includes a noun which is the possessor of the head of the phrase. The expanded filler consists of an obligatory noun possessor and an obligatory basic filler. The noun possessor is a nested DNP which is restricted in complexity. The basic filler is restricted to third person. The expanded filler of the possessive slot may be formulated as follows:

Formula 6
The Expanded Filler

+ Noun Possessor		+ Basic Filler	
+ DNP		± Pronoun	+ Person Marker

t̃u''d̃ 'her egg' (~- '3rd person'; *tu''d̃* 'egg'; head of the phrase; basic filler)
yɨ'' t̃u''d̃ 'her egg' (*yɨ''* 'her', pronoun; *t̃u''d̃* as above; basic filler with optional pronoun manifested)
yɨ ʔayuHk t̃u''d̃ 'the bird's egg' (*yɨ* 'the', noun determiner; *ʔayuHk* 'bird', head of DNP; *t̃u''d̃* as above; expanded filler)
yɨ ʔayuHk yɨ'' t̃u''d̃ 'the *bird's* egg' (an emphasized form: literally, 'the bird it its egg'; expanded filler including an optional pronoun)
ʔi:ʒ̃ nde:d̃ič̃ yɨ'' ũaH 'my father's cow' (all slots of the expanded filler manifested, with the nested DNP also including a basic filler: literally, 'I my father my, he his cow'; this is an extremely emphatic form, used for example when trying to make a foreigner understand)

The modifier slot is filled by any attribute word except numerals or words indicating measure or quantity, because these latter function as noun determiners. Two attributes may occur. Attributes expressing color always occur closest to the head.

The head slot is filled by one or two noun words. When two noun words occur, one is a nominalized attribute or adverb and the other is a noun to which the nominalized attribute or adverb refers. The nominalized attribute or adverb may manifest the head slot by itself, and in this way differs from a modifier. Yet the two words have freer combination possibilities than a doublet.

The plural slot is filled by the word *ʔaHk̃š̃*. Use of a numeral or similar words in the noun determiner slot usually excludes the use of *ʔaHk̃š̃*. A different kind of plurality is expressed by the use of the noun suffix *-tiHk* 'all, a group collectively'. This suffix also excludes the use of *ʔaHk̃š̃*.

The explanatory slot is filled by a relator-axis clause whose relator is the word *widi:* 'who, which'. The axis of this clause includes a C/NC, never an Imp (unless Imp is nested within C/NC on sentence level) or an A. This is a common construction in Mixe. The explanatory slot is sometimes separated from the head slot by other elements in the clause. An ellipsis of the head may occur with only the explanatory slot remaining or only the noun determiner and the explanatory slot occurring.

It is quite unlikely that all of the optional elements of the descriptive noun phrase would occur at the same time, since this would result in a too heavily loaded phrase.

da·	*kip̃*	*dia:b*	*nek̃*
this	tree (*da·* is a short form of *hada·*)	this	paper
ND	H	ND	H
'this tree'		'this paper'	

he pi' mi$\tilde{s}$ ʔaHk$\tilde{s}$
the little boy plural
ND M H Pl
'the little boys'

he mda·tpi:d
the your grandfather
ND Po H
'your grandfather'

p̃i'k me:ñ
his little money
Po M H
'his money'

tu''g ma' po:b ʔuk
a big white dog
ND M M H
'a big white dog'

tu''g ẽe:d̃ ẽuHt
one* his father his gun
ND Po (expanded filler) H
'his father's gun' (*"one" refers to "gun")

yi himbi ye''d̃iHk
the over there one man
ND H H
'the man over there'

he ʔokta:g ʔayo·b
the lady poor one
ND H H
'the poor lady'

tu''g kwa·y miHha''yb̃
a horse old one
ND H H
'an old horse'

nde:d̃iẽ ẽayuHk widi: ti· k̃e''g̃
my father my his animal which completed he ran away
Po (expanded) H E
'my father's animal which ran away'

ẽi· he maŋ migap$\tilde{s}$ widi: ʔadibinador̃
then the son he talked to him who he soothsayer is
Peri/CT ND H AOC E
'then he talked to the son who was a soothsayer'

neH ha·nẽ hi: mi:z̃ mmi:diĩ widi: ti· ʔišpik̃
QW really here you you have it who completed he studied it
AOC E

widi: neHwi·yd̃a·yb tu''gʔo·k̃ widi: ʔadibinador̃ hi
who he knows all everything who he soothsayer is QM
E E

'Do you really have here (someone) who has studied, who knows everything, who is a soothsayer?'
(Note that in this example there is an ellipsis of the head and there are three explanatory slots in succession.)

5.3.2 The Comparative Noun Phrase. The CNP consists of an optional noun determiner slot, an obligatory comparison modifier slot, an obligatory attribute head slot, and an optional explanatory slot in this fixed position. The fillers of the noun determiner slot and the explanatory slot are the same as in the DNP (see Sect. 5.3.1).

The comparison modifier slot is filled by the adverbs *ha·k* 'more' or *ha·k tim* 'most'. The attribute head slot is filled by a nominalized attribute.

he *ha·k* *miHpi*
the more big one
ND CM AH
'the bigger one'

yi *ha·k tim* *mucpi* *widi:* *nmi:dič*
the most small one which I have it I
ND CM AH E
'the smallest one which I have'

5.3.3 Joining of Noun Phrases. Two or more noun phrases may be joined together by the conjunctions *ʔec* 'and', which is used with like noun phrases (semantically and grammatically), and *ʔe·* 'and', which joins unlike phrases. Noun phrases may also be juxtaposed with no conjunctions occurring.

fwan ʔec pedřo 'John and Peter'
tuˈˈg yeˈˈd̃iHk ʔe· tuˈˈg toˈˈs̃haˈˈy 'a man and a woman'

pe:ř *ko·m* *yaHšon* *ʔaHk̃š* *w̃it* *ñiˈˈhe·n* *k̃iˈˈg*
but well good they their clothes their shirts their sandals
s̃apatos *ñik̃š* *ʔaHk̃š*
their shoes they went they
'But, well they went with clothes, shirts, sandals, and shoes that were in good shape (they went well dressed).'

5.3.4 Joining Other Words and Phrases. Other words and phrases are joined like noun phrases using the conjunction *ʔec* or juxtaposition. Clauses that are joined together are described on sentence level. Words and phrases juxtaposed without a conjunction are semantically considered a unit, whereas those joined by conjunctions are considered separate items.

ni: pin ʔec ni: ti· 'no one and nothing'
caps ʔec po:b 'red and white'
čam ʔec habo·m 'today and tomorrow'
ʔi:z̃ mi:z̃ tuˈˈgʔo·k̃ 'I, you, everybody'
puˈc cuš caps po:b 'yellow, green, red, white'
habo·m wištik tugwi·m 'tomorrow, day after tomorrow, three days from now (sometime in the near future)'

5.4 Noun Phrase Specifiers. The noun phrase specifier is a constituent of the clause (see Sect. 5.0). The NPS may be filled by a noun phrase, a pronoun, or a gerund.

Noun phrases or pronouns indicate the subject or object of the clause nucleus. All objects are treated alike (there is no distinction made for a direct object, indirect object, etc.). If one noun phrase or pronoun occurs it may either be the subject or object, the general context supplies the information as to which it is. It may precede or follow the clause nucleus. If two noun phrases or pronouns occur, the first one is the subject and the second is the object. They may both precede the nucleus, may both follow it, or one may precede the nucleus and the other follow. Peripheral elements may interpose between the noun phrase specifiers and the clause nucleus.

ʔo:yɨ̃č	*ʔaHk͡s̃*	*nha· pa·yoˈỹ*	*he na·n*	*t̃ek͡ʔa·w*
really I	plural	I in vain followed	the deer	its tracks
Peri/CT	NPS	AOC	NPS	

'We really followed the deer's tracks (but in vain).'

When the NPS is filled by a gerund[3] it is always the complement of the clause nucleus and it must always follow the nucleus.

čɨ·	*he*	*maˈ*	*ka·*	*t̃ɨgɨ·ỹ*	*niˈcpɨ*
then	the	big	tiger	he began	growling
Peri/CT	NPS			SOC	NPS (gerund)

'Then the big tiger began growling.'

(More examples of NPS may be seen in Sect. 5.2.1 (d).)

5.5 Attribute and Adverbial Phrases. There is one attribute phrase and one adverbial phrase. The attribute phrase consists of an optional intensifier slot and an obligatory head slot in this fixed order. The intensifier slot is filled by adverbs of degree. The head slot is filled by attributes.

haˈnc̃	*ʔoy*	*mgeˈˈžɨˈˈg̃*	*hɨbɨk*	*k̃eˈˈzɨˈˈg̃*
really	pretty	you look	bad	it looks
Attribute Phrase		SOC	Attribute Phrase	SOC
'You really look pretty.'			'It looks bad.'	

3. Gerunds are considered to be verb stems nominalized by the use of the suffix *-pɨ*. However, another type of construction has been recently observed in which the verb *haHt* 'to be able' is followed by the alternate form of the verb. This might be considered a different kind of gerund since verb stems may be nominalized by simply using the alternate form.

kaˈ haĩ poyɨˈˈg 'he can't (isn't able to) run'

With the present data, I am unable to make further study of this phenomenon. However, one observation may be made with the available data: the gerund derived from the verb stem nominalized with *-pɨ* is used in subject-oriented clauses and the gerund derived by using the alternate form of the verb stem is used in actor-oriented clauses. There may be a difference between gerunds in transitive and intransitive constructions.

caC̃	*mik*	*caC̃*	*ʔoy*	*ỹaHpa:d̃*
strongly	strong	strongly	good	he is found
Attribute Phrase (doublet)				SOC

'He is in good health.'

The adverbial phrase is a relator-axis phrase consisting of an obligatory relator slot and an obligatory axis slot. The relator slot is filled by *mi:d* 'with', or *ma·* 'directional (in, on, at, where)', or *neH* 'like'. The axis slot is filled by either a noun phrase or a pronoun. The position of the relator and axis may be reversed with the relator *mi:d* but not with the relators *ma·* or *neH*.

mi:d ʔi:z̃ 'with me'
ma· he miH kip̃ 'by the big tree'
neH tu'g pi'k ʔana'k 'like a little child'
(See Sect. 5.6 for more examples of RAP)

5.6 Peripheral Constituent. The peripheral constituent of the clause consists of introducers, ligatures, adverbs, attribute phrases, and relator-axis phrases. The introducers and ligatures always precede the nucleus, usually occurring first in the clause. They are listed in Section 6.3, where they function on sentence level. Their function on clause level is always as conjunct trigger for the conjunct clauses. When they do not function as conjunct trigger, their function is on sentence level only. The adverbs and the relator-axis phrases may either precede or follow the nucleus; however, there are some adverbs that always occur preceding the clause nucleus. Some of these are: *ti·* 'already, completed'; *ʔoy* 'having gone'; *nik͡s̃* 'going'; *ka'* 'no'; *ni:* 'no'.

ma·	*tu'g*	*tuk*	*tiHk*	*him*	*ʔanaHt̃*	*he*	*pi'*	*mis̃*	*ʔaHk͡s̃*
in	a	old	house	there	then	the	little	boy	plural
Peri (RAP)				Peri/CT (adverb)	Peri (adverb)			NPS	

t̃u'ma·gis̃
they slept by the trail
SOC

'In an old house by the trail the little boys slept.'

pues	*ka'*	*ʔanaHt̃*	*kuHk*
well	no	then	straight
SLM (introducer)	Peri (adverb)	Peri (adverb)	Peri (adverb)

ti·	*p̃a:d̃i:*	*he*	*tuHthi·n*
completed	him it hit	the	bullet
Peri/CT (adverb)	GOC		NPS

'Well, the bullet didn't hit him straight.'

him	*ma· hi·ba''*	*him*	*ʔiña''ỹ*	*wi·nhup*	*mi:d*
there	by fire edge	there	he sits	mask	with
Peri (adverb)	Peri (RAP)	Peri (adverb)	AOC	Peri (RAP)	

'There by the fire he sits wearing a mask.'

5.7 Semantic Tense Categories. Semantic tense categories are achieved by a combination of verb suffixes, adverbs, and the stem forms and mood-tense markers which are distinguished for timeless and past in the C/NC.

PRESENT TENSE

1. NC timeless — *hiHcp* 'she is making tortillas'
2. C/NC timeless with adverbs indicating present time — *c̃am ĥic̃* 'she is making tortillas now'

IMPERFECT PAST TENSE

1. NC timeless followed by *ʔanaHt̃* 'then' — *hiHcp ʔanaHt̃* 'she used to make tortillas/she was making tortillas'

PAST TENSE

1. C/NC past (emphasis on action, not on time) — *hiHc ʔiži·y* 'she made tortillas yesterday'
2. *ti·* 'already/completed' followed by C timeless — *ti· ĥic̃* 'she already made tortillas'
3. *ti· ʔanaHt̃* 'previously' followed by C timeless — *ti· ʔanaHt̃ ĥiHcta''ỹ ko·c̃ nhat̃ ma· t̃iHk* 'she had previously made all the tortillas when I arrived
4. *ʔoy* 'having gone' followed by C timeless — *c̃i· ʔoy ĥic̃* 'then she went and made tortillas'
5. *ʔanaHt̃* followed by C/NC timeless — *widi: ʔanaHt̃ hiHcp* '... who made tortillas then'

FUTURE TENSE

1. *-a·n* (Group I suffix) used in C/NC timeless — *hiza·mb habo·m* 'she will make tortillas tomorrow'
2. *-ip* (Group II suffix) used in C/NC timeless — *habo·m hiziṕ ha·nc̃ ti·y* 'tomorrow she will make tortillas for sure'
3. *-ip* (Group II suffix) used in C/NC timeless — *poyi''gip habo·m* 'she will run tomorrow' (*-ip* and *hiHc* do not collocate)
4. *nik̃š* 'going' followed by C timeless — *habo·m nik̃š ʔok hic̃* 'tomorrow she is going to go make tortillas'
5. *ko· ʔanaHt̃* 'when' followed by C timeless — *ko· ʔanaHt̃ ĥiHcta''ỹ wi·nʔit ñiksa''ñ* 'when she finishes making tortillas she will leave'

6. *ʔanaHt̃* followed by C/NC timeless — *mina: ʔanaHt̃ ñic̃* 'when is she going to make tortillas?'

FUTURE PERFECT

1. *ti· ʔanaHt̃* 'previously' — *ko· mwi·mbidip̃ ti· ʔanaHt̃ ñiHcta''ỹ* 'by the time (when) you return (previously) she will have finished making tortillas'

HABITUAL ACTION

1. NC timeless — *hiHcp* 'she makes tortillas (habitually)'

5.8 Accent. The major accent pattern is a feature of the phrase and clause. Words carry lesser degrees of stress. The phrase or clause accent affects the syllable nucleus and the syllable terminus if that terminus is a voiceless stop or a cluster of voiceless stops or includes voiceless stops. The accented syllable nucleus is of longer duration than its unaccented counterpart (an accented V may well be longer in duration than an unaccented V:); and it is pronounced with greater intensity. Voiceless stops and clusters of voiceless stops are aspirated when the syllable is accented; in unaccented syllables they are unaspirated. This feature of aspiration belongs to the phrase or clause accent rather than to a lower level. A word in an unaccented position in the phrase will have an unaspirated voiceless stop, whereas if that same word occurs in the accented position, the stop will be aspirated.

[he hɨbɨk wít^{h}] 'the dirty clothes' (hɨbɨk—unaspirated k)

[ha·nc̃ hɨbík^{h}] 'it's really dirty' (hɨbɨk—aspirated k)

The phrase accent occurs on the head word of the phrase or clause nucleus. If the head word has more than one syllable, the accent occurs on the final syllable if the syllable ends in a consonant or in the syllable nuclei V·, V:, V'', V', VH. The accent occurs on the penultimate syllable if the final syllable ends in syllable nucleus V. Exceptions to these rules for placement of stress are Spanish loans and a set of verbal suffixes: *-ip*, *-im*, *-ik*, *-kiš* (all Group II suffixes, see Sect. 4.2.2); the nominalizer *-in*, the stative clause nucleus marker *-it̃* and its alternate forms *-id̃i* and *-igi*, and the postclitics *ic̃* and *ik*. The suffixes listed above and the clitics never carry accent. Those which end in a voiceless stop are unaspirated. If one of the clitics follows one of the nonaccented suffixes, or if two nonaccented suffixes follow each other, then the accent falls on the syllable preceding both nonaccented morphemes. Spanish loans which are not suffixed or incorporated into compound stems are accented on the syllable on which the accent falls when used in Spanish. Spanish loans which are followed by a suffix or incorporated into compound stems follow the rules for Mixe.

nmɨ́:dɨ̃ɨ̃c̃ '... I have it' (*-ɨ̃ɨ̃* followed by *ɨc̃*, both unaccented)
kóHšɨkɨc̃ 'hit me!' (*-ɨk* followed by *ɨc̃*, both unaccented)
ganař²áHt 'to get (wages)' (*ganář* is Spanish)
sábado 'Saturday' (Spanish)
miéřkoles 'Wednesday' (Spanish)

Clause accent occurs in the clause nucleus on the verb phrase. Peripheral elements which are words are not accented. Peripheral elements which are phrases and noun phrase specifiers receive a phrase accent. Doublets carry accent on each phrase head, or in the case of clause-nucleus doublets, on each nucleus head.

Syllables that never receive an accent in any position receive especially weak articulation when the word in which they occur is also in a non-accented position. In the phrase *he hɨbɨk wɨ́t* the syllable *hɨ* of *hɨbɨk* is weakly articulated. In this position the vowel quality is often *ɨ*, or there may be a variation, with some speakers using *ɨ* and others using one of the other vowel qualities if the syllable nucleus is V. In compound verb stems, each stem receives the same intensity, with less intensity on the first syllable of two-syllable stems (see Sect. 4.1). The suffix *-ta·y* 'all' is pronounced with less intensity when followed by a stressed suffix.

nɨkšta''wá·mb 'everyone wants to go' (The final syllable receives the clause accent, the initial syllable is nonstressed, and *ta''w* is very weakly articulated.)

Stress is often used for emphasis. The emphatic stress always occurs on the syllable that ordinarily receives stress, but occurs with greater intensity.

²ɨ́:ɨ̃ nɨkšá·mbɨc̃ 'I want to go' (If *²ɨ:ɨ̃* is emphatically stressed it will receive a heavy accent, whereas the same clause may be spoken with the *²ɨ:ɨ̃* only normally stressed.)

Another device used with emphatic stress occurring on verbs is a final *ɨ* whose purpose seems to be a phonetic release of the emphatic stress rather than an abrupt closure. Examples of this may be observed in context in Appendix C, sentences 28, 30, 32.

6 SENTENCE LEVEL

6.0 The Mixe sentence consists of the obligatory Nucleus constituent, an optional Inner Periphery constituent, and an optional Outer Periphery constituent. There are sixteen sentence types based on contrasting nuclei. Fifteen of these form a system; the other one is extrasystemic. There are six sentence margin types which occur in the inner periphery, the sentence topic which also occurs in the inner periphery, and eight margin types which occur in the outer periphery. These are summarized in Formula 7, the Sentence.

Formula 7

The Sentence

+ Nucleus	± Inner Periphery	± Outer Periphery
Sequence	Locative Margin	Sentence Introducer
Paraphrase	Temporal Margin	Ligature
Stimulus-Response	Purpose Margin	Question Word
Coordinate	Cause Margin	Question Marker
Parallel	Concessive Margin	Response
Reason	Conditional Margin	Echo Question
Alternative	Sentence Topic	Vocative
Negative-Affirmative		Exclamation
Comparison		
Antithetical		
Limit		
Contrafactual		
Direct Quotation		
Indirect Quotation		
Indirect Question		
Simple		

In general, any of the peripheral constituents can accompany any of the nucleus types, although some combinations did not appear in the corpus of language data on which this study is based. The corpus consists of fifty pages of texts, mainly stories, written by a native speaker of Mixe, approximately 160 pages transcribed from taped discourses of all types, and fifty-four pages of isolated sentences written by a native speaker in response to a request for sentences containing certain words. The descriptions of sentence nucleus types are essentially independent of the periphery, and the descriptions of the periphery are independent of those of the nucleus types, except where the periphery is brought into the nucleus of certain sentence types.

The sentence nucleus constituent is expounded by clauses and other sentence nuclei. There are a few types (negative-affirmative, comparison, simple) whose bases can only be expounded by clauses (one base of the comparison sentence nucleus is expounded by a noun phrase), not by embedded sentences. A great deal of sentence embedding occurs in the other sentence bases. The inner periphery may also include embedded sentences and other peripheral elements. Clauses manifesting sentence bases may be reduced by an ellipsis of the clause nucleus when this can be supplied from the context. Where ellipsis is common, it is included in the description of the sentence nucleus or sentence margin.

Parenthetical sentences may be inserted between parts of the sentence nucleus or between the nucleus and periphery. The parenthetical sentence adds information or reminds the listener of some pertinent information previously stated. It is a full sentence dropped into another sentence, but it does not function as a real part of the sentence into which it has been dropped. An example of a parenthetical sentence is S 28, Appendix D.

Most of the sentence nucleus types may be either statements or questions. The questions are characterized by the interrogative outer peripheral elements and a rise in intonation on the final syllable of the sentence. The interrogative outer peripheral elements are optional. When these are omitted, the only distinguishing feature is the rising intonation. A statement has a falling intonation at the end of the sentence. Some speakers even drop into a whisper on the final unaccented syllables of statements. Except for the indirect question sentence nucleus type which is semantically a question (although it does not carry the rising intonation), questions are handled as part of the outer periphery of the sentence.

In this chapter, the sentence nucleus types are first presented, followed by the inner periphery and then the outer periphery.

6.1 Sentence Nucleus Types. The fifteen sentence nuclei forming a system are displayed in a three-by-five matrix. "The three series are Loose, Tight, and Balanced. Tight sentences show relatively more internal restriction, cohesion, and cross-reference than do the corresponding Loose sentences. Balanced sentences are characterized by a setting of one part against another by alteration, correlation, or equation. The order of sen-

Chart 16
Sentence Nucleus Types

	Juxtaposition	Concatenation	Alternation	Opposition	Quotation
Loose	Sequence	Coordinate	Alternative	Antithetical	Direct Quotation
Tight	Paraphrase	Parallel	Negative-Affirmative	Limit	Indirect Quotation
Balanced	Stimulus-Response	Reason	Comparison	Contra-factual	Indirect Question

tence types shows a certain progress in degree of cohesion" (Longacre 1970.794-96). Each of the systemic sentence nuclei is composed of more than one clause or embedded sentence. Since nearly all clause types and other sentence nuclei may expound a given base, no mention is made of the sentence base exponents unless there are restrictions. The systemic sentence nucleus types are displayed in Chart 16. A description of each sentence nucleus type is given below, followed by a description of the extrasystemic type.

6.1.1 **Juxtaposition Sentence Nuclei.** The juxtaposition sentence nuclei are divided into three types. The Sequence nucleus is the looser structure, consisting of two bases in chronological order having the same subject. This type is often characterized by pairs of sequential verbs such as go/arrive. The tighter structure is the Paraphrase nucleus, where the second base is a restatement of the first. The second base may be negative and the first base positive, or vice versa. The balanced structure is the Stimulus-Response nucleus, where there is a change of actors between the two bases and the action of the second base is stimulated by, or otherwise dependent on, the first. The verbs are often pairs such as listen/tell or send/go.

(a) The Sequence sentence nucleus consists of an Antecedent and a Consequent in this order. Two Consequent bases may occur.

1. *pues* *čĩ·* *kapš̃mido·ỹ* *he* *t̃o''s̃tHk*
well then he obeyed her the his wife
SI SI Antecedent

nidigi·ỹ *he* *ce·yd̃u''d̃* *ʔaŋho·t̃*
he for entered the eggs in the cave
Consequent

yi'' *ʔoy* *yaHpiẓiñ̃*
them having gone he brought them out
Consequent

'Well then, he obeyed his wife, entered the cave for the eggs, and brought them out.'

2. *nan* *we''c̃* *nniksa''ñ* *ka·ni·m*
Mother well I I go want Tehuantepec
Vocative SI Antecedent

ya· *ha·we·n* *cu:* *nha''da''ñic̃*
here in a little while late afternoon I arrive will I
Consequent

'Mom, I want to go to Tehuantepec, and I'll be back in a little while, late this afternoon.'

3. *ʔoy ni:* *ʔa·* *las* *ʔonse* *du'n* *ñikškiš̃* *miHko:ʒ* *ko·gapši''ỹ*
about at 11 o'clock thus they go pl. midnight they visit them
Antecedent Consequent

'They go about 11 o'clock; at midnight they visit them.'

(b) The Paraphrase sentence nucleus consists of a Statement and an Expansion. More than one Expansion base may occur, although there is usually just one.

1. *ko·* *p̃iHkkiš̃* *ka'* *wa:d* *ʔaHk͡š̃* *tuknuĩ̃* *m̃a·giš̃*
when they marry pl. no may they together they sleep pl.
Temporal Margin Statement

ʔa·wi·ŋguHk *ʔaHk͡š̃* *m̃a·giš̃*
apart they they sleep pl.
Expansion

'When they marry they may not sleep together: they sleep apart.'

2. *pis* *c̃i·* *nima''ỹ* *ko·*
well then he tells them that
SI SI Indirect Quotation Formula

ʔuŋ̃ *ti·* *ʔiHštiỹ*
their child completed he saw her continually
Statement

ti· *c̃oHkni* *ha''d̃* *mi:d* *ñi:ž*
completed his love it arrived with their daughter
Expansion

'Well then, he tells them that he continually thinks about their child; he loves their daughter.' (This Paraphrase sentence is embedded in an Indirect Quotation sentence.)

3. *c̃i·* *hada''* *ʔaHk͡š̃* *t̃igi''ỹ* *ni·p*
then this they they begin planting
SI Statement

yaHšuHtip *ʔaHk͡š̃* *ci·nʔiHš* *mi:d* *ʔažokš*
they make holes they pine trunk with their beaks
Expansion

'Then they began planting, making holes in the pine tree with their beaks.'

(c) The Stimulus-Response sentence nucleus consists of a Stimulus and a Response in this order.

1. *mug''gtiHk* *mido·giš* *čam* *nnima·yg̃iš̃* *ko·*
   Friends listen pl. now I tell you pl. that
   Vocative Stimulus Response

   yi *santo* *ʔec* *ʔa·wi·nnaš* *ka'* *yi''* *h̃u:g̃it̃*
   the saint and pictures no they they alive are
   (an Indirect Quotation is embedded in the Response)

   'Friends, listen; now I tell you that the saints and pictures aren't alive.'

2. *he* *yik* *ha''y* *ʔo:y* *ʔaHk͡š̃* *ʔinma:ñigi*
   the black people really they they clowns are
   Stimulus

   ʔo:y *ha''y* *š̃i·k̃*
   really people they laughed
   Response

   'The black people are real clowns; the people really laughed.'

3. *pis* *he* *miš̃* *keš̃* *t̃aH* *t̃e:d̃*
   well the boy he sends them his mother his father
   SI Stimulus

   nik͡š̃ *yaHkap͡š̃tuñ* *he* *to''š̃͡ha''y*
   going they ask for her the woman
   Response

   'Well, the boy sends his parents, and they go ask for the woman.'

6.1.2 Concatenation Sentence Nuclei. The Concatenation sentence nuclei include the Coordinate nucleus, the Parallel nucleus, and the Reason nucleus. The bases of the Coordinate nucleus are joined by the conjunction *ʔe·* 'and'. The conjunction loosely connects bases in chronological or logical movement. The participating bases may have unlike tenses and referents. All combinations of positive and negative bases may occur. The Coordinate sentence is used to express a lexical antithesis when the thesis is a statement and the antithesis is a question. When an attempt is made to negate both bases of an Alternative sentence, Coordinate or Parallel sentences are used. The bases of the Parallel sentence nucleus are tightly joined by the conjunction *ʔec* 'and'. The two bases are usually parallel constructions. Both are usually either negative or positive. The action of the two bases is simultaneous. When the emphasis is on simultaneity the parallelism may not be evident, even occasionally allowing a positive-negative coupling. The Reason sentence nucleus consists of a Reason and a Result introduced by the conjunction *pa:d̃* 'therefore'.

(a) The Coordinate sentence nucleus consists of Coordinate 1, the conjunction *ˀe·* 'and', and Coordinate 2, in this order.

1.

mi:ǯ	*mmina·mb*	*ko·*	*ˀo:y*	*mˀiyi″ỹ*	*ˀe·*
you	you say	that	really	you play	and

Coordinate 1 (embedded Indirect Quotation) Conjunction

neH	*ko·*	*kaʼ*	*ˀiži·y*	*mmada·k̃*
why	that	no	yesterday	you won

Coordinate 2

'You say that you really play; and why didn't you win yesterday?'

2.

kaʼč̃	*nnikša″ñ*	*ˀe·*	*mi:ǯ*	*mnikša·mbi*
no I	I go will	and	you	you go will QM

Coordinate 1 Conjunction Coordinate 2 QM

'I'm not going; but are you going?'

3.

yi	*kwa·y*	*kaʼ*	*kiʼm*	*k̃e″g̃*	*ˀe·*
the	horse	no	himself	he runs away	and

Coordinate 1 Conjunction

ni:	*ha″y*	*kaʼ*	*meč̃*
nor	people	they no steal him	

Coordinate 2

'The horse doesn't run away by himself, nor do people steal him.'

(b) The Parallel sentence nucleus consists of Parallel 1, the conjunction *ˀec* 'and', and Parallel 2, in this order. More than one Conjunction and Parallel 2 may occur, but it is more common to have just one.

1.

ˀak	*ka:n*	*kaʼ*	*ˀ̃oyigi*	*ˀec*
only	salt	no	it good is	and

Parallel 1 Conjunction

ˀak	*pa″g*	*kaʼ*	*ni·ŋduʼn*	*ˀ̃oyigi*
only	sweet	no	also	it good is

Parallel 2

'Only salt isn't good, and only sugar isn't good either.'

2.

ˀa·žondi·yg̃ič̃	*ˀec*	*ko·*	*š̃yaHho·tma″dibič̃*
tease me	and	when	me you make mad will me
Parallel 1	Conjunction	Temporal Margin	

wi·nˀit	*ngoža″ñ*
at that time	I hit you will
ligature	Parallel 2

'Tease me, and when you've made me mad I'll hit you.'

(This is one of the very few examples in which a Sentence Margin

interposes between the bases of a sentence nucleus. A ligature also occurs because of the interposed margin.)

3.

ka'	*mẓok̃*	*caHp muñ*	*ˀec*	*ni:*	*mga cok̃*	*šiHki*	
no	you want it	potatoes	and	nor	you no want it	beans	QM
Parallel 1			Conjunction		Parallel 2		QM

'Don't you want either potatoes or beans?'

(c) The Reason sentence nucleus has a Reason, the conjunction *pa:d̃* 'therefore', and a Result. The Reason may follow the conjunction plus Result. The Reason tagmeme is manifested by an exponent of the Cause Margin or the Purpose Margin (see Sects. 6.2.3 and 6.2.4). Occasionally there occur two Reason tagmemes or two Result tagmemes (Result tagmeme is always accompanied by the conjunction).

1.

ˀi:ẓ̃	*kom*	*ˀo:y*	*ˀi:ẓ̃*	*nha''yg̃oža''ñ*
I	because	really	I	I people hit want
Sentence Topic	Reason (exponent of Cause Margin)			

pa:d̃	*ˀi:ẓ̃*	*yi''*	*hadu'n*	*ti·*	*nduñ*
therefore	I	him	thus	completed	I did it
Conjunction			Result		

'Because I really want to hit people, therefore I did it to him.'

2.

pa:d̃	*ti·*	*nmi:dmiñ*	*ma·*	*dia:b*	*kaHp*
therefore	completed	I with you came	to	this	town
Conjunction		Result			

higiš	*wa:d*	*mho·tkuHkˀat̃*
in order that	may	you happy be
Reason (exponent of Purpose Margin)		

'Therefore I came with you to this town in order that you may be happy.'

3.

pa:d̃	*kišpi*	*ka'*	*ha''y*	*him*	*p̃iHkkiš̃*
therefore	reason	no	people	there	they marry pl.
Conjunction			Result		

he''	*ko·*	*ka'*	*te:d̃*	*ña''d̃*
it	because	no	priest	he arrives
Reason (exponent of Cause Margin)				

pa:d̃	*ˀaHkš̃*	*wi·ŋdu·m*	*nikš̃*	*p̃iHkkiš̃*
therefore	they	different place	going	they marry pl.
Conjunction			Result	

'People don't marry there because the priest doesn't come; therefore they go elsewhere to marry.'

6.1.3 Alternation Sentence Nuclei. The Alternation sentence nuclei include the Alternative nucleus, the Negative-Affirmative nucleus, and the Comparison nucleus. The bases of the Alternative nucleus are loosely joined by the conjunction *ʔo·* 'or'. Only one negative base may occur. When both bases are negated, Coordinate or Parallel sentence nuclei result. The bases of the Negative-Affirmative sentence nucleus are juxtaposed in a tight, restricted construction. The first two bases are negative and the third base is positive. The bases of the Comparison sentence nucleus are joined by the conjunction *ka''d̃*. The first base is always positive. The second base is always a noun phrase which is compared to the noun phrase in the first base.

(a) The Alternative sentence nucleus consists of Alternative 1, the conjunction *ʔo·* 'or', and Alternative 2, in this order. Alternative 2 may be filled by the exponent of any sentence nucleus base or this base may be reduced to the specific referent (the lexical item under attention), usually a noun phrase.

1. *yɨ kwa·y kɨ'm tɨ· k̃e''g̃ ʔo·*
   the horse himself completed he ran away or
   Alternative 1 Conjunction
   k̃ahet̃igɨ ko· ha''y ti· mẽži:
   it might be that people completed him they stole
   Alternative 2 (embedded Indirect Quotation)
   'The horse ran away by himself, or it might be that someone stole him.' (See Sect. 6.1.2 (a), example 3, for the negative of this sentence.)

2. *mzoHk̃p caHp muñ ʔo· mzoHk̃p šɨHkɨ*
   you want it potatoes or you want it beans QM
   Alternative 1 Conjunction Alternative 2 QM
   'Do you want potatoes, or do you want beans?' (See Sect. 6.1.2 (b), example 3, for the negative of this sentence.)

3. *mzoHk̃p caHp muñ ʔo· šɨHkɨ*
   you want it potatoes or beans QM
   Alternative 1 Conjunction Alternative 2 QM
   'Do you want potatoes, or beans?' (In this example Alternative 2 has been reduced from the full base in example 2.)

4. *mnɨkša·mb ʔo· ka' mnɨkša''ñɨ*
   you go will or no you go want QM
   Alternative 1 Conjunction Alternative 2 QM
   'Will you go, or don't you want to?'

5. *mnikša·mb* *ʔo·* *ka!*
you go will or no
Alternative 1 Conjunction Alternative 2 (reduced)
'Will you go, or not?'

(b) The Negative-Affirmative sentence nucleus consists of Negative 1, Negative 2, and Positive in this fixed order. Negative 1 may be expounded by any negative clause. Negative 2 is expounded by a negative clause beginning with the negative *ni:* 'nor', which always requires the negative proclitic *ka* 'no' in the verb phrase. The positive base may be expounded by any positive clause. No embedding of other sentence nucleus types has been observed in the Negative-Affirmative sentence nucleus.

1. *mi:ę̃* *ka!* *mi:ę̃* *mwa''cha''yigi*
you no you you white person are
Sentence Topic Negative 1

ni: *mga* *yikha''yigi* *čino* *mi:ę̃*
nor you no black person are Chinese you are
Negative 2 Positive

'You aren't a white person, nor are you black; you're Chinese.'

2. *ka!* *ndu''yo''ya·nim* *ni:* *nga* *ʔayuHkyaHʔiña''wa·nim*
no we trail walk will inclusive nor we no animal ride will inclusive
Negative 1 Negative 2

ʔabionho·t̃ *nikša·nim*
airplane inside we go will inclusive
Positive

'We aren't going to walk the trail, nor are we going to ride animals; we're going by plane.'

3. *mi:ę̃* *ʔaH͡kš̃* *ka!* *mnikša''ñ* *ʔuk kwaHk*
you plural no you go will Dog Head (Ixquintepec)
Negative 1

ni: *mga* *nikša·ngiš̃* *kiŋgi''b̃*
nor you no go will pl. Juquila
Negative 2

him *ma·* *ka·ni:mbuHštiHk* *mnikša·ngiš̃*
there to Tehuantepec jail you go will pl.
Positive

'You aren't going to Ixquintepec, nor are you going to Juquila; you're going to the Tehuantepec jail.'

(c) The Comparison sentence nucleus consists of Comparative, the conjunction *ka''d̃*, and Item in this fixed order. The exponent of Comparative is always positive. The conjunction seems to be a form of the negative

ka!, perhaps with the stative clause marker *-ɨt̃* attached in a slightly modified "frozen" form. Item is always a noun phrase. No embedding of other sentence nucleus types occurs.

1. *yɨ mula ha·nc̃ mɨk ka''d̃ buřo*
   the mule it really strong is not so donkey
   Comparative Conjunction Item
   'The mule is really stronger than the donkey.'

2. *yɨ ca''ñ ʔo:y k̃o·ʒigi'ñigi ka''d̃ tu''g ka·*
   the snake really it dangerous is not so a tiger
   Comparative Conjunction Item
   'The snake is really more dangerous than a tiger.'

3. *dia:b pi! miš̃ ha·k ye:ga·mb ka''d̃ ʔaHc̃*
   this little boy he more grow will not so his older brother
   Comparative Conjunction Item
   'This little boy is going to grow bigger than his older brother.'

6.1.4 Opposition Sentence Nuclei. The Opposition sentence nucleus types include the Antithetical sentence nucleus, the Limit sentence nucleus, and the Contrafactual sentence nucleus. The bases of the Antithetical sentence nucleus are loosely joined by the conjunction *pe:ř* 'but'. It shows contrast between two bases, one of which is positive and the other negative. It also shows contrast between antonyms and comparisons without an overt positive-negative relation. The Antithetical sentence nucleus is utilized when the thesis is a question and the antithesis is a statement. When, however, the thesis is a statement and the antithesis is a question, the Coordinate sentence nucleus is used. The Limit sentence is a tight semantic construction which can allow considerable deletion because although the explicit manifestation may be deleted, the implicit recognition of the manifestation is always understood. The Contrafactual sentence is a balanced construction with Protasis containing the contrafactual formula *ko· ʔiž̃ip̃* and Apodosis containing the contrafactual word *ʔiž̃ip̃*, the desiderative/future suffix *-a·n*, or the exponent of the Conditional Margin.

(a) The Antithetical sentence nucleus consists of Thesis, the conjunction *pe:ř* 'but', and Antithesis in this order. Thesis may be manifested by the exponent of the Concessive Margin or any clause. Antithesis may be manifested by another sentence nucleus type, a clause, or a clause reduced by ellipsis of the nucleus.

1. *tɨ·c̃ ngoš̃ pe:ř ka! tɨ· ỹa'ʃ̃*
   completed I I hit him but no completed he cried
   Thesis Conjunction Antithesis
   'I hit him, but he didn't cry.'

2. *ʔoy mga ʔiwa''ñ pe:ř*
although you no sing want but
Thesis (exponent of Concessive Margin) Conjunction
kopiť ko· mʔiwiṗ
necessary that you sing will
Antithesis (embedded Indirect Quotation)
'Even though you don't want to sing, you will.'

3. *mẓigi·ybi pe:ř ʔi:ẕ ka'*
you are afraid QM but I no
Thesis QM Conjunction Antithesis (reduced clause)
'Are you afraid? I'm not.'

(b) The Limit sentence nucleus consists of Limit Thesis, the conjunction *ʔišti· ko·n* 'until', Limit Base, the conjunction *wi·nʔit* 'at that time', and Limit Antithesis, in this order. The semantic antithesis of Limit Thesis to Limit Antithesis may be by overt negation or by lexically antithetical verbs. Limit Thesis or Limit Antithesis may be deleted, but not both from the same sentence. The conjunction *wi·nʔit* is deleted when Antithesis is deleted. Occasionally Limit Base is deleted, but then Limit Antithesis must occur. Limit Thesis, Limit Base, and Limit Antithesis are expounded by clauses or by noun phrases which are reduced clauses. The conjunction *ʔišti· ko·n* is a doublet and either *ʔišti·* or *ko·n* may occur alone.

1. *yi kwa·y ka' ti· p̃oyi''g̃ ʔišti· ko·n*
the horse no completed he ran until
Limit Thesis Conjunction
ti· ʔiš̃ tu''g ye:w
completed he saw her a mare
Limit Base
wi·nʔit ti· p̃oyi''g̃
at that time completed he ran
Conjunction Limit Antithesis
'The horse didn't run until he saw a mare; then he ran.'

2. *ʔa·žondi'' yi waH ʔišti· ko·n*
tease the cow until
Limit Thesis Conjunction
h̃o·tma''dibi wi·nʔit mʔišmaẓiṗ
it gets mad at that time you leave it alone will
Limit Base Conjunction Limit Antithesis
'Tease the cow until it gets mad; then leave it alone.'

3. *ka' ti· ỹa''s̃ ʔišti· ko·n ti· ỹu'k̃š̃*
no completed he cried until completed he moved
Limit Thesis Conjunction Limit Base
'He didn't cry until he moved (then he cried).' (Deletion of the conjunction *wi·nʔit* and Limit Antithesis.)

4. *ko·c̃ nẓo·ñ ni·wi·m ka'c̃ nwakšiHp̃*
when I I left Mexico City no I I stopped
Temporal Margin Limit Thesis

ʔišti· ʔišmi
until Ixmi
Conjunction Limit Base (reduced)

'When I left Mexico City, I didn't stop until (I arrived at) Ixmiquilpan (then I stopped).' (Deletion of the conjunction *wi·nʔit* and Limit Antithesis; reduction of Limit Base.)

5. *ʔišti· ko·n mdu·ŋ k̃ižip̃ wi·nʔit wa:d mbo·k̃š̃*
until your work it is finished at that time may you rest
Conjunction Limit Base Conjunction Limit Antithesis
'(You may not rest) until your work is finished; then you may rest.' (Deletion of Limit Thesis.)

(c) The Contrafactual sentence nucleus consists of Protasis and Apodosis in any order. The exponent of Protasis includes the contrafactual formula *ko· ʔiž̃ip̃* and the exponent of Apodosis contains either the contrafactual word *ʔiž̃ip̃* or the desiderative/future suffix *-a·n*.

1. *ko· ʔiž̃ip̃ ti· koš̃ nda·tpi:dic̃*
if would completed he hit him my grandfather my
(contrafactual formula) Protasis

wi·nʔitic̃ ʔanaHt̃ ngoža''ñ
at that time I then I hit him will
(ligature) Apodosis

'If he had hit my grandfather, I would have hit him.'

2. *ti· ʔiž̃ip̃ he''bi nʔiyi''ỹic̃ ko· ʔiž̃ip̃ ti· nʔoỹ*
completed would can I play I if would completed I went
(contrafactual word) Apodosis (contrafactual formula) Protasis
'I could have played if I had gone.'

6.1.5 Quotation Sentence Nuclei. The quotation sentence nucleus types include the Direct Quotation sentence nucleus, the Indirect Quotation sentence nucleus, and the Indirect Quotation nucleus. The Direct Quotation is more loosely constructed with an optional Direct Quotation formula preceding or following the Quote. The preposed Direct Quotation formula is more common. The Direct Quotation formula is expounded by an embedded sentence nucleus containing a verb of speech or a similar lexical

equivalent. The exponent is usually a Simple sentence, often with Sentence Margins and other peripheral elements. However, other sentence nucleus types may occur expounding the Direct Quotation formula. The Indirect Quotation is more tightly constructed, with an obligatory Indirect Quotation formula which must precede the Quote. The Indirect Quotation formula usually contains the word *ko·* 'that' or *neH* 'like, how', whereas the Direct Quotation formula may never contain *ko·* or *neH*. A variety of verbs and expressions may expound the Indirect Quotation formula. Besides the common verbs of speech, thinking, knowledge, and feeling, are expressions such as *kopiť* 'it is necessary (that)', *ni''g ʔoy* 'it is better (that)', and *ǩaheťigi* 'it might be (that)'. The Indirect Question consists of an obligatory Indirect Question formula which is expounded by verbs of questioning and the word *pen* 'if' which precedes the Quote. The Quote contains the embedded echo question *ʔo· ka'* 'or not', either explicitly manifested or implicitly understood. The 'whether ... or not' construction balances the Indirect Question formula with the Quote. No sentence embedding occurs in either the Indirect Quotation formula or the Indirect Question formula.

(a) The Direct Quotation sentence nucleus consists of Direct Quotation Formula and Quote.

1. *čï·* *ʔi:ž* *nʔazo·ỹič* *nmina·ñič*
   then I I answered them I I said I
   Direct Quotation Formula (embedded Paraphrase sentence)

   mieřkoles *i* *huebes* *i* *bieřnes*
   Wednesday and Thursday and Friday
   Quote

   'Then I answered them; I said, "Wednesday and Thursday and Friday".'

2. *yi''* *w̃i·nma·yb̃*
   he he thinks it
   Direct Quotation Formula (embedded Simple sentence)

   habo·m *nnikša''ñič*
   tomorrow I go will I
   Quote

   'He thinks, "Tomorrow I will go".'

3. *mama·* *mama·* *pubeHtkič*
   Mother Mother help me
   Quote

   ʔiži·y *ỹa·s̃* *pi'k* *ʔana'k*
   yesterday he cried little child
   Direct Quotation Formula (embedded Simple sentence)

   '"Mother, Mother, help me!" cried the little child yesterday.'

(b) The Indirect Quotation sentence nucleus consists of Indirect Quotation Formula and Quote.

1. *yi'' ti· k̃apšta''g̃ ko· wen dios pubeđi:*
   he completed he prayed that may God help him
   Indirect Quotation Formula Quote
   'He prayed that God might help him.'

2. *k̃aheẽigi ko· m̃i:d kwa·y ²o· buño*
   it might be that he has it horse or donkey
   Indirect Quotation Formula Quote
   'It might be that he has a horse or donkey.'

3. *ti· nwi·nmaỹiẽ ko·*
   completed I thought it I that
   Indirect Quotation Formula

   yi'' ti· s̃̃nima''ỹ ko·
   he completed you he told that
   Quote (embedded Indirect Quotation sentence)

   mi:z̃ ti· mmina''ñ ko·
   you completed you said that
   (Quote of embedded Indirect Quotation sentence, itself embedded in another Indirect Quotation sentence)

   ²o:y nhibikha''yigiẽ
   really I bad person am I
   (Quote of the final embedded Indirect Quotation sentence)

   'I thought that he told me that you said that I am really a bad person.' (This is an elicited sentence, and is included here only to show how many quotation formulas may be embedded. It is unlikely one would hear this in ordinary speech.)

4. *pis du'niẽ nna·yh̃iwi·yi du'n neH*
   well thus I I myself felt thus like
   SI Indirect Quotation Formula

   tu''g ²uHc ²a:y p̃oHwidiẽ
   a leaf it blows around
   Quote
   'Well, I felt like a leaf blown around by the wind.'

(c) The Indirect Question nucleus consists of Indirect Question Formula and Quote.

1. *yaH²a·midow fwan pen nikša·mb ²o· ka'*
   ask John if he goes want or not
   Indirect Question Formula Quote
   'Ask John if he wants to go or not.'

2. *ti·c̃* *nyaH²a·midoỹ* *pen* *c̃oHt̃p̃* *he* *me:ñ*
completed I I asked him if he wants it the money
Indirect Question Formula Quote

'I asked him if he wants the money (or not).'

3. *c̃amic̃* *n²ok* *²iža''ñ* *pen*
now I I probably see want if
SI Indirect Question Formula

ha·nc̃ *²o:y* *s̃coḳic̃* *yi* *ndo''s̃ha''yic̃*
really really me she loves me the my woman my
Quote

'Now I'll find out if my wife really loves me (or not).'

6.1.6 Simple Sentence Nucleus. The Simple sentence nucleus consists of only one base expounded by any clause. Any amount of peripheral material may accompany the Simple sentence nucleus.

1. *neH ko·* *ka'* *ti·* *ha''d̃*
why no already he arrived
QW Base

'Why hasn't he arrived?'

2. *²e·* *pis* *ye''d̃iHk* *ko·m* *c̃oHḳp̃*
and well man because he loves her
SI SI Sentence Topic Cause Margin

he *to''s̃ha''y* *pis* *ḳo·du·m̃b̃*
the woman well he works for her
Ligature Base

'And well, the man, because he loves the woman—well, he works for her.'

3. *pues* *he waH* *ko·* *²iHs̃* *ko·* *ka'* *²anaHt̃* *ḳa·nit̃*
well the cow when she saw it that no then it salt was
SI Sentence Topic Temporal Margin (with embedded Indirect Quotation)

wi·n²it *teHs̃* *mi:d* *w̃i·mbok*
at that time she butted it with her forehead
Ligature Base

'Well the cow, when she saw that it wasn't salt, butted it with her forehead.'

6.2 Inner Periphery. The inner periphery includes the Sentence Margins and the Sentence Topic. The Sentence Margins are subordinate clauses which may occur with any of the sentence nucleus types just described. More than one Margin may occur with a given sentence nucleus. The Margins are all relator-axis clauses which contrast according to the words

expounding the relator slot and the use of the entire clause on sentence and paragraph levels. The axis may also be expounded by embedded sentence nuclei. The Sentence Topic may be expounded by a word, phrase, or clause. The Sentence Topic refers to the subject of the sentence, or, in the case of an adverbial phrase, it calls attention to the location or time of the action of the sentence.

Chart 17

Sentence Margin Types

	Time and Space	Reason	Implication
Restricted Distribution	Locative Margin	Purpose Margin	Concessive Margin
Unrestricted Distribution	Temporal Margin	Cause Margin	Conditional Margin

The Sentence Margins form a system in a two-by-three matrix. Chart 17 displays the Sentence Margins. The Locative, Purpose, and Concessive Margins are somewhat more restricted in distribution than are the Temporal, Cause, and Conditional Margins, which are widely distributed and function in Paragraph level linkage as well.

6.2.1 Locative Margin. The Locative Margin consists of the relator *ma·* 'where' and the axis. It may be either preposed or postposed to the sentence nucleus. Only one Locative Margin occurs in a sentence. When the Locative Margin is preposed to the sentence base, it is often preceded by a Temporal Margin and the two together form a time-space unit semantically (see example 2 below).

1. *c̃i· he ha''y h̃a· ʔiHšwi·mbiHt̃ pe:ř ka' ʔiHšpa·t̃*
then the person he in vain looked back but no he found it
SI Antithetical Sentence Nucleus

ma· ʔanaHt̃ he pi' ma''žuŋ ti· ya''š̃
where then the little baby completed he cried
Locative Margin

'Then the person looked back, but he couldn't find from where the little baby had cried.'

2. *ko· h̃a'tta''ỹ ma· tiHk k̃oHha''ñ pis c̃i·*
when they arrive all where house they build want well then
Temporal Margin Locative Margin ligature

he''du'n ha''y yaHtu·ŋba:d̃ he pu'y
specifically people they cause it to work the boards
Simple Sentence Nucleus

'When they all arrive where they want to build the house, well then, the people find specific use for the lumber.'

6.2.2 **Temporal Margin.** The Temporal Margin consists of a relator and the axis. The relator slot may be expounded by a number of temporal words: *ko·* 'when', *ko·go:* 'each time', *ma:b* 'since', *mina:* 'when', *na:g ʔo·k na:g ʔo·k* 'each time', *wi·nʔit* 'at that time', *wi·nʔiĩ* 'at the exact same time. The Temporal Margin may be either preposed or postposed to the sentence nucleus, or when two occur, one may be preposed and the other postposed, or both may be either preposed or postposed.

1. *ʔe· ko· he ʔokta:g ʔa·yo·b wĩ·mbiHĩ*
   and when the lady poor one she returned
   SI Temporal Margin
   ñikšni ʔanaHĩ ma· mũctiHk
   she went then to her kitchen
   Simple Sentence Nucleus
   wi·nʔit tuˈˈg piˈ ho·n ʔoy ʔiỹ ma· ĩiHkwi·ndu:
   at that time a little bird having gone he sang on her house front
   Temporal Margin

   'And when the poor old lady returned, she went to her kitchen; then a little bird sang on her porch.'

2. *ma:b ʔaHk̃š̃ mbik̃*
   since you plural you married
   Temporal Margin
   na:g ʔo·k ti· mna·yũoõi:
   how many times completed you each other hit
   Simple Sentence Nucleus

   'Since you've been married, how many times have you hit each other?'

3. *ʔe· na:g ʔo·k na:g ʔo·k ʔanaHĩ yaHnaš̃ he cuHk ma· ʔawak*
   and each time then he passed it the knife on his mouth
   SI Temporal Margin
   ỹaHnaHš̃p ʔanaHĩ ni·ŋduˈn ma· ỹoˈˈgpaHk peːř kaˈ ʔanaHĩ
   he passed it then also on his throat but not then
   Antithetical Sentence Nucleus
   yaHnaš̃ cuHkhiHp
   he passed it knife edge

   'And each time he passed the knife on his beard, he also passed it across his throat, but he didn't use the sharp edge.'

4. *ti· ʔanaHĩ kehe: ĩuˈˈyoˈyg̃iš̃*
   previously a long way they trail walked plural
   Simple Sentence Nucleus

ko· *he* *pi'* *kiš̃* *ha''m̃eHcko·t̃* *ko·*
when the little girl she remembered it that
Temporal Margin

ti· *ʔanaHt̃* *k̃i''g* *ʔišyo''ỹ*
previously her sandals she leave walked
(Indirect Quotation embedded in Temporal Margin)

'They had walked on the trail a long way when the little girl remembered that she had walked off without her sandals.'

6.2.3 Purpose Margin. The Purpose Margin consists of a relator and the axis. The relator slot may be expounded by the words *hig̃e''*, *higiš*, and *he''giš*, all meaning 'in order that'. The Purpose Margin is always postposed to the sentence base. Only one may occur.

1. *kapš̃midow* *mde:d̃* *higiš* *ka'* *wa:d* *s̃wobip̃*
obey your father in order that no may you he hit will
Simple Sentence Nucleus Purpose Margin

'Obey your father in order that he may not hit you.'

2. *pen* *ti·* *he* *ha''y* *myaHʔo''g̃* *ni·gapš*
if completed the person you killed confess it
Conditional Margin Simple Sentence Nucleus

he''giš *mmi·hu'ñ* *nmo''wibi*
in order that your wages I give you will
Purpose Margin

'If you killed the person, confess it, in order that I may give you your pay.'

6.2.4 Cause Margin. The Cause Margin consists of a relator and the axis. The relator slot may be expounded by the words *ko·m*, *ko·*, *he'' ko·*, *he''giš ko·*, all meaning 'because'. The Cause Margin may be preposed or postposed to the sentence nucleus. Only one occurs.

1. *ti·c̃* *pelikula* *nʔiš̃* *ʔe·* *mi:z̃* *ka'*
completed I film I saw it and you no
Coordinate Sentence Nucleus

he'' ko· *ʔanaHt̃* *mma''ỹ*
because then you slept
Cause Margin

'I saw the film and you didn't because you were sleeping.'

2. *pues* *he* *ha''y* *ko·m* *m̃i:d* *ʔanaHt̃* *bu:r̃* *ʔayuHk*
well the man because he had them then donkey animal
Cause Margin

tu·t *ce·y* *ʔo:y* *ʔanaHt̃* *ʔa·mido·wʔidaˈlñ* *neH*
turkey chicken really then he listening was wanted how
Indirect Quotation Nucleus

ʔayuHk *kwa·y* *ña·yñigapškiš̃*
animal horse they each other with talk plural
(rest of Indirect Quotation Nucleus)

'Well, the man, because he had animals and fowl, was really wanting to listen to how they talked to each other.'

6.2.5 Concessive Margin. The Concessive Margin consists of the relator *ʔoy* 'although' and the axis. It may be preposed or postposed to the sentence nucleus. The Concessive Margin may be made contrary to fact by the addition of the word *ʔiž̃ip̃*. The Concessive Margin is either negative, using the verbal proclitic *ka*, or qualified by the use of the verbal proclitic *ha·* 'frustrative' (which can be thought of as a type of negative). The positive may be expressed by the Conditional Margin, but not by the Concessive Margin. When the exponent of the Concessive Margin occurs, it is often found filling one base of the Antithetical sentence. Only one Concessive Margin occurs in a sentence.

1. *peːř* *hiː* *ni·ŋduˈn* *widiː* *ñiːd* *ũi·nmaˈñ*
but there are also who they have it their thoughts
SI Simple Sentence Nucleus

ʔoy *t̃aH* *t̃eːd̃* *kaˈ* *miːdid̃i*
although their mother their father no they have them
Concessive Margin

'But there are also those who think well, although they don't have parents.'

2. *ʔoy* *nga* *kayaˈˈñic̃* *peːř* *ko·c̃* *nʔiš̃* *hi·k̃š̃*
although I no eat want I but when I I see food
Concessive Margin Temporal Margin

s̃p̃a·tpic̃ *yuː*
me it finds me hunger
Antithetical Sentence Nucleus (including the Concessive Margin which manifests the Thesis)

'Although I don't want to eat, when I see food I get hungry.'

3. *ʔoy* *ʔiž̃ip̃* *h̃a·* *yaHkaˈˈỹi* *yi* *kwa·y*
although contrary to fact him he in vain throws the horse
Concessive Margin

yi'' ỹaHpeda·m͡b hadu''g ʔo·k
he he mount him will another time
Simple Sentence Nucleus

'Although the horse would throw him, he would mount again.'

6.2.6 Conditional Margin. The Conditional Margin consists of the relator *pen* 'if' and the axis. It may be preposed or postposed to the sentence base. Only one occurs. When the Conditional Margin is preposed, the sentence may be reduced to the point of containing no more than *ni·ŋdu'n* 'also' and a pronoun. Less reduction may also occur.

1. *yi to''s͡ha''y ka' s͡coga''ñ pen mʔu·kp*
the woman no you she like will if you drink
Simple Sentence Nucleus Conditional Margin
'The woman isn't going to like you if you drink.'

2. *pen ti· mgu''z̃i: pis pidi''gni*
if already you satisfied well get up
Conditional Margin Ligature Simple Sentence Nucleus
'If you are already satisfied, well, get up!'

3. *pen mmi·nik͡sp ʔizim ni·ŋdu'n ce·yi*
if you with take it pig also chicken QM
Conditional Margin reduced sentence nucleus QM
'If you take the pig, (are you taking) the chicken also?'

4. *pen mgaya·mb ni·ŋdu'n yi'' hi*
if you eat will also he QM
Conditional Margin reduced sentence nucleus QM
'If you are going to eat, (is) he too?'

6.2.7 Sentence Topic. The Sentence Topic consists of a word (pronoun), phrase (noun or relator-axis), or clause. The Sentence Topic usually occurs preceding a sentence margin that is preposed to the sentence nucleus. It will occur following sentence introducers if any occur. The Sentence Topic may permute to a position immediately preceding the sentence nucleus. In that case a cross-referencing pronoun or other word will also occur in the sentence nucleus.

1. *ʔe· pis ye''d̃iHk ko·m c̃oHk͡p he to''s͡ha''y*
and well man because he loves her the woman
SI SI Sentence Topic Cause Margin
pis k̃o·du·m͡b
well he works for her
Ligature Simple Sentence Nucleus
'And well, the man, because he loves the woman, he works for her.'

2. *ʔe· čï· ko· k̃aya·ngiš̃ pis yi to''š̃ha''y*
and then when they eat will plural well the woman
SI SI Temporal Margin Ligature Sentence Topic

yi'' ỹaHki''buHp̃ yi ye''d̃iHk
she she causes hand wash the man
Cross-referencing Pronoun Simple Sentence Nucleus

ko· k̃aya''ñ
when they eat will
Temporal Margin

'And when they are going to eat, well the woman, she helps the man wash his hands, when they are going to eat.'

3. *ʔe· na:g to''š̃ha''y ʔadi''č̃ ko· ka' ye''diHk co k̃*
and some women they do because no man they like him
SI Sentence Topic Cause Margin

pis ka' yaHki''buHy ka' yaHki''demi''ỹ ni:
well no they cause hand wash no they into hand pour water
Ligature Paraphrase Sentence Nucleus

'And some women, because they don't like the man, well they don't help him wash his hands, they don't pour water on his hands.'

4. *pues he wi·nʔit cu: ko· he buño tu·mbiẓi·m̃*
well that same night when the donkey he work left
SI Sentence Topic Temporal Margin

wi·nʔit he ma' waH nima·ỹ he buño ʔa·yo·b
at that time the big ox he told him the donkey poor one
Ligature Simple Sentence Nucleus
(cross-reference)

'Well that same night, when the donkey left work the big ox told him . . .'

5. *ma· tu''g ʔa·m̃ho·t himik*
in a forest there they say
Sentence Topic Cross-referencing Word

ʔanaH t̃ čïna''ỹ tu''g ha''y mi:d t̃o''s̃iHk
then he lived a person with his wife
Simple Sentence Nucleus

'In a forest, so they say, lived a man and his wife.'

6.3 **Outer Periphery.** The outer periphery occurs generally farther away from the sentence nucleus than the inner periphery. It is also less influenced by the nucleus and does not influence the nucleus. Some of the

Chart 18

Outer Periphery Types

Distribution	Ligature	Interrogative	Response	Attention
Initial	Sentence Introducer	Question Word	Response	Vocative
Medial and Final	Ligature	Question Marker	Echo Question	Exclamation

Varied Distribution

outer periphery exponents may also be exponents of the trigger slot of the conjunct clauses, which however does not affect the sentence nucleus but does affect the clause nucleus. The outer periphery has been divided into eight types. These are displayed in Chart 18. Distribution of the Attention tagmeme is more varied than the others, occurring initially, medially, and finally. However, Vocative usually occurs initially, especially in written text.

The Sentence Introducer slot is filled by the words *pɨs/pues* 'well', *c̃i·* 'then', *wi·nʔit* 'at that time', *we:n* 'good', *pe:ř/peřo* 'but', *ʔe·* 'and', *ʔec* 'and', *we''* 'well', *ni·ŋdu'n* 'also', *pa:d̃* 'therefore'. Sentence Introducers are usually paragraph level markers.

The Ligature slot is filled by *c̃i·* 'then', *pɨs/pues* 'well', *wi·nʔit* 'at that time', *we''* 'rather'. These occur following an inner periphery tagmeme, preceding the nucleus. They function as a tie between the inner periphery and the nucleus. They have no paragraph-level function whatsoever.

The Question Word slot is filled by the word *neH*. The Question Marker slot is filled by an empty morpheme which carries the rising intonation at the end of an interrogative sentence. This morpheme has alternate shapes: *-i*, *hi*, *yi*.

The Response slot is filled by *ʔoy* 'okay', *we:n* 'okay', and *ka'* 'no'. The Echo Question slot is filled by *ka' hi* 'isn't it?/aren't you? etc.'

The Vocative slot is filled by any name or name substitute. The Exclamation slot is filled by *ʔa:y*, *hiH*, *ha:y*, *ba:yi*, and other varied utterances. Examples of all of the outer periphery exponents may be observed with the examples in the preceding sections and in Section 6.4.

6.4 Linear Order of the Sentence. The linear order of the Mixe sentence is given in Chart 19. No one sentence, however, would ever contain all of the elements listed. The elements occur in this order: Response, Exclamation, Vocative, Sentence Introducer/Question Word, Sentence Topic, Sentence Margins, Ligature, Sentence Nucleus, Sentence Margins, Question Marker/Echo Question. The sentence margins are listed twice since they occur either preceding the nucleus or following it and often both preceding and following the nucleus. The Sentence Topic may permute to a position immediately preceding the nucleus. Exclamation and Vocative may permute

Chart 19
Linear Order of the Sentence

Res	Exc	Voc	SI/QW	ST	SM	Lig	SN	SM	QM/EQ

to a medial or final position. Occasionally the Temporal Margin and a Ligature permute to a position between the bases of the nucleus.

Examples of most of the elements of the sentence have already been given. The following examples are exhaustive only of the outer periphery.

1. *ka'* *pues* *ˀi:z̃* *yi''* *nbiga·mb̃*
   no well I him I marry him want
   Response SI Simple Sentence Nucleus
   'No; well, I want to marry him.'

2. *c̃i·* *ˀaHks̃* *k̃o'poyi'knaHšta·ỹ* *ba:yi*
   then they they went head first over all really!!
   SI Simple Sentence Nucleus Exclamation
   'Then they all went head first over!!'

3. *u:* *peřo* *huy to:g̃* *ti·* *h̃a''d̃*
   oh! but goods for resell completed it arrived
   Exclamation SI Simple Sentence Nucleus
   'Oh!! But goods for resell arrived.'

4. *ˀa:y* *naŋgo:b* *ti·* *s̃haHtp*
   oh! auntie what you it happen
   Exclamation Vocative Simple Sentence Nucleus
   'Oh, Auntie, what's the matter?'

5. *pues* *neH* *mgo·me:n̂da·kp* *mi:d* *mida·š* *ˀinga:b̃* *me:ñ* *hi*
   well QW you get rich with fifty centavos money QM
   SI QW Simple Sentence Nucleus QM
   'Well, did you get rich with fifty centavos?'

6. *ti·* *he''* *myek̃* *ka' hi*
   completed it you gave it away didn't you
   Simple Sentence Nucleus Echo Question
   'You gave it away, didn't you?'

7. *pen* *ti·* *škoš* *pis* *ni·gapš*
   if completed you he hit well confess it
   Conditional Margin Ligature Simple Sentence Nucleus
   'If he hit you, well, confess it.'

PART II

7 DISCOURSE AND PARAGRAPH LEVEL

7.0 Introduction. The tagmemic method of discourse analysis utilized in the present study of Mixe was first worked out in the analysis of Philippine languages. Four discourse genres—Procedural, Narrative, Hortatory, and Expository—have been defined which have proven to be relevant for a number of different languages. A language may possess other discourse genres, but these four, at least, may be expected in a representative corpus. Chart 20, taken from Longacre's *Discourse, Paragraph, and Sentence Structure in Selected Philippine Languages*, vol. 1, p. 2, contrasts the four discourse genres with respect to tense and person orientation.

Chart 20
Discourse Genres

	Accomplished Time or Time not Focal	+ Projected Time
+ Sequence in Time	NARRATIVE 1st or 3rd person oriented	PROCEDURAL 1st/2nd/3rd person oriented
- Sequence in Time	EXPOSITORY Subject-matter oriented	HORTATORY 2nd person oriented

The distinguishing features of the four discourse genres presented in the chart are projected as universals. Their grammatical realization will be different in different languages. Chart 20 was utilized in classifying the Mixe texts. No discourse genre outside these four has so far been isolated in Mixe.[1]

The following is a list of the Mixe texts and their classification:

Procedural Discourses

These texts describe the procedures to be followed in game procurement, or they explain customs by describing the procedures followed in these customs.

Lent (L) ..... 10 paragraphs
Deer Hunt (DH) (Appendix A) ..... 8 paragraphs
Pig Hunt (PH) ..... 4 paragraphs
Marriage Customs (MC) Part I ..... 14 paragraphs
Pine Trees (PT) Part I (Appendix E) ..... 7 paragraphs

Expository Discourses

Pine Trees (PT) Part II (Appendix E) ..... 13 paragraphs
Marriage Customs (MC) Part II ..... 1 paragraph
Slide Show (SS) Embedded in a Narrative Discourse (Appendix B) ..... 3 paragraphs

Narrative Discourses

John Garbato (JG) ..... 8 paragraphs
Orphan Child (OC) ..... 7 paragraphs
Savage (Sa) (Appendix C) ..... 13 paragraphs
Slide Show (SS) (Appendix B) ..... 1 paragraph

Hortatory Discourses

Manners (M) (Appendix D) ..... 13 paragraphs
True Religion (TR) ..... 10 paragraphs

The Narrative and Procedural Discourse genres are distinguished by chronological sequence, while in Expository and Hortatory Discourse, if there is incidental chronological sequence it is not basic to the organization of the discourse. In Mixe, one of the distinguishing features of Narrative and Procedural Discourses is the frequent occurrence of *c̃i·* 'then', the conjunction denoting chronological sequence. In Expository and Hortatory Discourses this conjunction never occurs unless an Expository or Hortatory unit is embedded in a Narrative or Procedural unit.

1. Other possibilities for discourse genre would include Dramatic Discourse, made up chiefly of Dialogue Paragraphs; and Descriptive Discourse, made up of Descriptive Paragraphs (such as might occur in poetry).

The Procedural and Hortatory Discourse genres are distinguished by projected time. Conditional sentence margins are typical of both Procedural and Hortatory Discourse in Mixe. The Narrative Discourse genre is distinguished by accomplished time, and no conditional margin occurs associated with a Narrative unit. In Expository Discourse, whether the time is accomplished, concurrent, or projected, it is not focal. Possibly conditional margins may be associated with Expository units, but perhaps not with the peak (the exponent of the obligatory tagmeme) of these units. The present corpus provides no answer.

Cause margins do not occur associated with Narrative units in Mixe; they may occur in Procedural, Expository, or Hortatory Discourses. Purpose margins have only been found in Hortatory Discourse. These features taken together distinguish Expository and Procedural Discourse from Narrative on the one hand, and from Hortatory on the other.

Time margins may occur in all four discourse genres. However, they occur with greater frequency in Procedural Discourse than in the other discourse genres and in Procedural Discourse are rarely postposed to the sentence nucleus. In Narrative and Hortatory Discourse they occur with less frequency. In Narrative Discourse, they rarely occur within the paragraph nucleus and are rarely postposed to the sentence nucleus. In Hortatory Discourse they occur postposed to the sentence nucleus with greater relative frequency. In Expository Discourse it may be that postposition of temporal margins is typical.

Embedded discourses, and paragraphs which are not necessarily of the same type as the embedding discourse or paragraph, may be found within any discourse type. Expository Paragraphs, in particular, freely embed themselves in paragraphs of the other types, and units of other types freely embed themselves in Expository Discourses. For this reason, the present corpus does not provide unambiguous evidence of the structure of Expository units proportionately to the other types.

The corpus includes some examples of Coordinate Discourses. A Coordinate Discourse consists of two parts, each of which is expounded by a discourse such that the two discourses are generally reversible with the minimum of internal reorganization. Neither part is dependent upon the other. Two of the Coordinate Discourses in the corpus combine a Procedural and an Expository Discourse. Another text comprises a sermon, and a prayer appended to it. The prayer contains exponents of Aperture ('let's pray') and Finis ('amen'), which are not a feature of embedded discourses. The text should probably be considered a Coordinate Hortatory Discourse: part 1 would be a Sermonic subtype of Hortatory Discourse and part 2 would be a Supplication subtype of Hortatory Discourse.

An outer and inner discourse periphery has been recognized. The tagmemes of the outer periphery are Aperture and Finis (and Moral in Narrative Discourse), and those of the inner periphery are Stage and Closure in Narrative and Procedural Discourse, and Introduction and Conclusion in

Expository and Hortatory Discourse. The outer periphery is oriented to the speaker and his audience, whereas the inner is generally not. The inner periphery is an integral part of the text. The tagmemes Aperture and Finis of the outer periphery are expounded by a single sentence and are equivalent lexically to 'I want to tell you about . . .' and 'with that it is finished' respectively. Exponents of tagmemes of the outer periphery do not occur in embedded discourses.

7.1 **Procedural Discourse.** The Procedural Discourse genre is characterized by chronological sequence, projected time, and, in general terms (Chart 20), may be expected to be oriented to first, second, or third person.

At discourse level the time horizons of the successive paragraphs are chronologically ordered. For example, in the text Marriage Customs (MC) the first main paragraph describes the 'man finds love for the woman', the second paragraph starts with 'The man, because he loves the woman, works for her', and the third paragraph starts, 'Then when he has worked for her for one year. . .'.

Another example is found in the Lent (L) text. The first main paragraph describes the events of Lent, and the second the events of Holy Week.

Chronological sequence also characterizes Procedural Paragraphs. This is illustrated by the following sentences abstracted from a Procedural Paragraph describing the operation of obtaining wood from the pine tree for the house building (the sentences from the PT text are given in summary from Appendix E):

S 27 They look for mature pine trees.
S 28 They find them and cut them.
S 29 Two days later they trim them.
S 30 Then they mark them.

Direct chronological sequence from one paragraph to the next, or from one sentence to the next, may be interrupted when alternative or simultaneous events are described. Grammatically, these chronological discontinuities occur at paragraph level between sentences when the second expounds an Alternate Step tagmeme (Example 8) or a Simultaneous Step tagmeme (Example 6).

In Procedural Discourse the orientation to projected time is evident in the Stage of the discourse. For example, the text Pig Hunt (PH) contains the sentence in which the verb employs the suffix *-a·n* 'desiderative/future.'

pis ko· yi ʔuHcʔiẓim nyaHʔoⁿga·nim
well when the wild pig we want to kill it
'Well, when we want to kill the wild pig. . . .'

Procedural Discourse employs the timeless tense category. The particle *ti·* 'completed/already' has been found to occur when reference is made to a previous step, or when the initiation of a certain step is dependent upon the occurrence of previous events:

c̃i· *he* *ʔa·nizeHk* *widi:* *ti·* *ñi″b̃* *pis*
then the woodpeckers which completed they planted well
mi·nikš̃ *he* *ti·ŋ* *ma·* *čina·yda·k*
they with them go the worms to their living place
'Then the woodpeckers which planted, well they take the worms to their nests.' (PT, S 13)

pen *ti·* *he* *šoHti:m* *m̃uš̃*
if completed the oak seed they germinated
ka′ *he″du′n* *ti·* *š̃oyi″ỹ*
no specifically completed it work out
'If the acorns germinated, it didn't work out.' (PT, S 11)

See the full text in Appendix E.

Within the nucleus of a Procedural Discourse, the participants are referred to by third person forms, that is, by nominal phrases and by third person pronouns referring to these.

wi·nʔit *yi* *ʔa·nizeHk* *ʔaHkš̃* *ʔo:y* *ñi·pkiš̃*
at that time the woodpeckers plural really they plant plural
'At that time the woodpeckers really plant.' (PT, S 5)

nikš̃ *ʔaHkš̃* *šoHti:m* *ʔišta″ỹ* *ʔak* *ti:mmaHpi*
going they oak seed they look for them only seed mature ones
'They go looking for acorns, only mature ones.' (PT, S 6)

In the exponents of Stage and Closure, second person forms were used in the two game procurement texts (DH and PH) as the person being instructed in the procedure is addressed.

Appendix A gives the Procedural Discourse "Deer Hunt" in full.

The general formula for Procedural Discourse is given as follows:

Formula 8

Procedural Discourse

± Aperture ± Stage + Procedure 1–n ± Alternate Procedure 1–n + Closure

Exponents of both Aperture and Stage occur in PH and DH. The exponent of Stage is an Expository Paragraph and states certain prerequisites for a successful hunt. The first sentence in PH contains a preposed temporal margin which functions as a time horizon for the whole discourse: 'when we want to kill the wild pig'.

Closure is expounded by an Expository Paragraph, and in some way summarizes the discourse. It rounds off the topic announced in the exponent of Aperture:

Aperture: 'Now I want to tell you how people marry there in San José El Paraíso.' (MC)
Closure: 'This is the custom they have.' (MC)
Aperture: 'Now I will tell you how people kill wild pig.' (PH)
Closure: 'Now you know how to get some wild pig meat.' (PH)

In embedded Procedural Discourses, no exponents of peripheral tagmemes, either inner or outer, have been found (see PT, Appendix E).

The nuclear tagmemes of Procedural Discourse are Procedure and Alternate Procedure. The exponent of Procedure describes a series of steps in a procedure, generally within one time horizon.

In contrast to Alternate Procedures (which are defined by the general occurrence of a conditional margin), Procedures are expounded by Procedural Paragraphs which are frequently characterized by a temporal margin occurring as part of the first sentence. The temporal margin is generally preposed in the sentence and may consist either of a Relator-Axis clause with Relator *ko·* 'when', or a time phrase:

ʔe· ni·ŋhaduˈn ko· haˈˈy t̃iHkkoHỹ . . .
and also when people they house build (they follow such and such a procedure)
'And also when people build a house . . .' (PT, S 27)

ʔe· ko·sima:n . . .
and after week (the woodpecker goes to see)
'And after a week . . .' (PT, S 10) (See the full text in Appendix E.)

The temporal margins which characterize the first sentence of a Procedural Paragraph function as the time horizon for the whole paragraph.

Procedures may also be expounded by a non-complex Expository Paragraph, which only expounds Text and Expo tagmemes. Such a Procedure would be equivalent to a one-step Procedure in which the Step is expounded by an Expository Paragraph.

Ground 1	Figure	Ground 2	
Then when he has worked one year for the woman	at that time they think where they can go to get married.		Procedure 3 Text
	For this reason people can't get married there	because the priest does not arrive	Expo
	for this reason they go to other places to marry.		Expo

Example 1 (from Marriage Customs)

Alternate Procedures are expounded by Procedural Paragraphs in which the first sentence contains a *preposed* conditional margin or is introduced by the word *mina:d̃* 'sometimes'.

pen ka' p̃a·ti pis c̃i· pa·nikštiỹ ʔaHk̃š pa·nik̃š
if no he found it well then they follow it straight they they follow it
'If he doesn't hit it (the deer), well, then they follow it. (DH, S 13)

ʔe· pis mina:d̃ yaHʔiHštigo·yb na·n ka' ỹaHʔiš̃ ma· ñikši''ỹ
and well sometimes it is lost sight of deer no it is seen where it goes
'And, well, sometimes the deer is lost sight of; it isn't seen where it goes.' (DH, S 17)

Exponents of Alternate Procedures describe a procedure to be followed in the event that the preceding procedure (or alternate procedure) fails to issue in the desired result.

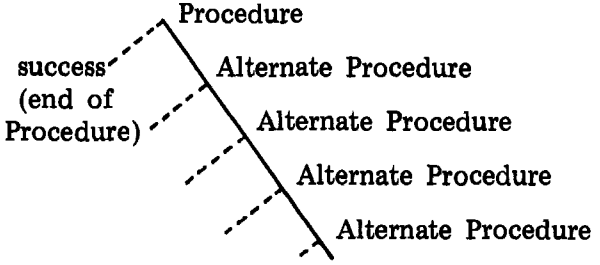
Example (in context of last sentence of preceding procedure):

ʔe· widi: him kud̃uŋgiš ʔanaHt̃ ʔawiš̃p pis c̃i· he''
and who there ridge then they waited for it well then he
ʔiš̃ tuHy
he sees it he shoots it
'And the one(s) who went up the ridge to wait for it, well, then he sees it and he shoots it.' (DH, S 12)

pen ka' p̃a·ti pis c̃i· pa·nikštiỹ ʔaHk̃š pa·nik̃š
if no he found it well then they follow it straight they they follow it
'If he doesn't hit it (the deer), well, then they follow it.' (DH, S 13)

Exponents of Alternate Procedure are theoretically paired. However in DH none of the four exponents of Alternate Procedure is paired with another. The first sentence of the first Alternate Procedure has been exemplified above: an exponent of Alternate Procedure pairing with this exponent would be introduced by the conditional margin, 'if it does hit...'. But in that case the previous procedure would have issued in success and the string of procedures is brought to an end. Only the Alternate Procedure to be followed in the event of failure need be given. Figure 1 illustrates the structure of DH:

Figure 1
Alternate Procedures in "Deer Hunt."



Procedural Discourses may be embedded; they may expound a Point in an Expository Discourse. The example in the corpus is of a Procedural Discourse describing the woodpeckers' planting of acorns in a pine tree used to exemplify one Point made in an Expository Discourse on the topic of how animals make use of the pine tree. (See PT, Appendix E, para. 3.)

They may also expound a Procedure in a Procedural Discourse. The text "Marriage Customs" includes a Procedure manifested by a Procedural Discourse describing a boy's parents arranging with the girl's parents for the marriage (in two visits).

7.2 Expository Discourse. The Expository Discourse genre exhibits no necessary chronological sequence, may be in accomplished, concurrent, or projected time (the time is not focal), and is oriented to the subject matter.

An Expository Discourse, having no chronological time sequence as a whole, does not contain discourse level temporal margins which are part of the fundamental structure of the discourse. Paragraph-initial Relator-Axis clauses (with Relator *ko·* 'when') are not used in head-head linkage as consecutive time horizons, but when they occur they serve to introduce a situational setting for the point to be made.

'When babies are born, (people use the pine tree).' (PT, S 23)

'When people die, (they get lumber from the pine trees).' (PT, S 25)

In the present when the ground refers to the figure of the previous sentence, Relator-Axis clauses have been found only when the Point is expounded by a Procedural Paragraph. When the Procedural Paragraph consists of a single sentence, the Relator-Axis clause may be postposed to the sentence nucleus (for further discussion see Procedural Paragraphs, Sect. 6.5). (See PT, Appendix E.)

In Expository Discourse, the timeless tense is used. As stated, time is not focal, and may be projected, concurrent, or accomplished.

The orientation of Expository Discourse to the subject matter is evidenced in part by the frequent use of intransitive verbs, the subject of which refers to the topic of the discourse or paragraph, or to some entity related to the topic (for example, related as possessed to possessor). (See PT, Appendix E, Ss 2–4.)

A study of Mixe clause orientation as it may affect 'focus' on the paragraph or discourse topic has not yet been undertaken.

First person forms may occur in Expository Discourse. In this case, the speaker is telling his own psychological orientation to the subject matter:

'I really thought that . . .'

'At first I didn't know that . . .'

Although many Expository Paragraphs are found embedded in discourses of other types, Expository Discourses are rather scarce in the present corpus, and those that do occur frequently have much Procedural embedding.

At times it is difficult to differentiate between Expository and Procedural discourses. In the above listed examples of Expository Discourses, the Points are frequently expounded by Procedural Paragraphs or embedded Procedural Discourses (this is true of the first two discourses listed above). Also in PT an Expository Discourse expounds a Procedure. Therefore there is often a thin line in the present corpus between the structure of exponents of Expository and Procedural Discourse. Discourses that might have been considered Expository are considered Procedural chiefly for the reason that the paragraphs of the discourse are arranged in chronological sequence, linked together by consecutive time horizons, and therefore display chronological sequence.

The other general criterion relative to time that has been set up for distinguishing the two types of Discourse (besides the criterion relating to chronological sequence) is that which relates to the tense orientation of the discourse. In general terms, Procedural Discourse is in projected time, and in Expository Discourse the time is not focal. In Mixe the timeless tense category is characteristic of both types of discourse.

Because of the admixture of Procedural Units in Expository Discourses in the present corpus, all types of structure characteristic of Expository Discourse might not be found or have been recognized in the data.

The general formula for Expository Discourse includes two elements.

Formula 9
Expository Discourse

$$\pm \text{Introduction} + \text{Point}_{ex}\ 1\text{-}n$$

The Peripheral tagmeme of an Expository Discourse is Introduction. It is expounded by an Expository Paragraph or by a Sentence.

The Introduction leads into the subject matter developed in the Points of the discourse. It may do this in a general way: 'then I could think again' (about my *patrones*), or more specifically, 'and they (pine trees) are even better friends with people'. The Points of these two discourses tell respectively how his *patrones* became accustomed to the town and he developed respect for them, and how in different ways the man makes use of the pine tree.

There is no peripheral tagmeme that concludes an Expository Discourse in the corpus analyzed for this paper. However, a Conclusion tagmeme can be expected to occur, since it has been found in Hortatory Discourse.

An exponent of Introduction has not been found in an embedded Expository Discourse.

The nuclear tagmemes of Expository Discourse are Point_{ex} 1 to Point_{ex} n. Thus an Expository Discourse takes some topic and develops it in a series of Expository Points. For example, in the discourse SS the topic is 'I could think again', and the points are 'I really thought about how they arrived in my town'; 'I would like it if they would decipher my language'.

In the text PT, in an embedded Expository Discourse, the general topic is how animals find their food in the pine trees (see PT, Appendix E, S 15). The two points made are how the woodpeckers plant acorns in them, and how the bees put their honey there.

$Point_{ex}$ may be expounded by a sentence, an Expository Paragraph (PT), a Coordinate Expository Paragraph (SS), an Antithetical Expository Paragraph (MC), or a Procedural Paragraph or embedded discourse (PT).

Expository Discourses may expound a Part in a Coordinate Discourse. Two examples occur in which an Expository Discourse expounds the second part of a discourse in which the first part is expounded by a Procedural Discourse (MC and PT).

An Expository Discourse has been found expounding the final build-up in a one-paragraph Narrative Discourse. This backlooping reflects the fact that the speaker started out to tell a Narrative but one of the events prompted a chain of thinking that resulted in the embedded Expository Discourse.

Examples of interparagraph linkage are not numerous. Expository Discourse is different from that of other discourses in that it has its linkage within the nucleus of the sentence, whereas the other discourses have their linkage divided between the nucleus and the margins. The links are through the dramatis personae, and by parallelism of structure in the verbs. In Example 2 note that 'pine trees' is carried throughout the following five paragraphs. Secondly, note that 'they get' or 'use' is mentioned in each of the paragraphs.

para 1	When babies are born,	people use the pine trees.	$Point_{ex}$ 1
para 2		And from pine trees they get (wood).	$Point_{ex}$ 2
para 3	When people die	they get lumber from pine trees.	$Point_{ex}$ 3
para 4		Also pine is used...	$Point_{ex}$ 4
para 5	And also when people build a house,	they go to look for mature pine trees where they can get boards.	$Point_{ex}$ 5

Example 2 (from "Pine Trees")

7.3 Narrative Discourse. The Narrative Discourse genre is characterized by chronological sequence, accomplished time, and, in general terms (Chart 20), may be expected to be oriented to first or third person.

Narrative Discourse follows through in chronological sequence from sentence nucleus to sentence nucleus. The chronological sequence is rarely

interrupted, though a few cases of flashback do occur (see Appendix C, para 3.3 and 4). The chronological sequence is broken between paragraphs which are exponents of Denouement and Recap when these retell the same events. An example is found in JG where the narrator tells of the mule drivers becoming afraid and running over a cliff; because it is an important event, he then recaps by telling again of their running over the cliff.

Both forward projection and backward flashback occur in direct quotes. There are many instances of this (one example is John's report to his friends). Flashback occurs in embedded clauses modifying noun phrases (see Sa, Appendix C, para. 3.1). Other examples were found in JG and OC.

At points of flashback and forward projection, the auxiliaries *ti·* 'completed/already' and *mina:* 'when' respectively may be used. *wi·nʔit* 'at that time' may be used in conjunction with these, or in the case of forward projection, in conjunction with the suffix *-a·n* 'desiderative/future'. Almost all instances of these auxiliaries occur in direct quotes.

Unless the narrator is telling about something he did in times past (when first person forms refer to the narrator as participant), the person orientation in Narrative Discourse is to third person. The person orientation affects the pronouns used. Except in direct quotes of participants, all pronouns are in third person singular or plural in the nucleus of the discourse. First and second person forms referring to the narrator and his audience may be used in the outer periphery of the discourse.

Narrative Discourses, embedded and non-embedded, may be subdivided into Climactic and Episodic. Texts JG and Sa are Climactic, OC and SS are Episodic.

The general formula for Climactic Narrative Discourse follows:

Formula 10

Climactic Narrative Discourse

± Aperture ± Stage ± Episode + Denouement + Recap ± Antidenouement + Closure ± Moral ± Finis

Finis occurs only in nonembedded discourses, and Stage has only been found in embedded Episodic Narrative Discourses.

A Climactic Narrative Discourse may be embedded in Denouement or Antidenouement. An Episodic Narrative Discourse may be embedded in Episode or Recap.

The nuclear tagmemes of Narrative Discourse in general are Episode, Denouement, Recapitulation, and Antidenouement.

The one nuclear tagmeme of an Episodic Narrative Discourse is Episode. The nucleus of the discourse may be composed of a string of exponents of Episode. In an Episodic Narrative Discourse, no discourse level exponent has the grammatical features of Denouement (see description to follow, though lexically a denouement may be present: in OC one Episodic Narrative the king is dethroned and the orphan child becomes king).

Episode is an optional tagmeme in Climactic Narrative Discourse. Any number of exponents of the Episode tagmeme may occur preceding the exponent(s) of Denouement. In an embedded Climactic Discourse a Post-denouement exponent of Episode has been found (in the absence of an exponent of Recap). Episodes may be long or short. As an example of a typical Episode, Example 3 may be cited.

Ground 1	Figure	
	Well then it was night.	EP 1: Narr. P Setting
When it was night	then the king's daughter left the house.	BU 1
	Then she came running back into the house of her father.	BU 2
	She said to her father, "Father, what is that so bright over there? Come and see."	BU 3
	Then her father left the house.	BU 4
	Then he really looked at a really bright fire there. The people said it was a light plant.	BU n
	Well then he said, "Forget it. It is just the poor one, that is why that light is there."	Term

Example 3 (from "Orphan Child" para. 3.3.1)

Episode may be expounded by an embedded Episodic Narrative Discourse, by a Narrative Paragraph, Coordinate Narrative Paragraph, Dialogue Paragraph, Coordinate Dialogue Paragraph, Expository Paragraph, or Coordinate Expository Paragraph, or Antithetical Expository Paragraph.

The nuclear tagmemes occurring in Climactic Narrative Discourse are Episode, Denouement, Recap, and Antidenouement.

The obligatory tagmeme in this type of Narrative Discourse is Denouement. In a nonembedded Climactic Narrative Discourse, Recap also is obligatory. In embedded Climactic Narrative Discourse, either an exponent of Recap occurs, or Denouement is expounded by a Coordinate Narrative Paragraph (Example 4). (See Sa, Appendix C, para. 5 for an example of a Coordinate Narrative Paragraph expounding a Denouement.)

An embedded Climactic Narrative Discourse does not contain exponents of Aperture, Moral, or Finis; Recap is optional in embedded Climactic Narrative Discourse.

No formula is attempted for Episodic Narrative Discourse since only one example (of more than one paragraph) of a nonembedded Narrative Dis-

course has at present been analyzed. The following tagmemes have been found: Stage, Episode 1-n, Closure, Finis.

A Narrative Discourse may be Episodic or Climactic. The Climactic Discourse displays the duplication features, realized in the tagmemes Denouement and Recap. Certain features define these tagmemes:

(1) The events described in the exponent of Denouement are recapitulated in the exponent of Recap. In the two examples of Climactic Narrative Discourse, the recapitulation occurred within the framework of a report by one character of the events of the denouement to the other characters (John Garbato to his friends; the man who met the savage to his wife and children).

(2) The Denouement of a nonembedded Climactic Narrative Discourse is itself expounded by a Climactic Narrative Discourse. The embedded Climactic Narrative Discourse may or may not contain an exponent of Recap. If it does, then the exponent of Recap is a repeat telling of the events of the denouement of the embedded discourse (it is twice told how the mule drivers ran over the cliff, and twice told how the man John Garbato returned home to his mother with the mule driver's cargo). If the embedded Climactic Narrative Discourse does not contain an exponent of Recap, then the feature of duplication is realized in a double-peaked Denouement, a Coordinate Narrative Paragraph in which the exponents of the two Sections recount two parallel consecutive events (twice the savage sings his song with his wife and the man adds to it).

(3) Further, there is a special tendency to duplication within the sentences contained in the paragraph which expounds Denouement (there is the cliff, the cliff wall, the cliff edge; I have gone traveling, I have gone earning, I have gone getting wages; is made larger, is made bigger).

An exponent of Antidenouement occurs once in the corpus analyzed. Antidenouement is characterized by features (2) and (3) mentioned above.

Two exponents of the Denouement tagmeme occur in Narrative Discourses contained in JG, within the total (nonembedded) discourse, and within the embedded discourse expounding Denouement 1. Internally, both exponents have the features of Denouement described above, and the exponent of Recap may be said to recapitulate both exponents of Denouement (although John Garbato does not tell the whole truth to his friends, and the mule driver's waking is not recapitulated specifically).

Denouement may be expounded by an embedded Climactic Narrative Discourse, a Narrative Paragraph, a Coordinate Narrative Paragraph, or an Expository Paragraph.

Recap may be expounded by an embedded Episodic Narrative Discourse, a Narrative Paragraph, or a Dialogue Paragraph.

Antidenouement occurs in JG in the nonembedded Narrative Discourse. Antidenouement has the internal features of Denouement, but not the external (it is not recapitulated). The exponent of Antidenouement in JG describes the friends' hopeful but vain trip to the city, an imitation of

Ground	Figure	
	Then the mule drivers all ran (because they had seen a horrible face).	D 2: Narr. P. BU 1
Since there was a cliff, cliff wall, cliff edge,	well they all ran over the edge.	BU 2
	Well there they all died; every one of them died.	BU n
	Well then right here the mule drivers really ran.	RECAP: Narr. P. Setting
When John saw the mule drivers running right here	then he also got up.	BU 1
	Then he followed.	BU 2
	Well then they turned around and saw he was coming.	BU 3
	Then they ran all the faster.	BU 4
	Then they ran and fell over (the cliff)!!	BU 5
	Then they all died.	BU n

Example 4 (from "John Garbato", para. 3.4)

John's trip. It is expounded by a Climactic Narrative Discourse.

The points made in the Introduction concerning the outer and inner discourse periphery relate to all discourse types: the outer periphery of a Narrative Discourse is oriented to the speaker and his audience. Tagmemes of the outer periphery are Aperture, Moral, and Finis. These are the tagmemes whose exponents are not found in embedded discourses.

Sa contains the exponent of a Moral tagmeme. In it, the listener is warned against going to the woods because of the creatures like the savage who live there. The tagmeme is expounded by an Expository Paragraph.

The inner periphery is not oriented to the speaker and his audience. It is an integral part of his narrative.

The exponent of Stage in JG introduces the major participants of the discourse and interrelates them in a one-sentence summary of one of the events of the narrative. Exponents of Stage in an embedded Narrative (Climactic or Episodic) may introduce new participants or a new setting.

Stage may be expounded by a sentence, Narrative Paragraph, or Expository Paragraph.

The exponent of Closure in JG looks forward to another occasion when John and his friends may go to the city. In Sa the exponent of Closure

describes the wife's concern about her husband's experiences which have been the substance of the narrative. Exponents of Closure in an embedded Narrative Discourse (Climactic or Episodic) describe movement of the participant(s) away from the scene of the action.

Closure may be expounded by a sentence, a Narrative Paragraph, or Expository Paragraph.

In Mixe Narrative Discourse, linkage between paragraphs may be (A) through sentence margins, or (B) through sentence nuclei. Apart from the use of conjunctions, type A is little used and it seems to be, in many cases, a matter of indifference as to whether a linking clause constitutes a temporal margin or is part of the sentence nucleus. (By 'linking clause' is meant the initial clause of a paragraph when this clause links in some way specifically to the last clause or sentence of the preceding paragraph.) Informant reaction has indicated that where there is continuity of action between paragraphs in tail-head linkage (linkage between the last sentence of one paragraph and the first sentence of the next), a linkage clause which is part of the sentence nucleus may be transformed into a Relator-Axis clause, and that this transformation is acceptable in context:

'Then the child's mother went home.'

'(When) she arrived home, then she said to her son, "Because ...".'

Type A linkage, when it involves conjunctions, may be considered grammatical linkage since conjunctions in general have small lexical content apart from their grammatical function. Other linkage in Narrative Discourse is part grammatical, part lexical. It is grammatical in that the linkage may be systematized into the types tail-head linkage, head-head linkage, linkage by summary, and linkage by backward reference (these types are discussed below); it is lexical in that such linkage cannot function unless there is some specific lexical relationship between the linked parts of the discourse.

The conjunctions functioning in type A linkage are *pis* 'well', *c̃i·* 'then', and *ʔe·* 'and' (once linking paragraphs of a Coordinate Paragraph and once introducing an exponent of Finis). *pa:d̃* 'for this reason' has been found introducing exponents of Closure, Moral, and Finis in Narrative Discourse.

Eight examples of temporal margins linking Narrative Paragraphs have been found, six in the text JG, and two in Sa. Those in JG function in tail-head linkage by continuing the action:

'Well then the mule drivers went to sleep, also John Garbato.'

'Well then when he felt cold in the night, well then John Garbato got up.'

Note that in the above example, the temporal margin expresses the cause of John Garbato's getting up. The same lexical relationship between temporal margin and nucleus holds in two of the other examples.

In the following example, the linkage is parallel to that found within Procedural Paragraphs:

Ground 1	Figure	Ground 2	
	Then he ate, drank.		BU n
	Then he said, 'Well, I'll finish eating and drinking,		Term: Proc. P. Step 1
	at that time I'll unpack the cargo,	because there is all kinds of merchandise in it.'	Step n
Good, well when he finished eating and drinking	well then he unpacked the cargo.		EP 2: Narr. P.

Example 5 (from "John Garbato" para. 4.4)

In this example, the linking clause links to the exponent of BU n in the penultimate paragraph, and not to the immediately preceding sentence or paragraph.

The remaining examples occur in pairs and may be considered to function in head-head linkage also, as consecutive time horizons (that the time horizons are consecutive is derived from their order and not from their lexical content). Each pair introduces the successive sections of a Coordinate Paragraph:

Ground 1	Figure	
Well when the mule drivers woke up, when they saw him sitting there by the fire with his mask on,	then they said to each other, "Who is that over there? He looks really bad, horrible!"	D: Coord P SEC 1: Narr. P BU 1
	Then they shook their companions awake.	BU n
When they all woke up,	they all looked at him by the fire.	SEC 2: Narr P BU 1

Example 6 (from "John Garbato" para. 3.3)

The first temporal margin in this example also links back to the first sentence of the paragraph expounding the preceding Episode: 'the mule drivers went to sleep . . .'.

The temporal margins in Sa are repetitive in lexical content and link two Sections of a Coordinate Paragraph in head-head linkage.

Two examples of locative margins linking paragraphs also occur, one in JG and one in OC.

S n: Then he went to the fire.

S 1: There by the fire, well there he warmed himself.

S n: Then he turned around, went to his village.

S 1: On the trail, well then he said, "What shall I do with the money?"

Linkage of type B may be broadly classified grammatically into tail-head linkage, head-head linkage, linkage by summary, and linkage by backward reference. Within each type, further grammatical classification is possible, and the linked parts of the discourse are linked in certain specific lexical relationships. Any given paragraph is linked through at least one type of linkage and may be linked through more than one type.

In tail-head linkage of type B, the linkage may be subclassified grammatically into linkage through locative phrases, and linkage through the unit of predication. Locative linkage may be through repetition, cross reference, or lexical chaining.

S n: Then he went to a city, to a city.

S 1: Well he went there, he asked for work, but no one had work for him.

S n: Well give it to me, let me sell it there in Mexico City.

S 1: Then he went there to Mexico City.

Tail-head linkage through the unit of predication may be classified lexically into repetition, reciprocation (one example only: listened—sang), result, and continuity; the latter through the action, the participants, and/or dialogue. Linkage by repetition includes linkage by paraphrase and expansion.

Tail-head linkage, in which the lexical relationship is that of result, occurs most clearly in exponents of Closure (see Sa, Appendix C, Ss 95 and 96).

Continuity of action is a frequent linking mechanism and usually involves such pairs as went—arrived, turned around—having gone arrived. This linkage may refer back to the end of some paragraph before the last:

S 105 Then they returned. (They lose their magic.)

S 112 Well then they arrived again where the master was in jail.

Continuity of action generally involves continuity of participants as well (see Sa, Appendix C, Ss 9 and 10).

In head-head linkage of type B, the lexical relationship between the linked parts of the discourse is that of continuity of action manifested in parallelism and/or chaining. Note the first sentences of the following two paragraphs:

P 2.3 'Then he left there, he went on the trail.'

P 2.4 'Good, he continued on the trail.'

The parallelism may extend to the whole paragraph. Such is the case in the first example above. The orphan child bargains for the life of a cat, a dog, and a snake, in turn, with the seventy-five centavos he has. Each paragraph ends with a similar summary: 'He gave the man twenty-five centavos.'; next summary, 'He gave the man another twenty-five centavos.'

Linkage by summary consists of two types, preview and review. Both are fairly typical of Narrative Discourse. Linkage by preview is through Speech which anticipates the action of the following paragraph or paragraphs (see Sa, Appendix C, Ss 3 and 4).

Linkage by review may also be through Speech: JG, para. 4.3: 'When he arrived home then he said to his mother, "I am already back from my trip...".'

A type of linkage by summary occurring in Climactic Narrative Discourse is linkage by recapitulation. The exponent of Recap links to the exponent of Denouement by Recapitulation. This may be either through repetition and expansion of the exponent of Denouement, or through Speech reporting the events.

The type of linkage by backward reference to be discussed is that in which the exponent of Closure makes reference to the exponent of Stage, or in some way is complementary to it:

Stage of JG: 'A man named John Garbato met some mule drivers. He went to a city, to a city.'

Closure of JG: '"When you want to go again, then let's all go." "Well then I'll tell you when I go again."'

The same type of backward reference may occur in embedded Narrative Discourse (see Sa, Appendix C, Ss 3, 4, and 72).

7.4 Hortatory Discourse. The Hortatory Discourse genre exhibits no necessary chronological sequence, is in projected time, and in general terms (Chart 20) may be expected to be oriented to second person.

Hortatory Discourse is not chronologically oriented, and Mixe Hortatory Discourse does not use the chronological link *c̃i·* 'then'.

Hortatory Discourse is in projected time. This is realized in Mixe by the use of the future marker *ʔanaHt̃*, which is a free form, and/or by the use of future suffixes *-ip* and *-ip* within certain of the sentence nuclei. It may also be realized by temporal margins (which may use the future suffix) or conditional margins. An example of these can be found in M, Appendix D, Sentences 37, 34, 5, and 12.

Not all sentence nuclei occurring in Hortatory Discourse employ the future suffix. Some parts of the discourse may be more explanatory in nature and will generally use present tense suffixes.

The person orientation of Hortatory Discourse is to second person. An elder speaking to a younger may use second person forms, but one speaking to equals may use first person inclusive forms *ʔi:z̃* *ʔaHt* and *-im* 'we' in explanatory sections, and second person form *mi:z̃* 'you' in hortatory sections. The orientation to second person is most frequently realized in the exponent of Exhortation, and a vocative form may be associated with this exponent.

Hortatory Discourses may be subdivided into Advisory and Sermonic. No general formula for these types is attempted.

The Advisory Hortatory Discourse, Manners, is the advice of a father to his eldest son, and contains exponents of the following tagmemes:

Introduction Point 1 Point 2

Both exponents of Point are expounded by embedded Hortatory Discourses, each containing the exponent of a Conclusion tagmeme, the latter exponent in both cases linking to the higher level Introduction exponent.

The Sermonic Hortatory Discourse, True Religion, comprises exponents of Sermon and Prayer. Both are expounded by Hortatory Discourses, the second possibly an exponent of a third type of Hortatory Discourse, Petitionary. The sermon comprises exponents of Points. Each Point is expounded by a Coordinate Paragraph, the first section in effect Expository and the second Hortatory. The prayer comprises exponents of Aperture, Introduction, Point, Conclusion, and Finis.

Ground 1	Figure	Ground 2	
	And it isn't the truth	because chicken's blood can't heal us like Jesus' blood.	SEC: Hort. Exhort
	This Jesus is the one who causes us to be saved.		Reason: Ex. P. Text
	And He is the one who heals us.		Expo
When we are sick,	the Holy Spirit enters our bodies and heals our sickness.		Expo
	And He gives us our food every day	because He visits us from above with power and strength.	Reinf

Example 7 (from "True Religion" para. 2.1.2)

The nuclear tagmeme of Hortatory Discourse is Point. A string of exponents of Point may occur, each developing some aspect of the topic of the discourse. For example, the Hortatory Discourse M makes two major points encoded in the exponents of Point 1 and Point 2, How to live and How to care for your brothers. Point 1 is expounded by an embedded Hortatory Discourse which contains a string of nine exponents of Point. The first few of these concern (1) behavior when visiting a house, (2) avoidance of bad speech, (3) proper attitudes to certain groups of people.

Point may be expounded by a Hortatory Paragraph, a Coordinate Hortatory Paragraph, or by an embedded Hortatory Discourse. It has been noted that in the text TR all the Points are expounded by Coordinate Hortatory Paragraphs, the first section Explanatory and the second Hortatory in meaning. But both sections are designed to motivate the hearers and there-

fore it is considered that both sections are expounded by Hortatory Paragraphs (rather than Expository and Hortatory respectively). When explanations are given in Hortatory Paragraphs encoded in embedded paragraphs, these embedded paragraphs are considered Expository, embedded in tagmemes of Hortatory Paragraphs.

The peripheral tagmemes of Hortatory Discourse include Introduction and Conclusion. In general, the exponent of Conclusion may be expected to link closely to the exponent of Introduction. In M the exponent of Introduction states that he, the father, is going to tell his son how he should behave and how he should care for his brothers. The exponent of Conclusion in the first embedded discourse (which concerns behavior) states that now he has told him how to behave, and the exponent of Conclusion in the second embedded discourse (which exhorts his son to care for his brothers) states that his obligation to his brothers is completed when they are married. Exponents of both tagmemes may be expected to occur regularly in formal discourse.

In this text, Introduction is expounded by an Expository Paragraph, and Conclusion by Hortatory Paragraphs. The first sentence of the Introduction exponent is not part of the Hortatory Discourse proper which starts in the second sentence: 'John, I'm already old. I don't know when I will die.' The first sentence might be considered an abbreviated exponent of Aperture: 'One time a person advised his son', for 'I will tell you how once a person advised his son'.

Exponents of outer periphery occur in prayer: Aperture and Finis. Aperture is expounded by a sentence 'Let's pray', and Finis by 'Amen'.

Temporal margins (or Conditional margins) may introduce the exponent of Point in Hortatory Discourse but these, while providing the setting for the paragraph, provide no interparagraph link within the nucleus of the discourse (in contrast to temporal margins introducing Procedural Paragraphs which provide consecutive time horizons). They may however be understood to link to the exponent of the Introduction tagmeme. In the text M it is stated in the Introduction that instruction will be given on how to live (behave). A temporal margin or conditional margin introducing a paragraph indicates the occasion when, or conditions under which, the instructions given in the paragraph are to be followed:

> When you go visiting...
> When you go to church...
> When you go to the town hall...
> When you have children...
> If your wife doesn't know how to work...

Not every nuclear paragraph in M is introduced by a temporal margin or conditional margin, and in the text TR no paragraph expounding Point is introduced by a temporal margin or conditional margin.

The only grammatical link functioning at discourse level to link nuclear paragraphs in Hortatory Discourse is the conjunction *ʔe·* 'and', which in the text M is found either alone or together with a temporal margin or conditional margin.

In the text TR, no paragraph-initial sentence contains an initial grammatical margin. The initial sentences are:

We don't have saints because we don't believe they are alive.

It isn't good that you kill chickens.

It isn't good that we worship like the world's custom, because it isn't good.

The devil wants to fool us very much.

It isn't good when we think bad and make fun of Jesus.

Interparagraph linkage in the text is largely lexical. There are several recurrent themes running through the text, brought together in grammatical and lexical patterns within the various points.

One of the most common themes can be summarized: 'Believe and you will live'. The tabulation in Chart 21 illustrates the different ways in which the same two lexical ideas (believe and live) are encoded grammatically.

Chart 21
Grammatical Encoding of Lexical Ideas

	believe	live
46	SENTENCE TOPIC whoever believes	SENTENCE NUCLEUS his soul will live eternally with God
21	SENTENCE NUCLEUS believe Jesus	PURPOSE MARGIN so that your soul will live eternally with Jesus
10 12	TEXT now I believe	EXPO/RESULT my soul will be with God
58	PREDICATE (HEAD) we tell you to believe this Jesus	+ GOAL (RELATIVE CLAUSE) who can cause us to live a happy and complete life
20	CONDITIONAL MARGIN if you don't believe in God's Son	SENTENCE NUCLEUS your soul will suffer punishment in hell (you won't live eternally)

(from "True Religion")

One paragraph in the text M is linked through the nucleus of its initial sentence to the previous paragraphs. The initial sentence is 'More important is this which I want to tell you...'. There follows an exhortation to work. This leads into exhortations relating to obtaining a wife and raising

a family. The sentence refers back to exhortations which have largely concerned behavior in public places.

7.5 Procedural Paragraphs. Procedural paragraphs like Procedural Discourses are in projected time, and this fact affects the linkage mechanism. Procedural Paragraphs have been found to have the most consistent linkage of the various types of Paragraph structure.

Procedural Paragraphs expound Procedure, Alternate Procedure, Speech Zero (JG S 67), or Expo (MC S 57)—tagmemes on the Discourse Level.

The following is the general formula for Procedural Paragraphs:

Formula 11

Procedural Paragraph

± Setting + Step 1-n ± Alternate Step 1-n/Simultaneous Step 1-n ± Terminal

Step is the only obligatory tagmeme of the Procedural Paragraph. The nucleus of a Procedural Paragraph is always initiated by the exponent of a Step tagmeme. Exponents of Alternate Step and Simultaneous Step have not been found in the same paragraph. The exponents of Step and Alternate Step, or of Step and Simultaneous Step, may follow in any order.

The convention is followed of numbering the Step tagmemes serially throughout the paragraph, regardless of whether the tagmemes are Step, or Alternate Step, or Simultaneous Step. When one sentence repeats the substance of an earlier sentence, it is considered to be an exponent of the same tagmeme and the exponents are given the same number, but a prime (') is attached to the second number.

Note the following example:

	And those who go first block the trail.	Step 1
	And others that go, chase it up, go looking for it.	Simult. Step 2
	And there are one or two that wait on the pig's trail.	Step 1'

Example 8 (from "Pig Hunt" para. 3)

The same convention will be followed in Narrative Paragraphs when one of the Build-ups is recapitulated later in the paragraph.

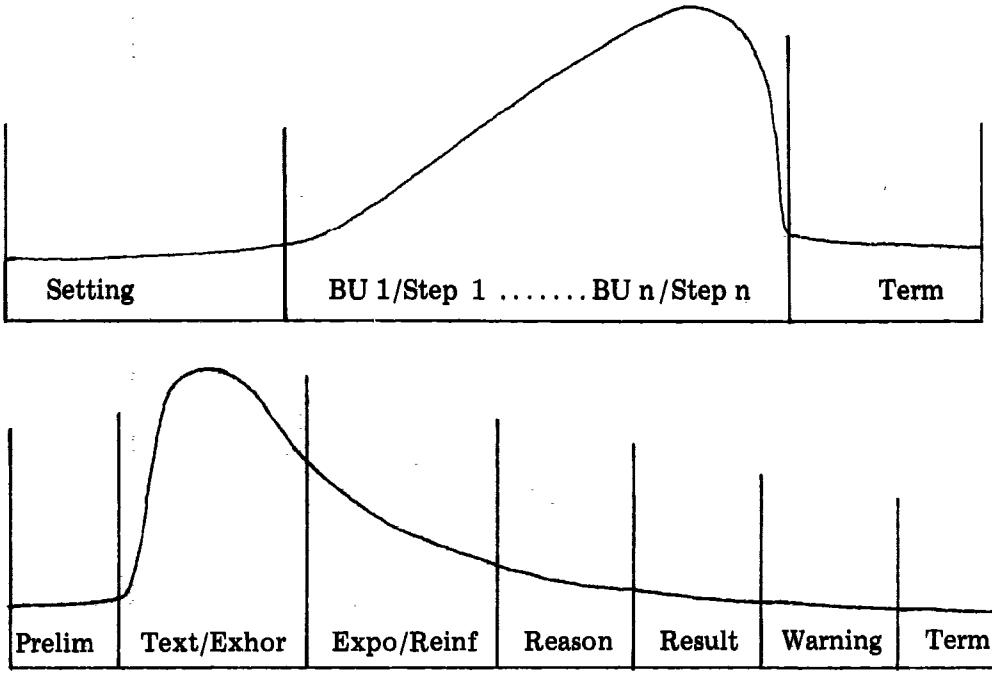
Step and Alternate Step tagmemes are nuclear to Procedural Paragraphs. The following exemplifies a series of exponents of Step tagmemes (the full text may be seen in Appendix E).

	They go looking for acorns, only mature ones.	Step 1
Then when they find good acorns,	then they take them to the mature pine tree.	Step 2
	Then they begin planting by making holes in the trunk with their beaks.	Step 3
When they make the holes,	then they put in the acorns.	Step 4

Example 9 (from "Pine Trees", Appendix E, para. 3)

Step n is the grammatical peak, the obligatory tagmeme, and the exponent of the final Step. Step n is the culmination of the Steps of the Procedure. In this, Procedural Paragraphs are similar to Narrative Paragraphs in which BUn parallels Step n. This late 'peaking' of Procedural and Narrative Paragraphs contrasts with the early 'peaking' of Expository and Hortatory Paragraphs in which the one obligatory tagmeme, the peak of the paragraph Text or Exhort respectively, is the initial tagmeme of the paragraph nucleus, and the remaining tagmemes of the paragraph nucleus, Expo or Reinf respectively, and Reason, Result, and Warning are optional tagmemes. This is represented diagramatically in Figure 2.

Figure 2
Contrasting Peaking in Paragraph Types



Step may be expounded by a sentence, an Expository Paragraph, a Coordinate Expository Paragraph (see DH, Appendix A, para. 5.2), or an Antithetical Expository Paragraph. In the latter case, the number of sections is odd, which may well be a characteristic of Antithetical Expository Paragraphs expounding Step. A Coordinate Expository Paragraph Step may be likened to a series of Simultaneous Steps but lacking the features that characterize Simultaneous Step; and an Antithetical Expository Paragraph expounding Step may be likened to a series of exponents of Alternate Step but lacking the definitive features of Alternate Step.

An Alternate Step tagmeme is defined by the occurrence of either a sentence with an initial conditional margin or a sentence introduced by *mina:d̃* 'sometimes'.

Ground 1	Figure	Ground 2	
	Then he gives it to the woman's parents.		Step 8
And if the woman's parents don't accept the cigarettes,	well, they can't arrange what they had gone for.		Alternate Step 9
If the woman's parents accept liquor and cigarettes,	well, they will accept him.		Alternate Step 10
	Well then they tell them that their child loves their daughter, that he wishes to marry her,	if they could arrange it, if they would give their daughter.	Step 11

Example 10 (from "Marriage Customs", para. 2.1)

When Alternate Step tagmemes occur in pairs (either contiguously or not) it will usually be the case that the two exponents describe steps alternative to each other. The immediately following exponents of Step tagmemes describe steps following on from the last Alternate Step. In Example 10 you will notice that Step 11 follows Alternate Step 10: if parents accept the cigarettes then it is possible to continue. No Step follows Step 9 because if they don't accept the cigarettes, the talks are off.

	Well they look for an adult who thinks straight.	Step 1
	Then he is sent.	Step 2
And if the woman loves the man,	well, she gives her word.	Alternate Step 3
	Then they are married.	Step 4

Example 11 (from "Marriage Customs", para. 4.1.2)

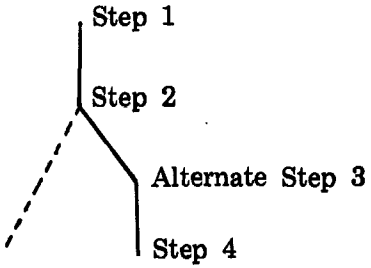
Alternate Step is expounded by a sentence or by an Expository Paragraph.

When an exponent of the Alternate Step tagmeme is not paired with another, then one alternative is implied but not stated.

When an Alternate Step tagmeme is not paired with another, then the Alternate Step that occurs is the one that carries forward the procedure. The diagram in Figure 3 represents the Steps of Example 11.

Figure 3

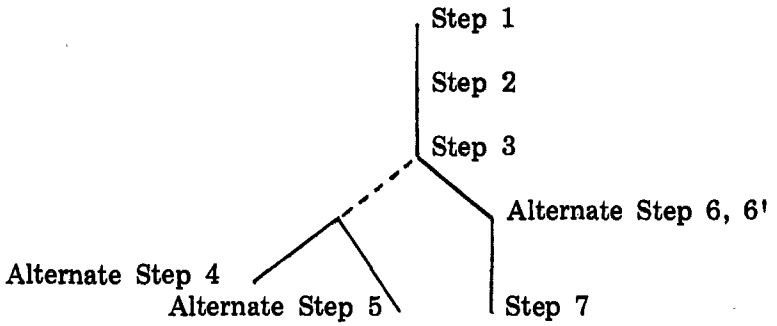
Relation of Alternate Step to Steps in Example 11



A series of four exponents of Alternate Step tagmemes has been found (MC, para. 2.3.2) in which the first and last are repeats of each other, and the second and third are alternative to these and to each other. The Sentence order is: Step 1, Step 2, Step 3, Alternate Step 6, Alternate Step 4, Alternate Step 5, Alternate Step 6', and Step 7 (see Figure 4).

Figure 4

Relation of Alternate Steps to Steps in "Marriage Customs", para. 2.3.2



The sentence expounding Step 3 is '... there the priest asks them if they are able to pray or (if) they aren't able to'. This sentence anticipates the sentences expounding Alternate Steps 4, 5, and 6.

But the sentence-final conditional margin is not always immediately followed by an exponent of Alternate Step. To illustrate, Example 11 may be restated such that Step 2 has a sentence-final condition margin, followed by Step 3 instead of Alternate Step 3.

Figure 5

Restatement of Example 11

	Same	Step 1
	Then he goes to ask the woman if she loves the man.	Step 2
	Same	Step 3
	Same	Step 4

The conditional margin either expresses the condition for the Step that follows (as in the above restatement), or is paraphrased in a following sentence. No real alternative appears to be entertained when these incorporated conditional margins are used.

Two alternatives may also be encoded in consecutive alternative sentences (MC, Ss 30 and 31). A negative conditional margin 'if not' attaches to the exponent of the second alternative.

An interesting encoding of alternatives occurs in MC as shown in Example 12. There is no exponent of Alternate Step at paragraph level, but in two consecutive sentences two alternatives are kept in view.

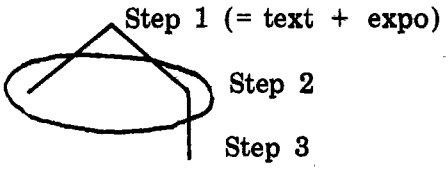
Well when some young men find a woman,	then they talk and say that they love the woman.		Step 1 Text
	Well, they ask her if they can marry.		Expo
	Well the woman says yes or no, if she loves the boy or not.	and it's another thing if the boy loves the woman and she doesn't love him.	Step 2
	Well, they forcibly marry the woman,	because there in San José El Paraíso the parents rule their daughters.	Step 3

Example 12 (from "Marriage Customs", para. 2)

The sequence may be diagrammed as shown in Figure 6. The second sentence expounding Step 1 anticipates the alternatives expressed in the exponent of Step 2: 'well, they ask her if they can marry (or not)'. The exponent of Step 2 is a Coordinate Sentence. The first part presents the two alternative replies of the woman, and the second part takes up the second alternative, which is the alternative to be further developed in the next sentence (expounding Step).

Figure 6

Sequence of Tagmemes in Example 12



The Simultaneous Step tagmeme is illustrated in Example 13 (for an additional example refer back to Example 8).

The simultaneity is defined by contrasting noun phrases in the exponents of Step and Simultaneous Step: e.g., 'those who go first', 'others who go'; or '*one* goes with a dog', '*others* go to wait on the ridge'. In both of these cases the exponents of Step preceding and following the exponent of Simultaneous Step are linked, and the exponent of the Step following the Simultaneous Step describes the activities of the original participant(s), reintroduced by clause or noun phrase descriptive of them:

And if the deer tracks enter the woods,	well then, one who has a dog goes with it.	Step 1
	And there are others who go to wait on the ridge.	Simultaneous Step 2
And he who has the dog	looks for it (the deer).	Step 3

Example 13 (from "Deer Hunt", Appendix A, para. 4)

Setting and Terminal tagmemes are the initial and final peripheral tagmemes to the Procedural Paragraph.

The exponent of Setting may describe the circumstances of the participants at the initiation of the procedure, for example see DH, Appendix A, para. 5: 'If he doesn't hit it well then they follow it'; or it may refer to

But when they become old,	at that time the woodpeckers really plant.	Setting
	They go looking for acorns, only mature ones.	Step 1
Then when they find good acorns,	then they take them to the mature pine tree.	Step 2
	Then they begin planting by making holes in the trunk with their beaks.	Step 3
When they make the holes,	then they put in the acorns.	Step 4

Example 14 (from "Pine Trees", Appendix E, para. 3)

the initial undetailed steps of the procedure, e.g. L, para. 5: 'well the sixth day, then the most holy time is entered Saturday, Sunday, Monday (etc.), this is most holy'; or it may present a presummary of the procedure (Example 14).

Setting is expounded by a sentence.

The exponent of Terminal may describe the circumstances of the participants at the end of the procedure (DH, Appendix A, para. 5, in which the participants return to following the deer, the activity in which they were engaged at the beginning of the procedure), or summarize by stating that such and such is the custom, or the customary outcome of the procedure; e.g., MC, para. 2.1: 'Then the first time they don't arrange it, they don't talk it out'. Terminal is expounded by a sentence.

A Coordinate (Procedural/Expository) Paragraph may expound a Procedure tagmeme of a Procedural Discourse. The paragraph comprises two sections, the first expounded by a Procedural Paragraph and the second by an Expository Paragraph. Two examples are found in the Discourse L, paras. 3 and 5.

The exponent of the Expository Paragraph elaborates in an explanatory manner some feature of the procedure described in the exponent of the Procedural Paragraph.

The conjunctions occurring in Narrative and Procedural Paragraphs are *ʔe·* 'and', *pɨs* 'well'. The former occurs only in these paragraph types and always denotes chronological sequence. *pɨs*, while occurring in other paragraph types, occurs with much less frequency in written Mixe texts and in one of its usages it appears to be a hesitation form. *ʔe·*, when occurring in these paragraph types, most frequently collocates with a conditional margin or temporal margin, or with a Sentence Topic Noun Phrase. It occurs with less frequency in a Procedural Paragraph that makes comparatively greater use of time phrases.

Combinations of these conjunctions occur: *ʔe· pɨs*, *ʔe· c̃i·*, or *pɨs c̃i·*, the latter fairly frequently.

Other conjunctions occurring in Procedural Paragraphs are associated with Expository Paragraphs, either those in which the Procedural Paragraph may be embedded or those embedded in the Procedural Paragraph.

The margins most frequently occurring in Procedural Paragraphs are conditional margins and temporal margins (introduced by *ko·* 'when'). Condi-

	Well then, the child's father asks if the boy loves her, if he works hard, if he smokes or drinks.	
	Then the boy's parents tell him it is arranged, truly you work for the woman one year	if you love her.

Example 15 (from "Marriage Customs")

tional margins occurring initial to the sentence define Alternate Step (Example 10). Conditional margins may occur in noninitial position when one alternative is not developed.

In the latter example, the conditional margins in final position function in tail-head linkage between Procedural Paragraphs. The next paragraph begins: 'Because he loves the woman, the man works for her'. Note that the cause margin (usually postposed) here functioning in linkage is preposed. Other examples of postposed margins functioning in linkage may be mentioned here. Although very infrequent, they are probably to be considered fully grammatical. A postposed temporal margin has been found in a Narrative Paragraph (OC). Both conditional margins and temporal margins may occur initial to the first sentence of a Procedural Paragraph. The occurrence of the first defines an Alternate Procedure. Both describe the circumstances under which a procedure is initiated (see Example 16 below).

Within the paragraph, the temporal margins may function to link sentences together which describe successive steps of the procedure. The exponent of the temporal margins is the lexical equivalent or result of the nucleus of the sentence expounding the preceding Step.

And also when people build a house,	they go to look for mature pine trees where they can get wood.	Point 5 Step 1
And when they find the mature pine trees,	then they cut them down.	Step 2
And after two days	they go to trim them.	Step 3
And when they trim them all,	then they mark them.	Step 4
When they mark them all,	then the next day or the third day they go with the purpose of sawing them.	Step 5 Text
	They saw them for one day or two.	Expo
And when they saw them all,	then the next day they carry them in.	Step 6
When they all arrive where they want to build the house,	well then, the people find specific use for the lumber.	Step 7

Example 16 (from "Pine Trees", Appendix E, para. 13)

When a Step is expounded by an Expository Paragraph (due to the insertion of explanatory material) a temporal margin may serve to link the exponent of this Step to that of the next Step. In effect, the temporal margin links across the explanatory materials, as in Example 17.

	Then the child's mother greets the people in the house.	Step 3: Expo P. Text
	Well, at night they go; they don't go in the daytime.	Expo: Expo P. Text
	About 11 o'clock they go; at 11 o'clock she greets them.	Expo
When the people of the house open the door,	well then, the parents greet the people.	Step 4
	Then they go inside.	Step 5

Example 17 (from "Marriage Customs", para. 2)

In Procedural Paragraphs, postposed temporal margins have been found only when (a) a preposed temporal margin also occurs and/or (b) the temporal margin occurs in a one-sentence Procedural Paragraph (Example 18; see PT, Appendix E, Ss 23–25).

And when they want to eat,	well the woman washes the man's hands	when he wants to eat	Step 3

Example 18 (from "Marriage Customs", para. 2.2)

In both cases, it is not clear whether the postposed temporal margins are a feature of the Procedural Paragraph, or of an Expository unit beginning with the sentences containing the temporal margins (in MC an Antithetical Expository Paragraph expounding Step, and in PT Points expounded by a one-sentence Procedural Paragraph).

In PT Sentence 25, which contains two temporal margins, there is chronological sequence between the two temporal margin exponents.

A two-step procedure is implied in the one sentence. It may also be noted that while the temporal margin exponent describing the occasion of the procedure may be preposed, in these sentences the temporal margin exponent describing the different uses of the pine tree is postposed in each case.

Well, they forcibly marry the woman	because there in San José El Paraíso the parents rule their daughters.
Well then, they resume talking where they had left off, how to arrange it, to see if they can marry, or how many days, months he will work for their daughter,	because they work for the women there.

Example 19 (from "Marriage Customs", paras. 2.1 and 2.1.2.2)

Cause margins are used in Procedural Paragraphs to convey explanations (Example 19).

Temporal margins may be expounded by time phrases as well as by Relator-Axis clauses. These may function in head-head linkage between paragraphs:

Well, the sixth day	then the most holy time is entered, Saturday, Sunday, Monday ...	Proc 4
And now this Holy Friday,	well then, it happens now what they are planning ...	Proc 5
And this morning, Holy Saturday at daybreak, the Saturday of Glory,	well then, the Glory is opened ...	Proc 6

Example 20 (from "Lent", paras. 5, 6, and 7)

The above three sentences are the beginning sentences only, of paragraphs 5, 6, and 7.

Within the paragraph, linking temporal margins are generally preposed, but not regularly so; Example 21 shows some postposed temporal margins.

On the first day	they make candles.		Step 1: Expo P. Text
	Then this is started	the first Friday.	Expo
	Well, the people chant and pray a lot	the second Friday also.	Step 2
The third Friday also	the people chant and pray a lot.		Step 3

Example 21 (from "Lent", para. 2)

Interparagraph linkage may operate through the sentence margins; it may also operate in the absence of sentence margins, in which case the sentence nucleus of the exponent of one Step is understood to be the temporal sequel of the sentence nucleus of the exponent of the preceding Step. The sentences may or may not be linked by the conjunction *čï·* 'then'.

(pis) the boy sends his parents to go ask for the woman. Sentence 1.

(pis) his parents take with them liquor and cigarettes and go to the woman's house. Sentence 2.

7.6 **Expository Paragraphs.** The Expository Paragraph is the paragraph type which has the widest distribution. There seems to be no real restriction to the paragraph or discourse level tagmemes which it may expound, either nuclear or peripheral. The most frequent types of embedding to occur in Expository Paragraphs is Recursive; that is, an Expository Paragraph expounds some tagmeme of a more inclusive Expository Paragraph. Expository Paragraphs may be Simple, Coordinate, or Antithetical.

The following is the general formula for the Expository Paragraph:

Formula 12

Expository Paragraph

± Prelim + Text ± Expo ± Reason ± Result ± Terminus

The nucleus includes the obligatory text and the optional Expo, Reason, and Result tagmemes. Text is the initial tagmeme to the nucleus of the paragraph. Any nuclear tagmeme other than Text may be repeated (an Expository Paragraph containing the exponents of two or more Text tagmemes is a Coordinate Expository Paragraph or an Antithetical Expository Paragraph), and the nuclear tagmemes other than Text may (probably) occur in any order. Grammatically the other nuclear tagmemes are dependent on Text, and lexically the sentences expounding them develop the subject matter of the sentence expounding Text.

But they aren't the only animals which find their food in the pine tree.	Point 2: Expo P. Text
The bees do too.	Expo: Expo P. Prelim
In the hollow pine tree is where they take a place to live.	Text
And there inside they weave, there they have their young, there they put their honey.	Expo

Example 22 (from "Pine Trees", Appendix E, para. 5)

Sentences of an Expository Paragraph which are not dependent on the exponent of the Text tagmeme, but on some other sentence of the paragraph, are embedded in a paragraph which comprises these sentences and the sentence upon which they are dependent. If the embedded paragraph is itself Expository, then the sentence upon which the other sentences are dependent functions as Text in the embedded paragraph, and the other sentences expound the other tagmemes of an Expository Paragraph.

When he arrived at home	then he said to his mother, "Here I am. I have gone travelling, I have gone earning, I have gone getting wages."	Text
	Good, then his mother is really happy.	Result
	Oh, but much merchandise arrived, many burros, many mules, arrived.	Expo

Example 23 (from "John Garbato", para 4.3)

In particular, an embedded Expository Paragraph may expound a Result tagmeme. In this case the embedded Expository Paragraph may not contain an exponent of a Reason tagmeme since Reason is the inverse of

Result, and a sentence that might have been considered to expound Reason in such an embedded paragraph, expounds Expo on the higher level. Similarly, a putative exponent of Result contained in a paragraph expounding Reason, is considered to expound Expo on the higher level.

The Text tagmeme (topic sentence) may be followed by an indefinite number of Expo tagmemes. The exponent of an Expo tagmeme paraphrases, or in some way amplifies, the exponent of the Text tagmeme.

	Well, pine trees are really beautiful in their youth.	Text
When they grow,	they grow very straight and look very beautiful.	Expo
	All their leaves are long and pointed.	Expo

Example 24 (from "Pine Trees", Appendix E, para. 2)

Text may be expounded by a sentence or (once) by a three-part Antithetical Expository Paragraph (see SS, Appendix B).

Exposition may be expounded by a sentence or Expository Paragraph (see PT, Appendix E, para. 5.1) or Procedural Paragraph.

A Text tagmeme may also be followed by a Reason tagmeme, whether or not any Expository tagmemes are interposed.

The clearest examples of exponents of Reason tagmemes are those in which a cause margin in a sentence expounding Text is paraphrased or amplified in the exponent of the Reason tagmeme (see SS, Appendix B, para. 1.4.2.2, in which there are two examples).

A Reason tagmeme is also posited if in contrast a cause margin may be reasonably supplied to the exponent of Text such that the exponent of the Reason tagmeme paraphrases or amplifies the exponent of the supplied cause margin. That such a cause margin fits the context may be substanti-

What we do here can not save us, like the ancestors' customs, like worshipping turkeys and chickens, the thunder, the world, and the sea,	because God does not like that and does not command that way.	Reinf S. 24
We who believe in Jesus can not do these things, we can not worship God with turkeys and chickens.	(because God is not pleased)	Text S. 56
The blood which chickens have does not please God, only Jesus (does) who took our punishment for us.		Reason S. 57

Example 25 (from "True Religion")

ated by some other sentence(s) of the Discourse. In example 25 it can be seen that Sentence 24 substantiates a cause margin supplied in Sentence 56, then amplified in Figure of Sentence 57 expounding Reason.

In example 25, the part in parentheses is the supplied margin.

Reason may be expounded by a sentence (see Example 25) or Expository Paragraph (see Sa, Appendix C, para. 2.1.1).

The clearest examples of exponents of Result tagmemes are those which contain a cause margin which paraphrases or amplifies the sentence expounding Text. Thus, back in Example 23, which is from the same text as Example 26, a cause margin could be supplied which would refer to the son arriving with the cargo.

Uuuu, but inside many things inside came everything complete merchandise all complete came.		Text
Well, mother then is content.		Result: Expo P. Text
Well then she said very content very content the mother,	because already arrived with many things.	Expo

Example 26 (from "John Garbato", para. 4.4.2)

The sentence introducer *pa:d̃* 'for this reason' may introduce an exponent of Result (see Sa, Appendix C, para 13). That every sentence introduced by *pa:d̃* does not expound Result is due to the fact that *pa:d̃* does not always refer back to the immediately preceding Text; it may refer to some other element in the paragraph or to some element in a previous paragraph.

Result may be expounded by a sentence or Expository Paragraph. See Example 26 of a Result expounded by an Expository Paragraph, and also M, Appendix D, para. 1.1. Refer to Sa, Appendix C, paras. 4.2 and 13 for examples of Result expounded by a sentence.

	Well, deer are really skittish.	Step 2: Expo P. Prelim
When they hear something or when people throw stones at them or roll stones,	well they flee.	Text
	Well then, deer surely flee, in this way they come out.	Term

Example 27 (from "Deer Hunt", Appendix A, para. 7.1)

The exponents of the peripheral Preliminary tagmeme may introduce the Dramatis Personae or objects which relate to the topic of the paragraph, or outline circumstances or present a presummary of the paragraph. Prelim is usually expounded by a sentence. The following are examples of a Prelim which exemplifies circumstance and presummary respectively.

'One time a person advised his son'. (M para 1).

'The bees do too'. (PT para. 5.1)

When an Expository Paragraph expounds a Step, that sentence is considered to expound Text, which carries forward the Steps of the Procedure. A sentence occurring before the exponent of Text in an embedded Expository Paragraph expounds Prelim, as in Example 27. Here the exponent of Prelim expresses a generalization of the exponent of Text.

The peripheral tagmeme Terminus closes in much the same way that Prelim introduces the Dramatis Personae or objects which relate to the topic of the paragraph. The Terminus is expounded by a sentence.

When he arrived in Mexico City,	then he sold the spools of thread for twenty-five centavos each.	Text
	Then for two it was fifty centavos, for three seventy-five centavos in all.	Expo
	Then the thread was gone.	Term

Example 28 (from "Orphan Child", para. 2.2)

Coordinate Expository Paragraphs are paragraphs containing the exponents of more than one Text tagmeme. The nucleus of a Coordinate Expository Paragraph comprises the exponents of two or more Sections, each expounded by an Expository Paragraph or a sentence which may be assumed to be the minimal exponent of an Expository Paragraph (see SS, Appendix B, para. 1.4.2 and Sa, Appendix C, para. 3).

The exponents of the Sections can be seen in Chart 22.

An exponent of the peripheral tagmeme Term (peripheral to the coordinate nucleus) has been found in one case (see Example 29).

	Although I didn't talk well, I would like it if they would decipher my language.	Point 2: Coord. P. Sec 1: Expo P. Text
	Although I wanted to talk I didn't find the words with which to make them understand how much friendship I feel toward my *patrones*.	Sec 2: Expo P. Text
	The truth is that they and the people are friends with each other but I like them like the members of my own family.	Expo
	I give thanks to God that I found my *patrones*.	Term

Example 29 (from "Slide Show", Appendix B, para. 1.4.3.2.1)

Chart 22

Exponents of the Sections of a Coordinate Expository Paragraph

+ Section 1	+ Section 2	± Section 3
Expo P.	Expo P.	Expo P.

Coordinate Expository Paragraphs expound Expository Points or Episode tagmemes.

The nucleus of an Antithetical Expository Paragraph contains the exponents of two (or more) Text tagmemes. These two Texts are opposed to each other. Each Text is the nucleus of its respective subparagraph, Sec or $\overline{\text{Sec}}$ (Section or Countersection): Sec and $\overline{\text{Sec}}$ constitute the nucleus of the Antithetical Expository Paragraph (see Example 30). Each Section and Countersection is expounded by an Expository Paragraph or a sentence which may be assumed to be the minimal exponent of an Expository Paragraph.

And they do a lot which doesn't please God,	when they kill turkeys and chickens.	$\overline{\text{Sec}}$: Expo P. Text
We who believe in Jesus can not do these things; we can not worship God with turkeys and chickens.		Sec: Expo P. Text
The blood which chickens have does not please God, only Jesus (does), who took our punishment for us.		Reason

Example 30 (from "True Religion", para. 5.1.3)

When more than two subparagraphs occur, then alternate subparagraphs are repeats of each other and successive subparagraphs expound Sec and $\overline{\text{Sec}}$, or $\overline{\text{Sec}}$ and Sec (see SS, Appendix B, para. 1.4.3.2).

Antithetical Expository Paragraphs have been found expounding the discourse level tagmeme Expository Point, and the paragraph level tagmemes Reinforcement, Text, and Step.

The following tentative observations on linkage in Expository Paragraphs are mostly based upon the Expository Discourse embedded in the Narrative Discourse SS. As has been mentioned, Expository Paragraphs expounding Expository Point rather than tagmemes of non-Expository Discourse, are of infrequent occurrence in the present data.

As previously noted, *c̃i·* 'then', the conjunction that denotes chronological sequence, does not occur in Expository units unless associated with embedded, or embedding, Procedural or Narrative units. *pis* 'well' does not occur in the written text SS. It appears that in a typical Expository Paragraph

it will occur only in association with the topic sentence (that is expounding Text: see PT, Appendix E, Ss 2 and 20). In this connection it is perhaps worthy of note that in the Procedural Paragraph expounding Point in PT, the only sentence in which *pis* occurs is the sentence that, in this Procedural Paragraph, is most like a topic of an Expository Paragraph sentence and which most parallels the one-sentence paragraphs expounding the four previous Points.

The conjunction *ʔe·* is found linking the exponents of Text and Expo, or of Expo and Expo (PT, Appendix E, S 18; and SS, Appendix B, S 11). In both cases there is parallelism of structure between the exponents of Text and the linked exponent of Exposition.

The sentences of an Expository Paragraph are linked by maintaining attention (perhaps to be called *focus*) upon one topic. In para. 1.4.2 of SS, attention is upon the speaker's *patrones* and is signalled by the use of *ʔaHk͡š* 'they'. The topic is developed differently in the three sections of the paragraph. In the first section attention is upon how they became accustomed to the town, and three clauses begin *neH ʔaHk͡š*... 'how they...'. The first sentence of the section opens: *yi‖ ʔi:ʒ̃ ʔo:y nwi·nma·ỹič̃ neH ʔaHk͡š*... 'I really thought about it, how they...'. The use of *yi‖* 'it' initial to the sentence and occurring before the free pronoun *ʔi:ʒ̃* 'I' probably indicates that the attention of the paragraph is upon 'it' how they became accustomed (and not upon the speaker). It may be noticed here how Sentence 11 links to the previous sentences of the Section by parallelism and expansion: the sentence is *ʔe· ʔo:y ngo‖maỹič̃ neH ʔaHk͡š ha‖y mi·yuHy* 'And I really admire how they get along with the people'. The first part of the sentence parallels the first part of Sentence 10 (the first sentence of the section): *yi‖ ʔi:ʒ̃ ʔo:y nwi·nma·yič̃ neH ʔaHk͡š*... 'I really thought about it, how they...'. The second part of Sentence 11 expands the last part of Sentence 10: *neH ʔaHk͡š ỹuHy* 'how they acculturate'. Sentence 10 uses an intransitive verb and Sentence 11 a transitive verb derived from it.

In the second section, linkage is not so much by parallelism as through the use of margins and sentence introducers. The second sentence of the section links to the first through the use of *yi‖gišpi* 'for this reason' and relates the facts *ko‖minak̃ co·y to·kkiš̃* 'they sell medicine cheaply' (part of cause margin in first sentence) to *ka! dia:b himiHt ha‖y ti· ʔo‖g̃* 'no one died this year' (second sentence). The frequent use of *ʔaHk͡š* continues through this section. *pa:d̃* introduces the third sentence and relates it to the first sentence through the second. The fourth sentence repeats part of the cause margin from the first sentence.

Linkage may also be through lexical chaining. Examples from PT, Appendix E, are: 'pine trees... they... their leaves' in para. 2 and 'they aren't the only animals... the bees... the woodpeckers... also the parrots' in paras. 5.1 and 7. In each chain, the successive noun phrases bear the same logical relationship to the successive predicates.

7.7 Narrative Paragraphs. Narrative Paragraphs expound Stage, Episode, Denouement, Recap, or Closure tagmemes at discourse level, or the Sections of a Coordinate Narrative Paragraph. They may also expound a Speech 3 tagmeme in a Dialogue Paragraph (see Sect. 7.9).

The general formula for Narrative Paragraph is as follows:

Formula 13

Narrative Paragraph

± Setting ± SP_0 ± Simult BU ± Parens ... + BU n/Simult BU n ± Term

The convention is followed of numbering the exponents of the Buildup tagmemes serially irrespective of whether they are BU or Simult BU. A one-sentence Narrative Paragraph comprises only an exponent of BU n.

Exponents of Buildup tagmemes are nuclear to the Narrative Paragraph. They describe events in chronological sequence, and the final BU or Simult BU exponent is the grammatical nucleus of the paragraph, and lexically is the culmination of the events described in the paragraph.

An exponent of a Simult BU occurs when the exponents of two BUs, BU and Simult BU, describe simultaneous events. There is frequently a change of actor between the sentences expounding the BU and Simult BU, and the actions are in some way reciprocal (man sang, savage heard; they ate, he saw and listened; savage sings, man listens; mule drivers saw him, he is looking this way and that: see Sa, Appendix C, Ss 25, 29, 41, 54, 61, 94 for examples of Simult BU).

Repeat exponents of a BU have been found in the neighborhood of a Parenthesis (Example 33) or of Simultaneous BU. The exponent of a BU and its repeat have been found immediately preceding and following an exponent of Parens (see Sa, Appendix C) or immediately preceding and following an exponent of a Simultaneous BU, and similarly the exponent of a Simultaneous BU and its repeat have been found immediately preceding and following an exponent of BU (Sa, Appendix C, Ss 24ff). Notationally the exponents of a BU and its repeat are given the same number and a prime (') attached to the number of the repeat (as in the case of repeated Step).

Both BU and Simultaneous BU are expounded by a sentence or an Expository Paragraph. In one case BU is expounded by an Expository Discourse. The Narrator is telling about certain events which involved himself and these engender in him a certain train of thought which is presented in an Expository Discourse expounding BU n.

Sometimes the exponent of a BU tagmeme includes a quotation. Longacre observes that "It is important to note that while speech EVENTS may be reported in the BU's of a NARRATIVE PARAGRAPH, such a paragraph remains a NARRATIVE PARAGRAPH and is not a DIALOGUE PARAGRAPH in that (1) DIALOGUE versus NARRATIVE PARAGRAPH is not a matter of presence versus absence of speech as such; but rather (2) in DIALOGUE PARAGRAPHS what one speaker says evokes what the following speaker says with focus on the dynamics of interchange, while in NARRATIVE PARAGRAPHS speech

EVENTS are simply part of the chain of events" (1968.68). Example 31 illustrates the speech events in a Narrative Paragraph:

Well, the savage sings loudly, saying...	BU 1
And the woman says, "Monday and Tuesday."	BU 2
Well then the man, he did it, saying, "I'll come and answer."	BU 3: Expo P. Text
Then the man said, "I'll come and make his song longer."	Expo
Then he said, "Wednesday and Thursday and Friday."	BU 4
Then the savage listens	Simult BU 5
He says, "Who lengthened my song?"	BU 6

Example 31 (from "Savage", Appendix C, para. 5)

Exponents of the optional Speech zero[2] tagmeme in Narrative Paragraphs voice a participant's query as to his immediate course of action. The exponents of following BUs describe his action. The Speech zero tagmeme exponent generally occurs preceding the first BU, but there is one example in the corpus of a Speech zero tagmeme exponent medial to BU exponents, and the BU exponent immediately following describes the participant's action following the query (Example 32). Speech zero may be expounded by a sentence or by an Expository Paragraph (JG, para. 2.2.1).

Well then, twenty-five centavos remained.	Setting
Well then he said, "What more shall I buy?"	SP
Well then he spied an overcoat.	BU 1
Then he bought it; it cost twenty-five centavos also.	BU n
Then all the money was gone—fifty cents.	Term

Example 32 (from "John Garbato", para. 2.2.2)

Exponents of the Parenthesis tagmeme have been found in Narrative Paragraphs between the exponents of a BU tagmeme and its repeat.[3] In Example 33 the sentences of the exponent of Parens are descriptive of participants in the narrative. Parenthesis is expounded by a sentence of an Expository Paragraph.

2. Speech zero is a tagmeme which reports a speech act but which does not enter in to the dramatic exchange between speakers in a Dialogue Paragraph which Speech 1 and Speech 2, or even Speech 3, do (see 7.9).

3. A putative example of sentences expounding Parens has been found in an Expository Paragraph but a Parens tagmeme has not been set up for this paragraph type since the repeat feature is absent, and the sentence could be handled in terms of an Antithetical Paragraph (JG).

Well then, he got up, this John Garbato,	because he was poor and did not have anything.	BU 1
And the mule drivers were content; they had more blankets, more to put over themselves.		Parens
And John Garbato, since he was poor, then he got up.		BU 1'
Then he went by the fire, by the fire.		BU 2

Example 33 (from "John Garbato", para. 3.2.1)

Terminal may be expounded by a sentence or an Expository or Dialogue Paragraph.

The nucleus of a Coordinate Narrative Paragraph comprises two or more Sections, each one expounded either by Narrative Paragraphs or by Dialogue Paragraphs. Each section is of parallel structure grammatically and

The peripheral tagmemes of the Narrative Paragraph are Setting and Terminal. Setting is an optional tagmeme initial to the Paragraph. The exponent of Setting generally describes the actor's situation (that he is sitting, arriving, walking, not talking) or circumstance (having money) at the beginning of the action of the paragraph (see Example 32 above or Sa, Appendix C, paras. 4 and 12). It may also describe the situation or state of some other participant or thing relevant to the action of the paragraph, as in Example 34. One exponent of Setting anticipates the action of the paragraph in the speech of one of the participants (OC). Setting may be expounded by a sentence or an Expository Paragraph.

	Well then, right here the mule drivers really ran.	Setting
When John saw the mule drivers running right here,	then he also got up.	BU 1
	Then he followed.	BU 2

Example 34 (from "John Garbato", para 3.5)

Terminal is an optional tagmeme final to the paragraph. The exponent of Terminal generally describes the actor's removal from the scene of action (turned to go, went, returned, sat down; Example 35) or circumstances (money gone). It may also be expounded by a quotation sentence in which some participant passes a comment on the action of the paragraph (see Sa, Appendix C, para. 9).

Well then he went and got the mask.	BU 3
Then he put it on his face.	BU n
Good, then he went and sat down there again.	Term

Example 35 (from "John Garbato", para. 3.2.2)

	Since the city was all stores.	EP 2: Coord. Narr. Para. Setting
	Then he put the fifty centavos in his pocket.	Sec 1: Narr. Para. Setting
	Well then he said, "What shall I buy?"	SP_O: Ex. P. Text
	He looked this way and that in the store. What shall I buy? What shall I buy?	Expo
Well when he spied a mask there,	then he bought it.	BU 1
	He paid twenty-five centavos; twenty-five centavos he paid.	BU n
	Well then, twenty-five centavos remained.	Sec 2: Narr. Para. Setting
	Well then he said, "What more shall I buy?"	SP_O
	Well then he spied an overcoat.	BU 1

Example 36 (from "John Garbato", para. 2.2)

Terminal may be expounded by a sentence or an Expository or Dialogue Paragraph.

The nucleus of a Coordinate Narrative Paragraph comprises two or more Sections, each one expounded either by Narrative Paragraphs or by Dialogue Paragraphs. Each section is of parallel structure grammatically and lexically. The Coordinate Paragraph may contain the exponent of a Setting tagmeme common to the two sections, as in Example 36. A Coordinate Narrative Paragraph may expound either Episode or Denouement tagmemes.

pis 'well' and *c̃i·* 'then' are the most frequently occurring conjunctions in Narrative Paragraphs. These are frequently occurring conjunctions in Procedural Paragraphs also. The conjunction *ʔe·* 'and' occurs much less frequently in Narrative than in Procedural Paragraphs.

The conjunction *c̃i·* 'then' denotes chronological sequence. However, *c̃i·* may occur within an Expository Paragraph when that unit expounds a Narrative unit (see Sa, Appendix C, para. 3). The texts OC and JG also contain examples. *c̃i·* is not found in a purely Expository Discourse. It is not found within a Dialogue Paragraph, even if the Speech tagmemes are expounded by a Narrative Paragraph, nor in Hortatory Discourse.

pis 'well' may occur within purely Expository units, although it does not frequently do so. It denotes logical sequence as well as chronological sequence. It functions as a hesitation form as well as a link, and its frequency of occurrence is markedly less in written material than in tape-recorded speech.

ʔe· 'and' occurs most often in connection with a sentence margin. The margin may be a location margin, a temporal margin, or a sentence topic Noun Phrase; most frequently the latter (see Sa, Appendix C, Ss 32, 61, and 87).

pe:r̃ 'but' may also occur in Narrative Paragraphs. In these paragraphs it has some exclamatory function and/or may serve to contrast participants in some way (see Sa, Appendix C, Ss 52, 56, and 81). (Some of the examples occur in Expository Paragraphs, embedded in or expounding Narrative units.)

Conditional margins are not found within Narrative units. Temporal margins introduced by the relator *ko·* 'when' occur in two out of three Narrative Discourses studied (they also occur in a one-paragraph Narrative Discourse); they occur with noticeably greater frequency in JG than in OC, and in Sa are not used at all in Narrative Paragraphs.[4]

Intraparagraph linkage through temporal margins is rarely found. Exponents of BUs are linked through temporal margins in the text SS, but are not in the long Narrative Discourses JG, Sa, and OC. One example of a postposed temporal margin occurs in OC Sentence 106, but any other postposed temporal margins are associated with Expository Paragraphs (see Sa, Appendix C, Ss 10, 91, 100, 103, and 105). Exponents of Setting or Speech zero may be linked to the first BU exponent by a temporal margin (JG, Ss 11 and 48; OC, Ss 64 and 73), but preposed temporal margins are most frequently used to link discourse level Narrative units or the coordinate sections of Narrative Paragraphs or the coordinate exchange of a Dialogue Paragraph.

Two examples of locative margins functioning in interparagraph linkage have been found (JG S 30 and OC S 15).

pa:d̃ 'for this reason' has been found introducing exponents of Discourse level Closure, Moral, and Finis.

7.8 Hortatory Paragraphs. The following is the general formula for Hortatory Paragraphs.

Formula 14

Hortatory Paragraph

± Prelim + Exhort ± Reinf ± Reason ± Result ± Warning (± Terminus)

An exponent of a Terminus tagmeme has not been found in the corpus analyzed.

Hortatory and Expository Paragraphs have certain features in common. They both lack chronological sequence. The Exhortation and Reinforcement tagmemes bear the same relationship to each other as do Text and Expo of Expository Paragraphs. Reason and Result tagmemes are defined in Hortatory Paragraphs in the same way as they are defined in Expository

4. Any temporal margin in Sa is postposed to the sentence nucleus and is associated with an Expository Paragraph. This is not a stylistic difference between speakers since both JG and Sa are by the same speaker, and both are Climactic Narrative Discourses.

Paragraphs. In the present corpus, exponents of Warning tagmemes have been found only in Hortatory Paragraphs. They differ in their tense and person orientation (see the discussion under Discourse Genres).

Simple Hortatory Paragraphs may expound Point and Conclusion tagmemes at discourse level or Section tagmemes (of Coordinate and Antithetical Hortatory Paragraphs) or Speech tagmemes of Dialogue Paragraphs. Example 37 illustrates Exhortation and Reinforcement tagmemes.

Don't make fun of those who don't have parents.	Sec. 2: Hort. Para. Exhort
It's better for you to help the people who don't have anything, like the blind.	Reinf
Respect all who suffer.	Reinf

Example 37 (from "Manners", para. 4.2)

Both Exhortation and Reinforcement tagmemes may be expounded by a sentence or an Expository Paragraph. There is one example (38) in the present corpus of an Antithetical Expository Paragraph expounding Reinforcement.

And they do a lot which doesn't please God.	when they kill turkeys and chickens.	Reinf: Anti. Expo. Para. Sec: Expo. Para. Text
We who believe in Jesus can not do these things; we can not worship God with turkeys and chickens.	(because God isn't pleased)	Sec: Expo. Para. Text
The blood which chickens have does not please God; only Jesus (does) who took our punishment for us.		Reason

Example 38 (from "True Religion", para. 5.1.3)

The cause margin in the second sentence has been supplied and finds its justification in a previous sentence in the Text in which a cause margin of similar lexical content is linked to a sentence nucleus of similar lexical content to the sentence nucleus of the present example.

In a Hortatory Paragraph the Reason tagmeme is defined as follows. The exponent of the Reason tagmeme is a paraphrase of the purpose margin (introduced by *higiš*) of the preceding exponent of the Reinforcement tagmeme or could be transformed into a purpose margin for the exponent of the Exhortation tagmeme (see M, Appendix D, para. 8). Reason may be expounded by a sentence or an Expository Paragraph.

Result is defined in Hortatory Paragraphs as it is defined in Expository Paragraphs (see Example 39). It may be expounded by a sentence or an Expository Paragraph.

One time a person advised his son.		Prelim
And he told him, "John, I'm already old. I don't know when I will die.		Text
And therefore I want to tell you how you should live	(because I don't know when I will die)	Result: Expo. Para. Text
and how you should care for the younger members of the family."		Expo

Example 39 (from "Manners", Appendix D, para. 1)

Example 40 illustrates exponents of both Reason and Result tagmemes in a Hortatory Paragraph defined as set out under Expository Paragraphs.

Friends, listen, now I tell you that the saints and pictures aren't alive,	because people have made them.	Sec. 2: Hort Para. Exhort
There is only one, the Lord Jesus, who is alive, who can do everything for us.		Reinf
It is the Holy Spirit who is with us every day.		Reinf
It is true that people make things by carving wood or stone. They paint them so they will look pretty.		Reason
But they don't have strength	because they aren't alive.	Result

Example 40 (from "True Religion", para. 3.2)

Note that Reason paraphrases the cause margin of the Exhortation, whereas the cause margin of Result paraphrases the nucleus of the Exhortation.

Two examples of the Warning tagmeme have been found in Hortatory Paragraphs. Both are clearly defined. The exponent of Warning contains a conditional margin which is a paraphrase of the nucleus of the exponent of the Exhortation tagmeme with a reversal of the positive-negative values. The nucleus of the exponent of the Warning tagmeme is new material, as in Example 41 (see M, Appendix D, para. 6).

Ground 1	Figure	Ground 2	
	For this reason now I tell you, "Believe Jesus	in order to live happily every day.	Exhort
If you don't believe in God's Son,	your soul will suffer punishment in hell.		Warning
	For this reason believe Jesus	so that your soul will . . ."	Reinf

Example 41 (from "True Religion", para. 2.2)

Example 42 shows an exponent of the Preliminary tagmeme. It introduces the exponent of the Exhortation tagmeme.

Well then, the son said, "Mother, there you have some thread; you have three spools.	SP 1: Hort. Para. Prelim
Well, give it to me; let me sell it in Mexico City."	Exhort
Then he went to Mexico City.	Term

Example 42 (from "Orphan Child", para. 2.1.1)

The Coordinate Hortatory Paragraph parallels the Coordinate Expository Paragraph. It comprises two or more Sections, each expounded by a Hortatory Paragraph (Example 43), Coordinate Hortatory Paragraph, or Antithetical Hortatory Paragraph.

It isn't good	when we think bad and make fun of Jesus.	Sec 1: Hort. Para. Exhort
Jesus doesn't like it	when we make fun of Him,	
and He doesn't like it	when we live contrary to the way or the good life.	Reinf
It isn't good	when we do a lot of wrong here in this world.	Sec 2: Hort.Para. Exhort
When we kill turkeys and chickens the devil is very happy.		Reinf

Example 43 (from "True Religion", para. 5)

A Coordinate Hortatory Paragraph may expound a Point at discourse level, or may expound a Section of a Coordinate Hortatory Paragraph (in TR four times) or a Speech 1 tagmeme of a Dialogue Paragraph (OC S 52).

Mixe has numerous instances of Coordinate Hortatory Paragraphs. The first section is preparatory in that it sets the reason or base for the second section. The second section implores or exhorts the hearer to act in response to the arguments presented in the first section. The second section is frequently introduced by *pa:d̃* 'for this reason', which refers to the argument of the first section.

Other instances of Coordinate Hortatory Paragraphs differ in that they simply give advice under a common heading, the separate sections of which may be only loosely connected (see M, Appendix D).

The Antithetical Hortatory Paragraph parallels the Antithetical Expository Paragraph. It comprises two or more Sections (alternately Section and Countersection), each normally expounded by a (simple) Hortatory Paragraph. One example has been found, however, of a complex embedding in which a Countersection is expounded by an Antithetical Hortatory Paragraph in which the Countersection of that paragraph is expounded in turn by an Antithetical Hortatory Paragraph (TR Sentences 43-46).

Only embedded Antithetical Hortatory Paragraphs have been found. They may expound Section in a Coordinate Paragraph, or as described above may expound a Countersection.

The main conjunctions occurring in Hortatory Discourse are *ʔe·* 'and', *pa:d̃* 'therefore'. *pe:ř* 'but' occurs fairly frequently and *pɨs* 'well' but rarely. The conjunction *c̃i·* 'then', which denotes chronological sequence (in contrast to *pɨs* 'well', which rather denotes logical sequence, or may even be considered a pause form), does not occur in Hortatory Paragraphs. *pa:d̃* 'for this reason' can refer to the preceding sentence or to something in the same sentence. If *pa:d̃* has the reason within the same sentence (expressed in a cause margin), it may refer to the preceding sentences as well.

S 4 *'pa:d̃* we don't have pictures, because they aren't alive.' It will be noted that the reason we don't have pictures is because they aren't alive. But another reason is mentioned in preceding sentences: S 2 'We believe in Jesus'; S 3 'Jesus is with me, He helps me, He is alive...'. It is possible to delete the clause 'because they aren't alive' in S 4.

Similarly *pe:ř* 'but' can refer to the immediately preceding sentence or may refer to sentences which theoretically at least may occur in any part of the discourse preceding it.

Cause and purpose margins occur fairly frequently in Hortatory Discourses though they are not very frequently exploited in the definition of exponents of Reason and Result tagmemes.

A conditional margin introduces the two examples of exponents of the Warning tagmeme. Other examples of conditional margins occur. In these cases they introduce the exponent of a Point or Section, and semantically describe certain potential circumstances. A temporal margin introduced by *ko·* 'when' may have a similar function. In Hortatory Discourse, the verb contained in such a margin frequently contains a future suffix.

In other usages of a temporal margin, it is postposed to the nucleus of the sentence and describes behavior and/or is retrospective (see Example 43 above).

7.9 Dialogue Paragraphs. Speech events may be reported in a Narrative Paragraph, but any speech event is just one in the chain of events, and a speech interchange is not the focus of the paragraph. In a Dialogue Paragraph, non-speech events may be reported in the outer nucleus of the

paragraph, but the inner nucleus expounds Speech tagmemes and the focus is upon the dynamics of interchange, and quotation formulas (he said, etc.) may be deleted, leaving only the quotes. Within the inner nucleus of the paragraph, the linkage depends upon the speech interchange, question and answer, proposal and response, remark and evaluation.

Dialogue Paragraphs have been found expounding Episode, Recap, and Closure at the discourse level, and expounding Section and Exchange in Coordinate Narrative and Dialogue Paragraphs respectively.

The general formula for Dialogue Paragraphs is given as follows:

Formula 15

Dialogue Paragraph

± Setting ± BU + SP 1 ± SP 2 ± SP 3 ± SP 4 ± Terminal

A Dialogue Paragraph is Simple when it contains no exponent of Speech 2, and Complex when it contains an exponent of Speech 2; it is Resolved when it contains an exponent of Speech 3, and Unresolved when it contains no exponent of Speech 3.

Speech tagmemes constitute the inner nucleus of the Dialogue Paragraph, and BU tagmemes the outer.

The one obligatory tagmeme of the inner nucleus of the Dialogue Paragraph is Speech 1, though in one case its exponent is assumed in context (OC S 56; similarly S 3).

The exponents of Speech 1 and Speech 3 are related as question and answer, proposal and response, remark and evaluation (Examples 44 and 45).

"Well are you rich with fifty centavos?" his friends said.	SP 1 (Q)
"Well I'm rich. People gave me fifty centavos in the city."	SP 3 (A)

Example 44 (from "John Garbato", para. 5.3)

"When you want to go again,	then let's all go."	SP 1 (PROP)
	"Well then, I'll tell you when I go again."	SP 3 (RESP)

Example 45 (from "John Garbato", para. 7)

Remark and evaluation have been known to occur in most languages, but I have not found evidence for positing these lexical relationships in Mixe.

The exponent of Speech 3 may be nonverbal in that it may describe an action performed in response to a proposal rather than encode a response in a quote:

"And get it out so I won't kill your mother."	SP 1
Then he got it out.	SP 3

Example 46 (from "Orphan Child", para. 4.3.2)

The following is an example of a Simple Unresolved Paragraph.

Well then the son said, "Mother, there you have some thread; you have three spools.	SP 1: Hort. Para. Prelim
Well, give it to me; let me sell it in Mexico City."	Exhort
Then he went to Mexico City.	Term

Example 47 (from "Orphan Child", para. 2.1)

Speech 1 may be expounded by a sentence, an Expository Paragraph, a Hortatory Paragraph, or by a Coordinate Hortatory Paragraph. Speech 3 may be expounded by a sentence, an Expository Paragraph, or by a Narrative Paragraph.

The exponent of Speech 2 constitutes a counterquestion, counterproposal, or counterremark in response to the question, proposal, or remark expounded by Speech 1 (not necessarily matching). A chain of exponents of Speech 2 may occur. If an exponent of Speech 3 resolves a Complex Dialogue Paragraph, then it constitutes an answer, response, or revaluation in response to the last exponent of Speech 2, depending on whether this exponent is a counterquestion, counterproposal, or counterremark respectively. Examples 48 and 49 illustrate these points.

When he arrived home he said, "Mother, I want to eat."	SP 1 (PROP)
Then his mother said, "Dear, but what can you eat? There isn't any corn or anything else."	SP 2 (Q)
He said, "No, let's eat . . . .'	SP 2 (PROP)

Example 48 (from "Orphan Child", para 3.1)

And then the rat's child said, "Don't kill her. Why do you want to kill her?"	SP 1 (PROP)
Then the cat said, "I won't kill her if you confess where the master's magic is."	SP 2 (PROP)
He said, "Inside that box."	SP 3 (RESP)

Example 49 (from "Orphan Child", para. 4.3.1)

Speech 2 may be expounded by a sentence, Expository Paragraph, or Hortatory Paragraph.

The remaining Speech tagmeme, Speech 4, is dependent upon Speech 3. Three examples have occurred in Simple Resolved Dialogue Paragraphs.

In Longacre's *Philippine Languages*, it is stated that the exponent of Speech 4 expresses compliance or dissatisfaction with the resolving utterance, the exponent of Speech 3. In the present examples, the exponent of Speech 4 may be nonverbal, describing the action consequent upon the resolving utterance with or without accompanying speech. The action was promised in the exponent of Speech 1, provided the addressee cooperated and the willingness to cooperate was expressed in the resolving utterance.

"Why do you want to kill him? Don't kill Salastrio's child."	SP 1: Expo. Para. Text
"Now I will pay you for what he ate."	Reason
He said, "He ate meat."	SP 3
"Well, here is the money."	SP 4 / Text
Then gave him twenty-five centavos.	Expo

Example 50 (from "Orphan Child", para. 2.3.2.1)

In example 51, there is no overt exponent of Speech 3, but one may be assumed from the previous examples which are parallel to this:

Then he said, "What do you want to do to Salastrio's child? Turn him loose."	SP 1: Expo. Para. Text
"Now I will pay you on his behalf (in payment for what) you want to do to him."	Reason
∅	SP 3
Well then, he gave the man there twenty-five centavos more.	SP 4
Then the money was gone.	Term

Example 51 (from "Orphan Child", para. 2.3.4.1)

In these examples, Speech 4 is expounded by a sentence or by an Expository Paragraph.

It may be noted that no Speech zero tagmeme is set up for Dialogue Paragraphs. No parallel to the Speech zero tagmeme of the Narrative Paragraph has been found for the Dialogue Paragraph.

The outer nucleus of the Dialogue Paragraph comprises BU tagmemes. These are defined for Dialogue Paragraphs as they have been defined for

And then came the chief.	BU 1
Then they said to him, "We can go with you to get out the magic."	SP 1 (PROP)
Then the chief said, "Good."	SP 3 (RESP)

Example 52 (from "Orphan Child", para. 4.2.3)

Narrative Paragraphs. There is no exponent of BU n in a Dialogue Paragraph, since the paragraph peak lies in the speech interchange.

The peripheral tagmemes of the Dialogue Paragraph are Setting and Terminal. They parallel the same tagmemes in Narrative Paragraphs.

Exponents of Setting may occur with or without following exponents of BU tagmemes, as in example 53.

Good, he continued on the trail.	Setting
Then he found there a person who wanted to kill a dog.	BU 1
Then he said, "What do you want to do to Salastrio's child? Turn him loose."	SP 1: Expo. Para. Text
"Now I will pay you for what he ate."	Reason
"Well, he ate all the lard."	SP 3
Well then he gave him money, another twenty-five centavos.	SP 4
Then fifty centavos was gone.	Term

Example 53 (from "Orphan Child", para. 2.3.3)

In a Dialogue Paragraph, BU, Setting, and Terminal have been found expounded only by a sentence.

A Coordinate Dialogue Paragraph contains the exponents of two Speech 1 tagmemes. The inner nucleus of the Coordinate Dialogue Paragraph consists of two Exchange tagmemes expounded by Dialogue Paragraphs.

The outer nucleus and periphery consist of optional BU, Setting, and Terminal tagmemes as in the Dialogue Paragraph.

Then the cat went.	Setting
And the dog carried the cat over the lake.	BU 1
Then they arrived at Mexico City.	BU 2
Then the cat went inside; she caught a rat, a mother rat.	BU 3
And then the rat's child said, "Don't kill her. Why do you want to kill her?"	Exch 1: Dial. Para. SP 1
Then the cat said, "I won't kill her if you confess where the master's magic is."	SP 2
He said, "Inside that box."	SP 3
"And get it out so I won't kill your mother."	Exch 2: Dial. Para. SP 1
Then he got it out.	SP 3
Then they returned....	Term

Example 54 (from "Orphan Child", para 4.3)

Coordinate Dialogue Paragraphs may expound Episode.

The conjunction *c̃i·* 'then', denoting chronological sequence, does not occur medial to the inner nucleus of a Dialogue Paragraph. It may initiate the inner nucleus or occur with any of the exponents of the outer nucleus and periphery.

The conjunction *c̃i·* has been found together with a temporal margin initiating the second exponent of the Exchange tagmeme in a Coordinate Dialogue Paragraph. This may indicate that an alternative analysis as two noncoordinate Dialogue Paragraphs is preferable.

When he arrived home	he said, "Mother, I want to eat."	Exch 1: Dial. Para. SP 1 (PROP)
	Then his mother said, "Dear, but what can you eat? There isn't any corn or anything else."	SP 2 (Q)
	He said, "No, let's eat . . . ."	SP 2 (PROP)
When his mother turned around	then he said to his mother, "Mother, come, let's eat . . . .'	Exch 2: Dial. Para. SP 1
	Then they ate it all.	Term

Example 55 (from "Orphan Child", para. 3.1.1)

7.10 Participant Identification in Discourse.[5] In a Mixe text of any type, the characters and things are introduced the first time they are mentioned. This is done with the use of a number word, usually *tu''g* 'one'; or 'two' or 'three' if they fit the context. However, only certain words can take *tu''g*, generally those with which "one" or "a" can be used in English. This means something which can be numbered and of which there is more than one in existence.

Nouns which cannot be numbered (earth, incense), items which are spoken of in general (clothes, money, people), and items of which there exists only one (father, mother, specific places) are introduced with a zero marker *(Ø)*.

The introduction of some things is implicit rather than explicit. For instance, if the sentence occurs that one is going to eat, then the soup that he would normally eat is introduced by implication and may be referred to later as having been introduced. Another sentence states that a man really wanted to know something. A few sentences later that knowledge is referred to as having already been introduced.

After being introduced, any item, including a proper name, is referred to either by the noun determiner *yi* 'the, that (more specific)' and *he* 'the, that (less specific)' before the noun, or by a zero (absence of any noun determiner). The choice of *yi* or *he* is determined partially by time. In

5. This section is by the author of Part I.

general *he* is used with the past and the future, while *yɨ* is used with the present. However, *yɨ* may be used with past tense when referring to a place now in existence, and *he* is sometimes used in a present tense context to refer to something not present in the current life situation. There are some texts without any specific time orientation where *he* predominates and others where *yɨ* predominates, according to whether the speaker regards the subject matter to be part of his current life situation.

The reasons for the choice of *yɨ* or *he* versus no determiner have not been discovered. Some people tend to use *yɨ* or *he* more than others and the difference may be stylistic. However, body parts are not referred to by *yɨ* nor *he* (neither are they introduced via *tu''g*) unless one is specifically indicated in contrast to the other. Some texts may have as many as half of the noun phrases without the cross-referencing noun determiners, but in the data surveyed at least half of the noun phrases do employ a determiner.

An exception to the statement that noun determiners are used to refer to an item already introduced in the text is the case where a direct quotation is used later in the text. For instance, in a tiger story somewhere after the tiger has been introduced a girl says to her father, "*(tu''g)* big tiger came." But here the direct quotation may be considered an embedded text where the tiger is just being introduced.

Someone or something first introduced in the superlative degree of comparison is subsequently referred to without the superlative. In one text a woman is referred to as *he ha·k tim mucpɨ* 'the smallest one' and later as *he ha·k mucpɨ* 'the smaller one'. (This was not, however, the initial introduction of the woman in the story; she was previously introduced with her sisters as the three maids of a king.) In another text a boy is first referred to as *ha·k tim pi' mucpɨ* 'littlest one' and later in the story is called *he pi' mucpɨ* 'the little one'.

Some type of plural may qualify an item early in the text but later references omit the plural with the noun. In referring to eggs, *tugwi:g ɨ̃u''d̃* 'her three eggs' is the first reference and all later references in the story are *he ʔayuHk ɨ̃u''d̃* 'the bird's eggs' or *he ʔayuHk tu''d̃* 'the bird eggs', with no further mention made of the number.

Within a text, after the third person plural is first introduced, subsequent pronominal references use *ʔaHk̃š̃* by itself instead of the full third person plural pronouns (see Section 4.4.5). See Appendix E, Sentence 3, where pine trees in general are being referred to by the third person plural pronoun. Items that are obviously plural are not accompanied by a plural marker. In Appendix E, Sentence 7, *šoHti:m* is not pluralized but means 'acorns', and in Sentence 8, *ʔ̃ažokš* is not pluralized, but from the context we know it means 'their beaks', as 'woodpecker' was previously pluralized in Sentence 5.

APPENDIXES

Appendix A

Procedural Discourse: Deer Hunt

P S (P = Paragraph Number; S = Sentence Number)

1 1 *Aperture:* *we:n* *čambi* *nyaHnima''wa''ñ* *neH* *ha''y* *na·n*
good now I tell you it want how people deer
ʔišta''ỹ *pa·widiť*
they look for it they walk after it
'[1]Good, now I will tell you how people hunt deer.'

2 *Stage:* Expo. Para.

2 Text: *ko·* *ʔaHk̃š̃* *tu''g* *na·n* *ni·ʒo:ñ* *pis* *ni·mec*
when they a deer they leave for it well two together
ni·dugwi:g *ni·ŋhadu'n* *ha·m̃i:d* *ỹaHcok̃*
three together also companions they are needed

3 Expo: *ʔe·* *mi:d* *tu''g* *ʔuk* *ʔo·* *mec* *ha·k* *seguřo* *hadu'n* *yaHpa:ď*
and with one dog or two more sure thus it is found
'[2]When they leave to hunt deer, well two or three go together; companions are needed. [3]And with a dog or two it is more sure that one will be found.'

3 *Procedure 1:* Proc. Para.

3.1 Step 1: Expo. Para.

4 Text: *ko·* *yi* *na·n* *t̃ek̃ʔa·w* *ỹaHʔiš̃* *pis* *čĩ·* *ỹaHpa·yo''ỹ*
when the deer its tracks they are seen well then they are followed

5 Expo: *čĩ·* *pa·yo''ỹ* *ʔaHk̃š̃*
then they follow it they
'[4]When the deer tracks are seen, well then they are followed. [5]Then they follow them.'

4 *Alter. Procedure 2:* Proc. Para.

6 Step 1: *ʔe· pen ʔa·m̃ t̃igi·yb yi na·n t̃ekʔ̃a·w pis c̃i· tu"g*
and if woods it enters the deer its tracks well then one
widi: ʔuk m̃i·nikš̃p
which dog he goes with it

7 Simult. Step 2: *ʔe· ʔa·bik̃ ʔaHkš̃ widi: kuďuŋgiš nikš̃ ʔawiHškiš̃*
and separate they which ridge going they wait for it pl.

4.1 Step 3: Expo. Para.

8 Text: *ʔe· widi:bi ʔuk m̃i:d pis yi" hi:b̃ ʔišta·yb̃*
and which one dog he has it well he there he looks for it

9 Expo: *c̃i· ʔuk naHcmaẓi"ỹ*
then dog he lets it go

4.2 Step 4: Expo. Para.

10 Text: *ʔe· ko· yi na·n p̃iẓim̃ pis ʔ̃iHšp̃ ʔaHkš̃*
and when the deer it comes out well they see it they

11 Expo: *c̃i· nikš̃ ʔaHkš̃ ʔa·boyi"ktuk̃ ko·m yi na·n*
then going they they run obstructing it because the deer
ko· k̃e"g̃ kuďuŋgiš yi" heĩim ñikš̃
when he flees ridge he surely he goes

12 Simult. Step 5: *ʔe· widi: him kuďuŋgiš ʔanaHĩ ʔ̃awišp̃*
and who there ridge then they waited for it
piš c̃i· he" ʔiš̃ tuHy
well then he he sees it he shoots it

[6]And if the deer tracks enter the woods, well then one who has a dog goes with it. [7]And there are others who go to wait on the ridge. [8]And he who has the dog looks for it (the deer). [9]Then he lets the dog loose. [10]And when the deer comes out, well they see it. [11]Then they go running to block it off because when the deer flees it surely goes up the ridge. [12]And the one(s) who went up the ridge to wait for it, well then he sees it and he shoots it. [The switch here into the singular may occur because only one has a gun.]

5 *Alter. Procedure 3:* Proc. Para.

5.1 Setting: Expo. Para.

13 Text: *pen ka' pa·ti pis c̃i· pa·nikštiỹ ʔaHkš̃*
if no he found it well then they follow it continually they
Expo: *pa·nikš̃*
they follow it

5.2 Step 1: Coord. Expo. Para.

5.2.1 Sec 1: Expo. Para.

14 Text: *ʔe· yi ʔuk pis yaHʔišpoyi"kp ko·m na·n ʔo:y ʔaHkš̃*
and the dog well he is run away because deer really they

mĩikpoyiˈˈg̃
they strong run

5.2.2 Sec 2: Expo. Para.

15 Text: *pis c̃i· ni·ŋhaduˈn haˈˈy ỹaHcok̃ widi: mikpoyiˈkp*
well then also people they are needed who they strong run
yaHpa·boyiˈˈga·mb ni·ŋhaduˈn na·n
it followed will be also deer

16 Term: *pis c̃i· yi na·n pa·nikškiš̃*
well then the deer they follow it plural

'[13]If he doesn't hit it (the deer), well then they follow it. [14]And it is run by the dog because deer really run fast. [15]Well then, people are also needed who run fast, the deer will also be followed by them. [16]Well then, they follow the deer.'

6 *Alter. Procedure 4:* Proc. Para

17 Setting: *ʔe· pis mina:d̃ yaHʔiHštigo·yb na·n kaˈ ỹaHʔiš̃*
and well sometimes it is lost sight of deer no it is seen
ma· ñikšiˈˈỹ
where it goes

18 Step 1: *pis c̃i· ni·ŋhaduˈn haduˈˈg ʔo·k ʔuk ỹaHcok̃ wen*
well then also another time dog it is needed let
tek̃ šu:g̃ ma· ʔa·m̃ li· ñikš̃
tracks he smells them where way already he went

19 Step 2: *c̃i· haduˈn haduˈˈg ʔo·k ni·ŋhaduˈn ỹaHteĩpa:d̃ na·n*
then thus another time also track is found deer
yaHpa·nikšp haduˈˈg ʔo·k
it is followed another time

'[17]And well, sometimes the deer is lost sight of; it isn't seen where it goes. [18]Well then, the dog is needed again that he may smell where the track went. [19]Then In this way the deer track is found again; it is followed again.'

7 *Alter. Procedure 5:* Proc. Para.

20 Step 1: *ʔe· pen yiˈˈ cipluy ʔo:y na·nteĩ̃ ĩigiˈˈỹ*
and if it difficult place really deer tracks they enter
pen kaˈ ʔuk ĩigiˈˈỹ c̃i· haˈˈy ca· ʔaHk̃š̃ ʔištaˈˈỹ
if no dog it enters then people stones they they look for them
ko·gaˈˈzi·ygiš̃ kaˈcpizi·mgiš̃ na·n
they throw them at it plural they throw come out it plural deer

7.1 Step 2: Expo. Para.

21 Prelim: *pis na·n ʔo·y ʔaHk̃š̃ ɯ̃i·nciˈkiĩ̃*
well deer really they they skittish are

22 Text: *ko· ti· midoỹ pis ke·kp ʔo· ko· haʰʸ*
when something they hear it well they flee or when people
ko·gaʰʸziʰʸỹ ca· ʔo· yaHyigoHtkiš̃
they throw them at them stones or they roll them plural

7 23 Term: *pis čĩ· na·n heĩim ke·kp haduʰn pizi·mb heʰ*
well then deer surely they flee thus they come out it
haduʰn
thus

'[20]And if it is a really difficult place where the deer tracks enter, if the dog doesn't go there, then the people look for stones to throw at it (the deer) to make it come out. [21]Well, deer are really skittish. [22]When they hear something, well they flee, or when people throw stones at them or roll stones. [23]Well then, deer surely flee; in this way they come out.'

8 *Closure:* Expo. Para.

24 Text: *ʔe· čĩ· haduʰn ʔaHk̃š̃ haʰʸ ganařʔaĩ̃ na·n yaHʔoʰkkiš̃*
and then thus they people they get it deer they kill it plural

25 Expo: *čĩ· mi·haʰtkiš̃*
then they arrive with it plural

'[24]And then in this way the people get a deer to kill. [25]Then they arrive with it.'

Appendix B

Episodic Narrative Discourse: Slide Show
(Embedding an Expository Discourse)

P S

1 *Episode 1:* Narr. Para.

1.1 BU 1: Expo. Para.

1 Text: *tu^{ll}g domi:ŋ ko:ʒ ko·c̃ nwi·nʒin ʔaHk̃š yaHnaHš*
one Sunday night when my boss plural they showed them
tŕanspařensia widi: ʔaHk̃š yaHco·n ma· hoy
slides which they they brought them from San José El Paraíso
wi·nʔit ko:ʒpi ka^{l}c̃ nha· nikša·ñ ma· sala
that same night no I I frustrative go wanted to room

2 Reason: *pis k̃aheť igi ko·c̃ ʔiž̃ip̃ ho·t nga mi:dʔaHť ʔec*
well it might be that I would brave I no had and
ndigi·ỹic̃ ʔiž̃ip̃ ya·špi neH tu^{ll}g pi^{l}k ʔana^{l}k
I began I would crying like a little child

1.2 BU 2: Proc. Para.

3 Step 1: *pis ka^{l} du^{l}n k̃aHť neH ʔanaHť ʔi:ʒ̃ ti·*
well no thus it happened like then I completed
nwi·nma^{ll}ỹic̃ ko·c̃ nwi·ndaH s̃̃nima·ỹic̃
I thought I when I my patrona me she told me

4 *naš ma· wi·ndi·kšpidiHk w̃i·ndu:*
pass to watchers their front

5 Step 2: *mi:ʒ̃ myaHni·ʔiši^{ll}wibi mneHckapši^{ll}wibi tu^{ll}g tu^{ll}g*
you you show them will you explain to them will one by one
tŕanspařensia
slides

1.3 BU 3: Expo. Para.

6 Text: *ko· ñaHš̃ ʔogaˈˈn tuˈˈg třanspařensia ʔe· ko·č̃ ngapš̃*
when it passed began one slide and when I I talked
kaˈč̃ nhiwi·ỹ pen kapšpič̃ ʔanaHť̃ ʔo· nigo·č̃ nʔawak nyaHyuˈkš̃
no I I felt if I talked I then or just my my mouth I moved it

7 Expo: *pis duˈnič̃ nna·yh̃iwi·yi duˈn neH tuˈˈg ʔuHc ʔa:y p̃oHwidiť*
well thus I I myself felt thus like a leaf it blows around

'[1]One Sunday night when my *patrones* showed slides which they brought from San José, that night I didn't want to go to the sala. [2]Well, it might have been that I wouldn't have been brave and I would have begun crying like a little child. [3]Well, it didn't happen like I had thought when my *patrona* told me, [4]"Go to the front. [5]Explain the slides one by one." [6]When the first slide was shown and I talked, I didn't know if I talked or I just moved my mouth. [7]Well, I felt like a leaf blown around by the wind.'

(1.4) BU n: *Expository Discourse*

1.4.1 *Introduction:* Expo. Para.

8 Text: *ʔe· ko· h̃a·k naHš̃ mi·mec mi·dugwi:gpi wi·nʔitič̃*
and when they more passed second third one at that time I
nna·yh̃iwi·y(i) haduˈˈg ʔo·k ko· na·škiš ʔi:ž̃ ndinaˈˈỹič̃
I myself felt another time that ground upon I I stand I

9 *wi·nʔit nho·t nwi·nmaˈñič̃ m̃eHč̃*
at that time my center my thoughts my they arrived

'[8]And when the second and third ones were shown I felt like I was standing on the ground again. [9]Then I could think agaln.'

1.4.2 *Point 1:* Coord. Expo. Para.

1.4.2.1 Sec 1: Expo. Para.

10 Text: *yiˈˈ ʔi:ž̃ ʔo:y nwi·nma·ỹič̃ neH ʔaHkš̃ h̃aˈť ma·č̃*
it I really I thought I how they they arrived at my
ngaHp widi: ʔaHkš̃ č̃am k̃aHpʔaHt̃p ni·ŋduˈn
my town which they now their town is also
Expo: *neH ho·t mi:diď̃i ko· ʔaHkš̃ č̃inaˈˈỹ neH ʔaHkš̃*
how brave they have it when they they live how they
ỹuHy
they acculturate

11 Expo: *ʔe· ʔo:y ngoˈˈmaỹič̃ neH ʔaHkš̃ haˈˈy mi·yuHy*
and really I admlre I how they people they with acculturate

1.4.2.2 Sec 2: Expo. Para.

12 Text: *ʔe· widi:č̃ niˈˈg nhaˈˈg̃ida·k̃p ʔec kaHp h̃aˈˈg̃ida·k̃p ni·ŋduˈn*
and which I more I agree with and town they agree with also
heˈˈ ko· ʔaHkš̃ ʔo:y ʔ̃oyh̃aˈˈyigi ʔec koˈˈminak̃ co·y
it that they really they good people are and cheap medicine

to·kkiš̃
they sell it plural

13 Reason: *yi''gišpi ka' dia:b himiHt ha''y ti· ʔo''g̃*
it reason no this year people completed they died

14 Expo: *pa:d̃ ʔaHk̃š̃ ʔo:y kaHp c̃og̃i: he'' ko· ʔaHk̃š̃*
therefore they really town them they like because they
du'n neH ti· nmina''ñic̃
thus like already I said I

Reason: *ʔo:y ʔoyh̃a''yigi*
really they good people are

1.4.2.3 Sec 3: Expo. Para.

15 Text: *ʔe· k̃aheẗigi ʔe· pen dios c̃oHk̃p̃ him ʔaHk̃š̃*
and it might be and if God he wants it there they
c̃ina''wibi du'n neH ʔap siřilo
they live will thus like mister Searle

[10]I really thought about it, how they arrived in my town which is now their town also, how brave they are when they live there, how they acculturate. [11]And I really admire how they get along with the people. [12]And that which I agree with more and which the town also agrees with is that they are really good people and they sell medicine cheaply. [13]For this reason no one died this year. [14]Therefore the town really likes them because they are, like I said, really good people. [15]And it might be, if it is God's will, they will live there like Searle does.

1.4.3 *Point 2:* Coord. Expo. Para.

1.4.3.1 Sec 1: Expo. Para.

16 Text: *ʔoy ʔi:z̃ ʔoy nga kap̃š̃ic̃ pe:ř nha· coHk̃p̃ic̃*
although I good I no talk I but I frustrative want it I
ko· ʔiž̃ip̃ yaHni''geHy ngap̃š̃ nʔayu·kic̃
that would they decipher it my words my language my

1.4.3.2 Sec 2: Expo. Para.

1.4.3.2.1 Text: Anti Expo. Para.

17 Sec: *ʔoy ʔi:z̃ nha· kapša''ñic̃ pe:ř ka'c̃ nba:d̃ ti·*
although I I frustrative talk want I but no I I find it some
ʔayu·k mi:d wa:d nyaHwi·nhiwi''ỹic̃ neHc̃ nmugu''ghiwi''ỹ
word with can I cause to understand I how I I friend feel
nwi·nẓin ʔec ndaHc̃
my boss and my patrona my

18 Sec: *tim ʔoga''n ka'c̃ ʔanaHt̃ nneHwi''ỹ pen du'n ʔanaHt̃*
at first no I then I knew it if thus then
nẓoHnic̃ h̃a''da''ñ
my esteem my it arrive wanted

19 Sec: *kaʼ nneHwiʺỹic̃ pe:ř ʔi:z̃ nzoHk̃pic̃ yiʺ ʔaHk͠š duʼn neH*
no I know it I but I I like them I them thus like
hiwiʺỹ nmuguʺgʔad̃i:z̃
it feels my family are my

1.4.3.2
20 Expo: *we:n tiyʔaHt ko· ʔak na·ym̃uguʺgʔaHtip haʺy pe:ř ʔi:z̃*
good truth that only they reflexive friends are people but I
duʼn nzok̃ic̃ duʼn neH tuʺg hu:g̃ tuʺg muguʺg
thus I like them I thus like one family one family

1.4.3 21 Term: *nyaHnaHš͠pic̃ dios ko·hu·yip ma· dios ko·c̃ nwi·nzin*
I give it I thanks to God that I my patron
ʔaHk͠š nba·t̃ic̃
plural I found them I

22 *Term: pen kaʼc̃ ʔoy ti· ngap͠š heʺ daʼ ko· kaʼ*
if no I good completed I talked it perhaps that no
nhat̃ic̃ ʔo· heʺ daʼ ko·c̃ kaʼ kap͠š ʔayu·k ti·
I can I or it perhaps that I no words words completed
nba:d̃
I found them

'[16]Although I didn't talk well, I would like it if they would decipher my language. [17]Although I wanted to talk I didn't find the words with which to make them understand how much friendship I feel toward my *patrones.* [18]At first I didn't know if I would like them. [19]I didn't know then, but I like them like my family. [20]The truth is that they and the people are friends with each other, but I like them like the members of my own family. [21]I give thanks to God that I found my *patrones.* [22]If I didn't talk well maybe it is because I can't or maybe because I didn't find the words.'

Appendix C

Climactic Narrative Discourse: Savage

P	S	
1	1	*Aperture:* *we:n* *pis* *da* *čambi* *ngapša"ñ* *nmiǰa"ga"ñ* *tu"g* good well this time I talk will I talk about will one
		'[1]Good, well now I will tell you a story.'
		Denouement: Climactic Narrative Discourse
2		*Stage of D:* Narr. Para.
2.1		BU 1: Expo. Para.
	2	Text: *pis* *haduˈn* *he"* *t̃u·n(i)* *ñaHt(i)* *haduˈn* *he"* *tu"g* well thus it it happened it happened thus it one *ha"y* *č̃o·ñ* person he left
2.1.1		Reason: Expo. Para.
		Text: *nima·ỹ* *k̃o·hi·n* *k̃o·diHk* *ʔuŋ* *t̃o"šha"y* he told her his fire-owner his house-owner his children his woman
	3	*nik̃š̃* *nʔok* *widit̃i*č̃ *ma·* *yu:gho·t* going I probably walk I to mountain forest
	4	Expo: *nik̃š̃* *nu·n* *nʔok* *ʔišta"ỹič̃* going palm fruit I probably look for it I
2	5	BU n: *č̃i·* *ʔoy* *nu·n* *ʔišta"ỹ* *ma·* *yu:gho·t* then having gone palm fruit he looked for it in mountain forest
		'[2]Well, it happened that a man left, telling his wife and children, [3]"I'm going to the mountain forest. [4]I'm going to look for palm fruit." [5]Then he went to look for palm fruit in the mountain forest.
3		*Episode 1 of D:* Coord. Para.
3.1		Sec 1: Narr. Para.
	6	BU 1: *č̃i·* *him* *ʔiHš̃* *tu"g* *ye"ǰ̃iHk* *ha·nč̃* *paHkyoñgaHpni* then there he saw him a man really he long bones carried

7 BU 2: *c̃i· he″ t̃ina·yz̃iHp̃ he ha″y widi: ʔanaHt̃ ti· c̃o:ñ*
then he he stopped the person which then already he left

8 BU n: *c̃i· m̃ina″ñ*
then he says

9 *pe:ř pin da′ yi″ him mi:d t̃uHt*
but who perhaps he there with his gun

3.2 Sec 2: Expo. Para.

10 Text: *pis ko· ʔiHs̃ him he″ tu″g ma′ ha″y pe:ř*
well when he saw him there him one big person but
we″ he″ paHktu″g
unexpectedly it bone one

11 *hadu′n he″ ko· ỹo″ỹ we″ he″ tipši′kp tipši′kp tipši′kp*
thus he when he walks rather it hop hop hop
ti· ñiks̃
completed he went

12 Expo: *c̃i· hada″ jim m̃ina″ñ*
then this there he says

13 *pe:ř pin da′ yi″ ta· yi″*
but who perhaps he he exclamation is he

14 *tigac̃ yi″*
he different is he

15 *paHktu″g yi″*
he bone one is he

16 *ʔo:y ma′ ha″y*
he really big person

17 *ha·nc̃ ʔoy ha·nc̃ ko″z̧aps ha·nc̃ weřo*
he really beautiful is he really blond is he really light is

3.3 Sec 3: Expo. Para.

18 Text: *ko· ʔoy ʔis̃ pis we″ he″*
when having gone he saw him well unexpectedly it
k̃o″hupʔaHtip ma′ ʔa:z̧ta″g̃
he hat was big vine woven

19 *ki′m he″ ti· ta″g̃ ti· yaHʔoyi″ỹ*
himself it completed he wove it completed he made it
ma′ ʔa:z̧ko″hup he ko″hupʔaHtip
big vine hat the it hat was

‘[6]Then he saw a really tall man there. [7]Then the person who had left (his house) stopped. [8]Then he says, [9]“But who is that with the gun?” [10]Well when he saw the big man there, he had only one leg. [11]When he walked, well, hop, hop, hop he went. [12]Then he says, [13]“But who is he? Look at him! [14]He’s different. [15]He’s one-legged. [16]He’s really a big person. [17]He’s

really beautiful, blond, and light. [18]When he went and saw him, well his hat was a big woven vine one. [19]He himself had woven the big vine hat.'

4 *Episode 2 of D:* Narr. Para.

20 Setting: *pis čï· ka' he'' migapš̃ he ha''y*
well then no he he talked with the person

21 BU 1: *pis čï· he'' pa'tigi·ỹ*
well then he he went up

4.1 BU 2: Expo. Para.

22 Text: *čï· him pa·t̃ to''šha''y ne·ñdu'n he'' salbahe to''šha''y*
then there he found her woman also the savage his wife

23 Expo: *čï· he'' ²aHkš̃ him ña·yba·ti*
then they there they met each other

4 24 BU 3: *čï· t̃igi·ỹ ²aHkš̃ kapšp mid̃a·kp t̃igi·ỹ*
then they began they talking talking about they began

²i·b ya·šp
singing crying

4.2 Simult. BU n: Expo. Para.

25 *he ha''y him he'' ²a·mido·w²it̃*
the person there he he listening is

26 Expo: *čï· hada'' he'' he ha''y him he'' ²a·mido·w²it̃*
then this it the person there he he listening is

27 Result: *pis cigi·yñibi he ha''y*
well he was afraid of them the person

28 BU 3': *čï· hada'' he'' he salbahe mi:d he to''šha''y t̃igi·ỹ*
then this it the savage with the woman they began

²i·bi t̃igi·ỹ ²aHkš̃ ²o:y ²i·bi ya·šp
singing they began they really singing crying

29 Simult. BU n': *čï· he ha''y him ²a·mido·w²it̃*
then the person there he listening is

[20]Well then, the man didn't talk with him. [21]Well then, he went up (closer). [22]There he found a woman also, the savage's wife. [23]Then they met there. [24]Then they began talking and singing. [25]The man is there listening. [26]Then this! The man is there listening! [27]Well, he was afraid of them. [28]Then the savage and his wife began singing, really singing. [29]And the man is there listening.'

5 *Denouement of D:* Coord. Narr. Para.

5.1 Sec 1: Narr. Para.

30 BU 1: *pis he salbahe ye''d̃iHk he'' cač̃ ²i·bi mina·mbi*
well the savage man he he strongly sings he says

31 *sabado kontento ʔe· domingo de galaŋ*
Saturday content and Sunday of lover

32 BU 2: *ʔe· to''šha''y he''c mina·mbi*
and woman she she says

33 *lunes ʔec maŕtes*
Monday and Tuesday

34 *hadu'n he'' nigo:b ʔ̃a·ʒo·ỹ*
thus she just she answered

5.1.1 BU 3: Expo. Para.

35 Text: *pis c̃i· he ha''y c̃i· he'' we''hi·ỹ m̃ina·ñ*
well then the person then he he did it he said

36 *miñ n'ok ʔa·ʒoỹic̃*
coming I probably answer them I

37 Expo: *c̃i· hada'' he ha''y m̃ina·ñ*
then this the person he said

38 *miñic̃ ʔ̃iy nʔok ha·k yaHyo·ni*
coming I his song I probably more lengthen

5.1 39 BU 4: *c̃i· he'' m̃ina·ñ*
then he he said

40 *mieŕkoles ʔe· huebes ʔe· bieŕnes*
Wednesday and Thursday and Friday

41 Simult. BU 5: *c̃i· he salbahe ye''d̃iHk pis him he'' hadu'n*
then the savage man well there he thus
ʔ̃a·mido·wʔiť
he listening is
BU n: *m̃ina!!ñ*
he says

42 *pin da' yi'' ti· ʔi:ʒ̃ nʔiy šha·k yaHyo·ni*
who perhaps he is completed my my song me he more lengthened

5.2 Sec 2: Narr. Para.

43 BU 1: *c̃i· hadu''g ʔo·k ma' ye''d̃iHk t̃igi·ỹ ʔi·bi m̃ina·ñ*
then another time big man he began singing he said

44 *sabado kontento ʔe· domingo de galaŋ*
Saturday content and Sunday of lover

45 BU 2: *c̃i· to''šha''y m̃ina·nibi lunes ʔe· maŕtes*
then woman she said Monday and Tuesday

47 BU 3: *c̃i· ha''y ʔa·ʒo·nibi*
then person he answered them

48 *mieŕkoles ʔe· huebes ʔe· bieŕnes*
Wednesday and Thursday and Friday

49 *haduˈn he haˈˈy ʔa·ʒo·ỹ*
thus the person he answered them

5.2.1 BU 4: Expo. Para.

50 Text: *c̃i· m̃ina·ñ*
then he said

51 *ʔa: pis ti· ʔi:z̃ n?iy s̃ha·k yaHyo·ni*
ah well completed my my song me he more lengthened
s̃ha·k yaHʔoyi·yi
me he more fixed

52 Expo: *pe:ř pin daˈ yiˈˈ*
but who perhaps it is

53 *weˈˈ daˈ nmiguˈˈgʔaHtim daˈ yiˈˈ*
well perhaps our friend is our perhaps it

5.2 54 Simult. BU n: *pe:ř haˈˈy ha·nc̃ cigi·yb he haˈˈy*
but person really he afraid the person

‹[30]Well, the savage sings loudly, saying, [31]"Saturday content and Sunday a lover." [32]And the woman says, [33]"Monday and Tuesday." [34]That's the way she answered. [35]Well then, the man he did it, saying, [36]"I'll come and answer." [37]Then the man said, [38]"I'll come and make his song longer." [39]Then he said, [40]"Wednesday and Thursday and Friday." [41]Then the savage listens and he says, [42]"Who lengthened my song?" [43]Then the big man (savage) began singing again and he said, [44]"Saturday content and Sunday a lover." [45]Then the woman said, [46]"Monday and Tuesday." [47]Then the man answered them, [48]"Wednesday and Thursday and Friday." [49]That's the way he answered them. [50]Then he said, [51]"Ah well, my song is lengthened for me. [52]But who is it? [53]Well, maybe it is a friend of ours." [54]But the man is really afraid.

6 *Episode 3 of D:* Narr. Para.

6.1 BU 1: Expo. Para.

55 Text: *c̃i· heˈˈ he koˈˈhup naHckiyi·ỹ maˈ ʔa:ʒtaˈˈg̃ he koˈˈhup*
then he the hat he put it down big vine woven the hat

56 Expo: *pe:ř ha·nc̃ miH he koˈˈhupʔa:ʒ haduˈn ʔanaHt̃ ti·*
but really big is the hat vine thus then completed
yaHʔoyiˈˈỹ haduˈn neH koˈˈhup
he made it thus like hat

6 57 BU 2: *c̃i· ñikš̃*
then he left

58 BU 3: *c̃i· he salbahe yeˈˈd̃iHk ʔaHk̃š̃ ʔiña·yg̃ida·k̃*
then the savage man plural they sat down

6.2 BU 4: Expo. Para.

59 Text: *c̃i· heˈˈ t̃igi·ỹ ʔaHk̃š̃ nu·nhi·kšp*
then they they began plural palm fruit eating

60 Expo: *pis he'' ʔaHkš̃ he'' h̃i·kšp̃ p̃iHkp̃ he nu·n*
well they it they eat they take the palm fruit

6 61 Simult. BU n: *ʔe· ha''y him he''du'n ʔiš̃ ʔa·midoỹ*
and person there specifically he sees it he listens to it

'[55]Then he put down the big hat of woven vines. [56]The vine hat was really big. He had made it like a hat. [57]Then he left. [58]Then the savages sat down. [59]Then they began eating palm fruit. [60]Well, they ate well of the palm fruit. [61]And the man sees and hears everything there.'

7 *Closure of D:* Expo. Para.

62 Text: *pe:ř he ha''y wi·mbiHt he''du'n ka' ʔok*
but the person he returned specifically no he probably
nikšni nu·nwo·mbi
go palm fruit pulling

'[62]But the man returned; he didn't go picking palm fruit.'

Recap: Narrative Discourse

8 *Stage of R:* Expo. Para.

63 Text: *pis č̃i· ʔoy h̃a'tni*
but then having gone he arrived

'[63]Well then he arrived.'

Episode 1 of R: Narrative Discourse

9 *Episode 1.1 of R:* Narrative Para.

9.1 BU n: Expo. Para.

64 Text: *č̃i· he ʔuŋ ʔana'k ʔuŋ t̃o''šha''y*
then the his children his children his children his wife
mi:dmiđa·k̃
he with them talked about

65 *haduʼn ti· ʔi:z̃ nba:đ him widi: ha''y*
thus completed I I found them there who people
t̃iHp̃ salbahe
they call them savage

66 Expo: *ʔe· č̃i· he'' ha·nč̃ miH m̃a' ko''hupʔa:ʒta''g̃ he'' he*
and then he really big his big hat vine woven his the
k̃o''hupʔaHt̃p̃
he hat is

Expo: *ki'm he'' yaHkoHy ki'm cač̃ ta''g̃ he ʔa:ʒ*
himself he he makes it himself he strongly weaves it the vine

9 67 Term: *č̃i· t̃o''šha''y m̃ina''ñ*
then his wife she says

68 *timic mi:z̃ ko· ti· mnikš̃ na·yđu''g ʔišti him*
why you that completed you went alone that far there

69 *ti·* *him* *poHduñimbi* *šp̃a:d̃* *ti·* *šh̃a·*
completed there evil spirit you he found completed you he frustrated
wo·ke"g̃ *ti·* *šh̃a·* *mi·nik̃š̃*
ran off with completed you he frustrated took with him

'[64]Then he talked about it with his wife and children. [65]"I found there him whom people call Savage. [66]And he has a really big hat of woven vines; he makes them himself by strongly weaving the vines." [67]Then his wife says, [68]"Why did you go all alone all the way there? [69]The evil spirit found you and he tried to run off with you, he tried to take you with him."'

10 *Episode 1.2 of R:* Narr. Para.

70 BU 1: *m̃ina"ñ*
he says

71 *ka'* *pis* *ti·* *i:z̃* *he"* *n²a·mido·w²iĩ* *neH* *²aHk̃š̃* *him*
no well completed I it I listening was how they there
ti· *²iỹ* *ti·* *ỹa"s̃* *²aHk̃š̃* *mi:d* *t̃o"šh̃a"y*
completed they sang completed they cried they with his wife

10.1 Parens: Expo. Para.

72 Text: *pe:ř* *²ak tim* *paHktu"g* *ma'* *ha"y*
but only bone one is big person

73 *ha·nc̃* *yoñ* *haĩ* *he* *ma'* *ha"y*
really long is each the big person

74 Expo: *²e·* *ma'* *to"šh̃a"y* *ha·nc̃* *yoñ* *ha·nc̃* *²oy* *ha·nc̃*
and big woman really long is really beautiful is really
ko"z̨aps *²e·* *he* *ye"d̃iHk* *ne·ñhadu'n*
blonde is and the man also

10 75 BU 1': *pis* *c̃i·* *²aHk̃š̃* *he"* *he* *ye"d̃iHk* *ti·* *ña·yb̃a·tigiš̃*
well then they the man completed they reflexive met each other plural

76 BU 2: *he* *ye"d̃iHk* *he"c* *mina·mbi*
the man he he says

77 *sabado* *kontento* *²ec* *domingo* *de* *galaŋ*
Saturday content and Sunday of lover

78 BU 3: *²e·* *he* *to"šh̃a"y* *he"* *mina·mbi* *²esta*
and the woman she she said this

79 *lunes* *i* *mařtes*
Monday and Tuesday

80 BU 4: *c̃i·* *²i:z̃* *n²az̨o·ỹic̃* *nmina·ñic̃*
then I I answered them I I said I

81 *mieřkoles* *i* *huebes* *i* *bieřnes*
Wednesday and Thursday and Friday

10.2 BU 5: Expo. Para.

82 Text: *pis c̃i· hada'' he'' ʔaHk̃š he'' ʔoy hiwi·ỹ ko· ʔi:z̃*
well then this they it good they felt it when I
hadu'n ʔo:y he ʔ̃iy nha·k yaHyo·ni
thus really the their song I more lengthened it

83 Expo: *c̃i· m̃ina·ñ*
then he said

84 *pe:ř nmigu''gic̃ hada''*
but my friend my this is

10 85 Simult. BU n: *pe:ř ha·nc̃ cigi·yb ʔi:z̃*
but really I afraid I

'[70]He said, [71]"No, well I was listening to it, how they sang there. [72]But the big guy has only one leg. [73]He is really tall. [74]And the big woman is really tall, beautiful, and blonde, and so is the man. [75]Well then, they began singing where they met each other. [76]The man says, [77]"Saturday content and Sunday a lover." [78]And the woman says this: [79]"Monday and Tuesday." [80]Then I answered them, I said, [81]"Wednesday and Thursday and Friday." [82]Well then, they felt good about it when I lengthened their song. [83]Then they said, [84]"But it's our friend." [85]But I'm really afraid.'

11 *Closure 1 of R:* Expo. Para.

86 Text: *pis c̃i· hada'' he ha''y wi·mbiHtni ka' ʔ̃ok nikšni*
well then this the person he returned no he probably goes
him ma· yu:gho·t ka' oy ʔ̃ok widiHtni
there to mountain forest no having gone he probably walked
ka' ñu·n ʔ̃ok išta·yñi
no his palm fruit he probably looked for it

'[86]Well then, the man returned. He didn't go there to the mountain forest. He didn't go walking around. He didn't look for the palm fruit.'

12 *Closure:* Narr. Para.

87 Setting: *pa:d̃ c̃i· ʔoy ha'tni ma· hi·n ma· t̃iHk*
therefore then having gone he arrived at his fire at his house

88 BU 1: *c̃i· hadu'n ʔ̃uŋ to''šha''y hadu'n mi:dmid̃a·k̃*
then thus his children his wife thus he with them talked about it

12.1 BU n: Expo. Para.

89 *pis ʔo:y he to''šha''y ʔo:y he'' cac̃ hiwi·ỹ ko· ʔanaHt̃*
well really the woman really she she strongly felt because then
hadu'n ti· we''hi''ỹ ʔeste ti· ʔ̃ok hat̃
thus completed it happened this completed it probably happened
ti· ʔ̃ok kwet̃
completed it probably happened

90 Expo: *ʔe· pa:ď pis haduˈn yi hi:ɓ̃i yeˈˈďiHk ʔoy*
and therefore well thus the there one man having gone
ɦaɾ̃ kweɾ̃
it happened it happened

'[87]Therefore then he went and arrived at home. [88]Then he talked about it with his wife and children. [89]Well, the woman really felt strongly about it because of what had happened. [90]And therefore, well, that's the way it happened to the man.'

13 *Moral:* Expo. Para.

91 Text: *pa:ď yiˈˈ ʔo:y mïHho·tma·yiɾ̃ ko· nniksim ma·*
therefore it really it big danger is when we go we to
yu:gho·t widiHtpi
mountain forest walking

92 Expo: *ʔo:y him maˈ salbahe ʔo:y him paHktuˈˈg*
really there is big savage really there is bone one

93 *ʔo·y him caˈˈñ ʔayuHk ka· ʔayuHk*
really there are snake animal tiger animal

94 Expo: *meHc naš yiˈˈ ko· him nnikšim ma· yu:gho·t*
two kind it when there we go we to mountain forest
widiHtpi
walking

95 Result: *pa:ď haduˈn dia:b giyeřmo nmi:dkapš̃ nmi:dmiďaˈˈg*
therefore thus this Willard I with him talk I with him talk about

96 *weˈˈ yiˈˈ čigi·yɓ̃ ne·ñhaduˈn ko· ñikšaˈˈñ ma·*
well he he afraid of them also when he goes want to
yu:gho·t
mountain forest

'[91]Therefore it is really dangerous when we go to the mountain forest. [92]There is the savage, the one-legged one. [93]There are snakes and tigers. [94]Two kinds of dangers exist when we go to the mountain forest. [95]Therefore I am talking about it with Willard. [96]Well, he is also afraid of them when he wants to go to the mountain forest.

Appendix D

Hortatory Discourse: Manners

P S This Hortatory Discourse consists of Introduction and Two Points

1 *Introduction:* Expo. Para.

1 Prelim: *tu$^{\prime\prime}$g ʔo·k tu$^{\prime\prime}$g ha$^{\prime\prime}$y k̃apšwiHp̃ ʔanaHt̃ tu$^{\prime\prime}$g m̃aŋ*
one time one person he advised him then one his son

2 Text: *ʔe· du$^{\prime}$n ʔanaHt̃ nima$^{\prime\prime}$ỹ*
and thus then he told him

3 *fwan ʔi:z̃ ti· ʔi:z̃ nmiHha$^{\prime\prime}$yi·yñ*
John I already I I old person have become

4 *ka$^{\prime}$ nneHwi$^{\prime\prime}$ỹic̃ mina: nʔo$^{\prime\prime}$gibic̃*
no I know it I when I die will I

1.1 Result: Expo. Para.

5 Text: *ʔe· pa:d̃ k̃išpi nnima$^{\prime\prime}$wa$^{\prime\prime}$ñ neH wa:d mzina$^{\prime\prime}$ỹ mhu:g̃ʔat̃*
and therefore reason I tell you want how may you live you live

Expo: *ʔe· neH wa:d mʔuc̃ ʔaHk̃š̃ mgwe·nʔat̃*
and how may your younger siblings plural you care for them

'[1]One time a person advised his son. [2]And he told him, [3]"John, I'm already old. [4]I don't know when I will die. [5]And therefore I want to tell you how you should live and how you should care for the younger members of the family.'

2 *Point 1:* Hort. Discourse

2.1 *Point 1.1:* Coordinate Hort. Para.

2.1.1 Sec 1: Hort. Para. (Exhort: Expo. Para.)

6 Text: *ko· ʔanaHt̃ mnik̃š̃ tiHkʔa·yo$^{\prime\prime}$yb ka$^{\prime}$ mgo·gapšibi*
when then you go house walking no you greet them will

ti· mdum̃b
what you doing

7 Reason: *pis hibik ha''y wi·nhiwi''wibi*
well bad people they understand it will

8 *widi: ²oy yi'' dia:bi naŋgo:b ²o· ta·tpi'k nan pen*
which good is it this aunt or uncle mother if
mmizuŋdaH ²e· ta·t pen mmižuŋde:d̃ ²o· nanbi:d pen
godmother and father if godfather or grandmother if
miHha''y ²e· ta·tpi:d pen miHha''y ni·ŋdu'n hi:b̃ mi:z̃
old person and grandfather if old person also there inside are you

2.1.2 Reinf: Expo. Para.

9 Text: *²e· ko· ha''y t̃iHk yaH²a·wa''ẓibi wi·n²it*
and when people their house they open it will at that time
mgapšpo·kšibi ²ec myaHminagip̃ mgo''hup ti· ²anaHt̃
you greet them will and you take it off will your hat what then
mmi:d ma· mgwaHk
you had it on your head

10 Expo: *²e· du'n mgapšpo·kšibi sigeH naŋgo:b ta·tpi'k nanbi:d*
and thus you greet them will hello aunt uncle grandmother
ta·tpi:d nan ta·t
grandfather mother father

2.2 Sec 2: Hort. Para.

11 Exhort: *²e· ko· mnažip̃ tigot̃ ko''bik ²iña·yb̃eHt*
and when you pass will inside accept chair

2.3 Sec 3: Hort. Para.

12 Exhort: *²e· pen ka·yb ha''y ka' ni: mina: mwi·ndi·kšibi*
and if they eat people never you watch will

2.4 Sec 4: Hort. Para.

13 Exhort: *²e· ko· ha''y s̃mo''wibi kafe·ni: ko''bik*
and when people you they give will coffee take it

14 *²ec wi·nẓigi'' miHha''yd̃iHk miH²ana'ktiHk*
and respect old people old people

'6"When you go visiting don't greet with 'What are you doing?' 7Well, it doesn't sound good to people. 8That which is good is this: Aunt or Uncle, Mother, if she is your godmother, and Father, if he is your godfather, or Grandmother, if she is old, or Grandfather, is he is old; also 'Are you in there?' 9And when people open the door, then greet them and take off your hat that you have on your head. 10And in this way you should greet people: 'Hello, Aunt, Uncle, Grandmother, Grandfather, Mother, Father.' 11And when you go inside accept a seat. 12And if the people are eating, never watch them. 13And when the people give you coffee, take it. 14And respect the old people.'

3 *Point 1.2:* Hort. Para.

15 Exhort: *ʔe· ka' mgapšibi hibik ʔayu·k*
and no you talk will bad words
‹15›"And don't say bad words.'

4 *Point 1.3:* Coord. Hort. Para.

4.1 Sec 1: Hort. Para.

16 Exhort: *wi·nzigi'' ha''yõo·k̃štiHk*
respect strangers

4.2 Sec 2: Hort. Para.

17 Exhort: *ka' mni·ži''g̃ myaHši''g̃ widi: ka'*
no you laugh at them you laugh at them who no
t̃aH t̃e:d̃
their mother their father

18 Reinf: *ni''g mi:z̃ pubet yi ha''y widi: ka' t̃i·*
better you help the people who no they something
ni·ŋdu!n neH wi·nc ha''yd̃iHk
also like blind people

19 Reinf: *wi·nzigi'' tu''gʔo·k̃ widi: ca·c̃p pa·t̃p*
respect all who punishment they find it
‹16›"Respect strangers. ‹17›Don't make fun of those who don't have parents. ‹18›It's better for you to help people who don't have anything like the blind. ‹19›Respect all who suffer.'

5 *Point 1.4:* Hort. Para.

20 Exhort: *ʔe· ko· mnikšibi caHptigot̃ tiyd̃uda''g̃ nikš*
and when you go will church inside honest go
‹20›"And when you go to church, go honestly.'

6 *Point 1.5:* Hort. Para.

21 Exhort: *ka' mha''yyaHʔo''gibi*
no you people kill will

22 Reason: *pen ti· ha''y yaHʔo''g̃ mʔuc̃*
if completed people they killed him your younger sibling
ka' mdaHmaỹ̰
no you be sad

23 *dios ñeHwi·yõ neH ca·c̃tuna''ñ yi ha''yyaHʔo!kpi*
God he knows it how he punish work will the killer

24 Warning: *pis pen myaHʔa·wi·mbiHt̃p ni: mina: k̃a kižip̃ cip*
well if you seek revenge never it no end will fight
‹21›"Don't kill people. ‹22›If someone has killed your younger brother or sister, don't be sad. ‹23›God knows how he will punish murderers. ‹24›Well, if you seek revenge the fight will never end.'

7 *Point 1.6:* Hort. Para.

25 Exhort: *ʔe· ni·ŋdu'n ko· mnikšibi ma· ʔaguHktiHk ʔibo·kš*
and also when you go will to town hall salute
kapšpo·kš tu·ŋmi:dpidiHk ʔec myaHminagip̃ mgo''hup
greet authorities and you take off will your hat
'[25]"And also, when you go to the town hall, greet the authorities and take off your hat.'

8 *Point 1.7:* Hort. Para.

26 Exhort: *ha·k copiĩ dia:b widi: nyaHnima''wa·m̃b*
more necessary this which I it tell you want

27 *ka' nu:ž mha''y ʔaĩ tun ʔayow*
no lazy you person be work suffer

28 *pis mi:z̃ mneHwi·yb̃ ko· nu:ž ha''yd̃iHk ka' pin cok̃*
(Embedded) well you you know it that lazy people no one he likes him

27 *ʔec kapš̃midow miHha''yd̃iHk miHʔana'ktiHk higiš ko· ʔanaHĩ*
and obey old people old people in order that when
mwi·nmaỹ mbiga''ñ mʔu''ga''ñ ha''y ti· ʔaHk̃š
you think it you marry want you marry want people already they
neHwi''ỹ ʔe· ti· ʔaHk̃š ʔiš̃ ko· mi:z̃ mdu·mb mʔa·yo·b
they know it and already they they see it that you you work you suffer
'[26]"More important is this which I want to tell you, [27]don't be lazy; work, suffer ([28]well, you know that no one likes lazy people), and obey the old people so that when you think you want to marry, people will already know and already have seen that you work, suffer.'

9 *Point 1.8:* Hort. Para.

29 Exhort: *ko· ʔanaHĩ mmi:diĩ mʔuŋ mʔana'k*
when you have them your children your children
ʔiwiH kapšwiH
advise them educate them
'[29]"When you have children, advise and educate them.'

10 *Point 1.9:* Hort. Para.

30 *ʔe· pen mdo''šh̃a''y ka' haĩ hic tun pis pubet*
and if your wife no can make tortillas work well help her
yaHni·ʔiži'' ma· ka' haĩ
show her where no she can do it

31 *ʔec ka' ni: mina: mna·yh̃iwi''wibi miHkiš*
and never you reflexive feel will superior

32 Reason: *pis ka' yi'' ʔ̃oyigi*
well no it it good is

'[30]"And if your wife doesn't know how to work, well, help her; show her the things she doesn't know. [31]And don't ever feel yourself superior. [32]Well, that isn't good.'

11 *Conclusion 1:* Hort. Para.

33 Exhort: *pa:d̃* *nnima''ỹ*
therefore I tell you

34 *kwenttun* *c̃am* *ko·* *mha·k* *mucnid̃i*
observe now when you more small are

35 Reinf: *c̃am* *he''b* *mhat̃* *mneHwi''ỹ* *widi:* *ka'* *mneHwi''ỹ*
now can you do it you know it which no you know it

'[33]"Therefore I tell you, [34]pay attention now when you are younger. [35]Now you can know that which you don't know.'

Point 2: Hort. Discourse

12 *Point 2.1:* Hort. Para.

36 Exhort: *ʔe·* *mpubedip̃* *mʔuc̃* *ʔaHk̃š̃*
and you help will your younger siblings plural
mgwentʔadip
you care for them will

37 Reinf: *pis* *mi:z̃* *š̃te:d̃ʔada·mb* *yi* *mʔuc̃* *ʔaHk̃š̃*
well you you they father be will the your younger siblings plural
ko· *ʔanaHt̃* *nʔo''g̃*
when I die

'[36]"And help your younger siblings, care for them. [37]Well, your younger siblings will think of you as their father when I die.'

13 *Conclusion 2:* Hort. Para.

38 Exhort: *ʔišti* *ko·n* *mʔuc̃* *myaHpiHkta''wibi*
until until your younger siblings you marry them off will
wi·nʔit *ʔanaHt̃* *ti·* *mna·yñi''wa''z̃i:*
at that time then completed you reflexive complete your obligation

'"(Care for your younger siblings) [38]until you have them all married, at that that time you will have completed your obligation."'

Appendix E

Coordinate Procedural/Expository Discourse: Pine Trees

P S This Coordinate Discourse consists of two parts, Procedural and Expository

Part I: Procedural Discourse (Aperture, 3 Procedures, and Closure)

1 1 *Aperture of I: yi widi: c̃am nyaHnimaˈʰwa·m̃b neH ʔ̃anaˈkʔaĩ̃*
this which now I It tell you want how it young is

ʔe· neH m̃iHhaˈʰyiˈʰỹ ci·n
and how it old becomes pine tree

'[1]This which now I want to tell you is how the pine tree is when it is young and how it becomes old.'

2 *Procedure 1 of I:* Expo. Para.

2 Text: *pis yi ci·n ʔo:y ʔoy ʔ̃anaˈkʔaĩ̃*
well the pine tree really beautiful it young is

3 Expo: *ko· ʔaHk̃s̃ ỹe:g̃ ha·nc̃ tiy ʔaHk̃s̃ ỹe:g̃ ʔec*
when they they grow very straight they they grow and

ha·nc̃ ʔoy k̃eˈʰžiˈʰg̃
very beautiful they look

4 Expo: *ʔ̃a:y yoñ haĩ̃ ʔec hiHpšuˈñ haĩ̃*
their leaves they long each are and they pointed each are

p̃iˈ ʔa:y
their little leaves

'[2]Well, pine trees are really beautiful in their youth. [3]When they grow, they grow very straight and look very beautiful. [4]All their leaves are long and pointed.'

Procedure 2 of I: Expository Discourse

Point 2.1 of I: Procedural Discourse

3 *Procedure 2.1.1 of I:* Proc. Para.

5 Setting: *pe:ř ko· mĩiH²ana'ki''ỹ ko· mĩiHha''yi·yñ*
but when they old become when they old become for good

wi·n²it yi ²a·nizeHk ²aHk̃š̃ ²o:y ñi·pkíš̃
at that time the woodpeckers plural really they plant plural

6 Step 1: *nik̃š̃ ²aHk̃š̃ šoHti:m ²išta''ỹ ²ak ti:mmaHpi*
going they oak seed they look for them only seed mature ones

7 Step 2: *čĩ· ko· ²aHk̃š̃ pa:d̃ šoHti:m ²oy hat̃pi čĩ·*
then when they they find them oak seed good each one then

hada'' mi·nik̃š̃ ²aHk̃š̃ ma· he maH ci·n
this they with them go they to the mature pine tree

8 Step 3: *čĩ· hada'' ²aHk̃š̃ t̃igi''ỹ ni·pi ỹaHšuHt̃p ²aHk̃š̃*
then this they they begin planting they cause holes they

ci·n²iHš̃ mi:d ²ažokš̃
pine tree trunk with their beaks

9 Step 4: *ko· he hut k̃oHy wi·n²it ²aHk̃š̃ šoHti:m*
when the hole they make at that time they oak seed

pida''g̃ ma· he hut
they put them in the hole

'[5]But when they become old, at that time the woodpeckers really plant. [6]They go looking for acorns, only mature ones. [7]Then when they find good acorns, then they take them to the mature pine tree. [8]Then they begin planting by making holes in the trunk with their beaks. [9]When they make the holes, then they put in the acorns.'

4 *Procedure 2.1.2 of I:* Proc. Para.

10 Step 1: *²e· ko·sima:n nik̃š̃ ²iHškiš̃*
and after week going they look at it plural

11 Alt. Step 2: *pen ti· he šoHti:m mũš̃ ka'*
if completed the oak seed they germinated no

he''du'n ti· ²oyi''ỹ
specifically completed it worked out

4.1 Alt. Step 3: Expo. Para.

12 Text: *²e· pen hi:b̃ ti·ŋ ma· he šoHti:m pis ti·*
and if there inside worm in the oak seed well completed

he''du'n ²oyi''ỹ k̃am ti· mõ·k t̃i:m²at̃
specifically it worked out their field completed their corn it seed is

13 Expo: *čĩ· he ²a·nizeHk widi: ti· ñi''b̃ pis*
then the woodpeckers which completed they planted well

mi·nik̃š̃ he ti·ŋ ma· čĩna·yd̃a·k
they with them go the worms to their living place

14 *him he'' nik̃š̃ cu''c̃*
there they going they eat them

'[10]And after a week they go look at it. [11]If the acorns germinated, it didn't work out. [12]And if there are worms inside the acorns, well their field worked out, their corn has ears. [13]Then the woodpeckers which planted, well they take the worms to their nests. [14]There they go and eat them.'

5 *Point 2.2 of I:* Expo. Para.

15 Text: *pe:ř ka' yi'' tu''kpaHk ʔiyuHkʔaã widi: hi·k̃š̃pa·tp*
but no it only it animal is which their food find
ma· ci·n
in pine tree

5.1 Expo: Expo. Para.

16 Prelim: *ni·ŋdu'n ʔadi''c̃ yi se:řpa''g̃*
also they do the bees

17 Text: *ma· yi ci·nyaHwa''ɻ̃ hi:b̃*
in the pine tree empty there inside
ʔaHk̃š̃ c̃ina·yd̃a·kpiHkkiš̃
they they living place take plural

18 Expo: *ʔe· hi:b ʔaHk̃š̃ t̃a''g̃ hi:b̃ ʔaHk̃š̃*
and there inside they they weave there inside they
ʔũŋ yaHmayi''ỹ̃ hi:b̃ ʔaHk̃š̃
their offspring they cause to become many there inside they
pa''g̃ pida''g̃
their honey they put it

'[15]But they aren't the only animals which find their food in the pine tree. [16]The bees do too. [17]In the hollow pine tree is where they take a place to live. [18]And there inside they weave, there they have their young, there they put their honey.'

6 *Procedure 3 of I:* Expo. Para.

19 Text: *ʔe· ko· yi ci·nho·thu·ñ k̃iš̃ wi·nʔit*
and when the pine tree heart hard it is finished at that time
he ci·n ʔayo·b w̃i·ŋga'da''ỹ̃ du'n neH ko·
the pine tree poor one it falls all thus like when
šigopho·t̃
hot, dry season center

7 *Closure of I:* Expo. Para.

20 Text: *pis ci·n ʔo:y ʔoymigu''gid̃i ỹ̃aHcina·yb̃*
well pine tree really they good friends are they cause them to
yi se:řpa''g̃ ni·ŋhadu'n neH yaHcina''ỹ̃ ʔa·nizeHk
the bees also like they cause them to live woodpeckers

21 Expo: *ni·ŋhaduˈn lo:ř cina·yb ʔaHkš̃ ʔec yaHmažuŋˈaHtp̃*
also parrot they live they and they cause to be born
ʔ̃uŋ
their offspring
'[19]And when the hearts of the pine trees are gone at that time the poor things shed all their leaves like in the hot, dry season. [20]Well, pine trees are really good friends, giving the bees a place to live just like they do the woodpeckers. [21]Also the parrots live in them and have their young.'

Part II: Expository Discourse (Introduction, 5 Points)

8 22 *Introduction of II: ʔe· yi haˈˈy yiˈˈ mi:d niˈˈg ʔo:y*
and the people they with better really
ña·ym̃iguˈˈgʔad̃i:
they reflexive friends are
'[22]And they are even better friends with people.'

9 23 *Point 1 of II: ko· piˈk ʔanaˈk mažuŋʔaf̃ yi ci·n haˈˈy*
when little children they born are the pine tree people
ỹaHtu·m̃b ko· he mažuŋ p̃iˈ kiHš ʔ̃oyiˈˈỹ
they use it when the baby his little bed they fix
'[23]When babies are born, people use the pine trees when they make the babies' little beds.'

10 24 *Point 2 of II: ʔe· ma· yi ci·n him p̃iẓim̃ ko· haˈˈy*
and from the pine tree there they take out when people
yaHʔoyiˈˈy si:y me:s
they cause them to be fixed chair table
'[24]And from pine trees, they take out (wood) when people have chairs and tables made.'

11 25 *Point 3 of II: ʔe· ko· haˈˈy ʔ̃oˈˈg̃ ni·ŋ ma· ci·n*
and when people they die also from pine tree
p̃iẓim̃ puˈy ko· haˈˈy kaho·n yaHʔoyiˈˈỹ
they take out lumber when people coffin they cause it to be fixed
'[25]And when people die they get lumber from pine trees when they have the coffin made.'

12 26 *Point 4 of II: ni·ŋhaduˈn ci·n ʔo:y t̃uñ ko· toˈˈš̃haˈˈyd̃iHk*
also pine tree really it works when women
m̃on̂bidiˈˈg̃ ko· w̃ekš̃ paˈtpigi·yg̃iš̃
they early arise when their comal they underneath light plural
'[26]Also pine is used a lot when women get up early and light a fire under their comals.'

13 *Point 5 of II:* Proc. Para.

27 Step 1: *ʔe· ni·ŋhaduˈn ko· haˈˈy t̃iHkkoHy nikš̃ ʔaHkš̃*
and also when people they house build going they

ʔišta''ỹ *ci·nmaH* *ma·* *wa:d* *p̃iẓim̃* *pu'y*
they look for it pine tree mature where can they take out boards

28 Step 2: *ʔe·* *ko·* *ʔaHk̃š̃* *pa:d̃* *he* *ci·nmaH* *c̃i·* *hada''*
and when they they find it the pine tree mature then this
ʔaHk̃š̃ *puHškidaỹ*
they they cut fall them

29 Step 3: *ʔe·* *ko·meHc* *ši:* *nik̃š̃* *ceHckiš̃*
and after two days going they trim them plural

30 Step 4: *ʔe·* *ko·* *yaHceHcta''ỹ* *c̃i·* *hada''* *ʔaHk̃š̃* *ʔa·wic̃*
and when they trim them all then this they they mark them

13.1 Step 5: Expo. Para.

31 Text: *ko·* *yaHʔa·wiHcta''ỹ* *c̃i·* *komhabo·m* *ʔo·* *ko·ma:ž*
when they mark them all then next day or third day
ni·nik̃š̃ *ʔaHk̃š̃* *nik̃š̃* *hi·tkiš̃*
they purpose go they going they saw them plural

32 Expo: *h̃i·t̃p̃* *ʔaHk̃š̃* *tu''g* *ši:* *ʔo·* *meHc* *ši:*
they saw them they one day or two days

33 Step 6: *ʔe·* *ko·* *yaHhi·tta''ỹ* *c̃i·* *komhabo·m* *yaHni''gi''ỹ*
and when they saw them all then next day they carry them

34 Step 7: *ko·* *h̃a'tta''ỹ* *ma·* *tiHk* *k̃oHha''ñ* *pis* *c̃i·*
when they arrive all where house they build want well then
he''du'n *ha''y* *yaHtu·ŋba:d̃* *he* *pu'y*
specifically people they cause it to work find the boards

'[27]And also when people build a house, they go to look for mature pine trees where they can get boards. [28]And when they find the mature pine trees, then they cut them down. [29]And after two days they go to trim them. [30]And when they trim them all, then they mark them. [31]When they mark them all, then the next day or the third day they go with the purpose of sawing them. [32]They saw them for one day or two. [33]And when they saw them all, then the next day they carry them in. [34]When they all arrive where they want to build the house, well then the people find specific use for the lumber.'

Appendix F

Verb Stems Compiled According to Their Subclasses

The Invariable Class

Syllable Nucleus V Syllable Terminus kš/pš

1. *cekš* 'to scratch, claw'
2. *kapš* 'to talk'
3. *kipš* 'to measure, weigh'
4. *nikš* 'to go'
5. *pikš* 'to tap, pick at'
6. *šidikš* 'to sprinkle'
7. *šupš* 'to peck, fight (chickens)'
8. *tipš* (does not occur alone; carries the idea of jumping: *tipšiˈlk* 'to hop')
9. *topš* 'to burst'

Syllable Nucleus V· Syllable Terminus kš/pš

1. *ci·kš* 'to break open (egg, head, squash, melon, etc.)'
2. *hi·kš* 'to eat (fruit, etc.)'
3. *ke·pš* 'to shave'
4. *ma·kš* 'to stack in order, assemble'
5. *me·kš* 'to pardon'
6. *mi·kš* 'to milk, squeeze juice out'
7. *ni·kš* 'to fade; to dry (flower)'
8. *nu·kš* 'to borrow'
9. *po·kš* 'to rest'
10. *še·kš* 'to leak, bleed'
11. *ši·pš* 'to have a stomach ache, gas'
12. *šu·pš* 'to suck (up a straw, egg out of shell, etc.)'
13. *ti·kš* 'to give light'
14. *to·kš* 'to snore'
15. *wi·pš* 'to pry with a pole'
16. *yaHʔu·kš* 'to cause prickling'
17. *ʔe·kš* 'to pick tender ends of vines'
18. *ʔi·kš* 'to shell corn'

Syllable Nucleus Vˈ Syllable Terminus kš/pš

1. *ceˈkš* 'to split (kindling, pitch pine, etc.)'
2. *cuˈkš* 'to kiss'
3. *heˈpš* 'to be stuck in something'
4. *hiˈkš* 'to suffocate'
5. *kaˈpš* 'to be finished, completed'
6. *meˈpš* 'to cut with a scissors'
7. *peˈkš* 'to eat (corn on the cob, peanuts, candy, bones, etc.)'
8. *piˈkš* 'to powder'
9. *poˈkš* 'to slap with the open hand, pat'
10. *tiˈkš* 'to pinch between the fingernails'
11. *tiˈpš* 'to snap with the fingers, shoot marbles'

12. *ti'kš* 'to settle out (coffee grounds, mud, etc.); to be clean (life, thoughts, etc.)'
13. *wa'kš* 'to be divided, parted; to be changed (money)'
14. *wi·nmi'pš* 'to wink'
15. *yu'kš* 'to be moving'

Syllable Nucleus VH Syllable Terminus ∅

1. *cuH* 'to spit'
2. *keH* 'to untie'
3. *koH* 'to transplant; to make'
4. *kuH* 'to run (stream, current)'
5. *miHšaH* 'to move an arm toward something'
6. *muH* 'to soak in liquid (bread, etc.)'
7. *niH* 'to hiccup'
8. *poH* 'to blow (the wind)'
9. *puH* 'to wash'
10. *pužuH* 'to blow (people, animals)'
11. *šeH* 'to breathe'
12. *taH* 'to dig a fairly deep hole'
13. *tiH* 'to hurt as a knot in cargo; to have a mistaken impression; to name, call'
14. *tiH* 'to break long slender objects'
15. *tuH* 'to hunt; shoot a gun'
16. *wiH* 'to be sober, awake'
17. *wiH* 'to broadcast seed'
18. *yuH* 'to accustom'
19. *ʔeHt kaH* 'to squirm, dance (in pain, etc.)': doublet
20. *ʔihiH* 'to moan, sigh'
21. *ʔoH* 'to scold'

The Variable Class

V'/V''

1. *ce't* 'to squash, crush (fruit, eye, etc.)'
2. *cu·mda'c* 'to make fit tight'
3. *cu'c* 'to eat meat; to bite'
4. *ha't* 'to arrive'
5. *ha'w* 'to slide (landslide)'
6. *he'c* 'to splash (wash) water (on pails, pots, gourds, etc.); to snap corn leaves off the stalk'
7. *he'k* 'to break off (branch, finger); to grind on a metate'
8. *ho'c* 'to erase'
9. *ho'k* 'to pick fruit with a hook, to pull with a hook; to form a tortilla in the hands (the first stage)'
10. *ho'p* 'to entangle'
11. *ho'y* 'to beat liquids, make atole'
12. *hu'k* 'to smoke tobacco'
13. *hu'p* 'to hurt a lot'
14. *hu'š* 'to be smooth, neat'
15. *-i'k* 'semantic extension'
16. *ka'c* 'to throw at with a round object'
17. *ka'w* 'to fall from above'
18. *ma't* 'to make into balls; to be disfigured, a piece broken out of'
19. *me'c* 'to be curled'
20. *me't* 'to pinch'
21. *mi'š* 'to stand around hunched up'
22. *mo'c* 'to grind in a bowl'
23. *mo't* 'to have an epileptic seizure'
24. *ne'k* 'to double, bend (clothes, paper, etc.)'
25. *ne'm* 'to bother'
26. *ni·wa'š* 'to sprinkle'
27. *no'k* 'to light, kindle'
28. *pa'w* 'to chisel'
29. *pe'c* (does not occur alone; carries the idea of filling: *ʔa·be'cnaHš* 'to overflow')
30. *pe'n* 'to make a nest'
31. *pi'c* 'to die out, go out (fire)'
32. *pidi'k* 'to get up'
33. *po't* 'to rub, scrub clean with a brush, cloth'
34. *poyi'k* 'to run'
35. *pu'w* 'to chew but not swallow; to break (dishes, comal, etc.)'
36. *pu't* 'to rot'
37. *ši'w* 'to accuse to the authorities'

38. *ṫibo'k* 'to feel cold (people, animals)'
39. *wa'k* 'to step'
40. *wi'c* 'to dislocate, displace (body parts)'
41. *wɨ'm* 'to remain'
42. *wo'm* 'to fight (pigs)'
43. *ye'n* 'to flame'
44. *ye'p* 'to unfold, lay out (clothes, petates, etc.)'
45. *yɨbo'k* 'to be hungry'
46. *yo'y* 'to walk'
47. *yu'c* 'to hide'
48. *yu'n* 'to root (pigs)'
49. *ʔa·wɨ'k* 'to open the mouth'
50. *ʔene'm* 'to send, order'
51. *ʔo'k* 'to die'

VH/V

1. *ceHc* 'to trim (wood, stone)'
2. *ceHk* 'to fade'
3. *ciHk* 'to husk (corn, beans, etc.); to harvest corn'
4. *ciHp* 'to become tired of something'
5. *ciHš* 'to blacken'
6. *cɨdoHk* 'to make a popping noise'
7. *coHk* 'to love, want'
8. *coHš* 'to cool with water (fire, people, etc.)'
9. *cuguHt* 'to double up (arm, leg)'
10. *cuHk* 'to cut with a knife'
11. *haHt* 'to happen; to be able, know how, succeed'
12. *heHk* 'to be long lasting'
13. *heHp* 'to scrape, clear a field by scraping'
14. *hiHt* 'to tear down a house'
15. *hɨbiHp* 'to throw long slender objects'
16. *hɨHc* 'to make tortillas; to grind (corn, etc.)'
17. *hɨdeHt* 'to scatter grains'
18. *hɨguHk* 'to drag'
19. *hɨHpʔɨẓiHc* 'to bend, double over the point'
20. *hɨyuHk* 'to awaken'
21. *hodiHt* 'to grow to full stature'
22. *hoHk* 'to be smoking'
23. *hoHt* 'to skin (a superficial wound)'
24. *huHk* 'to tie together (cargo, etc.)'
25. *huHp* 'to tip over, cover over'
26. *kaHp* 'to carry long slender objects'
27. *keHp* 'to drive animals'
28. *keHš* 'to send'
29. *kɨHš* 'to be finished, gone'
30. *ko''naHt* 'to be deaf'
31. *koHš* 'to hit with the fist'
32. *koHt* 'to brace'
33. *kweHt* 'to pay debts'
34. *maboHš* 'to flap the wings'
35. *maHc* 'to grab'
36. *meHc* 'to arrive on the level'
37. *mɨHkɨẓɨHc* 'to put one leg toward something'
38. *mɨgiHt* 'to roll (thread on a stick, etc.)'
39. *mɨgoHt* 'to have the hand curled up'
40. *mɨnaHk* 'to go straight down'
41. *mobɨHk* 'to believe'
42. *moHc* 'to diaper'
43. *muHc* 'to tip upside down'
44. *muHt* 'to break into pieces (adobes)'
45. *muHš* 'to germinate'
46. *naHš* 'to pass by'
47. *na·yg̃ɨHt* 'to have sexual relations'
48. *na·yn̄uHk* 'to meet together'
49. *neHp* 'to kick'
50. *niHk* 'to be humid, damp, moist'
51. *nɨẓiHc* 'to fall face down'
52. *noHk* 'to make a loud noise, crack joints
53. *paHš* 'to put up certain poles in roof construction'
54. *peHš* 'to belittle'
55. *peHt* 'to climb; to leave, remain where placed'
56. *piHt* 'to roll (cigars, wrap rope, vine thread around something, etc.)'
57. *pɨdiHt* 'to go up in a cloud; to roll up (clothes, etc.)'
58. *pɨHk* 'to be sick; to marry; to take away, buy'
59. *poHc* 'to mud, cement'
60. *poHk* 'to practice witchcraft'
61. *poHš* 'to be partially dry'
62. *poHt* 'to break (rope, vine, chain, etc.)'

63. *pubeHt* 'to help'
64. *puHš* 'to chop, cut with machete, axe'
65. *puHt* 'to beat (heart), jump'
66. *šaHc* 'to beat liquid with whip or beater'
67. *šeHt* 'to flatten (ball, etc.), shrink (eye, etc.), be squeezed out (orange, etc.)'
68. *šibiHt* 'to sweat'
69. *šiHc* 'to soap'
70. *šiguHk* 'to form tortillas between the hands'
71. *šoHc* 'to tie with rope, vine'
72. *šuHš* 'to become numb'
73. *šuHt* 'to have a hole through it'
74. *teHš* 'to butt, shoot at with a stick (pool, carroms, etc.)'
75. *tiboHp* 'to flow (tears, blood)'
76. *tiHc* 'to cool'
77. *tigaHc* 'to change'
78. *tiniHk* 'to tickle someone'
79. *tiHp* 'to be bitten by insect, snake'
80. *tizaHc* 'to run off (liquid)'
81. *tuHk* 'to pick, sever from the plant (fruit, beans, flowers, pineapple, etc.)'
82. *wa'kšiHp* 'to wait around'
83. *wiHc* 'to carry in the hand (pail, chunky objects), lead by a rope'
84. *widiHt* 'to walk around, go on an errand'
85. *wiHš* 'to pull up out of the ground, roots and all'
86. *wigaHk* 'to fall over'
87. *woHk* 'to have a hole in (not through) (corn, beans, tooth, etc.)'
88. *woHp* 'to hit with a long slender object'
89. *yaHc* 'to work out of position'
90. *yaHhiziHc* 'to make gunpowder sizzle by lighting it'
91. *yeHk* 'to hand over, give'
92. *yigoHt* 'to roll down hill'
93. *yoHk* 'to throw out liquid'
94. *yoHš* 'to offer something to a saint, spirit'
95. *?abeHt* 'to complete (in time)'
96. *?abuHš* 'to hatch'
97. *-?aHt* 'to be'
98. *?anziHš* 'to sneeze'
99. *?awiHš* 'to wait for something'
100. *?eHc* 'to dance'
101. *?eHk* 'to be angry, furious'
102. *?eHt kaH* 'to squirm, dance (in pain, etc.)': doublet
103. *?iHš* 'to see'
104. *?iHt* 'to stay the same; to be in the state of'
105. *?oHc* 'to double over long slender objects'
106. *?oHk* 'to eat (grass, sugar cane, etc.)'
107. *?uHc* 'to be filled'

V·/V

1. *ciyu·y* 'to tremble, shake'
2. *cu·n* 'to leak'
3. *ha·m* 'to go along'
4. *he·n* 'to take off (clothes, shoes)'
5. *himu·m* 'to burn, sting, hurt'
6. *hiye·y* 'to slide'
7. *hu·y* 'to buy'
8. *ka·š* 'to comb'
9. *ka·y* 'to eat (tortillas, food with tortillas)'
10. *ki·n* 'to sink (in water)'
11. *kida·w* 'to stumble and fall'
12. *ko·n* 'to shrink, wear down in length, shorten; to hold round objects in the hand'
13. *ko·w* 'to play a stringed instrument'
14. *ku·m* 'to inject, puncture'
15. *ma·y* 'to finish'
16. *mi·n* 'to come'
17. *mido·w* 'to listen'
18. *mižo·w* 'to count'
19. *mo·kwe·n* 'to strip ears of corn off the stalk'
20. *na·yži·m* 'to have sexual relations'
21. *ni·ya·w* 'to swim'
22. *pe·n* 'to press down with the fingers, plant by pressing, play the piano'
23. *pi·w* 'to pick small objects (coffee, etc.)'
24. *pigo·n* 'to pull hard'
25. *pizi·m* 'to come out'
26. *po·n* (does not occur alone; carries the idea of hitting into something: *mipo·mbeHt* 'to crash against'; *poni'k* 'to crash against'

27. *ša·m* 'to warm oneself in the sun or by the fire'
28. *šu·y* 'to sew, to fish with hook and line'
29. *te·m* 'to pour a liquid'
30. *tɨge·n* 'to roll (barrel, round tub, etc.)'
31. *tɨgo·y* 'to lose'
32. *tɨ·w* 'to act steadily, continually; to straighten'
33. *to·y* 'to burn'
34. *tu·n* 'to work'
35. *wa·m* 'to shoot up again (plants)'
36. *wi·nžo·n* 'to show affection'
37. *wo·w* 'to call, summon'
38. *yo·n* 'to lengthen; to grow (plants('
39. *ʔado·n* 'to hurt'
40. *ʔamo·m* 'to attempt to creep or crawl around'
41. *ʔamo·n* 'to calm, quiet down'
42. *ʔayo·w* 'to suffer; to be poor'
43. *ʔaz,o·w* 'to answer'
44. *ʔɨ·w* 'to sing'
45. *ʔo·p* 'to foam'
46. *ʔo·y* 'to have gone and returned'

V·/V''

1. *-a·n* 'future / desiderative'
2. *ca·y* 'to iron clothes, brand animals,
3. *ci·c* 'to nurse, suck on the breast'
4. *ci·š* 'to let out gas'
5. *ci·w* 'to bathe'
6. *cɨgɨ·y* 'to be afraid'
7. *cɨna·y* 'to live somewhere'
8. *co·k* 'to heal, save; to take hold after birth, transplanting'
9. *hɨwɨ·y* 'to feel'
10. *hɨ·y* 'to melt'
11. *-ɨ·y* 'verbalizer; directional'
12. *ke·k* 'to run away'
13. *ke·w* 'to sting'
14. *kɨda·k* 'to come down'
15. *kɨ·w* 'to be cooking in liquid'
16. *kɨ·y* 'to carry (tables, boards, flat objects)'
17. *ku·š* 'to be satisfied'
18. *mada·k* 'to endure, tolerate, win, gain'
19. *ma·k* 'to wash (corn, beans, coffee beans, etc.)'
20. *ma·w* 'to sleep'
21. *me·š* 'to dry the hands with a cloth'
22. *me·w* 'to grind or file back and forth'
23. *mɨda·k* 'to talk about'
24. *mɨ·k* 'to make tamales'
25. *mɨna·n* 'to say'
26. *mo·y* 'to give something to someone'
27. *mu·k* 'to get drunk'
28. *mu·w* 'to hum'
29. *ni·p* 'to plant by punching a hole in the ground with a stick'
30. *nɨma·y* 'to tell to someone'
31. *paʼtpe·t* 'to clean under with a sweeping motion'
32. *paʼtpɨgɨ·y* 'to light a fire under'
33. *pɨda·k* 'to put into or on'
34. *pɨgɨ·y* 'to surround with people, animals
35. *po·c* 'to work (lime on corn)'
36. *ši·k* 'to laugh'
37. *ši·p* 'to itch; to prick in the mouth'
38. *šu·š* 'to play a wind instrument; to whistle'
39. *ta·c* 'to urinate'
40. *ta·k* 'to weave; to do over and over'
41. *-ta·y* 'all'
42. *tɨ·c* 'to dry; to die (plants)'
43. *tɨgɨ·y* 'to enter; to put on clothes; to begin'
44. *tɨ·n* 'to defecate'
45. *tɨna·y* 'to stand up'
46. *tɨyɨ·y* 'to swing someone'
47. *tɨz,ɨ·y* 'to be thirsty'
48. *tu·t* 'to lay eggs; to free'
49. *wa·c* 'to clean, free, save'
50. *wa·n* 'to want for a certain purpose'
51. *wi·ndɨ·y* 'to tie cargo'
52. *ya·š* 'to cry'
53. *yu·w* 'to cut off brush, surface growth'
54. *yaHwɨna·c* 'to remove pulp from coffee beans; to clear a field of loose material'
55. *ʔadɨ·c* 'to do'
56. *ʔa·gɨ·y* 'to close'
57. *ʔe·k* 'to skin, peel off'
58. *ʔɨda·k* 'to go down hill, under water'
59. *ʔɨña·y* 'to sit down'
60. *ʔɨña·y ʔɨwɨ·y* 'to sit down right where one is': doublet
61. *ʔɨyɨ·y* 'to play games, play around'
62. *ʔu·k* 'to drink'

V·/V:

1. *ce·n* 'to pick up in the arms'
2. *ci·c* 'to stuff'
3. *ci·k* 'to fight (chickens)'
4. *co·n* 'to leave'
5. *ha·š* 'to rub with the hands, massage'
6. *ha·y* 'to write'
7. *he·p* 'to dip with a spoon, bowl'
8. *he·š* 'to scrape mud off shoes, feet'
9. *he·y* 'to bite hard into something'
10. *hi·c* 'to break into pieces (stone, head, etc.)'
11. *hi̱·n* 'to swallow something (pill, etc.)'
12. *hi̱·p* 'to thread'
13. *hi̱·t* 'to saw'
14. *ho·m* 'to carry in a skirt'
15. *hu·t* 'to pull out'
16. *ka·p* 'to stir'
17. *ke·p* 'to cut with a scissors (paper, cloth, etc.)'
18. *ke·t* 'to chew (rats, etc.); to grind the teeth; to eat grass (birds)'
19. *ki·p* 'to singe; to burn chile'
20. *ki̱·c* 'to tear (paper, cloth, etc.)'
21. *ko'hu·š* 'to put on a wedding wreath'
22. *ko·t* 'to come up'
23. *ko·y* 'to paint'
24. *me·c* 'to rob, steal'
25. *mo·c* 'to hoe'
26. *mo·t* 'to crush dry things'
27. *mu·k* 'to suck on something'
28. *mu·y* 'to suck off or up'
29. *na·yg̃o''ma·y* 'to be worth more, really count'
30. *na·yw̃a·p* 'to line up (people)'
31. *ni·c* 'to growl'
32. *no·c* 'to bite that which requires the mouth to open wide'
33. *nu·k* 'to hold with the hand cupped'
34. *pa·t* 'to find'
35. *pi·n* 'to carry mud, dough with the hands'
36. *pi·t* 'to spin thread'
37. *po·t* 'to cut trees into blocks'
38. *ša·c* 'to spin between the hands'
39. *še·m* 'to calm, cool off'
40. *ši·t* 'to blow the nose'
41. *šo·c* 'to wrinkle up, shrink up'
42. *šo·k* 'to get wet'
43. *šu·c* 'to rope an animal'
44. *šu·k* 'to smell'
45. *te·n* 'to step on hard; to copulate (birds, fowl)'
46. *ti̱·p* 'to shoot something in a slingshot, rubber band'
47. *to·k* 'to sell'
48. *we·y* 'to lick'
49. *wi·nʔi̱·n* 'to fool, deceive'
50. *wi·nʔo·n* 'to make fun of'
51. *wi·š* 'to smoke; to unravel'
52. *wi̱·t* 'to twist, wring; to taste like green bananas'
53. *wi̱·n* 'to put on a waist cloth; to tie with a rope (cargo on animal)
54. *wi̱·t* 'to tie poles together for a wall, fence'
55. *wo·c* 'to stretch'
56. *wo·k* 'to dig shallow holes in the ground; to plant by digging shallow holes'
57. *wo·n* 'to pull tight (rope, vine, etc.); to pull animals' tails'
58. *yaHše·w* 'to plane a board; to sharpen a pencil'
59. *ye·k* 'to grow'
60. *ye·m* 'to fan'
61. *yo''gʔu·c* 'to pull the shoulders up'
62. *yo·t* 'to knead (bread, clothes, etc.)'
63. *yu·k* 'to slip something underneath (corn, bananas in coals, etc.)'
64. *yu·m* 'to come together (many)'
65. *yu·t* 'to rub with the fingers'
66. *ʔami·t* 'to twist body parts'
67. *ʔe·c* 'to pound into the ground'
68. *ʔeri̱·t* 'to make the sound of cracking, scraping (trees)'
69. *ʔe·w* 'to pinch with the finger tips'
70. *ʔi̱·c* 'to boil; to vomit'
71. *ʔo·c* 'to stick, glue'
72. *ʔo·š* 'to carry (clothes, unorganized material)'
73. *ʔu·m* 'to be unable to speak'
74. *ʔu·p* 'to ooze'
75. *ʔu·y* 'to bend in half-moon shape'

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