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Yokuts Grammar: Chukchansi

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DISSERTATION

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KEY TO SYMBOLS

- [X] X is phonetic.
- [$\underset{\cdot}{X}$] X is voiced.
- [:] extended length.
- /X/ X is phonemic.
- [X] X is morphophonemic. Unbracketed writing is also morphophonemic, unless designated otherwise.
- L/X/ X is lexemic.
- L/(X)/ X is a class of lexemes.
- {X,Y} X or Y may be present.
- (X) X is optional.
- W(X) X is also true of W (no space between W and (X)), section 600ff.
- (....) optional C or V (one or more) suiting syllable canon.
- *X X is fabricated by the linguist, not elicited.
- X[_Y/Z] Read: X preceding environment Y is Z in the next lower stratum of analysis.
- X[_²Y¹/Z] Read: XY is realized as YZ; i.e., the order of elements is reversed in the realization (metathesis).
- "everywhere" or "elsewhere".
- C consonant.
- V vowel.
- # silence.
- \tilde{f} freely fluctuates with.
- (200) Numbers in parenthesis refer to numbered paragraphs of this paper, unless indicated otherwise.

INTRODUCTION

Yokuts is one of four language families, belonging to the Penutian stock, that once occupied the great central valleys and foothills of California. The others are Wintun of the Sacramento River valley, Maidu of the northern Sierras, and Miwok-Costanoan (Miwok occupying the territory from west of Yosemite to San Francisco Bay and Costanoan extending about 150 miles south from the Bay Area). Yokuts speakers occupied the San Joaquin valley and Sierra foothills from south of Bakersfield to the delta west of Stockton.

It has been estimated that the number of tribes belonging to the Yokuts group may have numbered as many as forty at one time (see section 1010). Chukchansi is a Yokuts language spoken by a small remnant of the tribe of the same name. A. L. Kroeber classified it (1020) as one of the "Northern Valley Division" of Yokuts, and V. Golla (1010) calls it "the most prominent representative of the Northern Foothill group of the Foothill division."(p. 55)

No doubt, the best known thoroughgoing work on Yokuts is that of S. Newman (1030) which gathers all available features from six dialects into one composite phonology and grammar. Chukchansi was only fragmentarily treated, since his data were very limited. While the analysis here differs from Newman's in many ways, his influence may be noticed even though no conscious effort at imitation has been made.

Possibly thirty speakers of Chukchansi remain at present, with a few more who can understand it somewhat. All speakers known to me are quite proficient in English, except for Mrs.

Liza Jack, who is of a great age. When last heard of (over a year ago) she was in a rest home in Fresno. She did serve as informant on a few occasions when she lived in Coarsegold.

The field work for this project extended over the summers of 1963, 1965 and 1966 (25 weeks in all), most of it being done in the area of Ahwahnee and Coarsegold just a few miles south of Yosemite National Park. Several informants gave considerable help, and two died while serving as informants, viz., Banjo Graham of Ahwahnee and Willie Graham, his cousin, of Coarsegold. Some work was done with Mesdames Rose Watt and Emma Lord of Usona, who were Miwok informants for S. Broadbent (1040). Both speak Chukchansi as well as Miwok.

The first work was done with Miss Bessie Jacobs of Madera, who worked with good humor and great patience, but who had been away from the language for many years. It is to her that I am indebted for introductions to several Chukchansi speakers near Coarsegold through whom I finally met my two best informants. These last are Mrs. Reilly (Lucy) Jones, about sixty years of age, who lives on her family homestead five miles back in the hills southeast of Coarsegold, and a middle-aged woman nearer Coarsegold who requested that her name not be published. Both of these women had the time and the energy for the task of assisting me, and they did nobly. Any lack of data cannot be laid to their charge.

None of the informants was of pure Chukchansi ancestry. One parent or grandparent was, in every case, either Miwok (in most cases) or Kashowu (Mrs. Jones). They claim, too, that some "Chinese blood got into us back there somewhere." My youngest

informant possessed facial features which made this quite credible. Bilingualism was a trait of most, except the younger one, and occasionally a Miwok or Kashowu word would be given. Usually this was quickly corrected or caught by another informant later.

The general theoretical model for the treatise is the stratificational analysis associated with the name of Sydney Lamb. That is, three linguistic strata of analysis are assumed, besides the phonetic (omitting consideration of the sememic here). These are, from highest to lowest, lexemic, morphemic and phonemic. Lamb's symbolism and some terms as seen in some of his articles (e.g., 1050) are modified to a more traditional approach (e.g., the phonons are treated in phonetic symbols, not in terms of mechanical features).

The term "morpheme" refers to a phonological level of representates, the components of which (the morphophonemes) are represented by phonemes, the next lower stratum. The term "lexeme" refers to a unit of grammar on the non-phonological stratum of which the morphemes are representations. The total number of lexemes, then, is the inventory of grammatical pieces of which the language is composed. The term "word" (211) has been used as a substitute for "composite lexeme" or "free lexeme," i.e., a unit of the language composed of initial and suffixal lexemes and in a few instances of only one lexeme.

Diversification (1050, p. 64), i.e., more than one representation of the representate at the higher stratum, is common from the lexemic to the morphemic stratum and from the morphemic to the phonemic. This is noted especially among the vowel morphophonemes. However, many representates have only one repre-

sentation on the next lower level.

Because conditioning environments for some phonemic alternations operate differently over morpheme boundaries than otherwise, the boundary itself ([-]) has had to be posited as a part of the phonological conditioning environment in many instances. Also, due to the fact that similar phonemic environments accompany dissimilar alternations, a few arbitrary environment-symbols have been introduced as operators which "generate" for the grammarian the proper alternation; e.g., morphophonemic Z "causes" loss of the preceding vowel. Z represents some factor not discoverable by examining the phonemic environment which accompanies this reduction or "zeroing" of a stem. The use of such operators arises from a deliberate attempt to describe phonologically as many alternations as possible. The alternative is to make numerous lists of "allolexes" for many lexemes. This appears to be more cumbersome than the necessarily elaborate morphophonemic statements appearing in this phonology.

Expressions of appreciation are due to the Survey of California Indian Languages of the University at Berkeley for providing the funds by which the field work was carried on; to Prof. Mary Haas under whose tutelage a good share of my studies have been carried on, and who stimulated my interest in California Indian linguistics; and to Prof. William Shipley who shared freely his time for consultation in the early stages of preparation of the thesis, as chairman of the reading committee. Thanks are also due to the other members of the committee, Professors Murray B. Emeneau and Haruo Aoki for their suggestions and corrections. I bear responsibility for any errors or in-

consistencies which survived their careful scrutiny of these helpful men.

A further word of thanks is owed to my colleagues at Simpson Bible College, where I have been employed full time throughout the doctoral work. Their carrying of my duties on many an occasion to permit me to engage in field work or to attend classes puts me much in their debt. Lastly, and perhaps most importantly, thanks to my wife and four children who put up with my absence from home in the night hours and hoped and prayed with me for accomplishment.

T. L. Collord
San Francisco,
February 1968

100. Phonology

The phonemic inventory of Chukchansi contains twenty-eight consonants, vowel length, five vowels and three junctures--- thirty-seven phonemes in all:

Stops

Plain	p	t	c	k	
Aspirated	p ^h	t ^h	c ^h	k ^h	
Glottalized	p'	t'	c'	k'	ʔ

Continuants

Spirants		s	ʃ	x	h
Nasals	m	n			
Semivowels	w	(r)	y		
Lateral		l			
Glottalized	m'	n'			
	w'	l'	y'		

Vowels

High		i		u
Low		e	a	o

Length .

Junctures , . ʔ

110. Articulation and Allophony111. The Stops¹

The stops of the plain series are voiceless and unaspirated. Lax (lightly voiced) allophones are found in the speech of all speakers of Chukchansi, but especially among the younger people. However, in final position preceding pause, or immedi-

ately before a spirant, the plain stops are usually lightly aspirated. Occasionally they are unreleased finally. The points of articulation are bilabial, dental, alveo-palatal and velar. Usually, the alveo-palatal "stop" is an affricate, but the plain one, /c/, is so lightly affricated before a voiced consonant that it is there frequently a stop.

In the aspirated series, the aspiration is quite pronounced intervocally and in final position before pause. The bilabial and dental orders are most noticeably aspirated. The palatal stop, /c^h/, is of rare occurrence.

In the third series of stops, glottalization varies from simultaneous release of oral and glottal closure, the glottal release being almost imperceptible, to a definite lag between the two releases. Before pause, these stops may be released with light aspiration, the glottal release not being heard. Vowels in the immediate environment of a glottalized stop, especially between such stops, are articulated with varying degrees of rasping laryngealization. Glottal release is clearly heard initially, especially in the speech of older persons who use little English. (See 132)

112. The Continuants

The spirants, particularly initial /h/ and /š/, are of frequent occurrence in all positions. /s/ is an alveolar, grooved (but nearly flat) spirant, articulated with the tongue blade near the tip. /š/ is an alveopalatal, grooved spirant, somewhat more "hissing" than English /š/. /x/ is a velar spirant, backed when with back vowels. When following a back

vowel, the lip-rounding accompanying the vowel follows through the articulation of the spirant. The result is [x^w] in a word like /soxis/ [sox^wIs] 'soap root'. /h/ is a glottal spirant with qualities of English [h].

Both nasal continuants are common in Chukchansi, especially due to their occurrence in personal pronouns and in a few common suffixes. They are common in all positions in non-suffixal functions, as well. Allophony is limited in the bilabial to changes in roundness of the lips caused by articulation near back vowels (lip-rounding is very moderate in any case in Chukchansi) and in the dental to slight backing from the teeth with back vowels.

The voiced bilabial semivowel has the quality of non-syllabic [U] except after /u/, in which case it is higher. The quality is somewhat fronted after front vowels. Lip-rounding is slight except after back vowels, and even then it is moderate. The palatal semivowel, /y/, has the quality of non-syllabic [i] after front vowels; it is somewhat lower elsewhere.

The retroflexed palatal semivowel is cup-tongued, like the typical far-western American /r/. It is found only in words borrowed from other languages, especially Spanish (but it is never a flap or trill) and English. Except for a few proper nouns, all items in the corpus using /r/ appear here:

- /ʔo·roʔ 'gold' (Spanish 'oro')
- meryan 'Maryan Ramirez'
- mo·roʔ 'grey' (origin unknown)
- ra·liʔ 'Reilly Jones'
- ranc^hoʔ 'farm' (Span. 'rancho')

tiyente·ro? 'store' (Span. 'tendero')

to·ro? 'bull' (Span. 'toro')

wara·ha? 'playing cards' or 'card game' (Span. 'baraja')

The most aged informant, Liza Jack, says [walá·hà?], and uses [l] for English /r/ in some other words.

The lateral, /l/, is a voiced dental lateral. It is generally high-tongued [l^h], especially after front vowels, and is only slightly lower elsewhere.

The glottalized continuants, /m', n', w', l', y'/, are restricted to post-vocalic occurrence. They contrast with their non-glottalized counterparts. Articulation varies from a momentary glottal tenseness to a complete glottal occlusion during the articulation, resulting phonetically (intervocalically) in a [CʔC] cluster; e.g.: /šom'oʔ/ [šomʔmoʔ] 'swell up'; /lol'o/ [lɔlʔlɔ] 'let him go'.

113. The Vowels²

All five vowels are of common usage, with /a/ by far the most frequent. Their description and allophony are:

/i/, high front unrounded

i [-(·)y(·)] /i e.g., /tiyit^h/ [tíyít^h] 'it stung'
 [-ʔ] e.g., /hiʔ/ [híʔ] 'this one'
 ---/I e.g., /tamik'/ [támík'] 'fragrance'

/e/, low front unrounded

e [-(·)y(·)] /e e.g., /c'ey'/ [c'ey'] 'bone'
 [-ʔ/ɛ^h] e.g., /hat^hmeʔ/ [hát^hmɛ^hʔ] 'to sing'
 ---/ɛ e.g., /hew/ [hɛw] 'here'

/a/, low central unrounded

a[]_{l,m,n,k,k^h,k'}{C,#}/a[^], e.g., /mam/ [ma[^]m] 'me'

w_C/b, e.g., /wamle[?]/ [w^ɔmlɛ^{^?}] 'throw down'

---/a, e.g., /na[?]/ [na[?]] 'I'

(Note: [a] is central in this treatise, never front.)

/o/, low back rounded

o[]_{(·)w(·)}/o, e.g., /xo[?]ow/ [x^ɔ^{^?}òw] 'to the house'

_[?]/o[^], e.g., /xo[?]/ [xo^{^?}] 'house'

---/o, e.g., /nopko/ [n^ɔpkò] 'gather it!'

/u/, high back rounded

u[]_{(·)w(·)}[?]/u, e.g., /hu·was/ [hú·wàs] 'grapes'

/tu[?]/ [tu[?]] 'y'know'

---/U, e.g., /mukuš/ [mÚkÚš] 'grandmother'

114. Length³

Length constitutes phonetically about one-half to one mora, follows any vowel, and configurates as a consonant, with the exception that it occurs only post-vocally, never intervocally. It is seldom found outside one or both of the first two syllables in a word; e.g., /[?]o·mis/ 'mother'; /tiye·lic'/ 'herder; /lu·ca·lewše[?]/ 'to wrestle'.

Length contrasts with its absence in /[?]a·lit^h/ 'salt grass', /[?]alit^h/ 'long ago'.

115. Examples of phoneme contrasts

115.1 Stops in initial position (p. 7)

115.2 Stops in medial position (p. 8)

115.3 Stops in final position (p. 9)

115.4 Continuants in initial position (p. 10)

115.5 Continuants in medial position (p. 11)

115.6 Continuants in final position (p. 12)

115.7 Vowel contrasts (p. 13)

116. Suprasegmental phonemes

The suprasegmental phonemes involve three types of intonation patterns. These are marked as junctures /;/, /./, and /?/.⁴ They include six phonetic features:

[¹] low pitch

[²] middle pitch

[³] high pitch

[↓] drop in pitch

[→] pause, maintaining pitch

[↑] rise in pitch

The juncture, /;/, indicates pause, which is characterized by the maintaining of pitch, whether [³], [²] or [¹], and by [→], which may be quite short.

The juncture, /./, signals the termination of an utterance at [¹], accompanied by [↓].⁵

The juncture, /?/, marks two kinds of intonation patterns: 1) a definite rise in pitch for several syllables consecutively, followed by silence, and 2) a drop from [³] on the penultimate syllable of the utterance to [¹] and [↓] on the last syllable, followed by silence.

Examples of the junctures:

(continued on page 14)

Table 115.1 Stops in initial position

<u>Plain</u>	<u>Aspirated</u>	<u>Glottalized</u>
<u>Bilabials</u>		
pil'it ^h 'hem it'	^h e·liw 'in the road'	p'ifix 'slippery'
pala·sit ^h 'crawled in'	^h alat'at' 'woodpecker'	p'alast ^h a? 'made bald'
<u>Dentals</u>		
taptapic' 'webbed'		t'ap't'ap'is 'flat'
talim' 'fish'	t ^h alxas 'tongue'	
tuya'an' 'sucking'	t ^h iše? 'to go out'	t'uya'an' 'shooting'
<u>Alveopalatals</u>		
ca? 'tea'	^h iše? 'to cut'	c'iše? 'to lift hot rocks'
cawan 'strong'	^h ew'k ^h it ^h 'hatched'	c'a? 'glued'
<u>Velars</u>		
koyko 'Mix it!'	^h a?it ^h 'belched'	k'oyko 'Design it!'
ka?iḡ 'acorn meal'	^h uyu? 'salt'	k'uyuk' 'sweet'

Table 115.2 Stops in medial position

<u>Plain</u>	<u>Aspirated</u>	<u>Glottalized</u>
<u>Bilabials</u>		
taptapic 'webbed'	ʔep ^h e·sɪc 'lawyer'	t'ap't'ap'is 'flat'
nepec 'older brother'	nɪp ^h ɪl 'sister-in-law's brother'	ʔep'e·ʂɪc 'grinder'
<u>Dentals</u>		
hatam'hiy 'river crossing'	hat ^h am'hiy 'hymnal'	hat'axniʂ 'cranky'
	ʂɪnt ^h ɪ 'soot'	ʂɪnt'ɪ 'dirty diaper'
<u>Alveopalatals</u>		
pece·can 'bending over'	p ^h ec ^h enwiʂeʔ 'grip'	pec'e·c'an 'being cold'
huco? 'growl'		huc'oʔ 'weave'
<u>Velars</u>		
ʂo·ko? 'pull out'		ʂo·k'oʔ 'drink up'
ʂokol'on 'boring a hole'	ʂok ^h ow'on 'blowing (wind)'	
	yuk ^h oc 'person (Indian)'	yuk'ul 'buried'
<u>Glottal (contrasted with length)</u>		
	na·way 'cheek'	naʔway 'nephew'

Table 115.3 Stops in final position⁶

<u>Plain</u>	<u>Aspirated</u>	<u>Glottalized</u>
<u>Bilabials</u>		
nop 'gathered'	ʔop ^h 'sun'	sep 'tore'
	šep ^h 'wrote'	
<u>Dentals</u>		
hut 'knew'	t'uyut ^h 'shot it'	šuyut 'laced it'
c'at 'patched it'	xat ^h 'ate'	c'at 'split it'
<u>Alveopalatals</u>		
huc 'growled'	ʔip ^h ic ^h 'threw away'	hoc 'wove it'
		wamic 'chewed it'
<u>Velars</u>		
šok 'pulled'	ʔek ^h 'Do it!'	ʔok 'clam'
	p ^h inik ^h 'Tie it!'	ʔilik 'water'
<u>Glottal</u>		
		waʔ 'far'

Table 115.4 Continuants in initial position

SpirantsAlveolar and alveopalatal

sep' 'tore it'	šep' 'buckskin'
so·xin 'skunk's'	šoxit ^h 'got lots of it'

Velar and glottal

xalal 'lace material'	halax 'high climber'
xoy' 'deer'	hoy'li 'now'

Nasals and semivowels⁷

may' 'we all'	way 'dug it'
me·k'e? 'to swallow'	we·wil' 'a branch'

nuhuk't ^h a? 'knelt'	yuho? 'to search'
nup ^h op ^h 'father'	yup'p'a 'wrinkled'

The lateral (contrasted with /y/)

lehem'an' 'ruming'	yehešne? 'to rest'
lo·wit ^h 'husband'	yowik' 'side of body'

Table 115,5 Continuants in medial position

SpirantsAlveolar and alveopalatal

wosit ^h 'did hit'	ʔošit ^h 'fire'
ʔip ^h išt ^h aʔ 'threw out'	ʔip'išt ^h aʔ 'ground it up'

Velar and glottal

waxalʔan' 'crying'	wahamʔan' 'passing by'
wexelʔan' 'treating medically'	wehe·šit ^h 'mountain lion'

Nasals and semivowels (contrasted with glottalized counterparts)Nasals

someʔ 'to cover it'	šom'oʔ 'to swell up'
none·ʔan' 'growing up'	non'e·p ^h an' 'it's nine o'clock'
ʔannit ^h 'it's late'	ʔan'it ^h 'leaned it'

Semivowels

hewnit ^h 'saved it'	hew'nit ^h 'did like <u>that</u> '
sawka 'Yell!'	saw'ka 'Put it on!'
šoyix 'animal hole'	woy'it ^h 'planted it.'

The lateral

lolit ^h 'hung it'	lol'it ^h 'did quit it'
------------------------------	-----------------------------------

Table 115,6 Continuants in final position

SpirantsAlveolar and alveopalatal

soxis 'soap root'

c'axiš 'live oak'

las 'chopped'

na'aš 'would...'

Velar and glottal

sox 'skunk'

yuh 'hunted'

wex 'plowed'

tih 'accompanied'

Nasals and semivowels (contrasted with glottalized counterparts)Nasals

som 'covered'

som' 'cloud'

min 'my'

limin' 'hard acorn meal'

Semivowels

saw 'yelled'

saw' 'watered plants'

way 'dug it'

lay' 'kicked it'

pohiy 'scolded'

lasa'hiy' 'chopper'

The lateral

lol 'hung it'

lol' 'quit it'

ʔe·hil 'did it'

ma·mil' 'berries'

Table 115.7 The vowels

High and low front

lihimka 'Run!'

lehem'an' 'running'

minnil 'large bee'

menc'it^h 'sucked'Central and other

waxal'an' 'crying'

wexel'an' 'treating medically'

ya·we? 'a key'

yo·we? 'to go home'

hay'li 'today'

hoy'li? 'right away'

High and low backk^huyu? 'salt'k^huyo? 'to root'

šuyut'ka 'Thread it!'

šoyot'an' 'threading it'

yuwo? 'to pucker lips'

yo·we? 'to go home'

2 3 2 2 3 2 3 3 2 2 3 2 1
 [ʔohomtanašʔayʔxal→mecmaynia^mhala·taʔhaw↓]

/ʔohomʔtaʔnaʔašʔayʔxal,mecmayniʔamhala·taʔhaw./

'He would not hurry, because he himself had certainly done it.'

2 2 2 2+ 2+ h 2+ 3 3+
 [maʔyoʔwilʔtʰeyšawtʰa·neʔtita:ʔ]

/maʔyoʔwilʔtʰeyšawtʰa·neʔtitaʔ?/?

'You used to go to the witch-doctor, didn't you?'

2 2 3 1
 [ka^nna·tUmʔmaʔ↓]

/kanna·tumʔmaʔ?/? 'Do you have a cow?'

120. Stress

In a word (211) uttered in isolation three intensities of stress can be detected. Primary stress, [ˈ], is on the penultimate syllable and, as a rule, is accompanied by a higher pitch than preceding syllables. A secondary stress, [ˌ], is found on the closed syllables (non-penult) with pitch [1] if following primary stress, [2] or [3] elsewhere. Non-penultimate open syllables are weakly stressed ([], unmarked) with pitch [1] following primary stress and about the same pitch as surrounding syllables elsewhere. It must be borne in mind that these features characterize the isolated word of two or more syllables, and they do not necessarily hold true in longer utterances.⁸

130. Phonotactics

131. The Chukchansi syllable canon is C₁V(C₂). CVC is a closed

syllable. C_1 may be a glottalized continuant only if preceded by a vowel. C_2 may be any consonant, including /·/, except that /·/ is never intervocalic.

Vowel clusters do not appear; consonant clusters are only medial. Though some clusters are missing from the corpus, it appears that all consonants are unrestricted in distribution except as noted just above.⁹

132. Where both consonants of a medial cluster are within the same morpheme (212) and both are stops of the same point of articulation, both are also after the same manner of articulation. That is, /p/ clusters only with /p/, not with /p^h/ or /p'/ in the same morpheme. One exception is found in the velar order, in /k'ukk'uknan'/ 'pecking', where /k/ is clustering with /k'/. But while /k'ukk'uk-/ is a morpheme, it results from reduplication (215).

When the consonants are of different orders, no homogeneity of series necessarily prevails: /xapc'it^h/ 'picked a flower.'

133. Rapid speech phenomena

The phonotactics of rapid speech present some phenomena which differ from those found in deliberate speech, probably in all languages. Some important considerations in Chukchansi follow.

133.1 Glottalization and the glottal stop

Glottalization, both in the stops and in the continuants, is usually light in rapid speech and may completely disappear except where its lexical importance requires it. The glottal stop commonly disappears. This is especially true in forms of

very frequent use; e.g., the sequence /aʔa/ will usually be [aa], which may be identical in time lapse to /a·/ or even shorter.

133.2 The glottal spirant

In slow speech, /h/ is voiceless. In conversation, it frequently has a voiced allophone, [h̥]. There is then a free fluctuation in words like /ʔohom/ 'not' ([ʔshòm' $\overset{f}{\sim}$ ʔshòm']).

This is especially true when the vowels between which it occurs are of the same quality.

133.3 Abbreviations

The following abbreviations are used:

[ʔá^màw] < /ʔama·maw/ 'right here' or 'over there'

[hɛʔmàw] < /hewʔama·maw/ 'right over here' (/hew/ 'here')

[ʔalt^h] < /ʔalit^h/ 'long ago'

[ʔam] < /ʔamaʔ/ 'he', /ʔamin/ 'his', /ʔamam/ 'him (objective case)'

140. Morphophonemics

A correlative morphophoneme is posited for each phoneme.

141. Among the consonants, all have a one-to-one relationship with their respective phonemes, except as described below in

141.1-12. (See 212.1 re: hyphenation.)

141.1

$$\cdot \left[\begin{array}{l} _C-Z \\ Z-_ \\ _C(-)C \\ _CV-?h \\ \#CV_CVC-\{Z,B,V\} \\ _-V \end{array} \right] / \emptyset$$

e.g.: ma·x-ka /maxka/ 'Fetch it!'

nepe·c'-Z-·a /nipc'a/ 'sisters'

ka·tu-?h-init^h /kato?hunut^h/ 'from the cats'

ma·mil-Zam' /mamlam'/ 'having berries'

no·kum-Ba?a-e?n' nokom'?an'/ 'believing'

no·kum-e?n' /nokmo?/ 'to believe'

p^hana·-al /p^hanal/ 'would arrive'

141.2

h[VCVC₁-Ba? /∅ where C₁ is non-glottalized stop or a spirant.

e.g.: t^ha?iš-Ba?hiy' /t^ha?aš'iy'/ 'television (lit. "something to look at")'

141.3

$$? \left[\begin{array}{l} C-\{h, \#\} \\ V-V_C\# \end{array} \right] / \emptyset$$

e.g.: no?om-?h-a /no?imha/ 'mothers (objective case)'

no?om-? /no?om/ 'mother (subjective case)'

hu·še-e?n' /hu·šen'/ 'to drive'

141.4

ʔh-·/·ʔ-, e.g., ka·tu-ʔh-·i /kato·ʔu/ 'cats (subjective)'
 c^he·xa-ʔh-·a /c^hixa·ʔa/ 'dogs (subject.)'

141.5

$$M \left[\begin{array}{c} m \\ n \end{array} \right] v(\cdot) _ / \left[\begin{array}{c} m \\ n \end{array} \right]$$

-C/∅
 ---/n

e.g.: na·M-ik^h-w-a /na·nik^hwa/ 'us two (obj.)'
 ma·M-ik^h-w-a /ma·mik^hwa/ 'you two (obj.)'
 na·M-ʔ /naʔ/ 'I'; hiM-ʔ /hiʔ/ 'this one (subj.)'
 hiM-a /hin/ 'this one (obj.)'

141.6

$$\left[\begin{array}{c} l' \\ m' \\ n' \\ w' \\ y' \end{array} \right] _ _ -Z / \left[\begin{array}{c} l' \\ m' \\ n' \\ w' \\ y' \end{array} \right]$$

e.g.: ma·mil'-Zan /mamlan/ 'with a berry (instrumental)'
 mok^hiy'-Zin /mok^hyin/ 'wife's'
 payin'-Za /payna/ 'acorn (obj.)'
 talim'-Za /talma/ 'trout (obj.)'

141.7

$$\left[\begin{array}{c} l' \\ m' \\ n' \\ w' \\ y' \end{array} \right] _ _ VCV _ -Baʔ / \left[\begin{array}{c} l' \\ m' \\ n' \\ w' \\ y' \end{array} \right]$$

e.g.: hošiw-Baʔa-eʔn' /hošow'ʔon'/ 'being cold'
 hup^hul-Baʔhiy'-ʔ /hop^hol'huy'/ 'place to dig roots'
 hiš-in-Baʔhiy'-ʔ /hešen'hiy'/ 'hiding place'
 hec'ey-Baʔhiy'-ʔ /hec'ey'hiy'/ 'wrench'

141.8

$$C \square \left\{ \begin{array}{l} C-V? _ \# \\ _ C \{C, \#\} \end{array} \right\} / \emptyset$$

e.g.: hat^him-e[?]n' /hat^hme[?]/ 'to sing'

hew-n'xu-[?] /hen'xu[?]/ 'how far?'

141.9

$C_1V_1 \square CVC _ C-Z/V_1C_1$, e.g.: [?]ont^hip^h-Za /[?]onit^hp^ha/ 'mother-in-law' (objective)

141.10

$C_1V_1C_2V_2C_3-C_4V_3C_5-V/C_1V_1C_2C_3-V_3C_4C_5-V$ (unless C is h)

e.g.: lihim-mix-it^h /lihmimxit^h/ 'he ran with him'

ti[?]iš-šit^h-it^h /ti[?]šiš^h-it^h/ 'made it for someone'

But: ti[?]iš-han-it^h /ti[?]išhanit^h/ 'it was made'

141.11

$V_1C_1 \square CVC _ C _ -V/C_1V_1$, e.g.: hapilk'ay-a-e[?]n' /haplik'yan'/ 'it got red'

142. Five vowel morphophonemes, i, e, a, o, u, are correlated with the five vowel phonemes in a one-to-one relationship, except as stated below in 142.1-13.

142.1

$$a \square \left\{ \begin{array}{l} \{ \#, - \} Co(\cdot)(C)-(B)(C)_(C)(_) \\ CoC(\{i, o, u\}C)-(\{Z, B\})(C)_(C)(_) \end{array} \right\} / o$$

_ .C-[?]h/1

$$\left\{ \begin{array}{l} \text{VCVC-B_} \\ \text{V-}\{k, x\}_ \# \\ \text{M-}_ \# \end{array} \right\} / \emptyset$$

e.g.: no·p-ma[?]aš-xo-e[?]n' /nopmo[?]ošxon'/ 'wanting to gather'
 xat^h-Ba[?]a-xo-t^ha[?] /xat^ha[?]axot^ho[?]/ 'kept on eating'
 lox-ka /loxko/ 'Pour it!'
 hošiw-Ba[?]a-e[?]n' /hošow[?]on'/ 'being cold'
 xoc'o·y-anit^h /xoc'o·yonit^h/ 'from the dirt'
 t'oyix-Za /t'oyxo/ 'medicine'
 komuc'-Ba[?]a-e[?]n' /komoc''on'/ 'hugging'
 kac'a·p-[?]h-a /kac'ipha/ 'daughters'
 hu·še-ka /hu·šek/ 'Drive it!'
 hu·še-xa /hu·šex/ 'Let's drive it.'
 na·M-a /nan/ 'me'

142.2

a[ma[?] ₂š¹-V/e e.g.: xat^h-ma[?]aš-it^h. /xat^hma[?]šet^h./ 'He
 was about to eat.'

142.3

$$e, a, o, u \llbracket C \begin{array}{c} [e] \\ [a] \\ [o] \end{array} C_C-V / \begin{array}{c} [e.] \\ [a.] \\ [o.] \end{array}$$

$$C\{e, a, o\}C_C-Gi·c'-[?]/\emptyset$$

e.g.: hewet^h-e[?]n' /hewe·t^he[?]/ 'to walk'
 halal-al /hala·lal/ 'could lift'
[?]op^hot^h-e[?]n' /[?]op^ho·t^he[?]/ 'to arise'
 komuc'-e[?]n' /komo·c'e[?]/ 'to hug'
 hewet^h-Gi·c'-[?] /hiwt^hic'/ 'a walker'
[?]op^hot^h-Gi·c'-[?] /[?]op^ht^hic'/ 'a riser'
 halal-Gi·c'-[?] /hallic'/ 'a lifter'
 komuc'-Gi·c'-[?] /komc'ic'/ 'a hugger'

142.4

$$e \left[\begin{array}{l} _CeC-G \\ _(\cdot)CV(C)-\{Z, ?h\} \\ _C-? \{ \#, h \} \end{array} \right] /i$$

$$ma?š_C\{o, a\}/o \overset{f}{\sim} e$$

$$CVC\{u, e\}C-D_ /a$$

$$VC_C-D/\emptyset$$

e.g.: hewet^h-Gi·c'-? /hiwt^hic'/ 'a walker'

c^he·xa-?h-a /c^hixa?ha/ 'dogs'

nepe·c'-?h-a /nipic'ha/ 'older brothers'

šawik-ma?še-xo-e?n' /šawikma?šexon' $\overset{f}{\sim}$ šawikma?šoxon' /

'wanting to buy something'

?ut^huy-De-xo-t^ha? /?ot^hyaxot^ho?/ 'pushed it here and there'

hewet^h-De-xo-t^ha? /hewt^haxot^ho?/ 'walked all around'

nepe·c'-Z-·a /nipc'a/ 'older brothers'

142.5

$$i, a \left[CVC_C-D/e \cdot \right]$$

e.g.: hat^him-De-xo-e?n' /hat^he·mexon'/ 'singing all around'

halal-De-xo-t^ha? /hale·lexot^ho?/ 'was lifting it up and down'

142.6

$$e, u \left[CVC_C-D/\emptyset \right]$$

e.g.: hewet^h-De-xo-e?n' /hewt^haxon'/ 'walking all around'

?ut^huy-De-xo-e?n' /?ot^hyaxon'/ 'pushing it here and there'

142.7

$$\begin{bmatrix} i \\ e \end{bmatrix} \left\{ \begin{array}{l} (C\{u, o\})Cu(\cdot)C-(C)_ (C)_ (_) \\ _Co\cdot k_- \end{array} \right\} / \begin{bmatrix} u \\ o \end{bmatrix}$$

e.g.: hu·c'-hil /hoc'hul/ 'did weave it'
 lum-hil /lumlul/ 'did pile it'
 šuyut'-hil /šuyut'hul/ 'did lace it'
 no·kum-hil /no·kumlul/ 'did believe'
 nim-o·k-in /numo·kun/ 'our'
 hu·c'-e'n' /ho·c'o'/ 'to weave'
 lum-e'n' /lum'o'/ 'to pile'
 šuyut'-e'n' /šuyt'o'/ 'to lace'
 no·kum-e'n' /nokmo'/ 'to believe'

142.8

i \square #CV(·)C-G_/a e.g.: ma.x-Gi·c'-i /maxa·c'i· 'a fetcher'

$$C \begin{bmatrix} e, a, u \\ a \\ o \end{bmatrix} (\cdot)C \begin{bmatrix} u \\ o \end{bmatrix} (C)(-?h-)-(\cdot)(Z)(_) (C)_/u$$

e.g.: k'exum-Zi /k'exmu/ 'a rich man'
 yunuk'-Zi /yunk'u/ 'warm'
 kašow-?h-i /kašowhu/ 'Kashowu Indians'
 t'oyo·š-init^h /t'oyo·šunut^h/ 'from an arrow'
 ka·tu-?h-i /kato'hu/ 'cats'

$$C \begin{bmatrix} _Ci \\ iC_ \\ V_1C_ \end{bmatrix} C- \begin{bmatrix} B, G \\ B \\ G \\ G \end{bmatrix} / \begin{bmatrix} e \\ e \\ e \end{bmatrix} \begin{bmatrix} \\ \\ V_1 \end{bmatrix}$$

e.g.: šilit'-Ba'a-e'n' /šelet'?'an'/ 'jumping'
 šilit'-Gi·c'-? /šele·t'ic'/ 'a jumper'
 hat^him-Gi·c'-? /hat^ha·mic'/ 'a singer'

$$\left\{ \begin{array}{l} \text{CV}(\cdot)\text{C}(-)\text{-C-V} \\ \text{V-m-}\# \end{array} \right\} / \emptyset$$

e.g.: hiš-in-eʔn' /hišneʔ/ 'to hide oneself'
 hat^him-eʔn' /hat^hmeʔ/ 'to sing'
 hu·še-mi /hu·šem/ 'and then drive it'

142.9

$$\left[\begin{array}{l} i \\ u \end{array} \right] \left[\begin{array}{l} \#C\text{-}C\text{-}\{C, V\} \\ \text{-}(C)\text{-}\text{?}h \\ \text{-}M\text{-}ne(\cdot) \end{array} \right] / \left[\begin{array}{l} e \\ o \end{array} \right]$$

e.g.: ?i·p^h-eʔn' /?e·p^heʔ/ 'to swim'
 ?i·p^h-ka /?ep^hka/ 'Swim!'
 hu·c'-eʔn' /ho·c'oʔ/ 'to weave'
 hu·c'-ka /hoc'ka/ 'Weave it!'
 ka·tu-ʔh-i /katoʔhu/ 'cats' (obj)
 kiM-ne--init^h /kene·nit^h/ 'from that (far, invisible)'
 hiM-ne-šin-ʔ /henešin/ 'those (near invisible)'

142.10

u[o·C-ʔh/a, e.g.: no·t^hu-ʔh-a /not^haʔha/ 'northerners'

$$C \left[\begin{array}{l} \text{-Cu} \\ \text{V}(\cdot)\text{C-} \\ \{u, o\}\text{C-} \end{array} \right] C- \left[\begin{array}{l} B, D, G \\ B \\ [G, D] \end{array} \right] / \left[\begin{array}{l} o \\ o \\ [o\cdot] \\ [\emptyset] \end{array} \right]$$

e.g.: ?ut^huy-Baʔa-eʔn' /?ot^hoyʔan'/ 'pushing'
 ?ut^huy-De-xo-eʔn' /?ot^hyaxon'/ 'pushing it here and
 there'
 ?ut^huy-Gi·c'-ʔ /?ot^ho·yic'/ 'pusher'
 no·kum-eʔn' /nokmoʔ/ 'to believe'
 no·kum-Gi·c'-ʔ /noko·mic'/ 'a believer'

142.11

o[]_?h/e e.g.: no·c'o-?h-i /noc'e?hi/ 'youths'
 oC_C-?h/i e.g.: nop^ho·p^h-?h-a /nop^hip^hha/ 'fathers'
 uC_C-?h/u e.g.: puc'o·n-?h-a /puc'unha/ 'sons'
 $\left[\begin{smallmatrix} o \\ v \end{smallmatrix} \right] _ -1 / \left[\begin{smallmatrix} u \\ i \end{smallmatrix} \right]$
 e.g.: ?anaswo-la-e?n' /?anaswulan'/ 'to make him dream'
 hu·še-la-e?n' /hu·šilan?/ 'to make him drive it'

142.12

V[CVC(-)C_C-{?,∅}/a e.g.: c'ipxil-? /c'ipxal/ 'act of spit-
 ting'; xat^h-wiš-? /xat^hwaš/ 'what I ate myself'

$$\left. \begin{array}{l} V_1-? _n \\ CV_1(\cdot)C(-)_C-B \end{array} \right\} /V_1$$

e.g.: ka·tu-?Vn /ka·tu?un/ 'cat'
 šakma-?Vn /šakma?an/ 'clover'
 noh'o-?Vn /noh'o?on/ 'bear'
 t^haxa·t^hi-?Vn /t^haxa·t^hi?in/ 'sourberries'
 c'a·p^h-in-Ba?a-e?n' /c'ap^han?an/ 'it's melting'

$$\left. \begin{array}{l} V(\cdot)_ \\ _(\cdot)C-Z \\ V-C_1_C-V \text{ (unless } C_1 \text{ is h)} \\ CCVC_C(-)VC \\ CVC_CVC-?h \end{array} \right\} /\emptyset$$

e.g.: p^hana·-al /p^hanal/ 'would arrive'
 mukuš-Za /mukša/ 'grandmother'
 nepe·c'-Z-·a /nipc'a/ 'older brothers'
 hu·še-šit^h-e?n' /hu·šešt^he?/ 'to drive for someone'
 (But: hu·še-han-it^h /hu·šehanit^h/ 'it was driven'
 t'ap'p'aš-anit^h /t'ap'p'ašnit^h/ 'from a leaf')

naxa·miš-ʔh-a /naxmišha/ 'fathers in law'

142.13

$$V_1 C_1 \begin{bmatrix} e, i \\ o \\ a \\ u \end{bmatrix} C_2 \text{-} \text{?e-} / V_1 C_1 \begin{bmatrix} i, a \\ o \\ a \\ u \end{bmatrix} \text{?} C_2 \begin{bmatrix} e; \overset{f}{\sim} a \text{ if } V_1 \text{ is low } V \\ e \\ e \\ o \end{bmatrix}$$

e.g.: sep^hen-ʔe-ka /sep^hiʔnek/ 'Raise it!'

šiliw-ʔe-ka /šiliʔwek/ 'Weave it!'

c'atip-ʔe-ka /c'ataʔpek/ 'Turn it over!'

ʔop^hot^h-ʔe-ka /ʔop^hoʔt^hek^f ʔop^hiʔt^hek/ 'Get up!'

halal-ʔe-ka /halaʔlek/ 'Lift it!'

šuyut'-ʔe-ka /šuyuʔtok/ 'Thread it!'

143. A number of non-correlative morphophonemic statements are to be made (S means syllable and R means reduplicate syllable which follows it; other symbols are cover symbols for certain types of phonological environments as described in the foregoing rules.).

143.1

$R[V_i \cdot c' \text{-} / \text{?}]$, e.g.: hu·še-Gi·c'-ʔ /hu·šeʔic'/ 'a driver'

---/∅, e.g.: c'atip-Gi·c'-ʔ /c'ata·pic'/ 'a turner'

t'ul-Gi·c'-ʔ /t'ulac'/ 'a burner'

143.2

$R[S_1 / S_1]$, e.g.: Rk'aš-eʔn' /k'ašk'ašeʔ/ 'to prick again and again'; Rxat^h-xo-eʔn' /xat^hxat^hxon'/ 'eat a little here and there, nibbling'

143.3

$\emptyset \# S \text{-} \text{?h/e}$, e.g.: p'ay∅-ʔh-i /p'ayeʔhi/ 'children' (obj.)'

143.4

B, D, Z, -∅---/∅

e.g.: t'ul-Ba'a-e'n' /t'ula'an'/ 'burning'
 no·kum-Ba'a-e'n' /nokom'an'/ 'believing'
 hošiw-De-xo-e'n' /hoše·wexon'/ 'being cold all over'
 ʔut^huy-De-xo-e'n' /ʔot^hyaxon'/ 'pushing it here and
 there'
 k'exum-Zi /k'exmu/ 'a rich man'
 ma·mil'-Za /mamla/ 'a berry'

200. Morphemics and morphotactics

210. Introduction to morphemics

211. The word and macrosegment

While the Chukchansi word in isolation can be defined phonologically as an utterance ending on the syllable following stress (120), the word in a longer utterance must be defined morphologically. This is because the stress pattern of a multi-word utterance may not coincide with isolation criteria in identifying word boundaries. Thus, the chain of speech between silence and a juncture or between junctures must be looked at as a macrosegment. While the phonetic stress pattern of the macrosegment may make it possible to identify some of the words, they can accurately be marked only by morphological criteria. The word, then, is defined as an utterance which 1) is a free morpheme (i.e., lacking a suffix) or 2) ends with a final morpheme (suffix).

As an example, each word in the following utterance (composed of two macrosegments) is, in isolation, accented on the penult. The utterance may, however, be accented in at least the two ways shown (The unhyphenated spaces in the morphemic, i.e., the unbracketed, writing are the word boundaries. See 212.1):

[hawáàntítamáàk'†wílt^hánan↓]

[hawáàntítamáàk'†wílt^hánan↓]

/hawa?an'tita?ma?ak'?wílt^ha?nan./

haw-Ba?a-e?n' tita? ma:M-?ak-? ? wíl-t^ha? na·M-a .

'What's the matter with you?' he said to me.'

212. Types of morphemes

212.1 The lexemes of Chukchansi have three types of morphemic

representations: 1) initial morphemes, which may also be free morphemes, 2) non-final suffixes and 3) final suffixes. A word may be composed of one initial (free) morpheme, an initial and a final morpheme, or an initial morpheme with one or several non-final suffixes plus a final suffix. (In the morphemic writing, bound morphemes are hyphenated where affixation must take place; therefore, the hyphen or its absence classifies each morpheme as to type. Two consecutive hyphens are written as one.)

212.2 Examples of morphemes:

- a. Initial (bound): ka·tu- 'cat'
- b. Initial (free): hik^haw 'tomorrow'
- c. Non-final: -ma'aš- 'want to' (the "desiderative")
- d. Final: -ka, the "imperative"

212.3 Examples of words:

- a. Free morpheme: ?ohom' 'not', 'No'
- b. Initial and final morphemes: ka·tu-?Vn /ka·tu?un/ 'cat + objective case suffix'
- c. Initial, non-final and final morphemes:
 hat^him-šit^h-ma'aš-xo-e?n' /hat^himšit^hma'ašxon'/ 'sing + benefactive + desiderative + durative + factive' ('wanting to keep singing for someone')

212.4 The final suffixes display a variety of meanings both verbal and substantival, such as tense, mode, case and gerund formation. The non-final suffixes are also varied in meaning but are largely nominalizing, verbalizing, aspectual or showing transitivity (voice). The suffixes are treated specifically under the sections on verb, noun and pronoun formation (300-535).

213. Base and stem

213.1 Initial morphemes which are not free are called bases. Except for the pronouns, which are not verbalized, bases may act in both verbal and substantival functions in the sentence according to the grammatical meaning given them by the suffixes; e.g.:

halix-ʔ /halix/ 'soapstone' (base + subjective case)

halix-Za /halxa/ 'soapstone' (base + objective case)

halix-ka /halixka/ 'Put the soapstones in!' (base + imperative mode)

213.2 A base plus one or more of certain non-final suffixes (222-224) form a stem, which will receive suffixes of a verbal or nominal function in about the same fashion as the base; e.g.:

halix-han-it^h /halixhanit^h/ 'It has just had soapstones put in it.' (base + passive + simple past tense)

halix-han-na-ʔVn /halixhannaʔan/ 'that which has had soapstones put in' (base + passive + nominalizer + objective case)

In the second example, halix- 'soapstone' plus -han- 'passive' form a verbal stem. The nominalizer -na- then produces a noun stem, to which the final case morpheme -ʔVn is then suffixed.

Some forms appear in the corpus only as nouns; i.e., they are bases, or perhaps frozen stems (214 and 214.3), which are suffixed only by case morphemes (420) and in some instances by the diminutive (431) or the plural (432) morphemes. Many of these have vowel combinations different from the patterns listed in 214.1-2. The vowel changes which do take place, however, are

included in the morphophonemic rules (140).

214. Base alternants

Bases are of three fundamental morphemic shapes:

- a. CV(·)C
- b. CV(·)CVC
- c. (.....)CV(·)

Deviations from or expansions of these patterns are probably all alternants or derivatives of these three. There are numerous words, usually longer words, the morphemic components of which are not all identified. They have no doubt been used in the altered shape for so long that at least some of the morphemic components no longer have their original meanings. These are called frozen stems and are referred to from time to time in the grammar, such as in 214.3.

Some suffixation is accompanied by phonemic alternation within both the bases and the suffixes. Hence, a base lexeme may have several alternant morphophonemic and phonemic representations. Section 214.1-3, as follows, provides examples of the fundamental base types and their alternants. See 140 for the morphophonemic rules describing these alternations.

214.1 Monosyllabic bases

In the chart below, column I gives the morphophonemic shape of each base, the other columns being phonemic. Column II gives the prevocalic forms, column III the preconsonantal, and column IV lists the forms preceding -B and -G (phonological environments involved in certain suffixes; see Introduction), which may be phonemically prevocalic or preconsonantal. A space in a col-

umn means that the form to the left is used in that environment.

I	II pv	III pc	IV p-B, -G	Gloss
1. no·p-	/no·p	nop		'gather'
2. lox-	lox			'pour'
3. hu·c'-	ho·c'	hoc'	huc'	'weave'
4. lum	lum			'pile'
5. ?i·p ^h -	?e·p ^h	?ep ^h	?ip ^h	'swim'
6. hiš-	hiš			'hide'
7. ma·x-	ma·x	max		'fetch'
8. xat ^h -	xat ^h		/	'eat'

214.2 Polysyllabic bases

The majority of the lexicon is made up of disyllabic bases. A list of the base types and their phonemic alternants is on page 32. The columns identify characteristics as follows:

Column I, morphophonemic transcription.

II, preconsonantal alternant.

III, pre-B alternant.

IV, prevocalic alternants for types 10, 12, 15;
pre-G alternant for the remainder.

V, pre-G alternant for types 10, 12, 15; prevocalic
alternant for the remainder.

VI, pre-D alternant

214.3 The "V-stems"

The third fundamental base ends in a vowel. With a few monosyllabic exceptions, such as ?e·- 'do' and xo·- 'stay', it is possible that these are not true bases, but stems of uncertain origin. (Continued, page 33)

	I	II	III	IV	V	VI	
*9.	hošiw-	/hošiw	hošow	hošow	hošw	hoše·w	'be cold'
10.	?op ^h ot ^h -	?op ^h ot ^h	?op ^h ot ^h	?op ^h o·t ^h	?op ^h t ^h	?op ^h t ^h	'arise'
	komuc'-	komuc'	komoc'	komo·c'	komc'	komc'	'hug'
11.	šuyut'-	šuyut'	šoyot'	šoyo·t'	šuyt'	šuyt'	'lace'
	no·kum-	no·kum	nokom	noko·m	nokm	nokm	'believe'
12.	hewet ^h -	hewet ^h	hewet ^h	hewe·t ^h	hiwt ^h	hewt ^h	'walk'
13.	šilit'-	šilit'	šelet'	šele·t'	šilt'	šile·t'	'jump'
	me·cin-	me·cin	mecen	mece·n	mecn	mece·n	'be very much so'
14.	hat ^h im-	hat ^h im	hat ^h am	hat ^h a·m	hat ^h m	hat ^h e·m	'sing'
	k'a·min-	k'a·min	k'aman	k'ama·n	k'amn	k'ame·n	'dry'
15.	halal-	halal	halal	hala·l	hall	hale·l/	'lift'

*Numbering continues from 214.1.

Most are CVCV or CVCCV (the latter being possibly a zeroed form of an unknown disyllabic base or polysyllabic base¹⁰), but there is a considerable number of longer "frozen" V-stems. These are usually CV(C)CVCCV, such as:

?ulmuk'ya- 'get nauseated'

?om'um'k^ha- 'giggle'

wo·šoy'no- 'whistle'

hat'išša- 'sneeze'

?anaswo- 'dream'

V-stems use allomorphs of the same suffixes as the other bases, except that -xo- (3316) is used in place of -Ba?a- (333) to make a present tense statement. Compare:

a. Monosyllabic base:

lum-Ba?a-e'n' /luma'an'/ 'piling it'

b. Disyllabic base:

hat^him-Ba?a-e'n' /hat^ham'an'/ 'singing'

c. V-stem:

huy'a-xo-e'n' /huy'axon'/ 'permitting it'

It should be noted, however, that -xo- occurs as second or third suffix in many words, whether or not the initial morpheme is a V-stem (see 224).

214.4 The CVCCVC stem

A small number of stems of the type $C_1V_1C_2C_3V_2C_4$ exist, whose base may be CVCC, but no base alternants other than the disyllabic CVCCVC are used. The full form acts as a base. The fact that V_2 is usually i and C_4 is l or n hints at a possibility of a pair of archaic morphemes, -il- and -in-, of obscure meanings. Examples:

c'ipxil-e'n' /c'ipxile?/ 'to spit'

c'atlin-e'n' /c'atline?/ 'to stumble'

215. Reduplication

Considerable reduplication takes place in Chukchansi, usually to indicate doing something repeatedly; e.g.:

/t'apt'apxon'/ 'petting'. Sometimes it has a distributive connotation: /hul'hul'saxon'/ 'sitting all around'. Most are verbs, but some are substantives such as names (onomatopoetic, possibly) and sounds of animals, things or events: /nišniš 'quail'; /taktakla/ 'firecracker'; /c'ayc'ay/ 'California jay'; /sohil-sohil/ 'daddy long legs spider'; /k'e·talk'etal/ 'wasp'; /ta--kaltakal/ 'scorpion'. Unreduplicated bases for the preceding words are not found.

Coining reduplications, however, to show repetitiveness of an act can fairly safely be done, especially with monosyllabic bases. The effort may be met with some humor and with the mildly skeptical attitude, "It's all right to say that, I guess. I know what you mean, but I never heard it and I don't say it."

While reduplication is essentially repetition of the base (whether historically or by present choice) there are some variations. Three general kinds of reduplication are to be noted.

215.1 Simple repetition of the base, e.g.:

Rk'et'-e'n' /k'et'k'et'e?/ 'to scrape clean'

Rc'am-e'n' /c'amc'ame?/ 'mash all up'

215.2 Reduplication of base only when it is involved in a stem, e.g.: Rk'eš-in-a-it^h /k'ešk'ešnat^h/ 'went from one room to another.'

215.3 Reduplication of part of a base (probably reveals an archaic monosyllabic base no longer in use as a base), e.g.:

Rhuluš-De-xo-eʔn' /hulʔhul'šaxon'/ 'sitting all around'.

215.4 Several reduplications involve lowering of the vowel. No determining factor is posited, and for some, free fluctuation is apparent. Examples: (hyphen here means suffixes omitted)

/cen'cin- 'have a headache'

c'owc'uw- 'drip, drip'

hew'hiw- 'take big steps'

ʔoyʔuy- 'roadrunner'

tewtiw- 'chicken hawk'

t^hemt^him- 'hawk'

wilwil-^f welwil- 'pump' or 'wind a reel'

wošwuš- 'raven'

xit^hxit^h-^f xet^hxit^h- 'wash on washboard'

yelyil-/ 'earthquake'

One further irregularity appears: /wicapcapna/ 'robin'. It is said that ladies prefer /wicepcepna/, but no other such distinction between men's and women's speech exists in the corpus.

220. Morphotactic position classes

221. The non-final suffixes (except the pronominal, which are very specialized, being used only with pronoun bases and stems) are listed in the chart below in numbered positions, numbers increasing in distance from the base. Any series of suffixes occurring with a base will occur in the order listed. All, however, are stem-formatives in that a final suffix may be attached

to every non-final suffix. Those in row I on the chart may receive only nominal final suffixes, and those in row II may receive only verbal final suffixes. Row III may have either verbal or nominal final suffixes.

222. Chart of position classes of non-final suffixes:

	1	2	3	4	5	6	7	8	9	10
I. L/?h										na a?hiy' il' n'xu a.š ?a
II. a?	De	la	han	a	a?a			xo	ya	
	na	t ^h a	(331)		me·we					
					i·wi					
III. in	ay				wiš	ma?aš				i·c'
					mīx					also
					xaš					
					šit ^h					/

223. Suffixes listed below on the left may be suffixed by the higher numbered position classes stated at their right (reference is to the Roman and Arabic numerals in the chart above).

These---	receive these suffixes, one or more at a time:
Base	all (in sequences allowed below)
I 1	III 2 only

II 1	II 4, 8, 9; III 6,7.
III 1	I 10; II 2, 3, 4, 5, 6; III 6, 7, 10.
II 2	I 10; II 3, 4, 6 (except a?a), 8; III 6, 7, 10.
III 2	II 4, 8; III 6, 7,
II 3	I 10; II 4, 6 (except a?a), 8, 9; III 6, 7, 10.
II 4	I 10; II 6 (except a?a), 8; III 6, 7, 10.
II 5	II 6 (except a?a), 8, 9; III 6, 7.
II 6	I 10; II 8, 9; III 7, 10.
III 6	I 10; II 8, 9; III 7, 10.
III 7	II 8, 9; III 10.
II 8	I 10; II 9; III 10,
II 9	I 10; III 10.
III 10 (see 321)	II 5.

224. The longest words in the corpus are five morphemes long and largely verbal in function, although No. 5 below is nominal:

1. xat^h-han-šit^h-xo-hil /xat^hhanšit^hxohil/ 'were eaten up for them'
2. xat^h-Ba?a-xo-ya-e?n' /xat^ha?axoyon'/ 'just finished eating'
3. xat^h-wiš-ma?šo-xo-e?n' /xat^hwišma?šoxon'/ 'wanting to be eating it myself'
4. xat^h-šit^h-ma?šo-xo-e?n' /xat^hšit^hma?šoxon'/ 'wanting to be eating it for someone'
5. xat^h-Ba?a-xo-ne-aw /xat^ha?axonow/ 'to where he's been eating'

(Note that the final suffixes here are not in the charts above, since only non-final suffixes are charted there.)

300. Verb formation

The verb is a syntactic class of words whose final suffixes are verbal, and which are independent in the clause. The lexemes which are verb-formative follow throughout section 300, with examples of their allolexic forms and of their use in clauses given in both morphemic (morphophonemic) and phonemic transcription. Unless stated otherwise, the morphemic and lexemic transcription are identical except for the lexeme brackets (L/ /).

310. The final suffixes which have verbal functions are:

- 311. L/eʔn' factive
- 312. it^h simple past tense
- 313. hil aorist tense
- 314. t^haʔ past perfective
- 315. al pontentiative
- 316. ka imperative
- 317. xa/ precative

311. The factive, -eʔn', marks the action or event expressed by the base as simply true without implications of time. It may refer to a future or a past event, but depends on its context for assignment to time. It is frequently used with miʔin 'soon' expressing a future event; e.g.:

- a. na·M-ʔ ʔi·p^h-eʔn'. /naʔ ʔe·p^heʔ./ 'I swam.'
- b. miʔin na·M-ʔ ʔi·p^h-eʔn'. /miʔin naʔ ʔe·p^heʔ./ 'I am going to swim.'

With wil' 'used to' the factive implies customary action in the past; e.g.:

- c. ʔama·M-ʔ wil' esek^h-eʔn'. /ʔamaʔ wil' ʔesk^heʔ./ 'He

used to beg.'

Following $t^h a^?an$ 'usually' or 'always' the factive indicates customary action extending into the present, or action which 'kept going on', e.g.:

d. $mu\dot{n}o\dot{s}-Zil' na \cdot M-? t^h a^?an sa \cdot w-e^?n'$.

$/mun' \dot{s}ul' na^? t^h a^?an sa \cdot we^?./$ 'I always water it eight times.'

Examples with various stems:

e. $yat^h-wi\dot{s}-e^?n' ?am-?an./yat^h wi\dot{s}e^? ?am^?an./$ 'They are going to have a trial (lit: "talk to each other")'

f. $\dot{s}i \cdot p^h-\dot{s}it^h-e^?n' na \cdot M-? mi^?in. /\dot{s}ep^h \dot{s}it^h e^? na^? mi^?in./$
'I will write it for you.'

g. $t^h a^?i\dot{s}-ma^? \dot{s}e-e^?n' ma \cdot M-? ? /t^h a^?i\dot{s}ma^? \dot{s}en' ma^?/?$ 'Do you want to watch?'

h. $t^h a^?i\dot{s}-Ba^? a-e^?n' na \cdot M-?. /t^h a^? a\dot{s}^?an' na^?./$ 'I am watching.'

312. The simple past, $-it^h$, indicates that the event has happened very recently or is about to be completed. In a narration it may mark events which are recent in comparison to an action marked by the more remote past, $-t^h a^?$. Examples are:

a. $t^h a^?i\dot{s}-it^h na \cdot M-? ?up^h lalli-?Vn.$

$/t^h a^? \dot{s}it^h na^? ?up^h lalli^?in./$ 'I just saw a dove.'

b. $mi^?in kala \cdot pi^?-t^h a^?. me \cdot cin-it^h t^?ul-in-it^h.$

$/mi^?in kala \cdot pi^? t^h a^?. mecnit^h t^?ulnit^h./$

'Then she gave up, because there was so much fire.'

(lit: "Then she gave up. It was very much so, it was burning.")

The simple past can also be used very generally for any past action that is not simply an event (where $-t^h a?$ or $-hil$ would be used); e.g.,

c. $tuš-it^h na·M-?$. / $tušut^h na?$./ 'I got used to it.'

d. $le·le-la-it^h na·M-?$ $ma·M-a$. / $le·lilat^h na?$ mam ./

'I made you learn.'

313. The aorist tense, $-hil$, marks an event as having occurred recently, but usually not more than a few days ago. It is used, for example, with / $lakyiw$ / 'yesterday'. An event of the past few moments is indicated by the simple past tense $-it^h$, and an event of more than a few hours or days past is referred to by the use of the past perfective, $-t^h a?$. These three tenses are, hence, relative to each other. Their use depends on whether the speaker thinks of the event as more remote or more immediate.

Examples of $-hil$ are:

a. $yunuš-hil ma·M-?$. / $yunušhul ma?$./ 'You shook it (e.g., yesterday).'

b. $tik-hil c^h e·xa-?$. / $tikhil c^h e·xa?$./ 'The dog held its breath.'

314. The past perfective $-t^h a?$, marks action as remote in past time (see discussion in 312.) and is the typical tense marker in narratives both formal and informal; e.g.:

a. $t^h a? iš-t^h a? na·M-?$ $ma·M-a$. / $t^h a? išt^h a? na?$ mam ./

'I saw you (the other day).'

b. $hot'-in-t^h a?$. / $hot'int^h a?$./ 'It flamed up.'

c. $he·tam na·M-?$ $kew xo·-t^h a?$. / $he·tam na?$ $kew xo·t^h o?$./

I stayed right there in that place.'

315. The potentiative, *--al*, marks the action as either possible or optional, and is usually accompanied by the adverb, /naʔaš/, 'can, could, would, should,' although not necessarily.

Examples:

- a. ʔohom' ma·y'-ʔ naʔaš hawit'-al.
/ʔohom' nay' naʔaš hawt'al./ 'We couldn't do anything (about it)!'.
- b. ʔohom' taʔ naʔaš ʔay'xa-al. /ʔohom' taʔ naʔaš ʔay'xal./
'He wouldn't hurry.'
- c. hac'ah ma·y'-ʔ naʔaš xat^h-al. /hac'ah may' naʔaš xat^hal./
'We may eat now.'
- d. waham' puš naʔaš t^ha·n-al. /waham' puš naʔaš t^ha·nal./
'(I) wish he would go.'
- e. t'ul-in-al ʔalit^h. /t'ulnal ʔalit^h./ 'He could have burned up way back then.'

316. The imperative suffix, *-ka*, gives to the verb a mood of entreaty or command; e.g.:

- a. t^haxin-ka. /t^haxinka./ 'Come!'
- b. toš-ka ʔama·M-a. /toško ʔam (133.3)./ 'Tell him!'
- c. ʔan' na·M-a niw-ka. /ʔan' nan niwka./ 'Don't touch me!'
- d. c'awa·la-ka. /c'awa·lak./ 'Pay up!'

The vain entreaty, as a wish directed to oneself, may use the imperative, e.g.:

- waham' puš na·M-ʔ t^ha·n-ka. /waham' puš naʔ t^hanka./
'I wish I could go!' (cf. 315.d)

317. The precative, *-xa*, indicates an exhortation or wish, usually involving the first person, but not always (317.e); e.g.:

- a. xat^h-xa ma·y'-?. /xat^hxa may'./ 'Let's eat it.'
- b. waham' puš na·M-? xat^h-xa. /waham' puš na? xat^hxa./
'I wish I could (hope I can) eat it.'
- c. hew'ne-xa ma·k'-?. /hew'nex mak'./ 'Let's do it like
this (gesturing)!'.
- d. ?ut^huy-ka na·M-a, le·lupsa-xa na·M-?.
/?ut^huyka nan, le·lupsax na?./ 'Push me so I can swing.'
- e. hawil'-? ta? ma·M-? t^haxin-xa?
/hawil' ta? ma? thaxinxaxa./ 'Why (didn't) you come home?'

320. Six final verbal suffixes form a class of words called gerundials. All but one of these (L/ni/) form a dependent verbal substantive, which, therefore, cannot constitute a clause as the independent verbs can. The gerundials provide for the sentence a circumstance in effect in some (usually) temporal relationship with the independent verb ("finite" verb).

Since these are final suffixes, the resulting lexemes are not inflected for case. There are, however, two inflected verbal substantives treated in 410, 454 and 612, i.e., the verbal noun and the agentive.

321. L/mi consequent gerundial
322. t^haw precedent gerundial
323. t^hin indirective gerundial
324. ni passive gerundial
325. ?aš precative gerundial
326. nu/ resultative gerundial

321. The consequent gerundial, -mi, marks action taking place during or after that expressed by the accompanying independent

verb; e.g.:

- a. yalik-mi na·M-? le·le-it^h. /yalikmi na? le·let^h./
'I stood up and read.' (yalik- 'stand')
- b. k'a·l-e?n' na·M-? mi?in t^haxin-mi.
/k'a·le? na? mi?in t^haxinmi./ 'I'll trim it and then
come down.' (t^haxin- 'come')
- c. we·naw na·M-? xat^h-mi sanayis-t^ha?.
/we·naw na? xat^hmi sanayist^ha?./ 'When I first started
to eat, I was scared.' (xat^h- 'eat')

322. The precedent gerundial, -t^haw, marks action that is taking place concurrently or precedent to the action of the independent verb. The possessive pronoun indicates the actor of the gerund; e.g.:

- a. xat^h-t^haw na·M-? ?amin-∅ t^ha?an ha·y-e?n'.
/xat^ht^haw na? ?amin t^ha?an ha·ye?/ 'I always laugh when
he eats.'
- b. xat^h-Ba?a-xo-t^ha? ma·M-? wosik-t^haw nim-∅.
/xat^ha?axot^ho? ma? wosikt^haw nim./ 'You kept on eating
when I passed by.' (wosik- 'pass')
- c. t^han-t^haw min-∅ na·M-? c'al-it^h pila·su-?Vn.
/t^hant^haw min na? c'alit^h pila·su?un./ 'After you left,
I broke the plate.' (t^ha·n- 'go')
- d. p^hana·-t^haw min-∅ ma·y-? xat^h-e?n'.
/p^hana·t^haw min may' cat^he?./ 'After you arrive, we will
eat.' (p^hana·- 'arrive')

In the following example, although the gerund seems to be the object of the verb, it is actually in the same relation to

the main verb as the foregoing examples:

- e. hoy'li na·M-? hut-Ba'a-hil ?amin-∅ t^hexet^h-in-t^haw.
 /hoy'li na? huta?a-hil ?amin t^hixt^hint^haw./ 'I knew
 right away that he was sick.' (t^hexet^h- 'to pain')

323. The indirective gerundial, -t^hin, marks an action as being the indirect objective of another action or as limiting a substantival idea; e.g.:

- a. pacxa?a-l-? waši xat^h-t^hin. /pacxa?a-l waši xat^ht^hin./
 'After a while it will not be good for eating.'
 (Lit: "bad after a while for eating")
- b. yo? na?aš poppil-aw ši·p^h-t^hin.
 /yo? na?aš poppilaw šep^ht^hin./ 'It should be written on
 paper, too.' (Lit: "also should on paper for writing")
- c. kalpiy-it^h ta? t^ha·n-t^hin. /kalpiyit^h ta? t^hant^hin./
 'It is hard to go there.' (Lit: "is difficult for going")
- d. kay'e·s-? ma·y'-in na?aš hew xo·-t^hin.
 /kay'is ma·yin na?aš hew xo·t^hin./ 'It would be best for
 us to stay here.' (Lit: "good us would here for staying")

324. The passive gerundial, -ni, when in a construction with a subjective substantive, functions like a finite verb, but sometimes it is with a possessive actor functioning like a verbal noun (410,600); e.g.:

- a. mi?in na·M-? k'un'-ni. /mi?in na? k'un'nu./ 'I'll get
 punched.' (k'un'- 'punch')
- b. mi?in nim-∅ k'un'-ni. /mi?in nim k'un'nu./ 'I'll punch
 him.' (Lit: "soon my get-(him)-punched")
- c. xat^h-ni ma·y'-? t^ha?an k'e·nic'-en.

/xat^hni may' t^ha'an k'e·nic'en./ 'We always get eaten by the ants.' (xat^h- 'eat')

d. hiM-ʔ xat^h-a·š-ʔ ʔohom' naʔaš xat^h-ni.

/hiʔ xat^haš ʔohom' naʔaš xat^hni./ 'This food can't be eaten.'

325. The precative gerundial¹¹, -ʔaš, marks an act as wished for or desired for oneself or another; e.g.:

ʔa·na-ka ʔamin-∅ xat^h-ʔaš. /ʔa·nak ʔamin xat^hʔaš./

'Let him eat.' (Lit: (?)) "permit his eat-desire")

326. The resultative gerundial, -nu, occurs only on the passive stem formed by L/han/ and indicates the result of another act or condition; e.g.:

a. mec' kayi·na-ʔ c'in-it^h, ʔohom' laniy-han-nu.

/mec' kayi·naʔ c'init^h, ʔohom' laniyhannu./ 'The chickens are so loud (we) can't be heard.' (laniy- 'hear')

b. mec' ʔotix-ʔ cawwan-ʔ, ʔohom' huluš-han-nu.

/mec' ʔotix cawwan, ʔohom' hulušhannu./ 'The pillow is so hard it can't be sat on.' (huluš- 'sit')

c. mec' ma·mil'-ʔ k'iyit'-ʔ, ʔohom' xat^h-han-nu.

/mec' ma·mil' k'iyit', ʔohom' xat^hhannu./ 'These berries are so bitter, they can't be eaten.'

The use of L/nu/ in the corpus is limited to these three utterances. Its use, therefore, seems specialized.

330. Several non-final verbal suffixes are to be described.

331. L/a inchoative
 332. a? progressive perfective
 333. a?a present tense
 334. e distributive
 335. han passive
 336. i? imperfective
 337. in medio-passive
 338. i·wi hortative
 339. ?e, la causative
 3310. ma?aš desiderative
 3311. mix comitative
 3312. me·we processive
 3313. šit^h benefactive
 3314. wiš reflexive-reciprocativ
 3315. xaš exclusive
 3316. xo durative
 3317. ya/ culminative

331. The distribution of the inchoative is:

L/a[(non-final suffix)]/_/-Za-
 ---/-a-

The inchoative indicates that the event or quality expressed by the base or stem is viewed from its inception; e.g.:

- a. k'ole·s-a-it^h. /k'ole·sat^h./ 'It got smaller.'
 b. teye·š-a-t^ha?. /teye·šat^ha?./ 'He became a witch doctor.'
 c. hapilk'ay-a-e?n'. /haplik'yan',./ 'It has gotten red.'
 d. hat^him-Gi·c'-Za-ma?aš-xo-e?n'.
 /hat^hamc'ama?ašxon'./ 'He wants to become a singer.'

332. The present perfective, $-a^?$, implies a present effect or continuation of a past event; e.g.:

- a. $p^h i^? -a^? -xo -e^? n'$. / $p^h i^? a^? xon'$./ 'He stands waiting.'
- b. $c'ik' -a^? -xo -e^? n'$. / $c'ik' a^? xon'$./ 'It stands tied.'
- c. $kitiw -a^? -xo -e^? n'$. / $kitwa^? xon'$./ 'They're around it.'

333. The present tense marker, $-Ba^?a-$, may indicate action taking place at present, or it may mark an event as being presently evident or important to the speaker; e.g.:

- a. $xat^h -Ba^?a -e^? n'$ na·M-?. / $xat^h a^? an'$./ 'I'm eating now.'
- b. $hat^h im -Ba^?a -e^? n'$ ma·M-?? / $hat^h am^? an'?$ / 'Are you singing?'
- c. $yuk'ul -Ba^?a -hil$ na·M-?. / $yok'ol^? ahil na^?$./ 'I buried it a while ago.'
- d. $hat^h im -Ba^?a -xo -ya -e^? n'$ na·M-?an. / $hat^h am^? axoyon'$ na·?an./ 'We were just now singing.'

334. The distributive, $-De-$, indicates that the action is performed iteratively, pervasively, widely, or in a thoroughgoing manner; e.g.:

a. Compare:

$t^h a^? i\check{s} -ka$. / $t^h a^? i\check{s}ka$./ 'Look!'

$t^h a^? i\check{s} -De -ka$. / $t^h a^? e \cdot \check{s}ek$./ 'Look all around!'

- b. $hat^h im -De -e^? n'$ wil' na·M-?an. / $hat^h e \cdot men' wil' na \cdot ?an$./ 'We used to sing all over the country.' ($hat^h im -$ 'sing')
- c. $?oyik^h -De -xo -e^? n'$. / $?oye \cdot k^h exon'$./ 'Everybody is singing with shaky voices.'
- d. $?ut^h uy -De -xo -e^? n'$. / $?ot^h yaxon'$./ 'He's pushing it here and there.'

335. The passive, $-han-$, indicates that the subject is the goal or recipient of the action expressed by the base or stem to which

it is suffixed; e.g.:

- a. xat^h-han-xo-eʔn'. /xat^hhanxon'./ 'They are being eaten.'
 b. ʔohom' naʔaš xat^h-han-al. /ʔohom' naʔaš xat^hhanal./
 'It can't be eaten.'
 c. hiM-ʔ xat^h-han-na-ʔ. /hiʔ xat^hhannaʔ./ 'This is what was eaten.'

336. The imperfective, ¹²-iʔ-, draws attention to the fact that an action has been going on, whether or not it has been completed; e.g.:

- a. t^haʔiš-iʔ-xo-eʔn'. /t^haʔišiʔxon'./ 'He's been looking up.'
 b. p^hot^h-iʔ-xo-eʔn'. /p^hot^hiʔxon'./ 'He's been holding on.'
 c. ʔop^hpt^h-iʔ-xo-eʔn'. /ʔop^ht^hiʔxon'./ 'We stayed up, stayed awake.'

337. The medio-passive, -in-, marks a verb as intransitive, the subject participating or benefiting some way in the action or in its outcome; e.g.:

a. Compare:

- c'a·p^h-Baʔa-eʔn'. /c'ap^haʔan'./ 'He's melting it.'
 c'a·p^h-in-Baʔa-eʔn'. /c'ap^hanʔan'./ 'It's melting.'

b. Compare:

- hiš-eʔn' miʔin. /hišeʔ miʔin./ 'He'll hide it.'
 hiš-in-eʔn'. /hišneʔ miʔin./ 'He'll hide.'

c. šiliw-ineʔn' miʔin. /šilwineʔ miʔin./ 'It will get knitted.'

d. kay'is-in-hil na·M-ʔ ʔilik'-Za. /kay'sinhil naʔ ʔilk'a./
 'I consider the water to have been good.'

338. The hortatory suffix, -i·wi-, marks that to which someone

is being motivated by the entreaty or command of another; e.g.:

- a. xat^h-i-wi-ka. /xat^hi-wik./ 'Go eat!'
 b. hot^he-l-aw ma-y'-? xat^h-i-wi-xa.
 /hot^he-law may' xat^hi-wix./ 'Let's go eat at the hotel!'
 c. t^ha'iš-i-wi-ka kiM-a no·no-?Vn. /t^ha'š-i-wik kin no·no'on./
 'Go see that man.'

339. The causative, -la-, marks causation of the action expressed by the base or stem. The form, -la-, may be used with any base; but -la-^f -a·la (142.2) on monosyllabic bases, and -la-^f -?e- (142.13) on disyllabic bases, in which circumstances -?e- is preferred; e.g.:

- a. hiš-a-la-ka. /hiša-lak./ 'Make him hide it!'
 b. xat^h-la-ka' /xat^hlak./ 'Make him eat it!'
 c. hu·še-la-it^h. /hu·šilat^h./ 'He made them drive (them) away.'
 d. yuk'ul-?e-ka. /yuk'u'lok./ 'Make him bury it!'
 (^f yuk'ul-la-ka. /yuk'ullak./)

3310. The desiderative marks the action as desired or on the verge of taking place. It's distribution is:

L/ma'aš[]S/-ma'aš-
 ---/ -ma'aš^f -ma'še- (142.2)

Examples:

- a. xat^h-ma'aš-xo-e'n' na·M-?an. /xat^hma'ašxon' na·?an./
 'We all want to eat.'
 b. xat^h-ma'še-it^h. /xat^hma'šet^h./ 'He was about to eat.'
 (According to rule 142.2, xat^h-ma'aš-it^h would also be
 /xat^hma'šet^h/.)

- c. hiM-ʔ nim-∅ xat^h-maʔaš-ʔ. /hiʔ nim xat^hmaʔaš./ 'This is what I wanted to (was about to) eat.'

3311. The comitative, -mix-, indicates that the action is being carried on in company with someone or something; e.g.:

- a. hat^him-mix-t^haʔ na·M-ʔ. /hat^himmixt^haʔ naʔ./ 'I sang along with someone.'
- b. tʔuy-mix-t^haʔ. /tʔuymuxt^haʔ./ 'He shot with someone.'
- c. ʔohyo-mix-eʔnʔ na·M-ʔ miʔin hiM-a.

/ʔohyomxeʔ naʔ miʔin hin./ 'I'll go hunting with him.'

3312. The processive, -me·we-, marks the action as accompanying motion or locomotion of the subject; i.e., one acts as one 'goes along'; e.g.:

- a. xat^h-me·we-it^h na·M-ʔan-ʔ. /xat^hme·wet^h na·ʔan./ 'We kept eating as we went along.'
- b. ʔilikʔ-ʔ kʔole·s-a-me·we-it^h wakay-aw.
/ʔilikʔ kʔole·same·wet^h wakayaw./ 'The water is receding (getting less as it goes along) in the river.'

3313. The benefactive, -šit^h-, indicates that the action is performed on behalf of someone. The beneficiary is in the objective case; e.g.:

- a. xat^h -šit^h-ka na·M-a. /xat^hšit^hka nan./ 'Eat it for me!'
- b. xat^h-han-šit^h--xo-hil. /xat^hhanšit^hxohil./ 'It was being eaten for someone.'
- c. noʔom-ʔ nim-∅ tiʔiš-šit^h-it^h na·M-a.

/noʔom nim tiʔišit^hit^h nan./ 'My mother made it for me.'

3314. The reflexive-reciprocative, -wiš-, marks the action as happening to or for the subject actor, or as involving a mutual

sharing in the action; e.g.:

- a. šawik-wiš-t^ha? hiM-a. /šawikwišt^ha? hin./ 'He bought that for himself.'
- b. tip-wiš-it^h. /tipwišit^h./ '(Chicken) is plucking his own feathers.'
- c. mi?in na·M-?ak'-? pa·ne-wiš-e?n'.
/mi?in na·?ak' pa·newše?./ 'We two are going to run a race.'
- d. ma·k'-? lu·ca·le-wiš-e?n'. /mak' lu·ca·lewše?./ 'Let's (you and I) wrestle.'

3315. The exclusive, -xaš-, indicates that only that action so marked is important at the moment, or that nothing else accompanies the action; e.g.:

- a. t^ha?iš-xaš-t^ha?. /t^ha?išxašt^ha?./ '(They) just looked on, that's all.'
- b. xat^h-xaš-e?n' na·M-? mi?in. /xat^hxaše? na? mi?in./ 'All I'm going to do is eat!'

3316. The durative, -xo-, is very frequently used and marks action as continuous or iterative; e.g.: (See also 224)

- a. xat^h-han-xo-e?n'. /xat^hhanxon'./ 'It's being eaten now.'
- b. hit^hya-? xat^h-Ba?a-xo-hil. /hit^hya? xat^ha?axohil./
'They all kept on eating.'
- c. c'etma-xo-e?n' na·M-?. /c'etmaxon' na?./ 'I'm thinking.'

3317. The culminative, -ya-, indicates that the action is to be viewed from the perspective of its completion or near completion; e.g.:

- a. law'sik^h-ya-it^h. /law'sik^hyat^h./ 'He's getting limp.'

- b. xat^h -Ba[?]a-xo-ya-e[?]n'. / xat^h a[?]axoyon'./ '(I) just finished eating.'

340. The repetitive, L/R/, is described as an initial morpheme of a specialized sort. As explained in 143.2, it is simply the reduplication of the first closed syllable of a base or stem, indicating that the event or action is being done repeatedly or by several subjects at about the same time; e.g.:

- a. $Rxat^h$ -xo-e[?]n'. / xat^h xat^h xon'./ 'He's nibbling at his food; eating a little here and there.'
- b. $Rlum$ -xo-t^ha[?]. / $lumlumxot^h$ o[?]./ 'He piled it here and there!'
- c. $Rhan'$ -e[?]n' / han' han'e[?]/ 'to kick around, back and forth, as in a dance.'
- d. $Rhul'uš$ -De-xo-e[?]n' / hul' hul'^šaxon'./ 'to be sitting all around (several people)'

350. Two non-final suffixes function only as verbalizers of bases which are substantival in their usual functions:

351. L/na acquisitive
352. t^ha/ causative-assumptive

351. The acquisitive verbalizer, -na-, marks the base as something acquired by the subject; e.g.:

- ?e.law-na-šit^h-hil /?e.lawnašit^hhil/ 'got a flower for (someone)' (?e.law- 'flower')

352. The causative-assumptive, -t^ha-, indicates that the quality expressed by the base is made true, considered true, or in some

way realized; e.g.:

a. poye·m-t^ha-ka. /poyem't^hak. 'Make it pretty!'

b. kaye·s-t^ha-hil na·M-ʔan-ʔ yow-hil.

/kayest^hahil na·ʔan yowhil./ 'We got home safe.'

c. cewew'-t^ha-ka. /cewew't^hak./ 'Stiffen it!'

400. Noun formation410. The noun and the verbal noun

It is important to recognize that although Chukchansi displays a set of fundamental bases which can be suffixed both verbally and nominally as described in 200, a large number of initial morphemes exist which cannot be described by the statements already made about the fundamental bases and their alternants. These morphemes are not all simply bases, some being longer **stems**. What they have in common is that their suffixation involves largely the eight case suffixes (430) and occasionally the inchoative (331), the diminutive and plural (440) and the verbalizers in 350.

As discussed in 200, some bases (with vowel sequences like those on page 32) participate rather freely in both verbal and nominal suffixation. When these are suffixed by certain case lexemes (see paradigm below), they are called verbal nouns (612). A base which thus functions may have a different noun classification (i.e., suffix vowel pattern) as a verbal noun than as a noun. Verbal nouns are of the A-class (423.2).

The paradigm which follows shows the case suffixation of one base. As a noun, it is I-class and as a verbal noun, of course, A-class. (Since the verbal noun is found with five of the eight case suffixes, only those are listed for both types.)

<u>Case</u>	<u>Noun</u>	<u>Verbal noun</u>
Subjective	/hošiw 'cold'	hošiw 'being cold, cold-
Objective	hošwi	hošwo ness'
Locative	hošwiw	hošwow
Ablative	hošwenit ^h	hošwonit ^h
Possessed	hošwem'	hošwom' /

The bases or stems under discussion in this section (400) are primarily nominal, only rarely functioning with suffixes other than the cases and not functioning as verbal nouns.

The nouns do not follow consistent patterns of vowel harmony between stem and case suffix, though certain phonological criteria are applied within classes. The suffix vowels are not predictable, except as the stem is known to belong to one of the classes outlined in 420-423.

420. Noun classification

421. The criteria for classification of nouns are 1) the stem alternation and 2) the quality of the objective case vowel, neither of which is predictable except in class H (423.1). In H-class (harmonized) nouns, the objective suffix vowel is of the same quality as that of the final vowel of the stem. Between the A-class and I-class nouns (423.2-3) /a,o/ contrast with /i,u/ respectively, the alternation being predictable within each class, but not between classes. For a few irregular nouns, both subjective and objective stem alternants must be given, the objective stem serving all other case suffixes.

422. An outline of noun classes is given in 423, with examples (symbols in parenthesis are for later reference). The following summary is in order:

- a. H-class means that stem vowel and first suffix vowel (unless elided) are harmonized.
- b. A-class means that the morphophoneme a, with /a,o/ alternants, predominates in the objective and other cases.
- c. I-class means that the morphophoneme i, with /i,u/ alternants, predominates in the objective and other cases.

- d. Static means that the stem has no alternants.
- e. Zeroed means absence in all other cases of the last vowel of the subjective stem.
- f. Irregular means that stem alternants must be listed, for the pattern is not predictable; or that the object suffix is /ø/.

423. Noun class types

423.1 H-class (H)

Subj. ka·tu-ʔ /ka·tuʔ/ 'cat'

Obj. ka·tu-ʔVn /ka·tuʔun/

S. ʔe·ni-ʔ /ʔe·niʔ/ 'snow'

O. ʔe·ni-ʔVn /ʔe·niʔin/

423.2 A-class

a. Static A (SA)

S. k'ut'-ʔ /k'ut'/ 'tail'

O. k'ut'-a /k'ut'a/

b. Zeroed A (ZA)

S. t'oyix-ʔ /t'oyix/ 'medecine'

O. t'oyix-Za /t'oyxo/

S. mukuš-ʔ /mukuš/ 'grandmother'

O. mukuš-Za /mukša/

423.3 I-class

a. Static I (SI)

S. t'ap'p'aš-ʔ /t'ap'p'aš/ 'leaf'

O. t'ap'p'aš-i /t'ap'p'aši/

b. Zeroed I (ZI)

S. k'exum-ʔ /k'exum/ 'rich'

O. k'exum-Zi /k'exmu/

S. mok^hiy-ʔ /mok^hiy/ 'wife'

O. mok^hiy-Zi /mok^hyi/

423.4 Irregular (Ir)

a. Zero object

S. c'e·han-ʔ /c'e·han/ 'smoke'

O. c'e·han-∅ /c'e·han/

b. Like ZA, but stem not zeroed in possessive, locative and possessed cases

S. xo·wis-ʔ /xo·wis/ 'hail'

O. xo·wis-Za /xowso/

Stem for above-named cases: xo·wis-.

430. Final suffixes for nouns; i.e., case suffixes:

431. L/S subjective case

432. in possessive case

433. O objective case

434. an instrumental case

435. aw locative case

436. anit^h ablative case

437. am' possessed case

438. amen' associative case

Eight grammatical relationships are marked by the eight case suffixes. The pronouns (500) function in all but the last two. Following are descriptions of their allomorphy and explanations and illustrations of their functions:

431. The subjective case distribution:

L/S [ʔh] /-·a, -·i (depending on whether the plural stem is
A-class or I-class)
---/-ʔ

This suffix marks 1) the subject of the clause, i.e., the actor of an active verb or receiver of the action of a passive verb; 2) both A and B of a pair of substantives in an equational relationship (i.e., 'A is B'); and 3) direct address. In addition, it may form a verbal noun, with a substantive in the possessive as actor (432).

Examples:

- a. ka·tu-ʔh-·i ʔipis-in-t^haʔ. /kato·ʔu ʔipsint^haʔ./
'The cats got lost.'
- b. no·t^hu-ʔh-·a kew. /not^ha·ʔa kew./ 'Northerners are
there.'
- c. k'e·xa-ʔ ʔipis-in-t^haʔ. /k'e·xaʔ ʔipsint^haʔ./ The money
was lost.'
- d. hiM-ʔ nim-∅ nepe·c'-ʔ. /hiʔ nim nepec'./ 'This is my old-
er brother.'
- e. hat^him-ʔ nim-∅. /hat^him nim./ 'I sang.' or 'what I sang.'
- f. meryan-ʔ. t^haxin-ka. /meryan. t^haxinka./ 'Maryan! Come
here!'

432. The possessive case distribution:

L/in [H] /-ʔVn
(ZA, ZI) /-Zin
{hi, xi, ki} /-ʔin
(Sglr personal pronouns) /∅
---/-in

The possessive suffix marks 1) the possessor of another substantive and 2) the actor: of a) a verbal noun, b) a passive gerundial (324), c) a precedent gerundial (322), and d) a passive with L/han/ (335).

Examples:

a. ka·tu-[?]Vn k'ut'-a. /ka·tu[?]un k'ut'a./ 'cat's tail'

b. hoyuc'-Ba[?]a-e[?]n' na·M-[?] nim- \emptyset c^hiš-a.

/hoyoc'[?]an' na[?] nim c^hiša./ 'I want to cut it (lit.: 'I want my cutting').' (c^hiša - verbal noun)

c. t'uy-han-it^h na·M-[?] mukuš-Zin nim- \emptyset .

/t'uyhanit^h na[?] mukšun nim./ 'I was shot by my mother.'
(mukuš- 'mother')

d. he·-[?]in (516) somle·la-[?]Vn. /he·[?]in somle·la[?]an./

'this person's hat' (somle·la[?]an - objective)

e. mokšay-in somle·la-[?]. /mokšayin somle·la[?]./ 'grandma's hat'

433. The objective case distribution:

L/O[(H)]_-[?]Vn

(SI)_/-i

(ZI)_/-zi

(ZA)_/-za

(Some Ir)_/ \emptyset

---/a

433.1 The most common use of the objective is to mark the goal or object of a verb; e.g.:

a. t'ap^hil-e[?]n' ka·tu-[?]Vn /t'ap^hle[?] ka·tu[?]un/ 'to whip a cat'

b. t^ha[?]iš-t^ha[?] xo·y'-i. /t^ha[?]išt^ha[?] xo·y'i./ 'He saw a deer.'

c. t'uy-it^h 'amin-∅ mok^hiy-Zi. /t'uyut^h 'amin mok^hyi./

'He shot his wife.'

d. ...'amin-∅ mukuš-Za. /'amin mukša./ '(He shot) his grandmother.'

e. c'e·han-∅ t^ha'iš-t^ha'. /c'e·han t^ha'išt^ha'./ 'He saw smoke.'

f. c^hiš-it^h k'ut'-a. /c^hišit^h k'it'a./ 'He cut the tail.'

433.2 An attributive substantive may stand as a kind of "objective absolute", not in concord with the noun with which it would be in case agreement if adjacent to it; e.g.:

mikic'-Zi na·M-? wec'e·t^h-am'. /mikc'i na? wec'e·t^ham'./

'I have a heavy stick.' (Lit: 'heavy one I stick-have')

433.3 The objective impersonal interrogative (532) may have telic connotation, sometimes ambiguously with its typically objective meaning; e.g.:

a. ha·-?Vn ta? ma·y'-? na?aš t^ha·n-al ?

/ha·?an ta? may' na?aš t^ha·nal?/ 'Why should we go?'

b. ha·-?Vn ta? na·M-? na?aš c^hiš-al ?

/ha·?an ta? na? na?aš c^hišal?/ 'Why should I cut it?' or

'What should I cut?'

433.4 The second member of a comparison is marked by the objective suffix; e.g.:

hiM-? mec' poyo·mi-? wak^hiy' nim-∅ hit^hya-?Vn 'e·law-i.

/hi? mec' poyo·mi? wak^hiy' nim hit^hya'an 'e·lawi./

'This is the most beautiful of all my flowers.'

(Lit: 'this superlatively beautiful more my all flower')

434. The instrumental case distribution:

L/an[] (SI) /-in $\overset{f}{\sim}$ -en $\overset{f}{\sim}$ -ni

(ZI) /-Zen

(ZA) /-Zan

---/-an

The instrumental suffix marks that which is used as means, material or implement with which to carry out an action; e.g.:

a. ?ate-ka no·no-?Vn t'ap'p'aš-ni.

/?atek no·no'on t'ap'p'ašni./ 'Bring the man a leaf!'

(Lit: 'supply man leaf-by-means-of')

b. t'uyt^ha? hew ?ama·M-aw ye·t'-an šiliš-Zen.

/t'uyt^ha? he'maw (133.3) ye·t'an šilšen./ 'He shot me

right here with one hair.' (ye·t'- 'one', šiliš- 'hair')

c. lowit^h-Zan na·M-? wan-han-it^h.

/lowt^hon na? wanhanit^h./ 'I was given a husband.'

(Lit: 'husband-by-means-of I was supplied')

d. k'o?-it^h ka·tu-?Vn šele·l-an. /k'o?it^h ka·tu'un šele·lan./

'He hit a cat with a rock.' (šele·l- 'rock')

e. hiM-? ti?iš-han-na-? k'e'e·l-an.

/hi? ti?išhanna? k'e'e·lan./ 'This is something made of

clay.' (k'e'e·l- 'clay')

435. The locative case distribution:

L/aw[] (SI) /-iw $\overset{f}{\sim}$ -ew

(ZI) /-Ziw

(ZA) /-Zaw

---/-aw

The locative suffix indicates that near, toward or within

which an event takes place or is directed. In abstract usage, it marks the manner in which, or the person for whom something is done; e.g.:

- a. mi[?]in na·M-[?] hewet^h-e[?]n[?] [?]e·law-iw.
/mi[?]in na[?] hewe·t^he[?] [?]e·lawiw./ 'I'm going to walk among the flowers.'
- b. t^ha·n-xa k'exum-Ziw. /t^hanxa k'exmuw./ 'Let's go to the rich man.'
- c. ma·M-[?] tu[?] yo[?] wil' t^he·yiš-Zaw t^ha·n-e[?]n[?].
/ma[?] tu[?] yo[?] wil' t^heyšaw t^ha·ne[?]./ 'You, too, used to go to the witch doctor, you know.' (t^he·yiš- 'witch doctor')
- d. to·li-aw ma·M-[?] [?]e·-it^h. /to·liw ma[?] [?]et^h./ 'You did it wrong.' (to·li- 'wrong')
- e. xo[?]-[?] hit^hya-aw. /xo[?] hit^hyaw./ 'There's a house for everybody.' (hit^hya- 'all', 'every')

436. The ablative case distribution:

L/anit^h[(SI)]/-init^h ^f -enit^h
 (ZI)]/-Zinit^h ^f -Zenit^h
 (ZA)]/-Zanit^h
 ---/-anit^h

The ablative suffix indicates that from which movement or sound originates or departs; e.g.:

- a. lihim-it^h na·M-[?] t'oyo·š-init^h.
/lihmit^h na[?] t'oyo·šunut^h./ 'I ran from the arrow.'
- b. [?]eše-ka xap'il'-Zinit^h ho·t'on-init^h.
[?]ešek xap'lenit^h ho·t'onnit^h./ 'Keep away from the hot flames.' (xap'il'- 'hot', ho·t'on- 'flame')

- c. c'enpay'-? hat^him-Ba'a-e'n' top^hin-Zanit^h.
 /c'enpay' hat^ham'an' top^hnonit^h./ 'The bird is singing
 in (from) the buckeye.'
- d. c'enpay'-? hoyin-it^h kaho·n-anit^h.
 /c'enpay' hoynit^h kaho·nanit^h./ 'The bird flew out of
 the box.'

437. The possessed case distribution:

L/am' [(SI) /-im' \tilde{f} -em'
 (ZI) /-Zim' \tilde{f} -Zem'
 (ZA) /-Zam'
 ---/-am'

The possessed case suffix marks that which is possessed as an object, attribute or capability. It also serves as the 'plus' in numbers above ten; e.g.:

- a. c'eyew'-? ye·c'-am' /c'eyew ye·c'am'/'eleven' ('ten one-plus')
- b. punoy'-? c'eyew'-? ye·c'-am' /punoy' c'eyew ye·c'am'/'twenty-one' ('two ten one-plus')
- c. mikic'-Zi na·M-? wec'e·t^h-am'. /mikc'i na? wec'e·t^ham'./
 'I have a heavy stick.' (wec'e·t^h- 'stick')
- d. hut-? nim-Ø no·no-? hat^him-am'.
 /hut nim no·no? hat^hmam'./ 'I know a man who is a singer.'
 (Lit: 'know my man sing-possesses')
- e. mec' hiM-? no·no-? xat^h-am'. /mec' hi? no·no? xat^ham'./
 'This man can really eat!' (Lit: 'superlatively this man eat-possesses')

f. ?an' xat^h-ka. yenpa-am'. /?an' xat^hka. yenpam'./

'Don't eat it! It is (has) poison.'

438. The associative case distribution:

L/amen' [(SI)]/-imen'

(ZI)]/-Zimen'

(ZA)]/-Zamen'

---/-amen'

The associative suffix marks that which either incidentally accompanies someone or something or is generally associated with that one. It is of rather infrequent usage, L/am'/? being used instead, wherever the idea of possession may be stressed. In the latter circumstance, the fluctuation is practically free between L/amen'/? and L/am'/?; e.g.:

a. ma·mil-Zamen' hiM-? no·no-?. (-Zamen' ^f -Zam')

/mamlamen' hi? no·no?./ 'This man has a berry.'

b. t^ha?iš-ka hiM-a no·no-?Vn noh'o-amen'.

/t^ha?iška hin no·no?on noh'omen'./ 'Look at the man with the bear!' (noh'o- 'bear')

c. hili-? ta? ?ama·M-? no·no-? pu?-amen' ?

/hili? ta? ?ama? no·no? pu?amen'?/ 'Where is the man with the hawks?' (i.e., 'who usually keeps hawks')

d. wikwik-amen' hiM-? payin-?. /wikwikmen' hi? payin./

'This acorn is wormy (has worms).'

e. Contrast:

?o·k'-em' ma·M-? ? /?o·k'em' ma??/ 'Have you any clams?'

?o·k'-imen' ma·M-? ? /?o·k'imen' ma??/ 'Do you own clams?'

440. Two non-final nominal suffixes are used with nouns, most commonly with kinship terms:

441. L/ay' diminutive

442. ?h/ plural

441. The distribution of the diminutive:

L/ay' [?h] /-ay'-

---/-Zay'-

441.1 The diminutive indicates smallness or endearment; e.g.:

a. Compare:

?e·naš-? /?e·naš/ 'grandfather'

?e·naš-Zay'--? /?e·našay'/ 'grandpa'

b. Compare:

ne?e·š-? /ne?eš/ 'younger brother'

ne?e·š-Zay'-? /ne?ešay'/ 'Hey, kid brother!'

c. kac'a·p-Zay'-? /kac'pay'/ 'little daughter'

d. kac'a·p-?h-ay'-? /kac'iphay'/ 'small daughters'

441.2 The stem formed by L/ay' / is rarely verbalized to indicate repeated acts conceived of as diminutive; e.g.:

a. halil-?h-ay'-xo-e?n'. /halilhayxon'./ 'It's flapping (like a bit of curtain flipping in the wind)'

b. c'ok'on-?h-ay'-xo-e?n'. /c'ok'onhayxon'./ 'He keeps running out of things.'

442. The distribution of the plural:

L/?h [(SA, SI)] S/-Z-

---/-?h-

Most nouns have only singular forms, plurality being expressed by the use of a number in connection with the singular

noun or by the use of words like /kalcen/ 'many' or /so·p^hit'/ 'few'. The plural is almost exclusively the property of kinship terms, certain words for people and a few animals. Rarely, a plural form of an inanimate object occurs, usually because that object has been personified at some time in an ancient myth; e.g.: /t'e·wis/ 'basket'; /t'ewessa?/ 'baskets' (an irregularly formed plural).

The complete objective plural noun form must be known in order to classify the plural stem as A-class or I-class. No H-class plural stems exist. The noun may be in different classifications in the singular and plural. (See 423.)

Examples:

a. nim-∅ kac'a·p-Z--a /nim kac'pa/ 'my daughters'

b. t^ha?iš-hil kalcen-a ka·tu-?h-i.

/t^ha?išhil kalcena kato?hu./ 'I saw several cats.'

c. ... kalcen-a c^he·xa-?h-a. /... kalcena c^hixa?ha./

'(I saw) several dogs.'

d. t^ha?iš-ka nim-∅ nap^ha·t^him-?h-a.

/t^ha?iška nim nap^ht^himha./ 'Look at my brothers-in-law!'

450. Five non-final suffixes nominalize an otherwise verbal base or stem:

451. L/a·š nominative

452. a?hiy' adjunctive

453. ?a dubitative agentive

454. i·c' agentive

455. na / verbal noun formative

451. The nominative, $-a\cdot\check{s}-$, forms a noun stem of the SI class (423) which is the simple noun cognate to the verb (like English 'song' cognate to 'sing'); e.g.:

- a. lan^hiy-ka nim- \emptyset hat^him-a $\cdot\check{s}$ -i. /lan^hiyka nim hat^hma $\cdot\check{s}$ i./
'Hear my song!!' (hat^him- 'sing')
- b. ?ip^his-ka xat^h-a $\cdot\check{s}$ -i. /?ip^hiska xat^ha $\cdot\check{s}$ i./ 'Throw out the garbage.' (xat^h- 'eat')
- c. hiM-? xat^h-a $\cdot\check{s}$ -? ?ohom' na?aš xat^h-ni.
/hi? xat^haš ?ohom' na?aš xat^hni./ 'This food can't be eaten.'

452. The adjunctive nominalizing suffix, $-Ba?hiy'-$, forms a noun stem of the SA type, and adds one of two possible concepts to the base: 1) the place where the event or action occurs; 2) the implement in or by which the action is performed; e.g.:

- a. hiM-? nim- \emptyset xat^h-Ba?hiy'-?. /hi? nim xat^ha?hiy'./
'This is my eating place (or utensil).' (xat^h- 'eat')
- b. hiš-in-Ba?hiy'-aw k'e $\cdot\check{s}$ -iw xon'-e?n'.
/hēšen'hiy'aw k'e $\cdot\check{s}$ iw xon'./ 'He is staying inside the hiding place.' (hiš- 'hide')
- c. k^heweš-Ba?hiy'-? nim- \emptyset /k^heweš?iy' nim/ 'my cooking place (or pot)'

453. The dubitative agentive, $-B?a-$, forms a noun stem of the H-class, indicating that agency or the action itself is in doubt; e.g.:

- a. ?ohom' tax ma \cdot M-? xat^h-B?a-? hiM-a ?
/?ohom' tax ma? xat^ha? hin?/ 'Don't you ever eat this?'
(Lit: 'not ever you eater this')

- b. ?ohom' tax ma·M-? yat^h-B?a-? ?
 /?ohom' tax ma? yat^h?a??/ 'Don't you ever talk?'
- c. ši·p^h-B?a,? ma·M-? ? /šip^h?a? ma??/ 'Do you write?'
 (i.e., 'are you a writer')

454. The agentive, -Gi·c'-, forms from an essentially verbal base or stem a noun of the ZI class, or, on monosyllabic bases not ending in a vowel, a noun of the SI class.

454.1 The word formed by L/i·c'/ plus a case suffix often functions as a typical substantive; e.g.:

- a. t^ha?iš-xa šiliw-Gi·c'-Zi. /t^ha?išxa šelewc'i./ 'Let's watch the weaver.' (šiliw- 'weave')
- b. mec' xiM-? šiliw-Gi·c'-?. /mec' xi? šele·wic'./ 'He's a real weaver!'
- c. mec' xiM-? xat^h-Gi·c'-?. /mec' xi? xat^hac'./ 'He's a real eater!'
- d. mec' xiM-? hewet^h-Gi·c'-?. /mec' xi? hiwt^hic'./ 'He's a real walker!'
- e. t^ha?iš-ka hewet^h-Gi·c'-Zi. /t^ha?iška hewet^hc'i./ 'Look at him walk!' (Lit: 'see walker')

454.2 Being a verbal substantive (6), the agentive may have a direct object:

- a. ?ohom' na·M-a t^ha?iš-hil t'uy-Gi·c'-i xo·y-i.
 /?ohom' nan t^ha?išhil t'uya·c'i xo·yi./ 'No one saw me shoot the deer.' (Lit: '...me...shooter (of) deer')
- b. t^ha?iš-Ba?a-e?n' na·M-? min-∅ mok^hiy-Zi ?ilik'-Za ma·x-Gi·c'-i. /t^ha?aš'an' na? min mok^hyi ?ilk'a maxa·c'i./
 'I saw your wife fetching water.' (Lit: '...wife water fetcher')

454.3 Sometimes the word formed by the agentive is appositive to a substantive, ascribing some act or process to that substantive, involving occasionally a telic connotation; e.g.:

- a. t^haʔiš-Baʔa-hil na·M-ʔ ʔama·M-a xat^h-Gi·cʔ-i.
/t^haʔašʔahil naʔ ʔam (133.3) xat^ha·cʔi./ 'I saw him eating.' (Lit: 'saw I him eater')
- b. ...p^hiʔ-aʔ-xo-Gi·cʔ-Zi. /...p^hiʔaʔxoʔcʔi./ '(I saw him) keep on waiting.' ('...a continuous waiter')
- c. t^ha·n-it^h ʔam-ʔan-ʔ tʔul-Gi·cʔ-ʔ.
/t^ha·nit^h ʔamʔan tʔulacʔ./ 'They went to burn them.'
(Lit: 'went they (as) burners')

455. The verbal noun formative, -na- has the distribution:

L/na[h] -na-

---/-n-

This suffix is used with the V-stems (214.3) and passives formed by L/han/ to form the verbal noun (410); e.g.:

- a. hoyucʔ-Baʔa-eʔnʔ nim-∅ hu·še-n-a.
/hoyocʔʔanʔ nim hu·šena./ 'He wants me to drive.'
(Lit: 'wanting my driving')
- b. hoyucʔ-Baʔa-eʔnʔ na·M-ʔ nim-∅ hu·še-han-na-ʔVn.
/hoyocʔʔanʔ naʔ nim hu·šehannaʔan./ 'I want to be driven.'
(Lit: 'wanting I my being-driven')
- c. Note phonemic contrast:
hu·še-n-ʔ /hu·šen/ 'driving' (subjective)
hu·še-eʔnʔ /hu·šenʔ/ 'to drive' (factive, 311)

460. The remaining suffixes

461. The multiplicative, L/il'/ -Zil'-, suffixed to (usually a modified stem of) a numeral, indicates that the event occurred that many times; e.g.:

a. punoy'-Zil'-? /punyil'/ 'twice'

b. hat^hvp-Zil'-? /hat^hpil'/ 'four times' (hat^hpanay 'four')

c. c'olip-Zil'-? /c'olpil'/ 'six times' (c'olipp^hiy 'six')

(For numerals, see 810)

462. The quantitative adverbial adjunct, L/n'xu/ -n'xu-, forms an H-class substantive interrogative on the locative interrogative base (534); e.g.:

a. hele·-n'xu-? ta? t^ha·wan-iw ? /helen'xu? ta? t^ha·waniw?/
'How far is it to the city?'

b. hele·-n'xu-?Vn ta? ma·M-? na?aš k'o?-al ?

/helen'xu'un ta? ma? na?aš k'o'ol?/ 'How far can you throw it?'

500. The pronouns

510. The personal, demonstrative and indefinite pronouns are described here by listing the initial morphemes (the bases) and the non-final suffixes which indicate duality, plurality and inclusiveness. The resulting stems are of the SA classification (423) for the personal pronouns and of the SI class for the demonstratives and the indefinite (the corpus contains very few examples of the indefinite). Six of the eight case suffixes are used with the pronouns, the possessed (437) and the associative (438) being excluded. For full paradigms of the pronouns, see section 830.

511. First personal pronoun, 'I':

L/na[]_{o.k, in}/nim- (In dual and plural, this base indicates exclusion of addressee.)
 ---/na.M-

512. Second personal pronoun, 'you':

L/ma[]_{o.k, in}/min-
 ---/ma.M-

513. Third personal pronoun, 'he, she, it':

L/?am[]_{o.k, in}/?amin-
 _{k, n} S/?am-
 ---?ama.M-

514. First person dual, L/ma.k'/ ma.k'-, is inclusive of addressee, 'we two, i, e., you and I'. (The bilabial nasal hints at another possible perspective, that of second person dual, inclusive of speaker: 'you and I.' This is, however, a more complicated approach to the pronoun system.)

515. First person plural, L/ma.y'/ ma.y'-, is also inclusive of addressee: 'we all, including you!'. (Or (see 514) second person plural, inclusive of speaker: 'you all and I')

516. The near demonstrative pronoun, 'this one, he, she, it':

L/hi[]_{-in, -an, -aw, -anit^h}/he.-

---/hiM-

This pronoun refers to a present, visible person or object, unless suffixed by L/ne/ (521).

517. The remote demonstrative, 'that one, he, she, it':

L/ki[]_{-in, -an, -aw, -anit^h}/ke.-

---/kiM-

This pronoun refers to a relatively distant person or object, visible unless suffixed by L/ne/ (521).

518. The indefinite pronoun, 'someone, this one, that one, he, she, it':

L/xi[]_{-in, -an, -aw, -anit^h}/xe.-

---/xiM-

This is a general reference demonstrative referring to a person or object, near or far, but visible unless L/ne/ (521) is used to indicate otherwise.

The demonstratives have typical substantive functions in six case relationships and are frequently attributive to other substantives; e.g.:

a. hiM-[?] nim-∅ xat^h-Ba[?]hiy'-[?]. /hi[?] nim xat^ha[?]hiy'./

'This is my eating place.'

b. hiM-[?] xat^h-a.š-[?] 'ohom' na[?]aš xat^h-ni.

/hi[?] xat^haš 'ohom' na[?]aš xat^hni./ 'This food can't be

eaten.' Note the case concord (subjective) between hi[?]

and the substantive to which it is attributive, xat^haš.

c. t^haxin-hil ma·M-[?] ke.-anit^h ? /t^haxinhil ma[?] ke·nit^h?/

'Did you come from over there?'

520. The non-final suffixes used with the pronoun bases are:

521. The non-visibility marker:

L/ne[]_{S, O}/-ni-
 _(other cases)/-ne.-
 ---/-ne-

Used with the demonstratives and indefinite only, this lexeme indicates non-visibility or vagueness as to whereabouts;

e.g.:

- a. kiM-? /ki?/ 'that one (visible)'
 b. kiM-ni-? /kini?/ 'that one (not visible)'

522. L/o·k/ -o·k-, the possessive plural adjunct to personal pronouns; e'g'i:

- a. nim-o·k-in /numo·kun/ 'our' (exclusive of addressee)
 b. min-o·k-in /muno·kun/ 'your'

523. The duality marker:

L/k; []_S/-?ak'-
 _in/-k-
 {ki, hi, xi, ne}_/-šik-
 ---/-ik-

This indicator of duality is used with all personal, demonstrative and indefinite pronouns. The first personal pronoun thus formed is exclusive of addressee: 'na·M-?ak'-? /na·?ak'/ 'we two (but not you)'. (See 514)

524. The plurality marker:

L/n[]_S/-?an-
 {ki, hi, xi, ne}_/-šin-
 ---/-in-

The plural indicator has the same tactic distribution as

the dual (523). The first personal pronoun thus formed is exclusive of addressee: na·M-ʔan-ʔ /na·ʔan/ 'we all (but not you)'. (See 515.)

525. A non-singular oblique adjunct, L/w/ -w-, is used with all personal pronouns (suffixed to L/k/ and L/n/) in the dual and plural, except in the subjective and possessive cases. In the demonstratives, it occurs with the possessive also. (See 830.)

530. The interrogatives

The interrogatives which are inflected (see 841 for uninflected ones) are so only in the singular. No dual or plural occurs. They are used in both direct and indirect questions and have occasional use as indefinite pronouns. They are:

- | | | |
|------|---------|---------------------------|
| 531. | L/wa·t' | personal interrogative |
| 532. | ha· | impersonal interrogative |
| 533. | hawil' | qualitative interrogative |
| 534. | hili | locative interrogative |
| 535. | hiliʔsi | selective interrogative |

531. The personal interrogative, wa·t'-, is a base of the SA class; e.g.:

- a. wa·t'-ʔ xiM-ʔ ? /wat' xiʔʔ/ 'Who is that?'
- b. wa·t'-aw taʔ ma·M-ʔ xo·-hil ? /wa·t'aw taʔ maʔ xo·hil?/
'With whom did you stay?'
- c. ʔohom' na·M-ʔ yat^h-hil wa·t'-a.
/ʔohom' naʔ yat^hhil wa·t'a./ 'I didn't talk to anyone.'

532. The impersonal interrogative, ha·-, is a V-stem of the H-class; e.g.:

- a. ha·-? kiM-? ? /ha? ki??/ 'What's that?'
- b. ha·-?Vn ta? na·M-? na?aš c^hiš-al ?
/ha·?an ta? na? na?aš c^hišal?/ 'What can I cut?'
- c. ha·-?Vn ?uk^h na·M-? lanyit^h. /ha·?an ?uk^h na? lanyit^h./
I'm pretty sure I heard something.'

533. The qualitative interrogative, haw'il'-, is a base of the ZI class; e.g.:

- a. haw'il'-? ta? min-Ø šuyun'-? ? /haw'il' ta? min šuyun'?/
What kind are your shoes?'
- b. haw'il'-Zi ?uk^h ?am-?an-? xaya·waš-amen' ?
/haw'li ?uk^h ?am?an xaya·wašmen'?/ 'What sort of clothes
are they wearing?'

534. The locative interrogative:

L/hili[] S/hili-

---/hele·-

Examples: (it is an H-class base)

- a. hili-? ta? ma·M-? ? /hili? ta? ma??/ 'Where are you?'
- b. hele·-aw ta? ma·M-? t^ha·n-it^h ?
/helew ta? ma? t^ha·nit^h?/ 'Where did you go?'
- c. hele·-anit^h ta? ma·M-? lihim-Ba?a-e'n' ?
/hele·nit^h ta? ma? lehem'an'?/ 'Where are you running
from?'

535. The selective interrogative is an H-class base; eg.:

- a. hili'si-? ta? ma·M-?an-? sasiy-it^h ?
/hili'si? ta? ma·?an sasyit^h?/ 'Which one of you broke
it?'
- b. hili'si-aw ma·M-? xo·-e'n' ? /hili'siw ma? xon'?/
'Which side are you on?' (Lit: 'which-at you staying')

c. hili'si-?Vn ta' na·M-? ma·M-ik-w-a xap'-e'n' ?

hili'si'in ta' na' ma·mikwa xap'e'/?/ 'Which one of you
two shall I spank?' (Lit: 'which (ta') I you two to
spank' ---meaning of ta' is unknown)

600. The tactics of the clause and sentence

610. The syntactic classes into which the lexemes fall as constituents of the clause or sentence are:

611. Verbs, i.e., words ending in one of the final verbal suffixes (310).

611.1 Emphatic verbs (Ve ---this and symbols which follow in this section are for convenience in later reference) which may stand alone but are usually auxiliary to a Vf (611.2); e.g.:

- a. L/me·cin/ 'be or do very much so'
me·cin-hil xat^h-hil. /me·cinhil xat^hhil./ 'He really did eat!'
- b. L/haw/ 'do'
haw-eʔn' wil' ʔe·sik'-eʔn'. /haweʔ wil' ʔesk'eʔ./ 'He used to always beg.' (ʔe·sik'- 'to beg')

Others which function in the same way are:

- a. L/namat^hne/ 'do ahead of time, get a head start on'
- b. L/hew'ne/ 'do like this (with a gesture)'
- c. L/hawit'/ 'do like how?'

611.2 Finite verbs (Vf), i.e., all verbs that are not auxiliary; e.g.:

- a. t^haxin-hil /t^haxinhil/ 'he came'
- b. hat^him-ka /hat^himka/ 'Sing!'

612. Verbal substantives, i.e., words whose functions are both substantival (such as being objects of verbs or locatives) and verbal (such as being transitive or adverbially modified), are of three kinds. Two of these are inflected for case relationship, and one is not:

612.1 The verbal noun (VN) is inflected for case; e.g.:

- a. las-ʔ nim-∅. /las nim./ 'I chopped it' or 'what I chopped.' (las- 'chop') (Lit: 'chop my')
- b. hoyuc'-t^haʔ na·M-ʔ nim-∅ las-a hete·š-a.
/hoyuc't^haʔ naʔ nim lasa hete·ša./ 'I wanted to chop the wood.' (Lit: 'wanted I my chop wood')
- c. t^ha·n-it^h na·M-ʔ las-aw ʔamin-∅.
/t^ha·nit^h naʔ lasaw ʔamin./ 'I went to where he was chopping wood.' (Lit: 'went I chop-toward his')

612.2 The agentive (454) (Ag) is also inflected for case; e.g.:

- a. ʔohom' na·M-a t^haʔiš-hil t'uy-Gi·c'-i xo·y-i.
/ʔohom' nan t^haʔišhil t'uya·c'i xo·yi./ 'No one saw me shoot the deer.' (/t'uya·c'i/, itself appositive to the direct object, /nan/, has as its direct object /xo·yi/.)
- b. mec' hiM-ʔ šiliw-Gi·c'-ʔ. /mec' hiʔ šele·wic'./ 'This person is a real weaver!'

612.3 The gerunds (G) are not inflected except for the final suffixes which mark them as gerunds (320).

613. The substantives (N) are the nouns (Nn), pronouns (Np), and interrogatives (Ni). The eight cases operate in seven tactic functions as described in section 430:

613.1 The subjective (S)

613.2 The possessive (Po)

613.3 The locative (L)

613.4 The instrumental (I)

613.5 The objective (O)

613.6 The ablative (Ab)

613.7 The associatives (As) include two cases, the possessed (437) and the associative (438), functioning syntactically the same, yet

somewhat different in meaning.

614. Minor form and tactic classes (840):

614.1 Adverbs (Av)

614.2 Conjunctions (Cj)

614.3 Particles (P)

614.4 Interjections (Ij)

Examples of the above appear in sections 620 and 630.

620. Order of the tactic classes

There is little restriction on the order of words in the clause. The relationships between the major classes is marked by the system of suffixation. Hence, except for conjunctions, interrogatives and particles, the words may be in almost any order.

The following observations describe typical word order:

621. The orders Vf S and S Vf are about equally common, although Vf is frequently absent since there is no copulative verb (sometimes L/xo./ 'stay' comes near to this use). Furthermore, the concept 'have' is expressed, not by Vf but by As (437-8).

Examples:

a. Vf S: /molilhil na?./ 'I fooled him.'

b. S Vf: /pa?om xon' šuk^ht^haw./ 'There is tobacco in the pipe.' i.e., 'tobacco stays in the pipe'

622. Of two N in the same case, the first is usually attributive to the second; however, such N in concord may be in the reverse order. Two S may constitute an equational clause, in which case the second is descriptive of the first.

Examples:

- a. S P Vf L L: /hi' ta' xo'yon' mikc'ew wec'e·t^haw./ 'This was over there by the heavy stick.' (wec'e·t^h- 'stick')
- b. S-Po Po S: /hi' kanna·tu'un k'ot'e·'in xoyeš./ 'This is a horn of a big cow.' (kanna·tu- 'cow')
- c. S S: /hi' t^heyiš./ 'He is a witch doctor.'
/t^heyiš 'ušt'ut'un./ 'Witch doctor is a thief.'

623. O usually follows Vf and/or S but may precede both:

- a. Vf S O: /pace·xahil na·'an mam./ 'We were worried about you.'
- b. S O Vf: /'am'an nan xo'lohil./ 'They made me stay.'
- c. O S Av Vf L: /p'aye'hi na' mi'in t^han'en' t^ha·wañiw./
'I'll take the children along to town.'

624. An occasional S O Vf is found, but rarely:

- a. Av S O Vf: /c'uyu' na' xo'o c'enšit^h./ 'I did sweep the house, but you'd never know it.'
- b. L S O Vf: /moxol'c'iw na' hin ma·xit^h./ 'I got this over by that old thing.'

625. Adverbs usually precede the Vf, the negative adverb practically always being the first word in the clause. Temporal adverbs (841.1) sometimes follow the Vf; e.g.:

- a. Av S Vf Po G: /hoy'li na' huta'ahil 'amin t^hixt^hint^haw./
'I knew right away that he was sick.'
- b. Av S Vf: /'ohom' ma' p^hana·hil./ 'You did not come home.'
- c. Vf S Av Av: /lopsine' 'am'an mi'in hay'li'./ 'They are going to go fishing today.'

626. Po commonly precedes the substantive which it possesses, but it follows G for which it is the subject of the action; e.g.:

- a. Vf S Po O: /t^ha'aš'an' na' min ne'e·ša./ 'I saw your

brother.'

- b. G Po S Vf: /kosnenot^haw min na? kata·yit^h./ 'When you cook, I am hungry.'

627. L typically follows Vf but may precede it:

- a. Ve P Av L: /hawt^ha? ?uk^h he?ma t^huk'aw./ 'He did something or other right here in the ear.'
- b. L Av S Vf: /hew wil' na·?an xat^he?./ 'We used to eat here.'
- c. L S Vf G Po: /t^ha·waniw na? xo·hil p^hana·t^haw ?amno·kun./ 'I was in town when they arrived.'

628. I and Ab follow S Vf, except an Ni, which will be first in a clause ending in /?/; e.g.:

- a. Vf O I: /k'o?it^h ka·tu?un šele·lan./ 'He hit a cat with a rock.'
- b. Vf S Ab: /lihmit^h na? t'oyo·šunut^h./ 'I ran from the arrow.'
- c. Ab P S Vf: /hele·nit^h ta? ma? lehem'an'/?/ 'Where are you running from?'

629. As usually follows the substantive with which it is in immediate constituency; e.g.:

- a. Vf O O As: /t^ha?iška hin no·no?on noh'omen'./ 'Look at that man with the bear!'
- b. VN Po S As: /hut nim no·no? hat^hmam'./ 'I know a man who is a singer.' (Lit: 'know my man sing-possesses')

6210. Cj comes first in the clause:

- a. Cj S Av Vf: /mi?in na? t^ha?an kaye·san'./ 'Then I always feel good.' (/mi?in/ is also an adverb, 'soon'.)
- b. Cj P S S: /?ama? tu? xat^haš hit^hya?./ 'And y'know, it's

all food.' (/hit^hya?/ 'all')

6211. P are second in the clause, but L/?i/ (marks utterance as a question) may come first before S (Np); e.g.:

- a. Vf P S Av: /t^ha·nal ?i na? na?aš?/ 'Can I go?' (315)
- b. P S Vf: /?i ma? t^ha·nit^h?/ 'Did you go?'
- c. S P S: /hi? ta? mikic'./ 'This is heavy.' (meaning of /ta?/ is unknown)
- d. Av P S As: /mec' tu? ma? hat^hmam'./ 'You really can sing, y'know.' (Lit: 'superlatively y'know you sing-possess')

6212. Ij may constitute an utterance or begin a clause:

- a. Ij Cj Vf S Av: /ye:y mi?in hašwint^ha? na? ?e·ma./ 'My, oh my, then I almost died!'
- b. Ij S: /ci· wa?at'./ 'Gee, a long one!'
- c. Ij: /?an'./ 'Don't!'

630. The clause

Typical Chukchansi conversation and narration is carried on in short simple clauses (and even sentences) of from four to eight words, seldom exceeding six or seven.

A clause is defined as an utterance between # or /,/ and a juncture, which is not simply a fragmentary response to an interrogation which would require constituents from the question to complete it. A clause may be composed of the following constituents, plus optional supplementation by other N, Av, P, Cj, or Ij:

631. A minor sentence (see 642.4) equals a clause.

632. One Vf: /mulunt^ha?./ 'He went down the hill.'

633. Vf Ve: /k'ašk'ašhant^ha? me·cinhant^ha?./ 'He was pained

greatly.' (Lit: 'he was pricked, was very much so')

(See also 611.1)

634. Two S; of two S, the first will normally be the attributive in the equation, unless it is a demonstrative pronoun. It may then be the subject; e.g.:

a. /pacix paʔom./ 'Locoweed is bad.' (/pacix/ 'bad')

b. /tehe·lic' maʔʔ/ 'Are you a cutter?' (Here S₁ is Ag, but in a typical N function.)

c. /hiʔ nohʔoʔ./ 'This is a bear.' (/nohʔoʔ/ 'bear')

635. S L: /xoʔ hit^hyaw./ 'There's a house for everyone.'
(/xoʔ/ 'house')

636. Vf S: /molilhil naʔ./ 'I fooled him.'

637. Vf O: /t'uywušt^haʔ ʔam./ 'He cursed her.'
/laska hete·ša./ 'Chop the wood!'

638. Vf S O: /pokit^h naʔ šuk^ht^ha./ 'I found a pipe.'
/wotiymixmaʔšoxon' naʔ mam./ 'I want to dance with you.'

639. Av S Ag: /mec' maʔ xišxišic'./ 'Your teeth really protrude.'

6310. (...)VN Po, or vice versa, in which Po is doer of the action expressed in the VN; e.g.:

a. VN Po: /hat^him nim./ 'I sang.' or 'It's what I sang.'

b. S Vf Po VN-O (meaning O is object of VN, not of Vf):

/naʔ hoyoc'ʔan' min se·na ʔe·lawi./ 'I want you to smell the flower.'

6311. Vf G (Po); G expresses an attendant circumstance in which Po is actor. Po may be omitted if actor is the same for both Vf and G; e.g.:

a. Vf G: /hayt^haʔ p^hanam./ 'He laughed when he got here.'

- b. Vf S G Po: /xat^haʔaxot^hoʔ maʔ wosikt^haw nim./ 'You kept on eating while I passed by.'

6312. Vf (S) Ag; Ag expresses, in appositive construction, the action of that to which it is appositive. Being a verbal substantive, Ag may have a direct object; e.g.:

- a. Vf Ag: /t^haxnit^h tošac'./ 'He came to tell about it.'
(Lit: 'came as a teller')
- b. Vf S Ag: /t^ha·nit^h ʔamʔan tʔulac'./ 'They went to burn them.' (Lit: 'went they as burners')
- c. Vf S Po O O-Ag: /t^haʔašʔanʔ naʔ min mok^hyi ʔilkʔa maxa·cʔi./ 'I saw your wife fetching water.' (Lit: 'saw I your wife water fetcher')

6313. Vf O I; e.g.:

- a. /kʔoʔit^hnan šele·lan./ 'He hit me with a rock.'
- b. /ʔatek nan šele·lan./ 'Bring me a rock!' (Lit: 'supply me by means of a rock.')

6314. Vf (S) Ab; e.g.:

- a. Vf Ab: /lihmit^h nohʔonit^h./ 'He ran away from the bear.'
- b. Vf S Ab: /halaxnit^h nasis teywisnit^h./ 'The snake crawled out of the basket.'

6315. As; e.g.:

- a. /yenpam'./ 'It's poison.'
- b. As S S: /wikwikmenʔ hiʔ payin./ 'This acorn is wormy.'
- c. O S As: (433.2) /mikcʔi naʔ wece·t^ham'./ I have a heavy stick.'

6316. G Po; e.g.:

- /miʔin nim kʔunʔni./ 'I'll punch him.' (Lit: 'soon my get-(him)-punched')

640. Phrasal tactic units

Certain groups of words comprise phrases which perform the same functions syntactically as some single unit constituents. For example, a phrase (PH) may serve as an Av, symbolized below as AvPH.

641. G Po may constitute AvPH; e.g.:

a. G Po S Vf = AvPH S Vf: /kosnenot^haw min na? kata·yit^h./
'When you cook, I am hungry.'

b. Vf S G Po = Vf S AvPH: /xat^ha?axot^ho? ma? wosikt^haw nim./
'You kept on eating while I passed by.'

642. VN Po (O) may constitute the following PH:

642.1 SPH, e.g.:

VN Po S As = SPH S As: /hut nim no·no? hat^hmam'./ 'I know a man who is a singer.' (This is an equational clause conveying the idea 'My knowing is a singing man.')

642.2 OPH, e.g.:

S Vf Po VN-O = S Vf OPH: /na? hoyoc'?an' min se·na ?e·lawi./
'I want you to smell the flower.'

642.3 LPH, e.g.:

Vf S Po VN-O = Vf S LPH: /t^ha·nit^h na? ?amin lasaw hete·ša./
'I went to where he was chopping wood.'

642.4 AbPH, e.g.:

Vf S Po VN-O = Vf S AbPH: /t^haxnit^h na? ?amin lasanit^h hete·ša./ 'I came from where he was chopping wood.'

650. The sentence

The sentence is usually one clause, terminating in /./ or /?/. Sometimes a sentence is made up of two or at the most three coordinate clauses, usually without conjunctions between them. These are almost always simple clauses without subordination.

651. Three conjunctions, however, do introduce clauses which may be considered subordinate:

651.1 L/hin'ah/, introducing a conditional clause; e.g.:

a. Cj Av Vf, S Av Vf: /hin'ah waši yop'p'o?, na? waši t'a·le?./ 'If it gets wrinkled, I will iron it after a while.'

b. Cj Vf G Po Av: /hin'ah lo·lot^h, xat^hni nim waši./ 'If he left it, I'm going to eat it.'

651.2 L/t'ew/ 'whenever', introducing a conditional-temporal clause; e.g.:

Cj P S Vf Av, Ij Av S(Ag): /t'ew ta? na? t^hiše? mun'aw, ye:y mec' co·yac'./ 'Whenever I go outside, I get very lonely.'

651.3 L/te·yaw/ 'before' (also used as Av 'ahead', 'in front of') introducing a temporal clause. Temporal circumstances are usually expressed by gerundials (320), not by subordinate clauses.

Examples:

a. Vf S, Cj Po VN: /xat^hme·wet^h na·?an, te·yaw numo·kun p^hana·na./ 'We were eating before we arrived.'

b. Cj Po VN, S Vf O: /te·yaw min t^haxna, na? c'alit^h pila--su?un./ 'Before you came, I broke the plate.'

652. Four sentence types are identified:

652.1 The finite verbal sentence is composed of at least one Vf, suiting any clause pattern in section 630 which involves Vf. Since

a clause may have only one Vf, the sentence which has more than one Vf has that many clauses, at least; e.g.:

- a. Vf: /ʔe·sik't^haʔ./ 'He begged.'
- b. Vf O: /woxlišt^heʔ nan./ 'She cried for me.'
- c. Av P S Vf, Vf: /hiyim' taʔ naʔ kavesit^h, hoylit^h./ 'Right away I felt good and got well.'
- d. Cj Vf, Av Vf: /miʔin xaya·t^haʔ, ʔohom' ka·pint^haʔ./ 'Then she put it down, but he didn't accept it.'

652.2 The non-finite verbal sentence is composed of at least one verbal substantive (612) and its subject. The subject will be S for the Ag, G (passive and consequent) and for VN(As); it will be Po elsewhere; e.g.:

- a. Av S Ag: /mec' maʔ xišxišic'./ 'Your teeth really protrude.'
- b. Av S G: /miʔin naʔ k'un'nu./ 'I'll get punched!'
- c. VN(As) S: /wamc'am' maʔʔ/ 'Are you chewing something?'
- d. VN Po, Po VN: /hoyuc' nim, ʔamin t'uy./ 'I like the way he shoots.' (This sentence is two clauses because both VN are S, or it must be described as an equational clause with /hoyuc'/ and /t'uy/ on either side of the equation.)
- e. S Po Av L G: /kay'is ma·yin naʔaš hew xo·t^hin./ 'It would be best for us to stay here.'

652.3 The nominal sentence is composed of at least one S plus an N in oblique relation to it, or of at least one equational clause, viz., S S; e.g.:

- a. S L: /xoʔ hit^hyaw./ 'There's a house for everyone.'
- b. Cj P S Av: /yoʔ tuʔ poyo·miʔ ʔe·ma./ 'It was really quite pretty, too, y'know.' (Lit: 'also y'know pretty almost')

c. S Av S L: /ʔamaʔ mec' kaptan hew./ 'He was really chief here.'

d. S S: /hiʔ nohʔoʔ./ 'This is a bear.'

652.4 The minor sentence is composed of at least one adverb, interrogative or interjection; e.g.:

a. Av: /hiyaʔ./ 'Some other time.'

b. Av: /ʔohom'./ 'No!'

c. Ni: /hawšinʔ./ 'How many?'

d. Ij: /ye:y./ 'My, oh my!'

e. Cj P Av: /yoʔ tuʔ mec'./ 'It's real, too, y'know!'

700. Text analysis

710. The text which appears here is a fragment from the story of the burning of Nancy Wyatt's house at the Picayune Rancheri.

The sentences are numbered for reference convenience, and the lexeme numbers may be matched with those of the glossary which follows in 720. The transcriptions are, from top line to bottom line: lexemic, morphemic, phonemic, a more or less literal English translation word for word, and an English translation of the story.

711. 1 2 3 4 5 6 7 8 9
 L/kew tu? na S xo· t^ha? woy'en aw kew.
 kew tu? na·M-? xo·-t^ha? woy'en-aw kew.
 /kew tu? na? xo·t^ho? woy'enaw kew.
 There y'know I stayed in garden there.
 I was over there in the garden, y'know.

712. 10 11 12 13 14 15 16 17
 L/mi'in hi S ?am S t'ul in t^ha?
 mi'in hiM-? ?ama·M-? t'ul-in-t^ha?
 /mi'in hi? ?ama? t'ulunt^ha? .
 Then this it burned .
 Then this thing burned.

713. 18 19 20 21 22 23 24
 L/mi'in na S c'e·han O t^ha?iš t^ha?
 mi'in na·M-? c'e·han-Ø t^ha?iš-t^ha?
 /mi'in na? c'e·han t^ha?išt^ha? .
 Then I smoke saw .
 Then I saw the smoke.

714. 25 26 27 28 29 30 31 32 33
 L/hew'ne i.c' S na S t^haʔiʃ t^haʔ c'e·han O.
 hew'ne-Gi·c'-ʔ na·M-ʔ t^haʔiʃ-t^haʔ c'e·han-∅.
 /hew'neʔic' naʔ t^haʔiʃt^haʔ c'e·han .
 Doer-like-this I saw smoke .
 As I turned my head like this, I saw smoke.

715. 34 35 36 37 38 39 40 41 42 43 44 45
 L/hili anit^h ʔuk^h t'ul in t^haʔ, ʔohom' na S hut aʔa eʔn'.
 hele·-anit^h ʔuk^h t'ul-in-t^haʔ, ʔohom' na·M-ʔ hut-Baʔa-eʔn'.
 /hele·nit^h ʔuk^h t'ulunt^haʔ , ʔohom' naʔ hutaʔan' .
 From where unsure burned , not I know .
 I don't know where it started burning from.

716. 46 47 48 49 50 51 52 53 54
 L/hit^hya S taʔ na n S kew xo·t^haʔ.
 hit^hya-ʔ taʔ na·M-ʔan-ʔ kew xo·-t^haʔ.
 /hit^hyaʔ taʔ na·ʔan kew xo·t^hoʔ ..
 All (?) we_w(not you) there stayed .
 We all stayed over there where we were.

717. 55 56 57 58 59 60 61 62 63
 L/ha· O ʔuk^h na S haw aʔa xo t^haʔ.
 ha·-ʔVn ʔuk^h na·M-ʔ haw-Baʔa-xo-t^haʔ.
 /ha·ʔan ʔuk^h naʔ hawaʔaxot^hoʔ .
 What unsure I had been doing .
 I am not certain what I had been doing.

718. 64 65 66 67 68 69 70 71 72 73
 L/k'ic' a'a xo t^ha? 'axam' na S ha· 0 hew.
 k'ic'-Ba'a-xo-t^ha? 'axam' na·M-? ha·-?Vn hew.
 /k'ic'a'axot^ho? 'axam' na? ha·?an hew.
 Had been pruning maybe I something here.
 Perhaps I had been pruning something here.

719. 74 75 76 77 78 79 80 81
 L/pe·l 0 na S k'ic' a'a xo t^ha?,
 pe·l-as na·M-? k'ic'-Ba'a-xo-t^ha?,
 /pe·las na? k'ic'a'axot^ho, ,
 Pears I had been pruning,
 I had been pruning pears,

 82 · 83 84 85 86 87 88 89
 L/mi'in na S hew'ne i·c' S t^ha'iš t^ha?.
 mi'in na·M-? hew'ne-Gi·c'-? t^ha'iš-t^ha?.
 /mi'in na? hew'ne'ic' t^ha'išt^ha?.
 then I doer-like-this saw .
 and then, as I turned like this, I saw it.

7110. 90 91 92 93 94
 L/me·cin it^h t'ul in it^h.
 me·cin-it^h t'ul-in-it^h.
 /mecnit^h t'ulnut^h.

Was very much was burning.
 It was really burning!

7111. 95 96 97 98 99 100

L/?ohom' ma·y' S na?aš hawit' al.

?ohom' ma·y'-? na?aš hawit'-al.

/?ohom' may' na?aš hawt'al .

Not we could do something.

We couldn't do a thing about it.

7112. 101 102 103 104 105 106

L/ na· S ta? ?ohom' t^haxin t^ha?.

na·M-? ta? ?ohom' t^haxin-t^ha?.

/ na? ta? ?ohom' t^haxint^ha? .

I (?) not did come .

I didn't come over to the house.

7113. 107 108 109 110 111 112 113 114

L/he·tam, wil e?n' na 0 t^ha?an, hu·še e?n'.

he·tam, wil-e?n' na·M-a t^ha?an, hu·še-e?n'.

/he·tam wile? nan t^ha?an, hu·šen'.

Right there told me kept on drive .

"Stay there!" she kept telling me, driving me back.

7114. 115 116 117

L/?an' t^haxin ka.

?an' t^haxin-ka.

/?an' t^haxinka .

Don't come .

"Don't come over here!"

7115. 118 119 120 121 122 123
 L/mihka·na S p^hana·t^haʔ kalcen S.
 mihka·na-ʔ p^hana·-t^haʔ kalcen-ʔ.
 /mihka·naʔ p^hana·t^haʔ kalcen .
 White man arrived many .
 Many white men arrived at the scene.

7116. 124 125 126 127 128 129 130 131
 L/?ohom' taʔ ʔam n S šap^ht^haʔ, ʔohom'.
 ʔohom' taʔ ʔam-ʔan-ʔ šap^h-t^haʔ, ʔohom'.
 /ʔohom' taʔ ʔamʔan šap^ht^haʔ , ʔohom'.
 Not (?) they quench , no .
 They didn't put it out, not at all.

7117. 132 133 134
 L/t^haʔiš xaš t^haʔ.
 t^haʔiš-xaš-t^haʔ.
 /t^haʔišxašt^haʔ.
 Did look exclusively.
 They just looked on.

720. Glossary for text analysis (cf. numbers with lexemes in 711-7117)

1. Remote local adverb, referring to relatively distant place.
2. Particle 'y'know'.
3. First personal pronoun base (511)
4. Subjective case suffix (431)
5. Verb base of V-stem type (214.3) 'stay'

6. Past perfective final verbal suffix (314).
7. Nominal base of SA class (423.2) 'garden'.
8. Locative case suffix (435)
9. See 1.
10. Conjunction 'then', 'next'. (Also occurs with the factive as an adverb, 'soon')
11. Near demonstrative base, 'this' (516)
12. See 4.
13. Third personal pronoun base (513)
14. See 4.
15. Verbal base 'burn' (214.1) of type 4.
16. Medio-passive non-final verbal suffix (337)
17. See 6.
18. See 10.
19. See 3.
20. See 4.
21. Noun base of irregular class (423.4)
22. Objective case suffix (433)
23. Bisyllabic verbal base (214.2) of type 14, 'see'
24. See 6.
25. Verbal base of V-stem type (214.3) 'do thus' (with gestures)
26. The agentive non-final nominalizing suffix, forming a verbal substantive stem, here appositive to L/na/, 28.
27. See 4.
28. See 3
29. See 4
30. See 23
31. See 6.

32. See 21.
33. See 22.
34. Locative interrogative base (534) 'where?'
35. Ablative case suffix (436)
36. Particle of uncertainty.
- 37-39. See 15-17
40. Negative aspectual adverb (841.3)
41. See 3.
42. See 4.
43. Verbal base 'know' of type 4 (214.1).
44. Present tense non-final verbal suffix (333):
45. Factive final verbal suffix (311).
46. Nominal base of H-class, 'all' (423.1).
47. See 4.
48. Common particle which is found in hundreds of utterances,
the meaning of which is unknown.
49. See 3.
50. Personal pronoun plural suffix (524).
51. See 4.
52. See 1.
- 53-54. See 5-6.
55. Impersonal interrogative, serving as indefinite here (532).
56. See 22.
57. See 36.
- 58-59. See 3-4.
60. Verbal base of type 8 (214.1).
61. See 44.
62. Durative aspect non-final verbal suffix (3316).

63. See 6.
64. Verbal base of type 6 (214.1) 'to prune'.
65. See 44
- 66-67. See 62-63.
68. Aspectual adverb of hesitant affirmation (841.3).
- 69-70. See 3-4.
- 71-72. See 55-56.
73. Near local adverb, referring to relatively nearby place.
74. Nominal base of the SA class (423.2) 'pear'. Apparently an English loan-word (see next item).
75. Objective case suffix borrowed from English plural /s/.
Since Chukchansi canon prohibits final CC, the vowel of the typical A-class suffixes was used by analogy to produce a correct canonical form.
- 76-77. See 3-4.
- 78-81. See 64-67.
82. See 10.
- 83-84. See 3-4.
- 85-87. See 25-27.
- 88-89. See 23-24.
90. Verbal base of type 13 (214.2). Of the tactic class Ve (611.1).
91. The simple past tense final verbal suffix (312).
- 92-93. See 15-16.
94. See 91.
95. See 40.
96. First person plural, inclusive of addressee (515).
97. See 4.

98. Aspectual adverb of potentiality (841.3).
99. Verbal base of type 14 (214.2) 'do like how or somehow'.
100. The potentiative aspect final verbal suffix (315).
- 101-102. See 3-4.
103. See 48.
104. See 40.
105. Verbal base of type 14 (214.2) 'come'.
106. See 6.
107. Local adverb (841.2).
108. Verbal base of type 6 (214.1), rather broad in meaning, 'say', 'do', 'act'.
109. See 45.
110. See 3.
111. See 22.
112. Temporal adverb of habituation or repetitiveness (841.1).
113. Verbal base of V-stem type (214.3) 'drive'.
114. See 45.
115. Negative adverb, also an interjection.
116. See 105.
117. Imperative mode, final verbal suffix (316).
118. Nominal stem of the H-class (423.1) 'white man'.
119. See 4.
120. Verbal base of the V-stem type (214.3), 'to arrive'.
121. See 6.
122. Nominal stem of the SA class (423.2), 'many'.
123. See 4.
124. See 40.
125. See 48.

126. See 13.

127-128. See 50-51.

129. Verbal base of type 7, (214.1) 'erase', 'put out'.

130. See 6.

131. See 40.

132. See 23.

133. Exclusive aspect non-final verbal suffix (3315).

134. See 6.

800. Paradigms and glossary

810. Noun classes

820. Pronouns

830. Numerals

840. Minor form classes

850. Alphabetical list of suffixes found in the grammar.

810. The following paradigms of examples from each noun class are presented in the order of the listing in 423. The classification is in parentheses at the top of each paradigm and the case names (430) are abbreviated at the left. The paradigms are phonemically written.

	(H)	(H)	(SA)
Sub.	hit ^h ya? 'all'	?e.ni? 'snow'	k'ut' 'tail'
Obj.	hit ^h ya?an	?e.ni?in	k'ut'a
Pve.	hit ^h ya?an	?e.ni?in	k'ut'in
In.	hit ^h yan	?e.nin	k'ut'an
Loc.	hit ^h yaw	?e.niw	k'ut'aw
Psd.	hit ^h yam'	?e.nim'	k'ut'am'
Abl.	hit ^h yanit ^h	?e.ninit ^h	k'ut'anit ^h
As.	hit ^h yamen'	?e.nimen'	k'ut'amen'
	(SA)	(ZA)	(ZA)
Sub.	xo? 'house'	mukuš 'grand-	t'oyix 'medicine'
Obj.	xo?o	mukša 'mother'	t'oyxo
Pve.	xo?in	mukšun	t'oyxin
In.	xo?on	mukšan	t'oyxon
Loc.	xo?ow	mukšaw	t'oyxow
Psd.	xo?om'	mukšam'	t'oyxom'
Abl.	xo?onit ^h	mukšanit ^h	t'oyxonit ^h
As.	xo?omen'	mukšamen'	t'oyxomen'

	(SI)	(SI)	(ZI)
Sub.	t'ap'p'aš 'leaf'	t'oyoš 'arrow'	mok ^h iy 'wife'
Obj.	t'ap'p'aši	t'oyo·šu	mok ^h yi
Pve.	t'ap'p'ašin	t'oyo·šun	mok ^h yin
In.	t'ap'p'ašni	t'oyo·šun	mok ^h yen
Loc.	t'ap'p'ašiw	t'oyo·šuw	mok ^h yiw
Psd.	t'ap'p'ašim'	t'oyo·šum'	mok ^h yem'
Abl.	t'ap'p'ašnit ^h	t'oyo·šunut ^h	mok ^h yenit ^h
As.	t'ap'p'ašmen'	t'oyo·šumen'	mok ^h yemen'
	(ZI)	(Ir)	(Ir)
Sub.	k'exum 'rich'	c'e·han 'smoke'	xo·wis 'hail'
Obj.	k'exmu	c'e·han	xowso
Pve.	k'exmun	*c'e·hanin	xo·wisin
In.	k'exmun	c'e·hanin	xowson
Loc.	k'exmaw	c'e·haniw	xo·wisaw
Psd.	k'exmum'	*c'e·hanim'	xo·wisam'
Abl.	k'exmunut ^h	*c'e·hannit ^h	xowsonit ^h
As.	k'exmumun'	*c'e·hanmen'	xo·wismen'

820. The pronouns821. The first personal pronoun

	Singular	Dual inclusive of addressee	Dual exclusive of addressee
Sub.	na? 'I'	mak' 'we two'	na.?ak' 'we two (not you)'
Pos.	nim	ma.kin	nimkin
Obj.	nan	makwa	na.nikwa
In.	na.nan	makwan	na.nikwan
Loc.	na.naw	makwaw	na.nikwaw
Abl.	na.nanit ^h	makwanit ^h	na.nikwanit ^h
	Plural inclus.	Plural exclus.	
Sub.	may' 'we all'	na.?an 'we all (not you)'	
Pos.	mayin	numo.kun	
Obj.	maywa	na.ninwa	
In.	maywan	na.ninwan	
Loc.	maywaw	na.ninwaw	
Abl.	maywanit ^h	na.ninwanit ^h	

822. The second personal pronoun

	Singular	Dual	Plural
Sub.	ma? 'you'	ma.?ak' 'you two'	ma.?an 'you all'
Pos.	min	minkin	muno.kun
Obj.	mam	ma.mikwa	ma.minwa
In.	ma.man	ma.mikwan	ma.minwan
Loc.	ma.maw	ma.mikwaw	ma.minwaw
Abl.	ma.manit ^h	ma.mikwanit ^h	ma.minwanit ^h

823. The third personal pronoun

	Singular	Dual	Plural
Sub.	?ama? 'he'	?am?ak' 'they two'	?am?an 'they all'
Pos.	?amin	?aminkin	?amno.kun, ?amunkun
Obj.	?amam	?ama.mik(wa)	?ama.min(wa)
In.	?ama.man	?ama.mikwan	?ama.minwan
Loc.	?ama.maw	?ama.mikwaw	?ama.minwaw
Abl.	?ama.manit ^h	?ama.mikwanit ^h	?ama.minwanit ^h

824. The near demonstrative, visible.

	Singular	Dual	Plural
Sub.	hi? 'this'	hišik' 'these'	hišin 'all these'
Pos.	he·?in	hišik'win ^{two}	hišinwin
Obj.	hin	hišik'wa	hišinwa
In.	he·ni	hišik'wan	hišinwan
Loc.	hew	hišik'waw	hišinhwaw
Abl.	he·nit ^h	hišik'wanit ^h	hišinwanit ^h

825. The near demonstrative, invisible.

	Singular	Dual	Plural
Sub.	hiñi?	henešik'	henešin
Pos.	hene·?in	henešik'win	henešinwin
Obj.	hinin	henešik'wa	henešinwa
In.	hene·ni	henešik'wan	henešinwan
Loc.	henew	henešik'waw	henešinwaw
Abl.	hene·nit ^h	henešik'wanit ^h	henešinwanit ^h

826. The remote demonstrative, /ki?/ 'that', etc., is exactly like the near demonstrative in 824-825 above, except for the initial consonant.

827. The indefinite demonstrative, /xi?/ 'someone', 'that', is of rarer occurrence, but a full paradigm would no doubt be like the other demonstratives above.

830. The numerals831. The cardinal numbers

1. yet' 'one'	7. nomc'in
2. ponoy'	8. munoš
3. šo·p ^h in	9. no·nip ^h
4. hatpanay	10. c'eyew
5. yitšinil	11. c'eyew ye·c'am'
6. c'olip ^h p ^h iy	12. " post'om'

- | | |
|--|--|
| 13. c'eyew c ^h op ^h yam' | 24. ponoy' c'eyew post'om' |
| 14. " hac ^h pam' | 25. " " yitšam' |
| 15. " yitšam' | 26. " " c'olp ^h om' |
| 16. " c'olp ^h om' | 27. " " nomc'om' |
| 17. " nomc'om' | 28. " " mun'c ^h am' |
| 18. " mun'c ^h am' | 29. " " non'p ^h om' |
| 19. " non'p ^h om' | 30. šo·p ^h in c'eyew |
| 20. ponoy' c'eyew | 100. yet' p ^h ic ^h |
| 21. " " ye·c'am' | 200. ponoy' p ^h ic ^h |
| 22. " " post'om' | 1000. yet' mil' |
| 23. " " c ^h op ^h yam' | |

832. The ordinals, which are also distributive (only these were elicited):

1. ye·c,at 'first', 'once'
2. ponyil' 'second', 'twice'
3. šop^hyil' 'third', 'thrice'
4. hatpil' 'fourth', 'four times'
5. yitšil' 'fifth', 'five times'
6. c'olp^hil' 'sixth', 'six times'
7. nomc'il' 'seventh', 'seven times'

840. Minor form classes

At least six dozen lexemes are free, unsuffixed units. These words bring to the clause or sentence modifications of an adverbial nature (time, place, aspect) for the most part, and some are particles, conjunctions and interjections affecting the whole clause. Among the particles a few are post-positive. These are usually, but not always, the second word in the clause. One of

these, /taʔ/, is the second word in hundreds of utterances. It possibly gives a mild emphasis to the preceding word which is very often a pronoun but may be a verb or adverb.

841. Adverbs (transcription is phonemic)

841.1 Temporal adverbs

- a. hac'ah 'now': /lowit^hnat^haʔ xiʔ hac'ah./ 'She just now got a husband.'
- b. hawal'ma 'sometimes': /maʔ t^ha·neʔ hawal'ma henuw./ 'You go there sometimes.'
- c. hay'liʔ 'today': /ʔohom' naʔaš t^ha·nal hay'liʔ./ 'He can not go today.'
- d. hettaʔ 'still': /hettaʔ hucaʔan'./ 'He's still growling.'
- e. hik^haw 'tomorrow': /ʔohom' hik^haw xoʔow xon'./ 'He won't be staying home tomorrow.'
- f. hiye·maʔ 'long ago': /hiye·maʔ nim c'ew./ 'I soaked them long ago.'
- g. hiyaʔ 'soon': /hiyaʔ naʔ mam c'awalan'./ 'I'll repay you pretty soon.'
- h. hiyim' 'already': /cilet^h hiyim'./ 'It's lunch time already.'
- i. hoy'liʔ 'right away': /t^ha·neʔ mak' hoy'liʔ./ 'Let's go right away.'
- j. ʔalit^h 'long ago': /hut nim xiʔ ʔalit^h./ 'I knew him long ago.'
- k. ʔaya 'later': /miʔin ʔaya p^hana·t^haʔ./ 'Then later he got there.'
- l. lakyiw 'yesterday': /ʔohom' naʔ ʔam huy'ahil t^ha·na lakyiw./ 'I didn't let him go yesterday.'

- m. mi[?]in 'soon': /t^ha·ne[?] na[?] mi[?]in./ 'I'll go soon.'
- n. nahni[?] 'sometimes': /nahni[?] na[?] t^ha[?]an t^hanna[?]šen[?]
 ʔap^ha·šaw./ 'Sometimes I want to go to Oakhurst.'
- o. te·yaw 'in front of, before': /huluš[?]uy te·yaw./ 'A
 chair is before me.' (See also 842)
- p. waši 'after a while': /waši na[?] t^haxne[?], wilt^ha[?]./
 '"I will come after a while," he said.'
- q. wil' 'used to': /ʔalit^h wil' na[?] hat^hme[?]./ 'I used to
 sing a long time ago.'
- r. yo[?] 'again, also': /yo[?] na[?] mi[?]in le·lupsan'./ 'I'm
 going to swing again.'

841.2 Local adverbs

- a. he·tam 'right here': /hew mak' he·tam ʔaxe[?]./ 'We two
 will camp right here.'
- b. hew 'here': (See a just above.)
- c. hewhew 'here' (but closer than /hew/)
- d. hit^hwaš 'together': /mok^hiy nim hit^hwaš na·ʔak' hew
 xon'./ 'My wife and I stay here together, just the two
 of us.'
- e. kew 'over there': /wa[?] kew wa[?]./ 'It's way over there.'
- f. kewkew 'over there' (but farther than /kew/)
- g. mun'aw 'outside': /t^hiše[?] na[?] mi[?]in mun'aw./ 'I'm going
 to go outside.'
- h. te·yaw 'ahead, in front of': /huluš[?]uy te·yaw./ 'A chair
 is in front of me.'
- i. t^hoynew 'in the center': /t^hoynew na[?] mi[?]in t'uyo[?]./
 'I'm going to shoot it in the center.'
- j. xa·mi 'on this side': /xa·mi xi[?] lame·saw./ 'It's on this

side of the table.'

- k. xun'ay' 'beyond': /xet't'at^ha? na·?ak' ?am xun'ay' kew./
'We dragged her over there, yonder.'

841.3 Aspectual adverbs

- a. c'uyu? (concessive?): /lihimma?šexon' c'uyu?./ 'I'll grant you that he wants to run all the time.'
- b. hapt'is 'almost, a little bit': /hi? hapt'is c'ap'iy./
'This is a little damp.'
- c. hawšin 'how many?': /hawšin min p'aye·?i?/ 'How many are your children?'
- d. ho·kaw 'correctly, straight': /ho·kaw ma? cokok'an'??/
'Are you pointing straight?'
- e. hun'ay 'merely': /hun'ay ?am'an yalk'i xo·t^ho? hit^hya?./
'They all just stood around.'
- f. ?ahmuc' 'it is believed or expected; pretendingly':
/?ahmuc' na? mi?in hat^hme?./ 'I'm going to sing, or so they think anyway!'
- g. ?an' 'Don't!': /?an' t^haxinka./ 'Don't come over!'
- h. ?axam' 'maybe': /ne?cat^h?axam'./ 'Maybe he's sleepy.'
- i. ?e·ma 'almost, maybe': /t'e·wis ?ama? pimmal' ?e·ma./
'That basket is almost full.'
- j. ?ohom' 'not': /?ohom' na? huyat^h p'aye?hin t^ha·na./
'I did not permit the children to go.'
- k. ?ukta? 'obligatory; insistent': /šap^hka ?ukta? we·la'an./
'Be sure to turn out the lights!'
- l. k'ay' 'possibly': /hawal'ma na? k'ay' t^haxne??/ 'At what time should I come?'
- m. mayni 'by oneself': /ti?iška mayni./ 'Do it yourself!'

- n. mec' 'superlatively': /mec' hi? hat^hmam'./ 'He surely can sing.'
- o. na?aš 'potentially': /?ohom' na? na?aš t^ha·nal./ I can not go.'
- p. namay'si 'barely': /mi?in na·?ak' ?am t^hiš?at^ha? namay'si./ 'We two just barely got her out of there.'
- q. neyeh 'as if; just like': /neyeh nim lanij./ 'Seems like I've heard that.'
- r. puš 'vain wish': /yat^hka?puš?/ 'Won't you talk?'
- s. tita? 'true?': /ma? yo? wil' t^heyšaw t^ha·ne? tita??/ 'You used to go to the witch doctor, isn't that so?'
- t. t^ha'an 'habitually, repetitively': /wa·k'e? na? nim t^ha'an šilši p^he·waw./ 'I always part my hair on the right side.'
- u. waham' 'wishfully': /xo? nim waham'./ 'I wish this were my house.' (Frequently with /puš/: /waham' puš na? t^hanka./ 'I surely wish I could go.')
- v. wak^hiy' 'relative': /hi? mec' poyo·mi? wak^hiy' nim hit^hya'an ?e·lawi./ 'This is the most beautiful of all my flowers.'

842. Conjunctions

- a. hin'ah 'if': /hin'ah waši yop'p'o?, na? waši t'a·le?./ 'If it gets wrinkled, I'll iron it after a while.'
- b. ?ama? 'and, then': /?ama? tu? xat^haš hit^hya?./ 'And y'know, it's all food.'
- c. mi?in 'then, next': /mi?in yuk'ušt^ha?./ 'Then he washed it.'
- d. te·yaw 'before': /te·yaw min t^haxna, na? c'alit^h

pila·suʔun./ 'Before you came, I broke the plate.'

- e. tʔew 'whenever': /tʔew taʔ naʔ tʔiʃeʔ munʔaw, mecʔ
co·yacʔ./ 'Whenever I go outside, I become very lonely.'

843. Particles

Only the first one, /ʔi/, can be the first word in a clause.

- a. ʔi (indicates that utterance is a question): /maʔ ʔi hew
hikʔaw xonʔ?/ 'Will you be staying here tomorrow?'
- b. ʔukʔ (attitude of uncertainty): /hawaʔanʔ ʔukʔ xiʔ./
'Something's wrong with this guy.'
- c. taʔ (See 840, p. 103)
- d. tax 'ever, even': /ʔohomʔ tax maʔ naʔaʃ hewe·tʔalʔ/
'Can't you even walk?'
- e. tuʔ 'y'know': /hutaʔanʔ tuʔ maʔ nim ya·tʔa./ 'You do know
what I said, y'know!'

844. Interjections

- a. ci· 'Gee!'
- b. hu·hu 'Yes!'
- c. ʔanʔ 'Don't!'
- d. ʔayʔ 'Oh!'
- e. kʔayʔiwiʃ 'Please!'
- f. micna 'Really!'
- g. ye:y 'My, oh my!'

850. Glossary of suffixes in alphabetical order in morphemic transcription (numbers refer to sections of the grammar):

- a- inchoative, verbal. 331
- a objective case, nominal. 433
- a subjective plural, nominal. 431

- aʔ- present perfective, verbal. 332
- al potentiative, verbal. 315
- a·la- causative, verbal. 339
- amʔ possessed case, nominal. 437
- amenʔ associative case, nominal. 438
- an instrumental case, nominal. 434
- anit^h ablative case, nominal. 436
- a·š- nominative, nominal. 451
- aw locative case, nominal. 435
- ayʔ diminutive, nominal. 441
- Baʔa- present tense, verbal. 333
- Baʔhiyʔ- adjunctive nominalizer. 452
- Bʔa- dubitative agentive, nominal. 453
- De- distributive, verbal. 334
- eʔnʔ factive, verbal. 311
- emʔ possessed case, nominal. 437
- en instrumental case, nominal. 434
- enit^h ablative case, nominal. 436
- ew locative case, nominal. 435
- Gi·cʔ- agentive, nominal. 454
- han- passive, verbal. 335
- hil aorist tense, verbal. 313
- ʔ subjective case, nominal. 431
- ʔakʔ- duality, pronominal. 523
- ʔan- plurality, pronominal. 524
- ʔaš precativ gerundial. 325
- ʔe- causative, verbal. 339

- ʔh- plural, nominal. 442
- ʔin possessive case, pronominal. 432
- ʔVn possessive case, nominal. 432
- ʔVn objective case, nominal. 433
- i objective case, nominal. 433
- i subjective case plural, nominal. 431
- iʔ- imperfective, verbal. 336
- ik- duality, pronominal. 523
- im' possessed case, nominal. 437
- imen' associative case, nominal. 438
- in- medio-passive, verbal. 337
- in- plurality, pronominal. 524
- in possessive case, nominal. 432
- in instrumental case, nominal. 434
- init^h ablative case, nominal. 436
- it^h simple past tense, verbal. 312
- iw locative case, nominal. 435
- i·wi- hortatory, verbal. 338
- ka imperative, verbal. 316
- k- duality, pronominal. 523
- la- causative, verbal. 339
- maʔaš- desiderative, verbal. 3310
- maʔše- desiderative, verbal. 3310
- me·we- processive, verbal. 3312
- mi consequent gerundial. 321
- mix- comitative, verbal. 3311
- n- verbal noun formative. 455
- na- acquisitive verbalizer. 351

- na- verbal noun formative. 455
- ne- non-visibility marker, pronominal. 521
- ne'- non-visibility marker, pronominal. 521
- ni- non-visibility marker, pronominal. 521
- ni passive gerundial. 324
- ni instrumental case, nominal. 434
- nu resultative gerundial. 326
- n'xu- quantitative adverbial adjunct. 462.
- o·k- possessive plural adjunct, pronominal. 522
- R repetitive, verbal. 340
- šik- duality, pronominal. 523
- šin- plurality, pronominal. 524
- šit^h- benefactive, verbal. 3313
- t^ha- causative assumptive, verbal. 352
- t^ha?- past perfective, verbal. 314
- t^haw precedent gerundial. 322
- t^hin indirective gerundial. 323.
- w- non-singular oblique, pronominal. 525
- wiš- reflexive-reciprocative, verbal. 3314
- xa precative, verbal. 317
- xaš- exclusive, verbal. 3315
- xo- durative, verbal. 3316
- ya- culminative, verbal. 3317
- Z- plural, nominal. 442
- Za- inchoative, verbal. 331
- Za objective case, nominal. 433
- Zam' possessed case, nominal. 437
- Zamen' associative case, nominal. 438

- Zan instrumental case, nominal. 434
- Zanit^h ablative case, nominal. 436
- Zaw locative case, nominal. 435
- Zay' diminutive, nominal. 441
- Zem' possessed case, nominal. 437
- Zen instrumental case, nominal. 434
- Zenit^h ablative case, nominal. 436
- Zi. objective case, nominal. 433
- Zil'- multiplicative, with numerals. 461
- Zim' possessed case, nominal. 437
- Zimen' associative case, nominal. 438
- Zin possessive case, nominal. 432
- Zinit^h ablative case, nominal. 436
- Ziw locative case, nominal. 435
- ∅ possessive case, pronominal. 432
- ∅ objective case, nominal. 433

900. Notes

1. Examples of all the phonemes (except /r/, see this section, p.3), including minimal contrasts where possible, are in the charts on pages 7-13.
2. Some vowel allophones are not found in the corpus following some consonants. These are as follows:

[o]	does not follow	/p ^h , p', t', c, c ^h /.
[i]	" " "	/t ^h , c ^h , k/.
[e]	" " "	/p ^h , p', t ^h , c, c ^h , y, ʒ/.

The absence of these sequences seems to be entirely fortuitous.
3. Vowels may be lengthened at will for emphasis. This is usually accompanied by a pitch glide from [3] to [2] or from [2] to [1]: /hayt^ha?/ [há:yt²⁻¹á:ʔ] 'he laughed at me' (said with considerable self-pity); /mi?in ʔaya p^hana.t^ha?./ [míIn²ʔáyà:p³a³⁻¹ná¹.t¹á:ʔ] 'Then later he arrived' (i.e., after all that waiting!).
4. Because the word is defined morphologically in Chukchansi, rather than phonologically, no phoneme of juncture exists to mark word boundaries. Morphemic word juncture is the boundary between a final morpheme or a free morpheme and an initial or a free morpheme. The boundary is indicated by a space. However, beginning at section 300, the words in phonemic transcription are also separated by a space for the sake of quick readability. (See section 211 for definition of the word.)
5. In at least one speaker's idiolect (Nancy Wyatt's) the general intonation is at times so nearly monotone, the pitch

changes and pauses so slight in rapid speech, that clause and sentence boundaries are distinguished as much by morpho-tactics as by any other factor.

6. The plain and aspirated series are not often phonetically different before silence, except when a voiced allophone of the plain stop is heard.
7. See pages 3-4 for /r/.
8. See section 211, page 27 on the macrosegment.
9. Phonetic open transition occurs often between consonants in a cluster. Since at least one consonant of such clusters is always voiced, the transition is voiced, with the quality of [U] before /w/, [I] before /y/, and [ə] elsewhere. Open transition will be heard if:
 - a. C₁ and C₂ are not homorganic and
 - b. C₁ is voiceless or glottalized and C₂ is voiced or
 - c. C₁ is a nasal and C₂ is /l/ or /x/ or
 - d. the cluster is /yx/.
10. An example of a known reduction or "zeroing" of a base in the formation of a V-stem is c'i?iwk'ay-a-it^h /c'i?wik'yat^h/ (V-stem, /c'i?wik'ya/) 'it got green' (141.12, 331, 312):
11. Newman's term (Stanley Newman, Yokuts Language of California, Viking Fund Publications in Anthropology Number Two; New York (1944)), examples being exceedingly rare in the corpus and unclear in meaning.
12. The rarity of this lexeme in the corpus makes it impossible to ascertain its meaning with any degree of assurance.

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